TRANSPORT FOR THE South East

June 2022

A Strategic Investment Plan for the South East

Consultation draft

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Foreword

Keith Glazier,
Chair of Transport for the South East

I am delighted to introduce our draft Strategic Investment Plan (SIP). The culmination of five years of technical work, stakeholder engagement and institutional development.

Underpinned by a credible, evidence based technical programme our SIP presents a compelling case for future-decision making which will help us create a more productive, healthier, happier and more sustainable South East.

This plan sets out our thirty-year vision for the region – it aligns with and supports government priorities to decarbonise the transport system, level-up left-behind communities and facilitate sustainable economic growth in the South East.

It has been developed in partnership and written for and on the behalf of the South East's residents, communities, businesses and political representatives.

From 20 June to 12 September our public consultation on the draft of this plan will be live and we invite everyone that it affects to read the draft and respond.

We are immensely proud of the TfSE partnership and of the work that has gone into developing this bold and ambitious plan. We believe it truly puts the South East and its communities at the centre, connecting people and business, improving access to education, healthcare, jobs and our green spaces. It will support the South East's economy to more than double over the next thirty years. It provides the potential for new jobs, new homes and new opportunities – all supported by a modern, integrated transport network. Creating a prosperous, confident South East where people want to live, work, study, visit and do business.

We are clear that implementing this plan and achieving the vision set out in our Transport Strategy won't happen overnight and that it cannot be growth at any cost. The first step on this journey is simple; we must make better use of what we have. The packages of interventions outlined in this plan do just this. It isn't about building new roads or railways. It is about making better use of existing assets and corridors and about making sure new and emerging technology is used to its full potential, to boost physical and digital connectivity. It is about more joined up planning, particularly between transport and housing, to help build more sustainable communities and enable more efficient business operations. It's about putting the strategic transport infrastructure in place that enables communities to thrive and live happier, healthier, more active lives.

Not only does this plan set out the interventions we believe are needed over the next thirty years, but it also explores opportunities for funding that will allow us to realise these ambitions and ensure the reliance isn't solely on government funding. This of course will continue to be explored beyond publication of this plan.

Following our public consultation and agreement on the final draft by our partnership board, we will present this plan to government on behalf of our partners and our communities across the region, in support of our shared ambitions and as advice to the secretary of state. In doing so we ask the secretary of state to have regard to this plan as priorities are set, policies are developed, and investment decisions are made.

Implementing this plan will be challenging at times but we owe it to the generation coming behind us to put in place a transport system that leaves no one behind and provides the framework for a prosperous South East.

I firmly believe that together, we can achieve the aims of this ambitious plan.

To respond to the consultation on the draft SIP visit www.tfse.org.uk

Executive Summary

Transport for the South East (TfSE) is the Sub-national Transport Body for the South East of England. We work across boundaries, think long term and advocate for bold action in the interest of our communities.

TfSE holds a pivotal role in ensuring the infrastructure needs of the South East are well understood, that investment opportunities in the region have a robust evidence base, and that there is close alignment between local and national government in both the development of relevant policy and delivery of projects.

Developed with stakeholders, our vision is that 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.

This Strategic Investment Plan (SIP) for South East England provides a framework for investment in strategic transport infrastructure, services, and regulatory interventions in the coming three decades.

The plan is supported by a large amount of detailed work informed by consultation over several years. It is aligned with and supports wider policy and government priorities at multiple levels and across multiple transport modes. This includes increasingly close alignment between the TfSE Transport Strategy, this plan and with Local Transport Plans. Ensuring individual community needs are well understood and that projects at every scale complement each other, avoids waste and duplication of effort wherever possible.

The plan presents 24 regional packages of investment opportunities across the key modes or infrastructure networks of rail, mass transit (e.g. buses, ferries), active travel (e.g. walking, wheeling, cycling horse-riding) and highways.

Within each package are a collection of well-considered interventions that seek to address the key investment priorities for the South East including:

Decarbonisation and environment

Accelerate decarbonisation of the South East, enabling the UK to achieve net zero by 2050 or sooner, and delivering a transport network better able to protect and enhance our natural, built, and historic environments.

Adapting to a new normal

Enable the South East's economy and transport systems to adapt sustainably to changing travel patterns and new ways of working and living as we learn to live with Covid and form changing trading relationships between the UK and EU.

Levelling up left behind communities

Deliver a more affordable and accessible transport network for the South East that promotes social inclusion, improves health and wellbeing, and reduces barriers to employment, learning, social, leisure, physical and cultural activity for all communities.

Regeneration and growth

Attract investment to grow our economy, better compete in the global marketplace, and unlock regeneration and growth opportunities where this has been held back by inadequate infrastructure or poor integration between land use and transport planning.

World class urban transport systems

Deliver world class and seamlessly integrated, sustainable urban transport systems (rail, bus, tram, ferry, cycling, and walking) for the South East's largest conurbations, to enable residents, businesses, and visitors to travel easily and sustainably within and between built up areas.

Transforming east – west connectivity

Enhance our east – west corridors to same level as radial links to and from London to boost connectivity between our major economic hubs, the international gateways (ports, airports, and rail terminals) and their markets.

Resilient radial corridors

Deliver an increasingly reliable transport network that is smarter at managing transport demand, and more resilient to incidents, extreme weather, and the impacts of a changing climate.

Global gateways and freight

Enhance the capacity and contribution of the freight and logistics sector to the South East's economy through improved connectivity to Global Gateways and adapt to changing patterns of freight demand and trade.

In general, the vast majority of interventions will be delivered through existing frameworks and investment cycles, with a small number of particularly complex and/or large-scale projects possibly requiring bespoke procurement and delivery arrangements.

With a total capital cost of £45 billion over 27 years – about £1.5bn a year – delivery of the interventions in this plan could deliver:

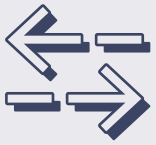
21,000 additional new jobs

An additional £4bn in GVA each year by 2050

1.4 mega tonnes less CO2 equivalent emitted and the scope to reach net zero with national, local and private sector partners by 2050

Delivery of the interventions would see each weekday:

500,000 more rail trips



1.5 million more trips by bus, mass transit and ferry

4 million fewer car trips

Timing the delivery of each intervention will also need to be carefully considered to avoid unintended negative consequences and ensure the greatest possible value.

The following table and map provide an overview of the packages, how they align with the Investment priorities as well as their expected costs and benefits.

A full list of interventions within each package can be found in Appendix A

Table 1: Packages and their Benefit and Capital Costs

Packages of Interventions*	Global Policy interventions (see main section for further detail)	Solent and Sussex Coast	A. South Hampshire Rail (Core)	B. South Hampshire Rail (Enhanced)	C. South Hampshire Mass Transit	E. South Hampshire Active Travel	D. Isle of Wight Connections	F. Sussex Coast Rail	G. Sussex Coast Mass Transit	H. Sussex Coast Active Travel	v
Implementation Timeframe	Ongoing		Short – Medium	Medium - Long	Short - Medium	Short	Short - Medium	Short - Medium	Short - Medium	Short Term	Short - Long
Decarbonisation and Environment	✓		✓	✓	✓	✓	✓	✓	✓	✓	-
Adapting to a New Normal	✓		✓	✓	✓	✓	✓	✓	✓	✓	-
Levelling Up Left Behind Communities	✓		✓	✓	✓	✓	✓	✓	✓	✓	-
Regeneration and Growth	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
World Class Urban Transit Systems	✓		✓	✓	✓	✓	✓	✓	✓	✓	-
East – west connectivity	✓		✓	✓	✓	✓	-	✓	✓	✓	-
Resilient radial corridors	✓		✓	✓	-	✓	✓	✓	-	✓	✓
Global gateways and freight	✓		✓	✓	✓	-	✓	-	-	-	✓
Capital Construction Cost in £millions*	-	11,200	600	3,700	1,800	350	250	50	450	250	3,500
Gross Value Added (GVA) in £millions per annum in 2050	720	1,250	285	305	165	10	165	80	120	-	200
Additional new local residents by 2050 (Compared to Do Nothing Scenario in 2050)	-52,500	6,350	1,050	1,150	1,300	150	1,950	700	850	-	250
Additional full time-equivalent jobs by 2050 (Compared to Do Nothing Scenario in 2050)	-1,600	7,900	1,550	2,000	1,000	50	1,500	350	550	<50	700
Change in Carbon Emissions in 2050 (Nearest 5,000 Kilo-Tonnes CO2e)	-1.4m	-10,000	-	-	-30,000	-10,000	-	-	-10,000	-5,000	45,000
Change in average weekday return trips	-1.4m	35,000	5,000	10,000	5,000	-	5,000	5,000	5,000	-	5,000

Figures rounded to nearest: £50m for Capital Cost; £5m for GVA; 50 new residents /jobs; 5,000 kilo-tonnes CO2e; and 5,000 daily return trips

*A full list of proposed interventions within each package can be found in Appendix A

**Assumes High Speed Rail option goes via Chatham rather than Medway City Estate or Rochester

***Assumes assignment of 40% of Lower Thames Crossing capital to Kent geographically

Packages of Interventions*	J. London – Sussex Coast	K. London – Sussex Coast Rail	L. London – Sussex Coast Mass Transit	M. London – Sussex Coast Active Travel	N. London – Sussex Coast Highways	Wessex Thames	O. Wessex Thames Rail	P. Wessex Thames Mass Transit	Q. Wessex Thames Active Travel	R. Wessex Thames Highways
Implementation Timeframe		Short - Medium	Short - Medium	Short	Medium - Long		Short - Long	Short – Medium	Short	
Decarbonisation and environment		✓	✓	✓	-		✓	✓	✓	-
Adapting to a new normal		-	✓	✓	-		✓	✓	✓	-
Levelling up left behind communities		-	-	✓	-		-	✓	✓	-
Regeneration and growth		✓	✓	✓	✓		✓	✓	✓	✓
World class urban transit systems		-	✓	✓	-		-	✓	✓	-
East – West Connectivity		-	✓	✓	-		-	✓	✓	✓
Resilient Radial Corridors		✓	✓	✓	✓		✓	✓	✓	✓
Global Gateways and Freight		✓	✓	-	✓		✓	-	-	✓
Capital Construction Cost in £millions*	3,600	500	400	1,100	1,600	10,400	7,200	1,000	400	1,800
Gross Value Added (GVA) in £millions per annum in 2050	615	400	100	10	100	1,205	850	245	35	90
Additional new local residents by 2050 (Compared to Do Nothing Scenario in 2050)	8,100	6,250	1,340	50	700	7,100	3,100	3,300	500	200
Additional full time-equivalent jobs by 2050 (Compared to Do Nothing Scenario in 2050)	4,550	2,350	800	<50	1,350	5,600	3,750	1,300	<50	450
Change in Carbon Emissions in 2050 (Nearest 5,000 Kilo-Tonnes CO2e)	-10,000	-10,000	-15,000	-10,000	20,000	-60,000	-5,000	-55,000	-30,000	25,000
Change in average weekday return trips	4,150	30,000	5,000	-	-	50,000	35,000	10,000	-	5,000

Figures rounded to nearest: £50m for Capital Cost; £5m for GVA; 50 new residents /jobs; 5,000 kilo-tonnes CO2e; and 5,000 daily return trips

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Packages of Interventions*	Kent, Medway, and East Sussex (KMES)	S. KMES Rail	U. KMES High Speed Rail East	U. KMES High Speed Rail North	V. KMES Mass Transit	W. KMES Active Travel	Y. Lower Thames Crossing	X. KMES Highways
Implementation Timeframe		Short - Medium	Short - Medium	Medium – Long	Short - Medium	Short	Medium – Long	Medium - Long
Decarbonisation and Environment		✓	✓	✓	✓	✓	-	-
Adapting to a New Normal		✓	✓	✓	✓	✓	✓	✓
Levelling Up Left Behind Communities		✓	✓	✓	✓	✓	✓	✓
Regeneration and Growth		✓	✓	✓	✓	✓	✓	✓
World Class Urban Transit Systems		✓	-	-	✓	✓	-	-
East – West Connectivity		✓	✓	✓	-	✓	-	-
Resilient Radial Corridors		✓	✓	✓	✓	✓	✓	✓
Global Gateways and Freight		✓	✓	✓	✓	-	✓	✓
Capital Construction Cost in £millions*	19,400	3,7 00	1,000	7,300**	700	100	2,800***	3,800
Gross Value Added (GVA) in £millions per annum in 2050	745	140	125	225	45	15	105	90
Additional new local residents by 2050 (Compared to Do Nothing Scenario in 2050)	28,400	6,150	5,800	11,700	1,550	450	1,600	1,200
Additional full time-equivalent jobs by 2050 (Compared to Do Nothing Scenario in 2050)	8,400	1,500	1,400	2,450	400	250	1,400	950
Change in Carbon Emissions in 2050 (Nearest 5,000 Kilo-Tonnes CO2e)	30,000	-15,000	-15,000	-15,000	-25,000	-10,000	45,000	65,000
Change in average weekday return trips	155,000	20,000	15,000	35,000	-	-	75,000	5,000

Figures rounded to nearest: £50m for Capital Cost; £5m for GVA; 50 new residents /jobs; 5,000 kilo-tonnes CO2e; and 5,000 daily return trips

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South East packages of interventions

Introduction

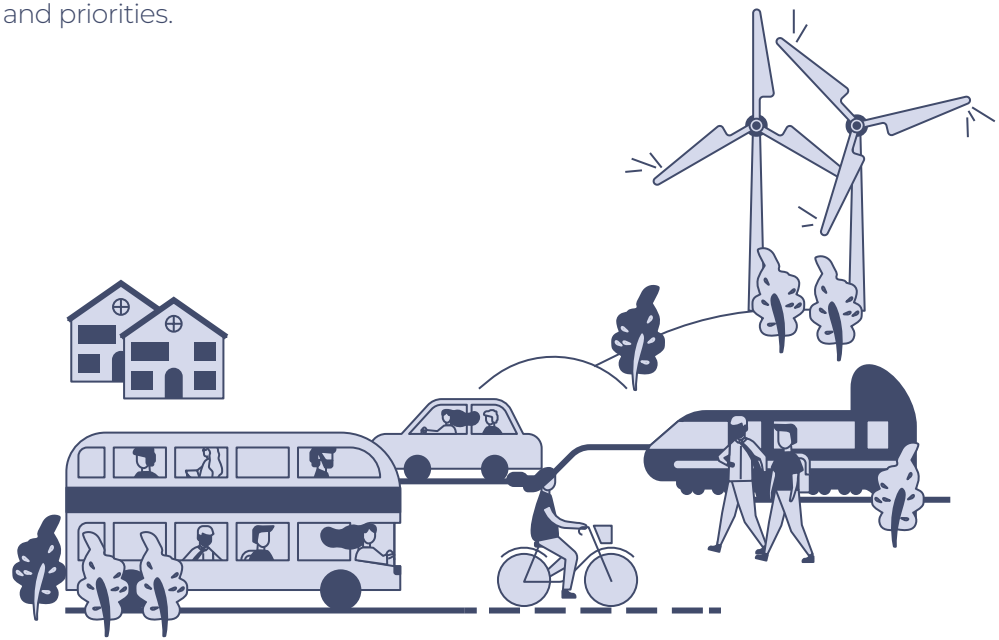
Transport for the South East (TfSE) is the Sub-national Transport Body for the South East of England.

TfSE works across boundaries, thinks long term, and advocates for bold action in the interest of its communities.

We were established in 2017 to determine what transport infrastructure is needed to boost the region's economy.

Our role is to add strategic value to local and national decision making and project delivery by making sure funding and strategy decisions about transport in the South East are informed by local knowledge and priorities.

As a partnership, we also ensure there is close alignment – a 'golden thread' – between local and national government in both the development of relevant policy and delivery of projects. For example, between local transport plans and national rail investment strategies.

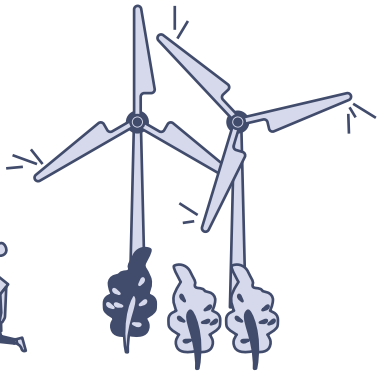


Transport Strategy Vision

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.

Taken from TfSE's Transport Strategy (2020)

The vision is underpinned by three 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; and

Environmental

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

The Strategic Investment plan

We are delighted to introduce our Strategic Investment Plan (SIP) for South East England, which provides a framework for investment in strategic transport infrastructure, services, and regulatory interventions in the coming three decades.

This plan provides a framework for delivering our Transport Strategy, which:

- is a blueprint for investment in the South East;
- shows how we will achieve our ambitions for the South East;
- is owned and delivered in partnership;
- as set out in the legislation to establish sub-national transport bodies, this document is intended to provide advice to the Secretary of State for Transport;
- is a regional plan with evidenced support, to which partners can link their own local strategies and plans – a golden thread that connects policy at all levels;
- provides a sequenced plan of multi-modal investment packages that are place based and outcome focused; and
- examines funding and financing options.

This plan presents a compelling case for action for investors, including government departments – notably the Treasury and Department for Transport (DfT) – as well as private sector investors. It is written for and on the behalf of the South East's residents, communities, businesses and political representatives.

How the plan was developed

This plan represents the culmination of five years of technical work, stakeholder engagement, and institutional development.

It is underpinned by a credible, evidence-based technical programme that has enabled TfSE and our partners to:

- understand the current and future challenges and opportunities in the South East;
- identify stakeholder priorities for their respective areas of interest;
- evaluate the impacts of a wide range of plausible scenarios on the South East's economy, society, and environment;
- develop multi-modal, cross-boundary interventions;
- assess the impact of proposed interventions on transport and socio-economic outcomes; and
- prioritise the interventions that best address the South East's most pressing challenges and unlock the South East's most promising opportunities.

A list of the documents that constitute the robust Evidence Base that has informed the development of this plan is provided in Appendix B

Local and national policy context

This plan is aligned with and supports wider policy and government priorities at multiple levels and across multiple transport modes, including but not limited to:

National - Transport

- Decarbonising transport: a better, greener Britain (2021)
- Great British Railways: The Williams-Shapps plan for rail (2021)
- Bus Back Better: national bus strategy for England (2021)
- Gear Change: Cycling and walking plan for England (2020)
- Transport Investment Strategy (2017)
- Government Road Investment Strategies and the Rail Network Enhancements Pipelines

National – Wider Policy

- Levelling Up the United Kingdom White Paper (2022)
- Net Zero Strategy: Build Back Greener (2021)
- National planning Policy Framework (2021)
- Clean Air Strategy (2019)
- A Green Future (2018)
- planning frameworks for Nationally Significant infrastructure Projects

Regional

- TfSE Transport Strategy (2020)
- Local Enterprise Partnership priorities for their areas
- National Park Authority planning policies

Local

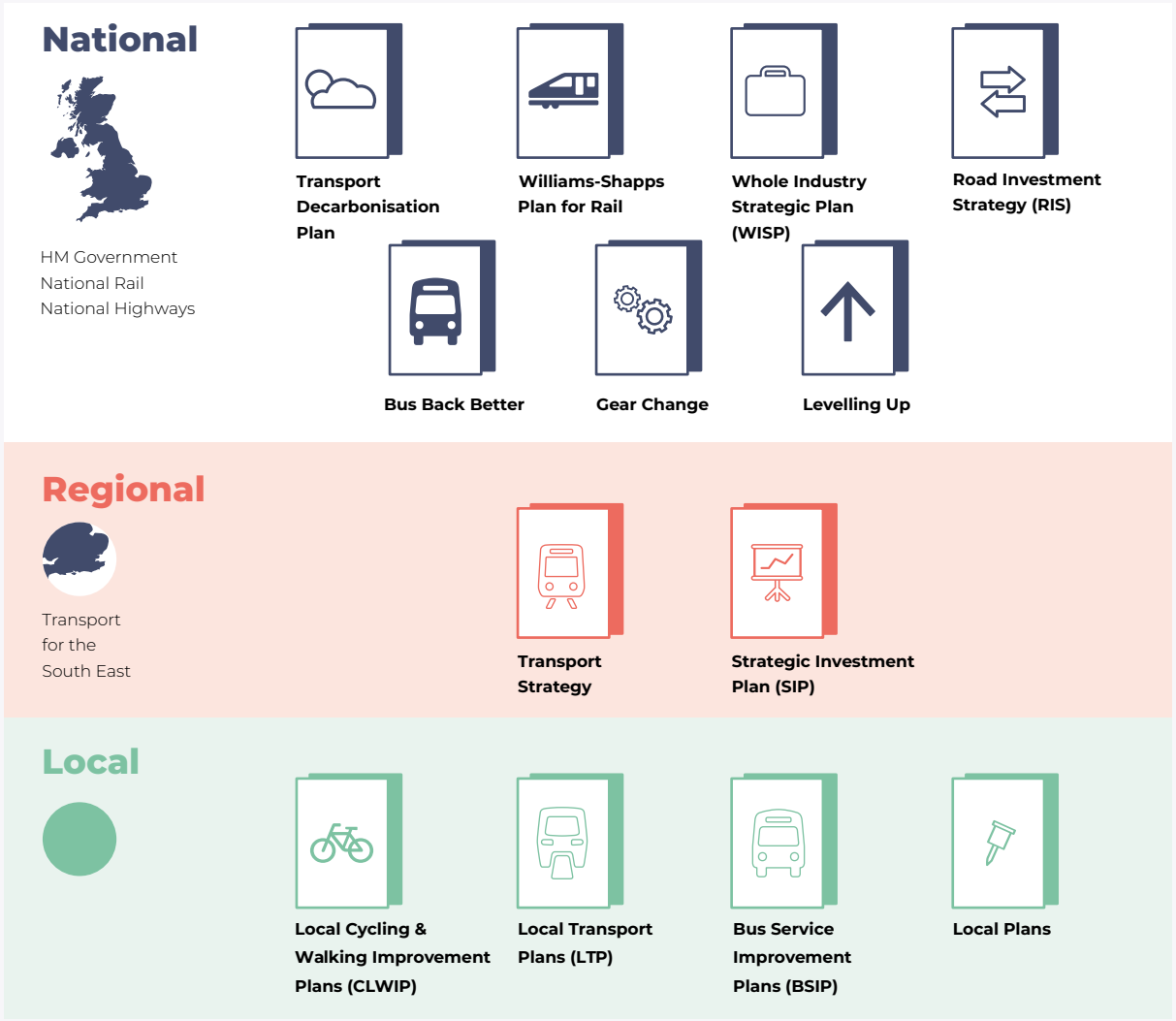
- Local Transport Plans
- Bus Service Improvement Plans
- Local Cycling & Walking Infrastructure Plans
- Local Plans

This SIP sits at the regional planning level, bridging the gap between national and local government.

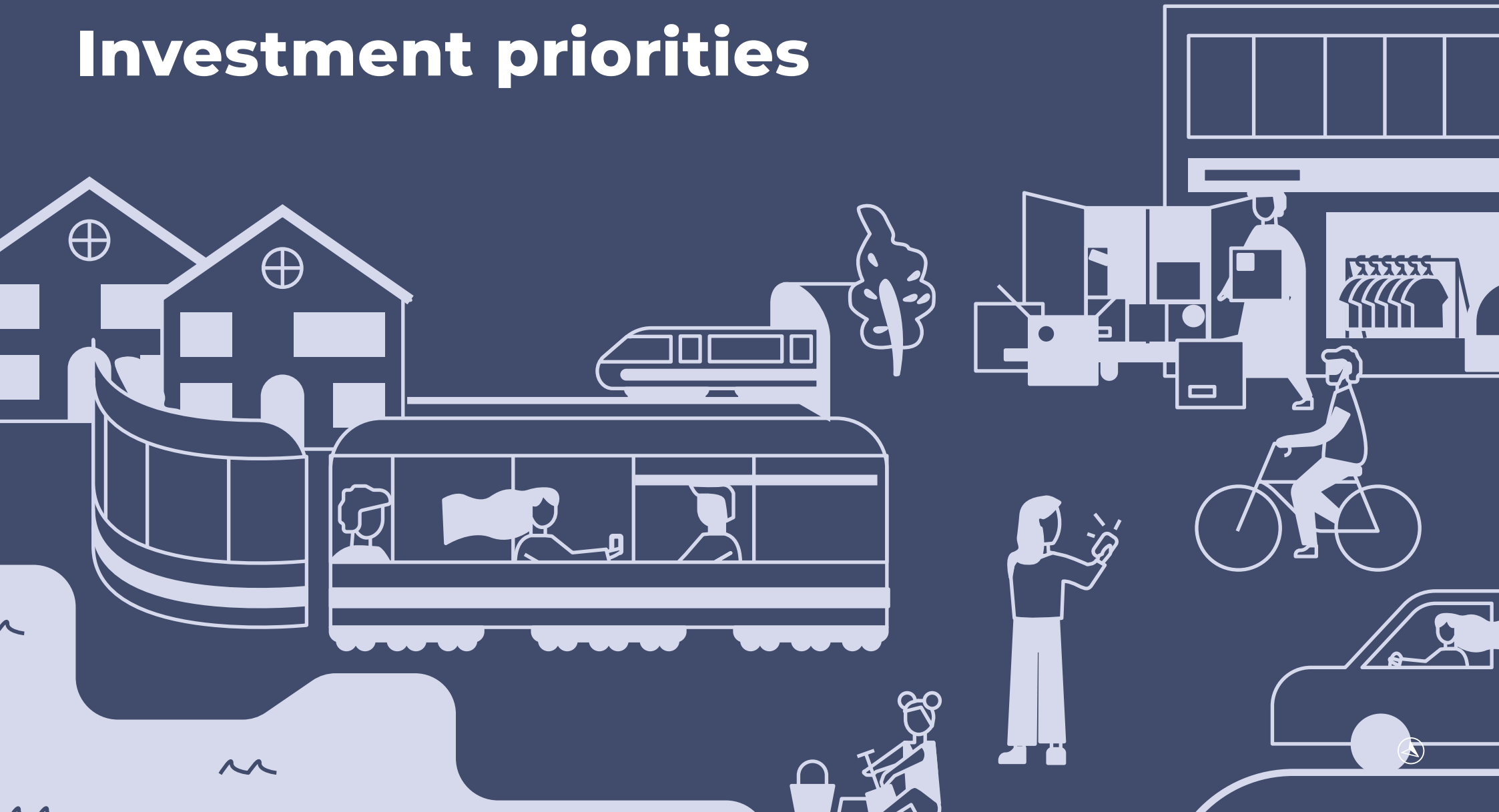
An illustration of the position of this document within the wider policy landscape is provided in Figure 2.

This approach includes increasingly close alignment between the TfSE Transport Strategy and this plan with local transport plans to ensure individual community needs are well understood and that projects at every scale complement each other, avoiding waste and duplication of effort wherever possible.

Figure 2: Wider policy context



Investment priorities



Overview

The packages detailed in this plan address eight investment priorities aligned with the vision and strategic goals of the TfSE Transport Strategy and the wider regional and national policy context with which both are aligned

Decarbonisation and environment

Accelerate decarbonisation of the South East, enabling the UK to achieve net zero by 2050 at the latest, and delivering a transport network better able to protect and enhance our natural, built, and historic environments.

Adapting to a new normal

Enable the South East's economy and transport systems to adapt sustainably to changing travel patterns and new ways of working as we learn to live with Covid and form changing trading relationships between the UK and the EU.

Levelling up left behind communities

Deliver a more affordable and accessible transport network for the South East that promotes social inclusion, improves health and wellbeing, and reduces barriers to employment, learning, social, leisure, physical and cultural activity for all communities.

Regeneration and growth

Attract investment to grow our economy, better compete in the global marketplace, and unlock regeneration and growth opportunities where this has been held back by inadequate infrastructure or poor integration between land use and transport planning.

World class urban transport systems

Deliver world class and seamlessly integrated, sustainable urban transport systems (rail, bus, tram, ferry, cycling, and walking) for the South East's largest conurbations, to enable residents, businesses, and visitors to travel easily and sustainably within and between built up areas.

Transforming east – west connectivity

Enhance our east – west corridors to same level as radial links to and from London to boost connectivity between our major economic hubs, international gateways (ports, airports, and rail terminals) and their markets.

Resilient radial corridors

Deliver an increasingly reliable transport network that is smarter at managing transport demand, and more resilient to incidents, extreme weather, and the impacts of a changing climate.

Global gateways and freight

Enhance the capacity and contribution of the freight and logistics sector to the South East's economy through improved connectivity to Global Gateways and adapt to changing patterns of freight demand and trade.

Benefits of investing in the South East

Improving the region's transport networks through the investment opportunities set out in this plan will help enable the UK to:

Reach net-zero by 2050 at the latest and support the development of low-carbon industries;

Level up left behind communities – particularly in urban and coastal areas;

Deliver affordable housing for the south east's current and future residents;

Build thriving new communities and regenerate town and city centres and key sites;

Boost the productivity of the area through delivering more reliable, resilient, better connected transport networks; and

Increase the volume and value of trade with the rest of the world.

Comparing the high-level benefits and costs of the packages of interventions shows how they will help us achieve our strategic vision and objectives for the South East and support wider government policy.

The Size of the Prize

TfSE's Economic Connectivity Review identified opportunities to significantly grow the economy in the South East.

With the right investment and policies, this study found there is potential to more than double the South East's GVA to £500bn a year by 2050.

Our own modelling suggests the transport interventions included in this plan alone will generate 21,000 new jobs; an additional £4.1billion growth in GVA a year by 2050; and additional 550,000 rail trips a day and 1.6 million bus, mass transit and ferry trips a day, and take over four million car trips a day off the roads of the South East.

This growth will not come from transport alone, but transport will be an important part of the jigsaw and an enabler of growth in other sectors.

Realising this opportunity will require an integrated approach to investment and delivery. It will require working across institutional, sectoral, and spatial boundaries.

There are several drivers of growth that transport investment supports:

- **Connecting businesses** with faster and more reliable travel times. This plan enables the South East's towns and cities to boost their productivity by better integrating and sharing their economic assets, wider sharing of resources and knowledge, and will provide businesses with easier access to a large, diverse, highly educated work force.
- **Expanding the workforce** by easier matching of jobs to people. This plan will enable firms to access and recruit a larger labour supply, and provide wider employment opportunities for workers and those seeking to work.
- **Enabling development** through unlocking sites and locations that were previously poorly connected. This plan will provide the sustainable transport capacity and connectivity for net zero growth and development.
- **Accessing global gateways** to increase domestic and international trade by reducing trading costs. This plan facilitates trade in the South East and – at a much larger scale – between the UK and Mainland Europe. This will enable the UK to prosper as it adapts to a new trading relationship with the European Union and recovers from the global Covid pandemic.
- **Directing investment to level-up left behind communities**. This plan makes the South East an even more attractive place to invest. It will bring areas up that are left behind relative to some other areas of the UK due to structural disadvantaged and resulting outcomes (e.g. low productivity and lower incomes and reduced health outcomes) or places that are held back by transport network constraints (e.g. where development opportunities are stalled due to traffic constraints or local access to key services aren't there by public transport).

Investing in the South East will yield material economic, social, and environmental returns for our residents, businesses, and visitors, supporting the UK economy and enabling Government to achieve its wider carbon, trade, and levelling-up objectives.

This plan does not just focus on new-build infrastructure. Packages include measures that make better use of existing assets and corridors, and support more efficient business and operating models. For example, there are proposals to enhance cross-regional rail and freight services using the existing rail network, potentially by utilising capacity released from a decline in five-day commuting.

There will be opportunities for revenue generation and the private sector to invest. While support from government will be sought for some packages, this plan utilises all sources of funding to realise TfSE's ambitions for the South East. This includes opportunities to use transport to generate more revenue as well as alternative funding streams to those that currently rely on duties on fossil fuels.

Doing nothing is not an option

We believe a range of multi-modal and wider policy interventions are needed to realise our vision.

Using Department for Transport data to model future transport and socioeconomic outcomes for the South East shows that if the South East continues on a "Business As Usual" trajectory, by 2050:

- the number of car trips will grow 23%;
- the number of rail trips will (only) grow 31%;
- the number of bus trips will (only) grow 26%;
- the number of active travel trips will decline 10%;
- carbon emissions will (only) decline by 35%; and
- structural inequalities will persist and restrict economic growth.

Furthermore, if we do not act then many of the investment priorities will not be addressed, and associated opportunities will not be realised. More specifically, there is a material risk that:

- the South East will not decarbonise its transport system fast enough;
- the South East's transport systems will not adapt to a post-pandemic, post-Brexit environment;
- housing growth will stall and house prices will remain unaffordable to too many of the South East's residents (and potential residents); and
- the South East's left behind communities will be unable to "catch up".

Packages of interventions

Overview

TfSE has worked with partners, stakeholders and technical advisors to develop 24 coherent packages of complementary, multi-modal interventions that aim to deliver on our vision and objectives for the South East.

These packages have been developed through workshops, discussions, and careful analysis of results of the assessment of the long list of interventions described earlier. In essence, these provide a 'golden thread' between top-down, vision-led goals and a bottom-up assessment of individual interventions.

This combination of strategic investments will allow TfSE to achieve its objectives and, in doing so, support wider local, regional, and national policy and priorities.

A full list of proposed interventions within each package can be found in Appendix A

Packages are multi-modal, presenting a transformational opportunity to enhance travel.

Whilst most Interventions focus on sustainable modes, targeted interventions to deliver a high-quality east – west connections and more resilient radial highways corridors have been identified

The packages broadly split into two groups:

I. Global policy interventions consisting of national regulatory and policy activity and local action (four of which have been quantitatively assessed).

II. 24 place-based packages of interventions presented at a sub-regional level, with many being multi-modal or mode-agnostic.

Investing in these effective, deliverable, and good value for money transport interventions in the South East will have a material and positive impact across the UK.

Highway packages are, in themselves, multi-modal. Where identified they support:

- safer highways, notably in urban areas;
- improved access to international gateways, for passengers and freight, allowing for more efficient trade;
- de-conflicting of private and mass transit vehicle flows between local and longer-distance routes, with the greatest benefit when freed up road space is reallocated and supported by public transport and active travel improvements;
- unlocking of housing/regeneration/ growth area; and
- placemaking (e.g. investing in public spaces).

These packages are a step-change away from traditional “predict and provide” capacity enhancements of previous decades. They support our vision and support not only strategic movement of vehicles but our places and communities.

They have been refined to minimise increases in carbon emissions and the impact of these interventions on the wider environment, but all highway packages do result in small increases.

Further mitigation will be needed as these packages and interventions are developed. They will also be complimented by a number of global package interventions, which will, promote demand management and digital technology to reduce the number of trips, accelerate the decarbonisation of road vehicles, and promote sustainable travel.

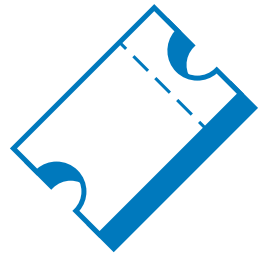
1. Global policy interventions

The global policy interventions are designed to address the challenges and opportunities that affect the whole of the South East and the wider UK. These include existential challenges such as global warming and opportunities such as new mobility technologies.

The key global policy interventions that would help deliver the investment priorities of the South East are:

1.1. Decarbonisation

We aspire to deliver a faster trajectory towards net-zero than current trends, including rapid adoption of zero emission technologies, to avoid the worst effects of human-induced climate change.

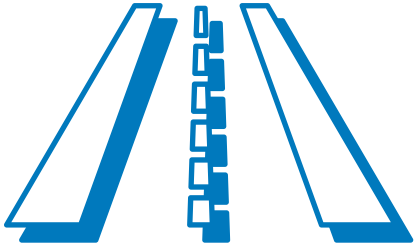


1.2. Public Transport Fares

We wish to reverse the real terms increase in the cost of public transport compared to motoring.

1.3. New Mobility

We see great potential for new mobility (e.g. electric bikes and scooters) to enable healthier and more active lives in the South East.

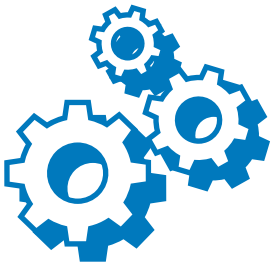


1.4. Road User Charging

We encourage the UK government to develop a national road user charging system to provide an alternative source of funding to fuel duty and to help manage demand in parallel to integrated local measures.

1.5. Virtual Access

The past two decades, amplified by the global Covid pandemic have shown how virtual working can help reduce demand for transport services.



1.6. Integration

We wish to see improvements in integration across and between all modes of transport in terms of infrastructure, services, ticketing, and accessibility.

In particular, these interventions deliver very significant reductions in carbon emissions. This is achieved through reducing overall demand (virtual working), managing demand (road pricing), and making lower-carbon transport options more attractive (new mobility and public transport fares).

We believe most of these policies can be carefully designed to ensure there is – eventually, at least – no net change in cost to government based on:

- Assumption that new mobility technologies will be delivered primarily through private investment, supported by the active travel packages described in this plan.
- Virtual living is funded almost entirely through businesses providing appropriate technology to their employees, and individuals ordering more goods online.
- Future road pricing policy will be designed to leave the transport systems user (as a whole) no worse off (e.g. road charges used to reduce public transport fares.
- Expectation that public transport will become more cost efficient (on a passenger kilometre basis) with increased patronage achieved through existing planned investment and the interventions detailed in this plan.
- Assumption that the interventions will be applied across the UK, ensuring a level playing field to avoid possible detrimental impacts on our residents and businesses (e.g. if Road User Charging were only applied in the South East).

2. Solent and Sussex Coast

The Solent and Sussex Coast area includes the two largest conurbations in the South East – South Hampshire (Southampton, Portsmouth, and surrounding built up areas) and what TfSE terms the "Sussex Coast Conurbation" (Littlehampton – Worthing – Brighton). It spans from the New Forest in the west to Hastings in the east. It also includes the Isle of Wight.

TfSE has developed nine packages of interventions for this area with a total expected capital investment of **£11.8 billion** and **£1.3 billion** in additional economic value each year by 2050.

The Solent rail packages significantly boost the number of rail trips in the Solent and Sussex Coast area (by 12% altogether) and deliver a significant uplift in GVA (£600m a year by 2050) in additional economic value each year by 2050.

Packages of intervention are displayed in Figure 3 for South Hampshire, Figure 4 for Isle of Wight, and Figure 5 for the Sussex Coast.

Core Rail Package

A1	Solent Connectivity Strategic Study
A1a	Botley Line Double Tracking
A1b	Netley Line Signalling and Rail Service Enhancements
A1c	Fareham Loop / Platform
A1d	Portsmouth Station Platforms
A1e	South West Main Line - Totton Level Crossing Removal
A1f	Southampton Central Station Upgrade and Timetabling
A1g	Eastleigh Station Platform and Approach Flyover Enhancement
A2	Waterside Branch Line Reopening
A3	West of England Service Enhancements
A4	Additional Rail Freight Paths to Southampton

Enhanced Rail Package

B1	Southampton Central Station - Woolston Crossing
B2	New Southampton Central Station
B3	New City Centre Station
B4	South West Main Line - Mount Pleasant Level Crossing Removal
B5	West Coastway Line - Fareham to Cosham Capacity Enhancements
B6	West Coastway Line - Cosham Station Relocation
B7	Eastleigh to Romsey Line - Electrification
B8	Havant Rail Freight Hub
B9	Fratton Rail Freight Hub
B10	Southampton Container Port Rail Freight Access and Loading Upgrades
B11	Southampton Automotive Port Rail Freight Access and Loading Upgrades

Mass Transit

C1	Southampton Mass Transit
C2	South East Hampshire Rapid Transit
C3	New Southampton to Fawley Waterside Ferry Service
C4	Southampton Cruise Terminal Access for Mass Transit
C5	M271 Junction 1 Strategic Mobility Hub
C6	M27 Junction 5 / Southampton Airport Strategic Mobility Hub
C7	M27 Junction 7/8 Strategic Mobility Hub
C8	M27 Junction 9 Strategic Mobility Hub
C9	M275 Junction 1 Strategic Mobility Hub
C10	Clarence Pier Bus-Hovercraft Interchange
C11	Improved Gosport - Portsmouth and Portsmouth - Hayling Island Ferries

Active Travel

E1	Solent Active Travel (including LCWIPs)

Highways

I1	M27 Junction 8 (RIS2)
I2	A31 Ringwood (RIS2)
I6	Southampton Access (M27 Junction 2 and Junction 3) (RIS3 Pipeline)
I9	A326 Capacity Enhancements (LLM)
I10	West Quay Realignment (LLM)
I11	Portsmouth City Centre Road (LLM)
I12	Northam Rail Bridge Replacement and Enhancement (MRN)
I13	New Horsea Bridge and Tipner Bridge
I19	M27/M271/M275 Smart Motorway(s)

Figure 3: South Hampshire packages of interventions

Note: List of interventions refers to the South Hampshire area only (Packages A — C, E & selected interventions from Package I).

2.1. South Hampshire Rail (Core)

Network Rail, Solent Transport, and the Solent Authorities have developed a comprehensive package of interventions that will deliver improvements to urban and inter-urban rail journeys that form part of the Solent Connectivity Strategic Study, formerly Continuous Modular Strategic Plan (CMSP), including:

- Increasing capacity on the botley line to twin tracks;
- Adding platform capacity at portsmouth harbour;
- Improving signalling on the netley line;
- Timetable changes to maximise capacity at southampton central; and
- Sidings at totton and a solution to a level crossing constraint in this area.

This package is complemented with an intervention to enable passenger rail services to be introduced to the Fawley Branch Line and serve a large, planned development in this area, with other key benefits including:

- Capacity enhancements across the whole Solent conurbation.
- Improvements in service frequencies.
- Better interchange and service quality at Southampton Central Station.
- More communities will have access to the national rail network.

35,000 additional rail trips a day

1,000 additional residents

1,500 new jobs created

2.2. South Hampshire Rail (Enhanced)

Solent Transport and Local Transport Authorities have previously stated an ambition to deliver a level of service on urban metro routes comparable to suburban London of a “turn-up-and-go” service provided by at least four trains per hour.

To realise these ambitions, a longer- term package of interventions is needed to unlock significant capacity and, potentially, shorter journey times between Southampton and Portsmouth City Centres. This could include developing an entirely new rail link (most likely underground) between Southampton Central and the Netley Line.

There are also aspirations to increase capacity for freight movements and provide better connectivity between South Hampshire, the West of England, the Midlands, and beyond. This requires more capacity than the current network can provide. The key bottleneck preventing this from being realised is the tunnel between Southampton Central and St Denys.

The key benefits of this package are:

- Transformational capacity and connectivity benefits – especially on east-west rail journeys (30 to 35 minute Southampton – Portsmouth journeys every 15 minutes).
- Supports regeneration of Southampton City Centre and other growth areas.
- Boosts to GVA in a relatively deprived part of the South East.
- Enables a large reduction in carbon emissions.

Over 2,000 further jobs created

1,000 more new residents

2.3. South Hampshire Mass Transit

TfSE and key partners in the South Hampshire area believe the South Hampshire conurbation is large enough and dense enough to support world class mass transit systems.

Portsmouth City Council is developing and delivering a comprehensive high quality bus rapid transit that will serve the Portsmouth City Region. Southampton City Council also aspire to develop a Mass Transit System for its city region – which could take the form of a tram, ferries, and/or bus rapid transit.

Southampton City Council also aspire to develop a Mass Transit System for their city region – which could take the form of a tram, ferries, and/or Bus Rapid Transit.

This package also includes interventions to develop strategic mobility hubs and improve access for peninsulas/islands, in particular, through improving and expanding bus and ferry services.

Over 100,000 more mass transit trips each weekday

with 65,000 fewer car trips

2.4. South Hampshire Active Travel

All three Local Transport Authorities in the South Hampshire area have ambitious plans to improve cycling and walking in their areas. This ambition is supported by this study.

Several highway interventions – including the Southampton West Quay scheme – unlock opportunities for pedestrians and cyclists by freeing up more public space in town and city centres. The key benefits of this package are:

- Material improvements to the urban realm of the Solent Built Up Area, unlocking active travel and regeneration opportunities.
- Better air quality in urban areas.
- Significant mode shift from car to active travel, with associated health benefits.

These interventions significantly boost active travel demand by over 80,000 trips a day and reduce car travel by a similar margin. This package also leads to a significant reduction in carbon emissions.

Almost 40,000 tonnes less CO2 equivalent emitted a year

2.5. Isle of Wight Connections

Based on stakeholder feedback and available opportunities, TfSE has developed a combined package to improve connectivity between the Isle of Wight and the Mainland and boost connectivity within the Isle of Wight itself.

The first area focuses on improving the quality, connectivity and frequency of ferry crossings through increasing frequency, extending hours of operation, opening new routes and subsidising ferry fares.

Given the island's size and population density there is a large market for public transport, and the absence of a fixed link to the mainland suppresses the availability of cars to many visitors.

This package includes a proposal to reinstate a railway between Newport and Sandown as well as the seamless integration between ferry and public transport on the mainland and the Isle of Wight to support sustainable onward connectivity.

£165million GVA annually

70,000 fewer car trips on the island each week

Connectivity Package

D1	New Isle of Wight Mass Transit System and Active Travel Enhancements
D1a	Bus Mass Transit - Newport to Yarmouth
D1b	Bus Mass Transit - Newport to Ryde
D1c	Bus Mass Transit - Newport to Cowes
D1d	Isle of Wight Railway Service Enhancements
D1e	Isle of Wight Railway Extensions - Shanklin to Ventnor
D1f	Isle of Wight Railway Extensions - **Shanklin** to Newport (or Mass Transit alternative)
D2	Isle of Wight Ferry Service Enhancements
D2a	Operating Hours and Frequency Enhancements
D2b	New Summer Route - Ryde to Southampton

Active Travel

E1	Solent Active Travel (including LCWIPs)

Figure 4: Isle of Wight packages of interventions

Note: List of interventions refers to the Isle of Wight area only (Packages D — E).

Figure 5: Sussex Coast packages of interventions

Note: List of interventions refers to the Sussex Coast area only (Packages E — I).

Rail Package

- **F1** West Coastway Strategic Study
- **F2** West Worthing Level Crossing Removal

Active Travel

- **E1** Solent Active Travel (including LCWIPs)
- **H1** Sussex Coast Active Travel Enhancements (including LCWIPs)

Mass Transit

- **G1** Shoreham Strategic Mobility Hub
- **G2** A27/A23 Patcham Interchange Strategic Mobility Hub
- **G3** Falmer Strategic Mobility Hub
- **G4** Eastbourne/Polegate Strategic Mobility Hub
- **G5** Sussex Coast Mass Rapid Transit
- **G6** Eastbourne/Wealden Mass Rapid Transit
- **G7** Hastings/Bexhill Mass Rapid Transit
- **G8** A27 Falmer – Polegate Bus Stop and Layby Improvements

Highways

- **I1** M27 Junction 8 (RIS2)
- **I2** A31 Ringwood (RIS2)
- **I3** A27 Arundel Bypass (RIS2)
- **I4** A27 Worthing and Lancing Improvement (RIS2)
- **I5** A27 East of Lewes Package (RIS2)
- **I6** Southampton Access (M27 Junction 2 and Junction 3) (RIS3 Pipeline)
- **I7** A27 Lewes - Polegate (RIS3 Pipeline)
- **I8** A27 Chichester Improvements (RIS3 Pipeline)
- **I9** A326 Capacity Enhancements (LLM)
- **I10** West Quay Realignment (LLM)
- **I11** Portsmouth City Centre Road (LLM)
- **I12** Northam Rail Bridge Replacement and Enhancement (MRN)
- **I13** New Horsea Bridge and Tipner Bridge
- **I14** A259 Bognor Regis to Littlehampton Enhancement (MRN)
- **I15** A259 South Coast Road Corridor - Eastbourne to Brighton (MRN)
- **I16** A259 Chichester to Bognor Regis Enhancement (MRN Pipeline)
- **I17** A259 (King's Road) Seafront Highway Structures Renewal Programme (MRN)
- **I18** A29 Realignment including combined Cycleway and Footway
- **I19** M27/M271/M275 Smart Motorway(s)
- **I20** A27 Tangmere Junction Enhancements
- **I21** A27 Fontwell Junction Enhancements
- **I22** A27 Worthing (Long Term Solution)
- **I23** A27 Hangleton Junction Enhancements
- **I24** A27 Devils Dyke Junction Enhancements
- **I25** A27 Falmer Junction Enhancements
- **I26** A27 Hollingbury Junction Enhancements

2.6. Sussex Coast Rail

Network Rail has worked with Local Transport Authorities to develop a package of improvements in the West Coastway Strategic Study, formerly Connectivity Modular Strategic Study Plan (CMSP) that deliver faster journeys and more capacity between Brighton and Hove and Southampton.

This will support faster inter-urban and long-distance journeys between the South East's two largest conurbations.The key benefits of this package are:

- Faster journeys between Brighton, Chichester, Portsmouth and Southampton.
- Potentially more frequent longer distance services between Brighton, Chichester, Portsmouth, and Southampton.
- Additional capacity between Worthing and Brighton for shorter journeys.

This package makes a significant contribution to strengthening east – west connectivity between the two largest conurbations in the South East.

£80million GVA annually

10,000 additional rail trips each weekday

2.7. Sussex Coast Mass Transit

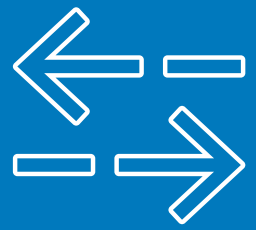
Brighton and Hove City Council is developing plans for a high-quality public transport system along the Brighton seafront. The details are to be finalised, but the topology of the city lends itself strongly to bus rapid transit (e.g. more frequent "turn up and go" and faster services on dedicated bus lanes and other priority infrastructure).

TfSE and its partners have carefully considered whether this system could also serve East and West Sussex. At this stage, extending to East Sussex appears to be more feasible than West Sussex.

Additionally, East Sussex is developing proposals for improved public transport services in Eastbourne and Hastings. All these systems could be supported by general improvements to other local bus services buses and Strategic Mobility Hubs, notably at Falmer and Polegate (options for other hubs are more challenging but should be explored).

It delivers a "world class" mass transit system with significant mode shift from car to bus services and provides an attractive and sustainable option for east – west local journeys along the South East coast. It also reduces carbon and boosts GVA by over £100m each year.

Over 100,000 more mass transit trips each weekday, with 65,000 fewer car trips



2.8. Sussex Coast Active Travel

All three Local Transport Authorities on the Sussex Coast have ambitious plans to improve cycling and walking in their areas, and this package aims to help these authorities realise this ambition.

Several smaller scale highways interventions are also included to support housing growth along the Sussex Coast. Most of these interventions include public transport and active travel elements.The key benefits of this package are:

- Material improvements to the urban realm of the Sussex Coast built up area, unlocking active travel and regeneration opportunities.
- Improvements in air quality in urban areas.
- Significant mode shift from car to active travel, with associated health benefits.

5,000 tonnes less CO2 equivalent emitted a year

Over 40,000 fewer car trips each weekday

Significant public health benefits

2.9. Solent and Sussex Coast Highways

Targeted interventions to deliver high-quality east – west connections for freight, private and mass transit vehicles that de-conflict local and longer-distance traffic, with the greatest benefit when supporting and supported by public transport improvements.

Interventions that deliver safer highways, notably in urban areas, and support access to international gateways, housing/ regeneration/growth areas, and placemaking (e.g. unlocking public spaces) are featured.

This package has been refined to minimise carbon emissions and the impact of these interventions on the wider environment.

The interventions aim to deliver modest improvements to the Strategic Road Network that focus on segregating strategic and regional traffic rather than materially lifting capacity along the whole corridor.

Further mitigation will be needed as these schemes are developed. They will also be complimented by the Global Policy interventions discussed above, which will accelerate the decarbonisation of road vehicles and mitigate the adverse impacts of this package.

A better designed highway network will deliver improved air quality in urban areas and reduce impact of road traffic on the South Downs National Park.

3. London to Sussex Coast

The London to Sussex Coast area covers the key corridors between London and the Sussex Coast conurbation (from Chichester to Eastbourne). It focusses on interventions in East Surrey, West Sussex, and East Sussex (excluding the Hastings area).

TfSE has developed **five packages** of interventions for this area with a total expected capital investment of **£3.6 billion** and **£0.6 billion** in additional economic value each year.

Figure 6 displays the packages of interventions for the London to Sussex Coast area.

Rail Packages

J1	Croydon Area Remodelling Scheme
J2	Brighton Main Line - 100mph Operation
J3	Brighton Station Additional Platform
J4	Reigate Station Upgrade
J5	Arun Valley Line - Faster Services
J6	East Coastway Line - Faster Services
J7	Brighton Main Line - Reinstate Cross Country Services
J8	New Station to the North East of Horsham
J9	Newhaven Port Capacity and Rail Freight Interchange Upgrades
J10	Uckfield Branch Line - Hurst Green to Uckfield Electrification
J11	Redhill Aerodrome Chord
K1	Uckfield - Lewes Wealden Line Reopening - Traction and Capacity Enhancements
K2	Uckfield - Lewes Wealden Line Reopening - Reconfiguration at Lewes
K3	Spa Valley Line Modern Operations Reopening - Eridge to Tunbridge Wells West to Tunbridge Wells

Mass Transit

L1	Fastway Extension: Crawley - Horsham
L2	Fastway Extension: Crawley - East Grinstead
L3	Fastway Extension: Haywards Heath - Burgess Hill
L4	Fastway Extension: Crawley - Redhill
L5	A22 Corridor Rural Bus Service Enhancements
L6	A23 Corridor Rural Bus Service Enhancements
L7	A24 Corridor Rural Bus Service Enhancements
L8	A26 Corridor Lewes - Royal Tunbridge Wells Rural Bus Service Enhancements
L9	A26 Corridor Newhaven Area Rural Bus Service Enhancements
L10	A272 Corridor Rural Bus Service Enhancements
L11	A264 Corridor Rural Bus Service Enhancements
L12	A29 Corridor Rural Bus Service Enhancements
L13	A283 Corridor Rural Bus Service Enhancements
L14	A281 Corridor Rural Bus Service Enhancements
L15	Three Bridges Strategic Mobility Hub

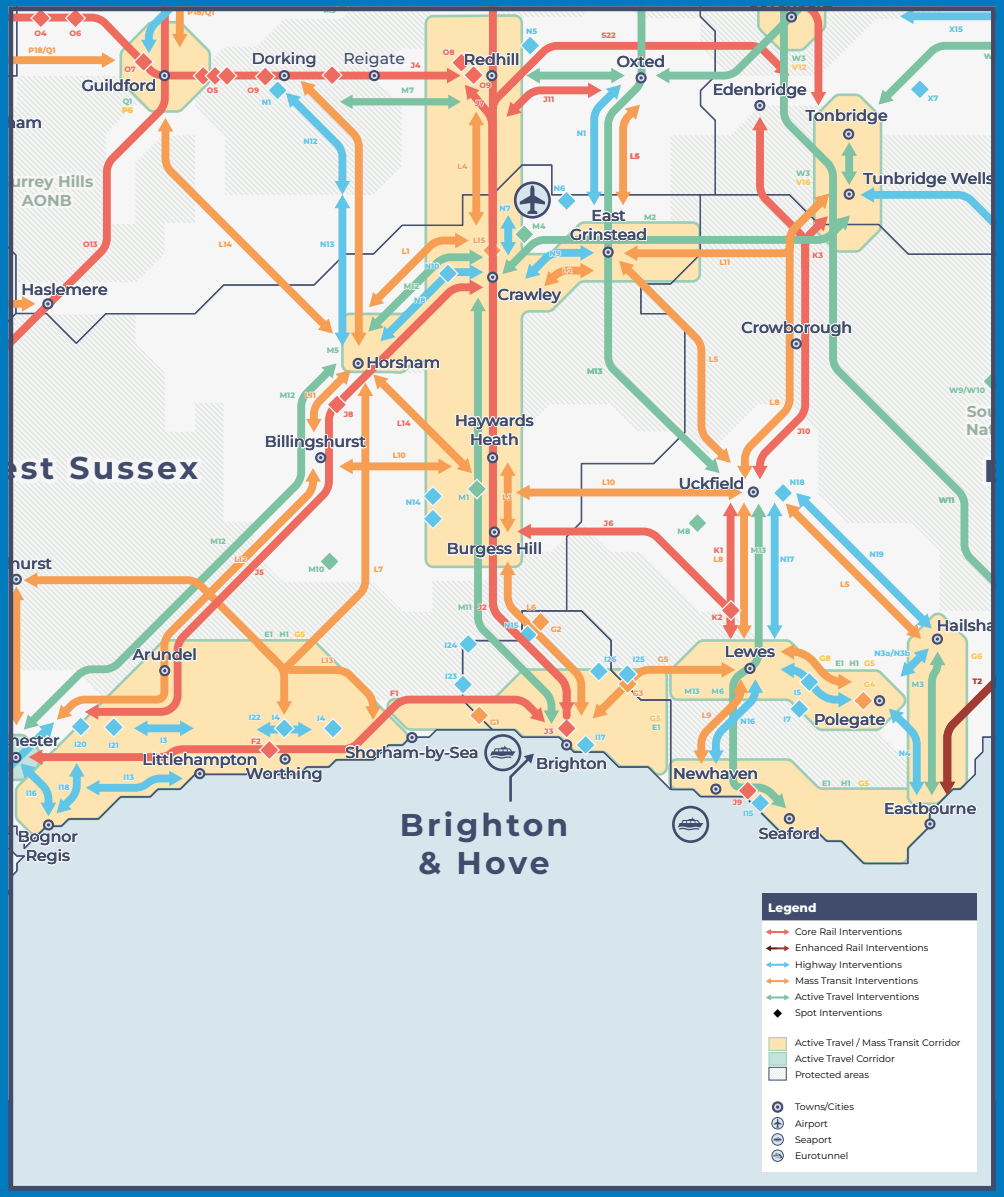
Highways

N1	A22 N Corridor (Tandridge) - South Godstone to East Grinstead Enhancements (LLM Pipeline)
N2	A24/A243 Knoll Roundabout and M25 J9A (MRN Pipeline)
N3a	A22 Corridor Package
N3b	A22 Corridor - Hailsham to Uckfield
N4	A2270/A2101 Corridor Movement and Access Package (MRN Pipeline)
N5	M23 Junction 8a New Junction and Link Road - Redhill
N6	M23 Junction 9 Enhancements - Gatwick
N7	A23 Carriageway Improvements - Gatwick to Crawley
N8	A264 Horsham - Pease Pottage Carriageway Enhancements
N9	A264 Crawley - East Grinstead Dualling and Cylceway
N10	Crawley Western Link Road and Cycleway
N11	A24 Dorking Bypass
N12	A24 Dorking - Capel New Roundabout
N13	A24 Corridor Improvements Horsham to Capel (LLM Pipeline)
N14	A23 Hickstead and Bolney Junction Enhancements
N15	A23/A27 Patcham Interchange Junction Enhancements
N16	A26 Lewes - Newhaven Realignment and Junction Enhancements
N17	A26 Lewes - Uckfield Enhancements
N18	A22 Uckfield Bypass Dualling
N19	A22 Smart Road Trial Proposition Study

Active Travel

M1	Burgess Hill/Haywards Heath Local Cycleways
M2	East Grinstead Local Cycleways
M3	Eastbourne/Hailsham Local Cycleways
M4	Gatwick/Crawley Local Cycleways
M5	Horsham Local Cycleways
M6	Lewes/Newhaven Local Cycleways
M7	Reigate/Redhill Local Cycleways
M8	East Sussex Inter-urban Cycleways
M9	Surrey Inter-urban Cycleways
M10	West Sussex Inter-urban Cycleways
M11	New London - Brighton National Cycle Network Corridor
M12	New Crawley - Chichester National Cycle Network Corridor
M13	London - Paris New "Avenue Verte"

Figure 6: London to Sussex coast packages of interventions



Note: List of interventions refers to London to Sussex Coast area only (Packages J — N).

3.1. London – Sussex Coast Rail

This package addresses key bottlenecks on the Brighton Main Line, enabling faster, more reliable services and increases in decarbonised capacity across rail operations in the region.

Additionally, there are aspirations to reinstate the railways between Uckfield – Lewes and, potentially, Tunbridge Wells West – Tunbridge Wells to increase resilience of rail connectivity between the South Coast and London whilst creating a new east – west passenger rail service.

These results should give investors confidence in the level of growth that could be realised through investing in the Brighton Main Line corridor.

This package could deliver a very significant 20% increase in rail patronage compared to "Business as Usual" forecasts

At least 20,000 fewer car trips each weekday

More than 85,000 additional trips by rail each weekday

3.2. London – Sussex Coast Mass Transit

Infrastructure improvements and increased service frequency will bring transformational growth in bus journeys – almost 120,000 addition trips a day

This package builds on the success of the Fastway bus rapid transit system in Crawley/Gatwick and will be supported by improvements to local buses and Strategic Mobility Hubs at Falmer and Three Bridges.

The overall mass transit network and service provision will be designed to provide an integrated network which facilitates seamless journeys across the area and beyond.

The interventions in this package will bring significant mode shift from car to bus through better interchange and journey experiences with improvements in the speed, frequency and connectivity of mass transit services.

15,000 tonnes less CO2 equivalent emitted a year

130,000 fewer car trips on the island each week

3.3. London – Sussex Coast Active Travel

Active travel investment will be a significant contribution towards reducing carbon emissions along the London – Sussex Coast corridor

All four Local Transport Authorities in the area have ambitious plans to improve cycling and walking in their areas. This package expands on current plans by delivering improvements to the National Cycle Network routes and continued roll-out of regional cycleways with consistent branding and wayfinding.

This package expands on current plans by delivering improvements to the National Cycle Network routes and continued roll out of regional cycleways with consistent branding and wayfinding.

Active travel investment would boost cycling and walking by 3.5% and encourage further mode shift from car to active travel modes. It would also offset some of the abstraction from active travel generated by improvements in Public Transport

Improvements to the urban and rural public realm will improve air quality (particularly in urban areas) and quality of life while unlocking less car-dependent regeneration opportunities.

Significant public health benefits

70,000 fewer car trips each weekday

Over 80,000 expected active travel trips

3.4. London – Sussex Coast Highways

This package includes interventions that support access to international gateways (M23 Junction 9), regeneration areas (Crawley Western Link Road), and placemaking (Uckfield and Godstone Bypasses unlocking public spaces). It also includes junction improvements and possible new roads to help relieve pressure on the existing network.

This package also looks to relieve pressure where road and rail interact at level crossings in particular and unlock opportunities to reallocate road-space to active travel and public transport.

By strengthening the resilience of transport networks, and by supporting housing and employment growth, this package unlocks significant economic benefits (up to £140m GVA per annum) but does yield an increase in carbon emissions – which may be mitigated through a combination of the Global Policy interventions discussed above and improved integration with rail and mass transit for all or part of journeys.

A more reliable and resilient highway network – including a high-quality secondary route from the Sussex Coast to the M25.

1,300 additional jobs created

An additional £140m of GVA a year by 2050

4. Wessex Thames

The area TfSE refers to as Wessex Thames includes the whole of Berkshire, North Hampshire, and West Surrey.

TfSE has developed three packages of interventions for this area with a total expected capital investment of **£10.4 billion** and **£1.2 billion** in additional economic value each year.

Figure 7 shows the packages of interventions for the Wessex Thames area.

Rail Package

- **O1** Western Rail Link to Heathrow
- **O2** Southern Rail Link to Heathrow
- **O3** Reading to Basingstoke Electrification
- **O4** North Downs Line - Electrification
- **O5** North Downs Line - Level Crossing Removals
- **O6** North Downs Line - Service Level and Capacity Enhancements
- **O7** Guildford Station Upgrade
- **O8** Redhill Station Upgrade
- **O9** Dorking Deepdene Station Upgrade
- **O10** South West Main Line / Portsmouth Direct Line - Woking Enhancement Scheme
- **O11** South West Main Line / Basingstoke Branch Line - Basingstoke Enhancement Scheme
- **O12** Cross Country Service Enhancements
- **O13** Portsmouth Direct Line - Line Speed Enhancements
- **O14** Portsmouth Direct Line - Buriton Tunnel Upgrade
- **O15** South West Main Line - Dynamic Signalling
- **O16** Theale Strategic Rail Freight Terminal
- **O17** West of England Main Line - Electrification from Basingstoke to Salisbury
- **O18** Reading to Waterloo Service Enhancements

Mass Transit

- **P1** Basingstoke Mass Rapid Transit
- **P2** Blackwater Valley Mass Rapid Transit
- **P3** Bracknell/Wokingham Bus Enhancements
- **P4** Elmbridge Bus Enhancements
- **P5** Epsom/Ewell Bus Enhancements
- **P6** Guildford Bus Enhancements
- **P7** Slough/Windsor/Maidenhead Area Bus Enhancements
- **P8** Newbury/Thatcham Bus Enhancements
- **P9** Reading Mass Rapid Transit
- **P10** Spelthorne Bus Enhancements
- **P11** Woking Bus Enhancements
- **P12** A4 Reading - Maidenhead - Slough - London Heathrow Airport Mass Rapid Transit
- **P13** A329/B3408 Reading - Bracknell/ Wokingham Mass Rapid Transit
- **P14** Winchester Bus Enhancements
- **P15** Andover Bus Enhancements
- **P16** Runnymede Bus Enhancements
- **P17** London Heathrow Airport Bus Access Enhancements
- **P18** Berkshire, Hampshire and Surrey Inter-urban Bus Enhancments

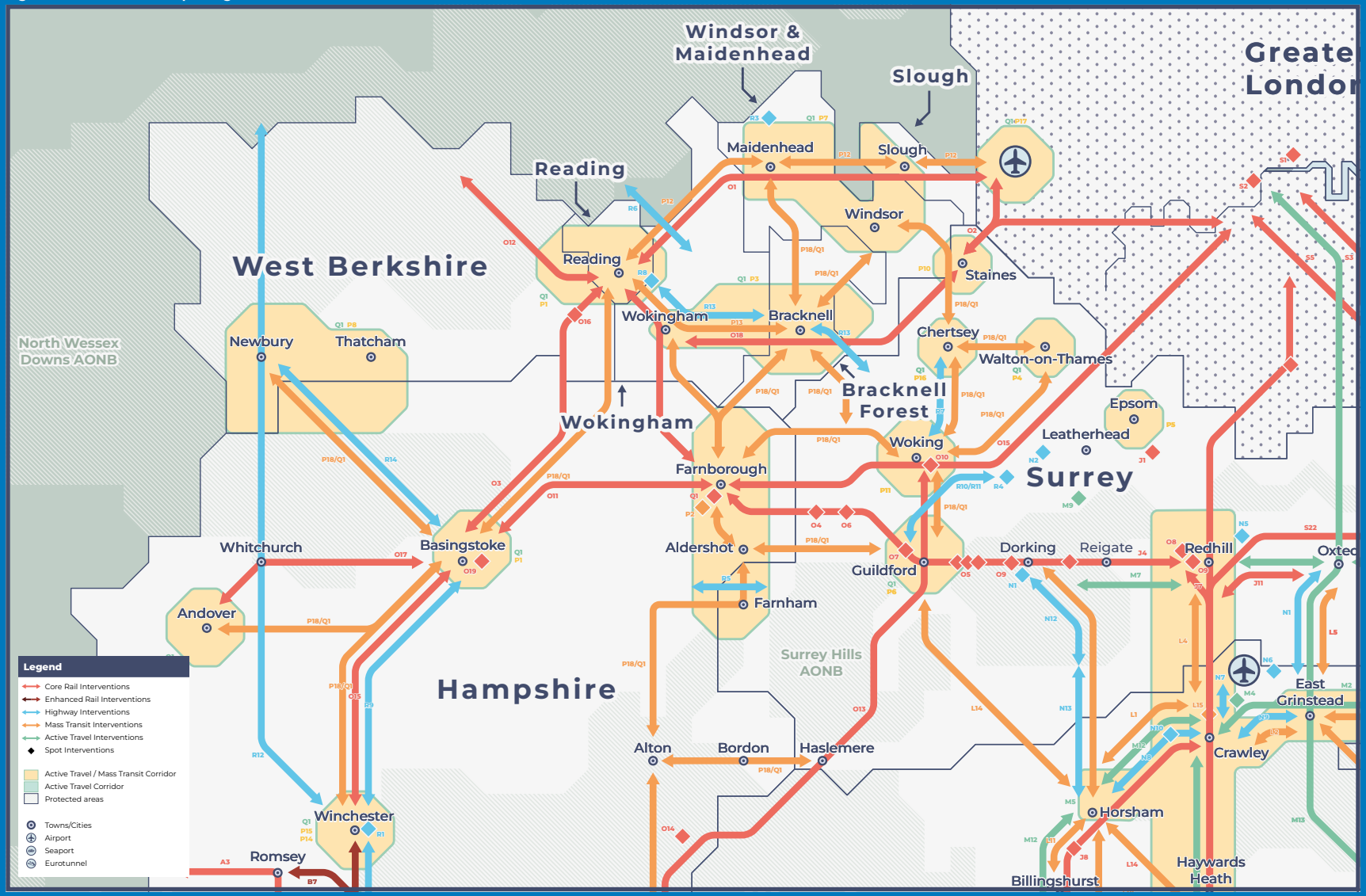
Active Travel

- **Q1** Berkshire, Hampshire and Surrey Urban and Inter-urban Cycleways

Highways

- **R1** M3 Junction 9 (RIS2)
- **R2** M3 Junction 9 - Junction 14 Smart Motorway (SMP)
- **R3** A404 Bisham Junction (RIS2)
- **R4** A3/A247 Ripley South (RIS3 Pipeline)
- **R5** A31 Farnham Corridor (LLM)
- **R6** New Thames Crossing East of Reading (LLM)
- **R7** A320 North Corridor (HIF)
- **R8** M4 Junction 10 Safety Enhancments
- **R9** M3 Junction 6 - Junction 8 Safety Enhancements
- **R10** A3 Guildford Local Traffic Segregation
- **R11** A3 Guildford Long Term Solution
- **R12** A34 Junction and Safety Enhancements
- **R13** A322 and A329(M) Smart Corridor
- **R14** A339 Newbury to Basingstoke Safety Enhancements
- **R15** M4 Junction 3 to Junction 12 Smart Motorway (SMP)

Figure 7: Wessex Thames packages of interventions



Note: List of interventions refers to the Wessex Thames area only (Packages O — R).

4.1. Wessex Thames Rail

A transformational change in orbital and east-west rail connectivity. The package includes new infrastructure interventions with significant regional, national and international benefit, with the largest being to establish new rail links between the region and Heathrow Airport.

Targeted infrastructure enhancements will also translate to more capacity, improved resilience and reliability, and more frequent passenger and freight services, including to the Solent Ports.

This package boosts the number of rail trips enabling residents, employees and visitors to sustainably engage with the regional economy by rail from all directions.

The packages combine to increase the number of local and strategic orbital rail trips by 13,500. They also deliver a boost to the economy, generating more employment opportunities and growing GVA by £850m per annum by 2050.

At least 90,000 additional rail trips each weekday

More than 3,700 new jobs created

More than 3,000 new residents accommodated

15,000 tonnes less of CO2 equivalent emitted a year

4.2. Wessex Thames Mass Transit

Better interchange and service quality will be provided at Strategic Mobility Hubs, integrating bus services with the national rail networks and local active travel, as well as opportunities for shared mobility services such as e-bike hire, local “click and collect” facilities, and co-location with convenience stores and cafe

This package aims to increase frequency, operating hours, reliability, and catchment of bus services, supported with bus priority infrastructure where appropriate, to improve interurban bus services between the major economic hubs in Berkshire, North Hampshire and West Surrey.

Interventions in this package will help the region achieve a significant mode shift from car to bus and active travel that will reduce congestion on the existing road network.

Almost 450,000 more bus and mass transit trips expected each weekday

At least 250,000 fewer car journeys each weekday

1,300 more jobs supported

At least 50,000 fewer tonnes CO2 equivalent emitted a year

4.3. Wessex Thames Active Travel

Better infrastructure for walking and cycling will improve the interchange experience and community value at and around Strategic Mobility Hubs.

This package aims to support the Wessex Thames rail and mass transit interventions with cycling and walking infrastructure that further reduce car dependency in the region.

The provision of quality active travel infrastructure will improve the efficiency of the existing road and highways network by creating more capacity for those who live further away from rail or mass transit services or for whom walking or cycling may not be a suitable option for all or even part of a given journey.

270,000 more active travel trips a day

240,000 fewer car journeys each weekday

30,000 tonnes less CO2 equivalent emitted a year

4.4. Wessex Thames Highways

This package delivers targeted improvements which support strategic passenger and freight movements through de-conflicting local and longer-distance traffic, and supports safety and air quality objectives.

This package includes interventions that support better access to the Solent Ports, a significant contributor to economic growth in the region, as well as interventions which support the sustainable regeneration of areas and local placemaking, such as A3 Guildford, the A320 North Corridor and a new River Thames Cross in the east of Reading.

These schemes are designed to unlock opportunities to reallocate road-space to active travel and buses to deliver complementary public transport improvements.

Some highway interventions can present a trade-off between economic growth and carbon emissions. The economic benefit of accommodating more freight and unlocking growth in this area is a key objective for TfSE, and this package helps towards that.

Improved air quality in urban areas

An additional £90m of GVA a year by 2050

5. Kent, Medway, and East Sussex

This area covers the whole of Kent and Medway, and the Hastings and Rother areas of East Sussex. It broadly reflects the Network Rail "Kent" Route and the area in the South East served by the "Integrated Kent" passenger rail franchise.

TfSE has developed seven packages of interventions for this area with a total expected capital investment of **£19.4 billion** and **£0.75 billion** in additional economic value each year, along with the long-term capacity and resilience required to keep the country's most important gateway to trade with mainland Europe operating efficiently.

Figure 8 provides the packages of interventions proposed over the next 30 years.

Rail Package

- **S1** St Pancras International Domestic High Speed Platform Capacity
- **S2** London Victoria Capacity Enhancements - Signalling and Digital Rail
- **S3** Bakerloo Line Extension
- **S4** South Eastern Main Line - Chislehurst to Tonbridge Capacity Enhancements
- **S5** London Victoria to Shortlands Capacity Enhancements
- **S6** Hundred of Hoo Railway - Hoo Peninsula Passenger Rail Services
- **S7** North Kent Line / Hundred of Hoo Railway - Rail Chord
- **S8** Thameslink - Extension to Maidstone and Ashford
- **S9** North Kent Line - Service Enhancements
- **S10** North Kent Line / Chatham Main Line - Line Speed Enhancements
- **S11** Otterpool Park/Westenhanger Station Additional Platform
- **S12** Integrated Maidstone Stations
- **S13** Dartford Station Remodelling/ Relocation
- **S14** Canterbury Interchange Rail Chord
- **S15** New Station - Canterbury Interchange
- **S16** New Strood Rail Interchange
- **S17** Rail Freight Gauge Clearance Enhancements
- **S18** Crossrail - Extension from Abbey Wood to Dartford/Ebbsflett
- **S19** High Speed 1 / Waterloo Connection Chord - Ebbsfleet Southern Rail Access
- **S20** Ebbsfleet International (Northfleet Connection)
- **S21** Ebbsfleet International (Swanscombe Connection)
- **S22** Gatwick - Kent Service Enhancements

High Speed Rail Package

- **T1** High Speed East - Dollands Moor Connection
- **T2** High Speed 1 / Marsh Link - Hastings, Bexhill and Eastbourne Upgrade
- **U1** High Speed 1 - Link to Medway (Chatham)
- **U2** High Speed 1 - Additional Services to West Coast Main Line

Mass Transit

- **V1** Fastrack Expansion - Swanscombe Peninsula
- **V2** Fastrack Expansion - Northfleet to Gravesend
- **V3** Fastrack Expansion - Medway
- **V4** Medway Mass Transit
- **V5** Medway Mass Transit - Extnesion to Hoo Peninsula
- **V6** Medway Mass Transit - Extension to Maindstone
- **V7** Medway Mass Transit - Chatham to Medway City Estate New Bridge
- **V8** Medway Mass Transit - Chatham to Medway City Estate Water Taxi
- **V9** Maidstone Bus Enhancements
- **V10** Dover Bus Rapid Transit
- **V11** Sittingbourne Bus Enhancements
- **V12** Sevenoaks Bus Enhancements
- **V13** Thanet Bus Enhancements
- **V14** Folkestone Bus Enhancements
- **V15** Ashford Bus Enhancements
- **V16** Royal Tunbridge Wells/Tonbridge Bus Enhancements
- **V17** Thames Gateway/Gravesham Bus Enhancements
- **V18** Canterbury/Whitstable/Herne Bay Bus Enhancements
- **V19** Ferry Crossings - New Sheerness to Hoo Peninsula Service
- **V20** Ferry Crossings - Sheerness to Chatham/Medway City Estate/ Strood Enhancements
- **V21** Ferry Crossings - Harty to Whitstable Enhancements
- **V22** Ferry Crossings - Harty to Oare Enhancements
- **V23** Ferry Crossings - Ebbsfleet - Tilbury Enhancements
- **V24** Inland Waterway Freight Enhancements

Active Travel

- **W1** Medway Active Travel Enhancements
- **W2** Medway Active Travel - Chatham to Medway City Estate River Crossing
- **W3** Kent Urban Cycleways
- **W4** Kent Inter-urban Cycleways
- **W5** Faversham - Canterbury - Ashford - Hastings National Cycle Network Enhancements
- **W6** Tonbridge - Maidstone National Cycle Network Enhancements
- **W7** Sevenoaks - Maidstone - Sittingbourne National Cycle Network Enhancements
- **W8** Bromley - Sevenoaks - Royal Tunbridge Wells National Cycle Network Enhancements
- **W9** East Sussex Local Cycleways
- **W10** East Sussex Inter-urban Cycleways
- **W11** Royal Tunbridge Wells - Hastings National Cycle Network Enhancements
- **W12** Canterbury Placemaking and Demand Management Measures
- **W13** Medway Placemaking and Demand Management Measures
- **W14** Dover Placemaking and Demand Management Measures

Highways

- **X1** M2 Junction 5 (RIS2)
- **X2** A2 Brenley Corner Enhancements (RIS3 Pipeline)
- **X3** A2 Dover Access
- **X4** A21 Safety Enhancements (RIS3 Pipeline, brought forward to RP2)
- **X5** A229 Bluebell Hill Juntion Upgrades (LLM)
- **X6** A28 Birchington, Acol and Westgate-on-Sea Relief Road (MRN)
- **X7** A228 Colts Hill Strategic Link (MRN Pipeline)
- **X8** Digital Operations Stack and Brock
- **X9** A20 Enhancements for Operations Stack & Brock
- **X10** Kent Lorry Parks (Long Term Solution)
- **X11** Dover Freight Diversification
- **X12** Kent Freight Consolidation Centres
- **X13** M2 Junction 4 - Junction 7 Smart Motorway (RIS3 Pipeline / SMP)
- **X14** A2 Canterbury Junctions Enhancements
- **X15** M20 Junction 3 - Junction 5 Smart Motorway
- **X16** M20 Junction 6 Sandling Interchange Enhancements
- **X17** M25 Junction 1a Enhancements
- **X18** M25 Junction 5 Enhancements
- **X19** Herne Relief Road
- **X20** Canterbury East Relief Road
- **X21** New Maidstone South East Relief Road
- **X22** A228 Medway Valley Enhancements
- **X23** A228 Hoo Peninsula Enhancements
- **X24** Strood Riverside Highway Enhancement and Bus Lane
- **X25** A259 Level Crossing Removals – east of Rye
- **X26** A21 Kippings Cross to Lamberhurst Dualling and Flimwell and Hurst Green Bypasses
- **X27** Hastings and Bexhill Distributor Roads
- **Y1** Lower Thames Crossing (costings for Kent-side only)

Figure 8: Kent, Medway and East Sussex packages of interventions

Note: List of interventions refers to the Kent, Medway, and East Sussex area only (Packages S — Y).

5.1. Kent, Medway, and East Sussex Classic Rail

A significant boost for employment and economic growth, unlocking £139 million in GVA per annum by 2050.

This package adds capacity to the classic rail network in the South East Area and has strong synergies with the Kent, Medway, and East Sussex high speed rail package which aims to serve communities further away from the Capital.

This package includes several interventions that will increase service capacity and others that will improve integration of the rail system – notably at Ebbsfleet, Canterbury, Maidstone, and Strood – where several railways cross each other without providing easy interchange from one railway to another.

It also includes the introduction of passenger rail services on the Grain Branch on the Hoo Peninsula and direct services between Gatwick Airport and Mid/East Kent.

35,000 additional weekday rail trips

Over 1,500 new jobs created

6,000 new residents

15,000 tonnes less CO_2 equivalent emitted a year

5.2. Kent, Medway, and East Sussex High Speed Rail East

Along with "High Speed Rail North", this package includes some of the more radical interventions in the Long List for this study.

The "High Speed Rail East" package would deliver direct High Speed services from London to Eastbourne via Ashford and Hastings, reducing journey times from Hastings/Bexhill to London by 20 minutes.

It would also deliver faster journey times to Dover using a connection to HS1 at Dollands Moor, and an increase in the frequency of HS1 services to Ashford

15,000 tonnes fewer CO2 equivalent emissions each year (2050)

An additional £125 million of GVA a year by 2050

5.3. Kent, Medway and East Sussex High Speed Rail North

Expanding the domestic high speed service will deliver transformational improvements in journey times and drive economic growth across the region, including for previously left behind coastal areas

The "High Speed Rail North" package aims to deliver significant improvements in connectivity to North Kent to ensure coastal communities in Medway, Swale, Canterbury, and Thanet are as well served as other parts of Kent.

Several high-level options have been considered, ranging from a new link between HS1 and Medway to improvements to the North Kent Line and Rochester Bridge. The modelling and cost estimates represented for this package reflects one of the more interventionalist options.

15,000 tonnes fewer CO2 equivalent emissions each year (2050)

£225million in GVA per annum

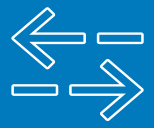
More than 17,000 new residents and over 3,800 new jobs (High Speed Rail East and North)

5.4. Kent, Medway and East Sussex Mass Transit

Significant improvements in the quality, speed and frequency of bus and ferry services in Kent, Medway and East Sussex with better interchange with rail services.

This package delivers improvements to bus services with the scope for improvements and expansion particularly strong in the Kent Thameside and Medway areas, where high levels of growth and regeneration are expected. A step change in infrastructure and service provision should be viable thanks to the underlying demographics in this area.

This package also includes an opportunity to create a new Medway River Crossing to enable faster journeys between the north and south of this conurbation, as well as improvements in connectivity between islands and peninsulas in North Kent.



Over 170,000 more trips on bus, mass transit and ferries each weekday

100,000 fewer private car trips each weekday

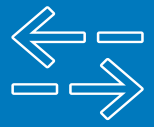
25,000 tonnes less CO2 equivalent emitted

5.5. Kent, Medway, and East Sussex Active Travel

Material improvements to the urban realm, unlocking active travel and regeneration opportunities

This package delivers general uplift in the quality of walking and cycling infrastructure, particularly in urban areas (such as those infrastructure gaps highlighted in the recent Kent County Council cycling strategy).

The package boosts cycling, walking and wheeling and encourages mode shift from car to active travel modes with significant associated health benefits. It also makes a significant contribution towards reducing carbon emissions and improving air quality.



Over 110,000 more trips by walking, wheeling or cycling each weekday

100,000 fewer private car return trips each weekday

10,000 tonnes less CO2 equivalent emitted

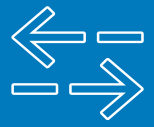
5.6. Lower Thames Crossing

A significantly more resilient corridor connecting the Channel Ports to the M25.

One of the most significant highways interventions planned for this part of the South East is the Lower Thames Crossing, which will deliver a new motorway-standard crossing between Essex and North Kent/Medway.

This is a long standing, nationally-significant scheme that has a considerable impact on the South East's transport system. To reflect the scale and importance of this scheme, we have modelled it (and some associated ancillary interventions) separately to the rest of the Kent, Medway and East Sussex Highways package.

The Lower Thames Crossing also delivers a boost to GVA (£105 million a year), but in isolation it does generate an increase in carbon emissions and should be considered in the context of both the above Global Policy interventions and close integration with regional rail, mass transit and active transport networks (e.g. dedicated 24-hour bus lanes).



170,000 net additional weekday private vehicle trips

1,400 new jobs created

5.7. Kent, Medway and East Sussex Highways

This package delivers the Kent Bifurcation strategy to split off traffic to and from Dover – which strengthens the resilience of Channel Port access corridors – and improved connectivity for coastal areas.

This package includes several interventions that aim to improve highway resilience and connectivity while also relieving congestion in city and town centres. Many of these interventions will enable housing growth and/or improve public transport and active travel facilities in urban areas. In this sense, highways should be viewed as multi-modal interventions.

These interventions in isolation are projected to increase carbon emissions. This effect will diminish if this package is combined with Global Policy and other rail, mass transit and active travel interventions.

More resilient corridors serving the key Channel Ports and better-connected coastal areas.

An additional £90 million of GVA a year by 2050

1,000 new jobs created

Benefits and Costs

Overview

In 2018, Transport for the South East commissioned Steer to develop a model to test the impact of the scenarios developed in support of the development of the Transport Strategy for the South East.

This model, known as the South East Economy and Land Use Model (SEELUM), is a transport and land use model that simulates the interaction of transport, people, employers, and land-use over periods of time.

SEELUM produces detailed reports on:

- changes in households, population, and the workforce;
- changes in employment (jobs filled) and unemployment rates;
- changes on "tailpipe" CO2 equivalent emissions from transport;
- changes to travel patterns, volumes and mode shares; and
- time-savings benefits for appraisal and impacts on productivity.

To model each package in SEELUM, adjustments were made to:

- Generalised Journey Times (GJTs) – a weighted measure of travel, waiting and transfer/interchange times – within and
- characteristics of links on the road and railway network (notably capacity).

To model the Global Policy interventions, we have adjusted GJTs between each zone by mode. For example, to model a potential reduction in public transport fares, we reduced the GJTs for bus services across all zones in the South East.

Estimating costs

The packages were modelled in SEELUM from a base year of 2018 and run for 32 years to 2050. The results are presented as a comparison to a "Business as Usual" scenario, which is based on the Department for Transport's National Trip End Model (NTEM) that also projects employment and population growth to 2050.

The summary results of the modelling of all packages of interventions are presented in Table 2.

Capital cost estimates have been prepared to a level of detail commensurate with the maturity of the design of the packages of interventions and are presented in Table 2.

Items and quantities have been priced using historic project data and industry standard published data, with adjustments made to capture the influence that quantity, access, time constraints, site location and conditions will have on labour, plant and materials input costs.

A contingency has been added for minor items that have not been measured. Allowances have been made for main contractors' preliminaries and overhead and profit, temporary works and traffic management where required. Allowances for professional fees and other development costs have also been included. To reflect the maturity of the design a risk allowance has been applied.

Annual maintenance and renewal capital cost estimates are also shown in Table 2.

Table 2: Package Benefits and costs (2020 prices)

Packages of Intervention*	Global Policy interventions (see main section for further detail)	Solent and Sussex Coast	A. South Hampshire Rail (Core)	B. South Hampshire Rail (Enhanced)	C. South Hampshire Mass Transit	E. South Hampshire Active Travel	D. Isle of Wight Connections	F. Sussex Coast Rail	G. Sussex Coast Mass Transit	H. Sussex Coast Active Travel	I. Solent and Sussex Coast Highways
Implementation Timeframe	Ongoing		Short – Medium	Medium – Long	Short – Medium	Short Term	Short – Medium	Short – Medium	Short – Medium	Short	Short – Long
Capital Construction Cost in £millions*	-	11,200	600	3,700	1,800	350	250	350	450	250	3,500
Annual Capital Maintenance and Renewal Costs	-	635	15	95	135	30	20	25	35	220	260
Gross Value Added (GVA) in £millions per annum in 2050	£720m	£1,250m	£285m	£305m	£165m	£10m	£165m	£80m	£120m	£5m	£170m
Additional new local residents by 2050 (Compared to Do Nothing Scenario in 2050)	-52,500	6,350	1,050	1,150	1,300	150	1,950	700	850	<50	250
Additional full time-equivalent jobs by 2050 (Compared to Do Nothing Scenario in 2050)	-1,600	7,900	1,550	2,000	1,000	50	1,500	350	550	<50	700
Change in Carbon Emissions in 2050 (Nearest 5,000 Kilo-Tonnes CO2e)	-1.4m	-10,000	-	-	-30,000	-10,000	-	-	-10,000	-5,000	45,000
Change in average weekday return trips	-1.4m	35,000	5,000	10,000	5,000	-	5,000	5,000	5,000	-	5,000
Change in average weekday return car trips	-1.6m	-180,000	-5,000	-5,000	-70,000	-40,000	-15,000	-	-35,000	-20,000	5,000
Change in average weekday return rail trips	61,000	45,000	15,000	15,000	-	-	5,000	5,000	5,000	-	-
Change in average weekday return bus, mass transit and ferry trips	252,000	170,000	-	-	110,000	-5,000	15,000	-	55,000	-5,000	5,000

Figures rounded to nearest: £50m for Capital Cost; £5m for GVA; 50 new residents /jobs; 5,000 kilo-tonnes CO2e; and 5,000 daily return trips

*A full list of proposed interventions within each package can be found in Appendix A

**Assumes High Speed Rail option goes via Chatham rather than Medway City Estate or Rochester

***Assumes assignment of 40% of Lower Thames Crossing capital costs to Kent geographically

Packages of Interventions*	J. London – Sussex Coast	K. London – Sussex Coast Rail	L. London – Sussex Coast Mass Transit	M. London – Sussex Coast Active Travel	N. London – Sussex Coast Highways	Wessex Thames	O. Wessex Thames Rail	P. Wessex Thames Mass Transit	Q. Wessex Thames Active Travel	R. Wessex Thames Highways
Implementation Timeframe		Short – Medium	Short – Medium	Short	Short – Long		Short – Long	Short – Medium	Short	Medium – Long
Capital Construction Cost in £millions*	3,600	500	400	1,100	1,600	10,400	7,200	1,000	400	1,800
Annual Capital Maintenance and Renewal Costs	245	15	30	80	120	430	185	80	30	135
Gross Value Added (GVA) in £millions per annum in 2050	615	375	100	10	140	1,205	850	245	35	90
Additional new local residents by 2050 (Compared to Do Nothing Scenario in 2050)	8,100	6,250	1,350	50	700	7,100	3,100	3,300	500	200
Additional full time-equivalent jobs by 2050 (Compared to Do Nothing Scenario in 2050)	4,450	2,350	800	<50	1,350	5,600	3,750	1,300	<50	450
Change in Carbon Emissions in 2050 (Nearest 5,000 Kilo-Tonnes CO2e)	-10,000	-10,000	-15,000	-10,000	20,000	-60,000	-5,000	-55,000	-30,000	25,000
Change in average weekday return trips	40,000	30,000	5,000	-	5,000	45,000	35,000	10,000	-	5,000
Change in average weekday return car trips	-70,000	-10,000	-35,000	-35,000	5,000	-240,000	-5,000	-130,000	-120,000	5,000
Change in average weekday return rail trips	40,000	45,000	-	-	-	40,000	50,000	-5,000	-	-
Change in average weekday return bus, mass transit and ferry trips	55,000	-	60,000	-5,000	-	200,000	-	225,000	-10,000	-

Figures rounded to nearest: £50m for Capital Cost; £5m for GVA; 50 new residents /jobs; 5,000 kilo-tonnes CO2e; and 5,000 daily return trips

*A full list of proposed interventions within each package can be found in Appendix A

**Assumes High Speed Rail option goes via Chatham rather than Medway City Estate or Rochester

***Assumes assignment of 40% of Lower Thames Crossing capital costs to Kent geographically

Packages of Interventions*	Kent, Medway, and East Sussex (KMES)	S. KMES Rail	U. KMES High Speed Rail East	U. KMES High Speed Rail North	V. KMES Mass Transit	W. KMES Active Travel	Y. Lower Thames Crossing	X. KMES Highways
Implementation Timeframe		Short – Medium	Short – Medium	Medium – Long	Short – Medium	Short	Medium – Long	Short – Long
Capital Construction Cost in £millions*	19,400	3,700	1,000	7,300**	700	100	2,800***	3,800
Annual Capital Maintenance and Renewal Costs	865	95	25	190	55	5	290	210
Gross Value Added (GVA) in £millions per annum in 2050	750	140	125	225	45	15	90	105
Additional new local residents by 2050 (Compared to Do Nothing Scenario in 2050)	28,400	6,150	5,800	11,700	1,550	450	1,200	1,600
Additional full time-equivalent jobs by 2050 (Compared to Do Nothing Scenario in 2050)	8,400	1,500	1,400	2,450	400	250	950	1,400
Change in Carbon Emissions in 2050 (Nearest 5,000 Kilo-Tonnes CO2e)	30,000	-15,000	-15,000	-15,000	-25,000	-10,000	65,000	45,000
Change in average weekday return trips	160,000	20,000	15,000	35,000	-	-	5,000	75,000
Change in average weekday return car trips	-	-	-	-	-50,000	-50,000	10,000	85,000
Change in average weekday return rail trips	65,000	15,000	15,000	35,000	-	-	-	-
Change in average weekday return bus, mass transit and ferry trips	75,000	-	-	-	85,000	-5,000	-	-5,000

Figures rounded to nearest: £50m for Capital Cost; £5m for GVA; 50 new residents /jobs; 5,000 kilo-tonnes CO2e; and 5,000 daily return trips

*A full list of proposed interventions within each package can be found in Appendix A

**Assumes High Speed Rail option goes via Chatham rather than Medway City Estate or Rochester

***Assumes assignment of 40% of Lower Thames Crossing capital costs to Kent geographically

Funding and Financing

Introduction

We know that the credibility of our SIP, which is both ambitious and capital-intensive, needs to be underpinned by a pragmatic consideration of how it will be paid for.

In common with other comparable infrastructure programmes, the SIP's principal financial challenge will relate to funding – how the projects are ultimately paid for over time – both capital (for construction, maintenance and renewals) and resource (for operations). Addressing this challenge will involve both making the best use of funds directed from government, and identifying new and innovative approaches (especially those that tap into the local and regional value that the interventions will generate).

For many of the proposed interventions, financing (i.e. how and from whom the cash is raised to meet the costs of construction as they arise) will also play an important role in ensuring value-for-money delivery.

The SIP is made up of a number of diverse interventions and there is not going to be a 'one size fits all' funding and financing solution that applies across the programme. TfSE itself may not be the body that delivers or pays for these interventions. But, as an organisation, we have an important role to play in making them a reality.

This section therefore sets out the potential revenue sources that could contribute to the types of interventions identified in the SIP and the role of different stakeholders in channelling these funds to support the investment need.

Context

Traditionally, strategic connectivity interventions have been funded from a combination of user or farebox revenues and central government grant provided to delivery bodies and transport authorities (often competitively bid for and/or in scheme or one year, mode based silos).

But today, these traditional funders face a number of competing priorities, with financial positions that are in many cases highly constrained. Further national-level challenges (but also opportunities) can be expected to accompany technological change in the transport sector, particularly the electrification of the road vehicle fleet and the implications for road taxation and the way users pay to access the highways network.

The SIP reflects the changed world in which we live and work. It seeks not only to address transport connectivity and capacity issues, but to promote and maintain economic development, increase the supply of homes, support the transition to net zero and improve quality of life and social inclusion.

The Exchequer will benefit from the broader fiscal impacts this will deliver – which is one of the reasons why it will remain appropriate for taxpayer funding to support the SIP.

However, the programme will also bring significant tangible benefits for a wider range of beneficiaries across the South East, London and beyond - in terms of productivity, employment, income levels, environmental impacts, quality of place, and land and property values.

The SIP's wide reach suggests that there is a strong case for seeking a fair and proportionate contribution from this full spectrum of beneficiary groups. This requires new and innovative tools that seek to monetise a share of the specific value that projects deliver for beneficiaries and can supplement or (eventually) replace traditional central government grant and local farebox for certain types of interventions.

However, we recognise that, if they are to have maximum impact, novel approaches may require either broader (e.g. nation-wide) reform or a degree of devolution of funding powers beyond that which the South East currently enjoys – both of which are subject to political will and community acceptance.

So while it is wholly appropriate to consider new approaches and they are likely to play a role at some stage in the multi-decade programme, we will need to work hard with local and national stakeholders if such mechanisms are going to be able to make a meaningful contribution to delivering the SIP.

The SIP's funding requirement in context

Funding allocations for strategic connectivity interventions are generally provided to delivery authorities (such as Network Rail and National Highways) from consolidated government budgets that are themselves funded in the main part by general taxation and user revenues. There are additional grant programmes for other forms of transport such as mass transit, cycling and active travel, either in their own right or as part of broader funding competitions open to local authorities.

Broadly speaking, transport spending in the South East in the recent past has been roughly equivalent to its share of both national population and its GVA contribution.

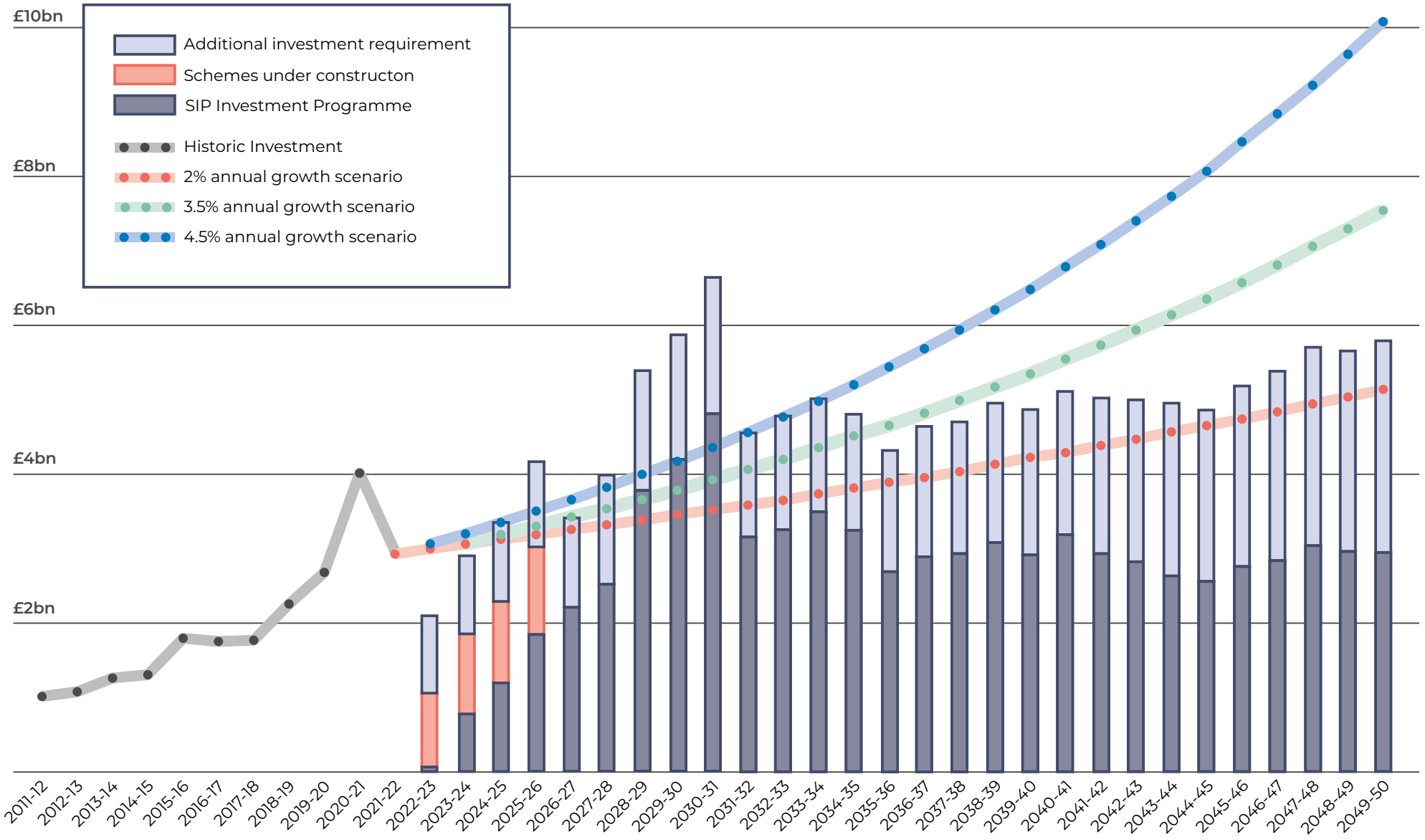
The continued existence of a centralised funding regime for most types of strategic connectivity interventions suggests that many of the programmes within the SIP will continue to be funded, at least in part, from central sources – especially given the very strong case for investment in our region.

The future quantum of government funding that will be allocated to transport infrastructure (beyond current spending plans) is, of course, unknown – although historical trends can provide some indication.

Figure 9 compares the proposed future investment in transport in the South East (the SIP and assumed additional local expenditure) with illustrative future growth scenarios based on actual levels of Government spend since 2011-12. This suggests that, even if spend were to grow at a slower rate than the historic average, the majority of the overall core programme (as well as much of the indicative ancillary investment) could theoretically be supported within an illustrative envelope of potential future central funding.

More detail about how we have developed Figure 9 is provided in Appendix C.

Figure 9: Indicative investment requirement and historic and projected spend profiles



Funding the investment programme

1. Enhancements to existing strategic networks

Around 80% of the identified investment required in the SIP will be spent on much-needed enhancements to the existing highways and rail networks, designed to improve connectivity to, from and within our region.

Rail enhancements

Today, roughly half of the underlying government funding for rail expenditure is raised directly from passengers (fares and premia paid by rail operators) and another third from consolidated government budgets (i.e. general taxpayers). This funding is used to provide direct grant payments to Network Rail, subsidies for some operators and capital grants for other major projects.

Core funding for Network Rail is provided in five-year Control Period settlements, whereby a Statement of Funding Available (SoFA) sets a funding envelope to deliver the outputs specified in the High-Level Output Specification (HLOS). The Rail Network Enhancements Pipeline (RNEP) is a periodically-updated list of enhancements that Network Rail is expected to deliver within each Control Period. Interventions within the South East fall within Network Rail's Southern region.

Going forward, there may be changes to how funding is allocated and spent as a result of the Government's emerging plans to replace Network Rail with Great British Railways; however the Williams-Shapps Review states that five-year settlements will continue to be agreed with the new organisation. Accordingly, we expect the funding for most rail enhancements and renewals within the SIP to follow this pattern.

There is, however, likely to be a growing emphasis on considering ways in which non-grant funding sources can contribute to the delivery of rail enhancements – or elements of such interventions. Major interventions such as HS2 and Crossrail have shown that certain components – such as station works or rolling stock – can potentially lend themselves to alternative funding and financing arrangements.

Network Rail has also been encouraged to consider leveraging its property portfolio to support intervention delivery and to consider options for introducing private capital into its projects. As part of the 'Market-Led Proposals' initiative, private companies, local authorities and Local Enterprise Partnerships can apply for funding for rail infrastructure projects that are not identified or prioritised for Control Period funding. Market-Led Proposals which include alternative sources of funding may be more attractive to Network Rail and DfT as they help reduce the burden on the general taxpayer.

See Worked Example 1 – Crossrail – Extension from Abbey Wood to Dartford/Ebbsfleet.

WORKED EXAMPLE

Crossrail – Extension from Abbey Wood to Dartford/Ebbsfleet

Kent, Medway, and East Sussex - Classic Rail Package

Description

The opening of the Elizabeth Line (Crossrail) will provide fast, frequent services into central London and Heathrow from a number of locations to the east and west of London. Despite earlier variations of the scheme proposing a longer alignment, services in the south east will terminate at Abbey Wood in the London Borough of Bexley.

In 2016, the Crossrail to Ebbsfleet (C2E) Partnership was formed as an informal group of local authorities and transport agencies to promote options for the corridor east of Abbey Wood into Kent, to make the most of new Elizabeth Line services, as well as supporting the delivery of new homes and jobs.

Following a detailed study of a range of options using £4.85m of funding from the Department for Levelling-up, Housing and Communities (DLUHC) in 2021 a Strategic Outline Business Case was submitted to Government setting out three preferred schemes to support ambitious and sustainable housing growth and regeneration in the Bexley Riverside – North Kent corridor.

Of the three options being considered as part of the study, two involve enhancing the Elizabeth Line to provide more direct rail services from London to Ebbsfleet, Northfleet and Gravesend. In each case, some sections of additional track would need to be built, in addition to junction works, enhancement of existing stations and building new stabling facilities.

The DLUHC and the DfT are currently considering the Business Case.

For the purposes of the SIP, a cost of £2.6bn - £3.2bn is assumed for this scheme, to be delivered between 2023 and 2028, although we note there are a range of different options under consideration in the Business Case, some of which may involve a higher cost.

Funding and financing options

The proposal, at SOBC stage, has identified three potential delivery leads ranging from TfL, Network Rail (or Great British Railways in future) to a Special Purpose Vehicle (which would be a blend of the former two options with private sector input). The different approaches have different strengths and weaknesses and would be developed if the scheme case is developed to Outline and Full Business Case stages.

Were Great British Railways to be the delivery body (recognising that much of the works are on the existing north Kent Line), then DfT will need to accept the project into the **Rail Network Enhancements Pipeline (RNEP)** and the project will then progress through RNEP's five stages before government funding will be committed.

As a major, complex (and capital-intensive) cross-border scheme with wide-ranging potential benefits, a wide range of funding sources could play a role beyond central Government grant funding for the railways, as part of a bespoke package.

This might include Government funding from **broader programmes** that recognise the potential of the scheme to contribute to national housing, economic and environmental objectives (e.g. the Housing Infrastructure Fund or successor programme). It is notable that the Department for Levelling Up, Communities & Housing was the key sponsoring department for the recent Abbey Wood to Ebbsfleet Connectivity Study.

A **contribution from London** (the Mayor, GLA and TfL) could also be considered, as the scheme features in the Mayor's Transport Plan - recognising its cross-border geography and the potential to catalyse economic growth in London. While the Mayor and the GLA have certain revenue-raising powers available to them (as seen with the implementation of a Mayoral CIL and business rate supplement to support Crossrail), agreement to extend these and divert them to the scheme will be required, and this would be challenging in the context of TfL's difficult financial situation and the additional time and funds required to deliver the Elizabeth Line itself.

Potential mechanisms for a **local contribution** from the C2E Partnership authorities (linked to the growth unlocked by the scheme) have been identified as part of the recent study. These include existing budgets and tools, as well as new/innovative approaches to capturing the value of development and the expected uplift in nearby land values. Such mechanisms may have a role to play but would present significant challenges of political and community acceptability and equity – and some are likely to require broader (e.g. national) reform to be successful.

Highways enhancements

Funding for SRN highways interventions is generally provided by DfT to National Highways and allocated as part of the Road Investment Strategy (RIS) process.

The underlying funding comes from consolidated government budgets (although, since 2020, the Government has committed to hypothecating revenues raised through Vehicle Excise Duty (VED) to investments in the roads network). The taxes and duties levied directly on road users significantly exceed the equivalent expenditures. In 2021, Fuel Duty raised around £25 billion, while VED accounted for around £5 billion. In the same year, overall roads expenditure in England was about £10 billion.

While we expect highways enhancements to continue to be funded via established approaches in the short term, it seems increasingly likely that these approaches will not endure for the duration of the SIP period.

As more vehicles are electrified, Fuel Duty revenues are expected to fall, and alternative methods of raising revenue will need to be found. To achieve this, expanding existing local congestion and air quality charges, tolls and/or distance-based ('pay-per-mile') road user charging interventions presents the opportunity to move towards an approach whereby the usage of a vehicle (rather than its ownership) provides the basis of a contribution. This would not only provide the Government with revenues for infrastructure spending, but also address other objectives such as optimising the capacity of a finite asset, managing congestion and improving air quality.

While broad national reform is being considered, it may be likelier that more cities and regions use the powers available to them to implement road user charging systems. Cities such as Cardiff, Reading and Bristol are considering congestion charging, following the lead of London and Durham.

There are indications that cities like Birmingham and Manchester will follow London's lead in establishing Clean Air Zone (CAZ) and Low Emission Zone (LEZ) interventions, though these are subject to consultation in respect of the long-term impact of COVID-19 and the advancement of the ban on Internal Combustion Engines (ICE) vehicles.

TfSE intends to play an important role in working with the government and other stakeholders on developing potential future options for road user charging. This includes influencing the direction of any national reform, supporting local partners in developing solutions for specific geographies, and more broadly ensuring that revenues from any future interventions can be efficiently and equitably applied to support priority capital interventions in the South East.

See A34 junction and safety enhancements worked example.

WORKED EXAMPLE

A34 Junction and Safety Enhancements

Wessex Thames - Highways Package

Description

The A34 is a major highway running for over 150 miles from the A33 and M3 at Winchester in Hampshire, to the A6 and A6042 in Salford, Greater Manchester. It forms a large part of the major trunk route from Southampton, via Oxford, to Birmingham, the Potteries and Manchester.

Alongside the M3 and M4, the A34 is a significant corridor upon on which the Wessex Thames area is dependent for passenger and freight movements.

This scheme is made up of a series of improvements (lanes, slip roads, junctions etc) on the A34 within the TfSE geography.

The scheme includes climbing lanes for larger vehicles on hills, remodelling of the A34/A303 junctions and capacity enhancements of A34/M3 junction.

For the purposes of the SIP, a cost of around £800m is assumed for this scheme, to be delivered between 2029 and 2033.

Funding and financing options

Although a relatively large package of interventions in terms of cost and geographic coverage, the individual upgrades themselves are considered to be relatively small-scale, 'standard' and may in practice be delivered incrementally rather than in one go. Some may require bespoke delivery models, e.g. where new climbing lanes required third party land.

As an SRN scheme, there is no reason to suggest that the programme of works would be delivered other than as part of existing arrangements through the National Highways' Roads Investment Strategy. This would of course require National Highways and the Government to prioritise the scheme, and TfSE can support this outcome.

The sources of the underlying funding for the Roads Investment Strategy are expected to change over time, as revenue from conventional roads taxes reduces and is replaced, potentially, with income from new user charging regimes. Our working assumption is that whatever the mechanism for raising this underlying revenue from road users, the proceeds will continue to be reinvested – at least in part – in the highways networks.

Alternative delivery models have in the past had a role to play in highways schemes. Design, Build, Finance and Operate (DBFO) is a prominent example of this and involves entering a contractual arrangement (concession) with a private entity to operate and maintain a specified route for (usually) 30 years, as well as deliver a programme of enhancements. The enhancement works are financed by the concessionaire, who is then repaid via a fee over the length of the contract period (linked to performance and/or road usage).

DBFOs and other variations (e.g. Design, Build, Finance and Maintain, Public Finance Initiative) are no longer within government policy for centrally-funded infrastructure projects, and therefore unlikely to be deployed on schemes such as the A34 programme.

Local authorities are able to use private finance models; however, they are typically only appropriate where there is an objective to outsource long-term operations and maintenance, as capital elements are often more cost effectively financed from conventional PWLB borrowing.

2. New strategic infrastructure

Major new infrastructure projects that deliver transformational connectivity enhancements are often funded via bespoke arrangements outside of the established approaches. HS2, for example, will be almost fully funded by Government outside of the normal Network Rail Control Period settlement.

For some new infrastructure (such as a bridge or tunnel) on an existing network, part of the funding package can involve seeking to recoup some of the costs from users. When it opens, the Silvertown Tunnel will have a free-flow charging system (which will also apply on the Blackwall Tunnel), for example. The Dartford Crossing, M6, Mersey Gateway and Humber Bridge are further examples of this approach. Tolls are appropriate in these situations as there is a tangible gain to users for which they are prepared to pay.

A further feature of user charges is that the prospect of a relatively-predictable (and therefore 'bankable') revenue stream can – in certain circumstances – introduce the potential to consider a range of procurement and financing structures (public and private), to both bridge the timing gap between construction expenditure and the realisation of their benefits, and to share some of the risks of delivery and operation.

There is generally no shortage of finance available for investment in such interventions, with government-backed sources such as the Public Works Loans Board (PWLB) and the new Infrastructure Bank, as well as strong market appetite for private capital and concession or availability procurement models.

We anticipate that user charging will be a consideration for a variety of interventions included in the SIP where the conditions are appropriate to do so. We will work with intervention developers to consider the wide range of options.

See A27 Worthing (long term solution) worked example.

WORKED EXAMPLE

A27 Long Term Worthing Solution

Solent and Sussex Coast – South Coast Highways Package

Description

The A27 through Worthing and Lancing is used for local journeys but is also an important route for long-distance traffic.

Despite some improvements along the route in recent years, there are many long-standing challenges around capacity, delays, journey time and reliability, safety and environment.

As a result of these difficulties, traffic diverts away from the A27 to alternative routes that are less suited to high volumes. Additionally, bus and active travel journeys are held up by congestion in Worthing.

A number of options for the corridor have been put forward, and National Highways plans to hold a public consultation later in 2022.

A potential "long-term" solution is the construction of a new stretch of road, much of which would be within a 4-5km tunnel, potentially making it the longest road tunnel in the UK.

For the purposes of the SIP, a cost of around £2 billion is assumed for this scheme, to be delivered between 2045 and 2050, although this figure may vary as it is highly dependent on detailed design, especially if the solution were to involve a tunnel which would have options for different lengths and configuration (e.g. single or multiple bore).

Funding and financing options

As an SRN scheme, the government-funded National Highways' Roads Investment Strategy would be the 'default' funding source for the scheme. However, new pieces of infrastructure such as tunnels or bridges that have a transformational impact on connectivity can be suitable for consideration of discrete user charges in the form of tolls.

To prevent unintended traffic movements, in some cases existing crossings as well as new ones are tolled. In relation to the Mersey Gateway, for example, both the new bridge and the existing Silver Jubilee Bridge are tolled and in relation to the Silvertown Tunnel both the new tunnel and the existing Blackwall Tunnel will be tolled.

The future value of the tolls can be used by the authority to finance borrowing (e.g. from the PWLB) to fund construction activity. Alternatively, a privately-financed construction or construction plus operations/ maintenance (e.g. a PPP or DBFM) can be let, with the toll revenues used to pay the contractor. This model is used for both the Mersey Gateway and Silvertown Tunnel, where the toll revenues are or will be used to help meet the contractual payments to the special purpose vehicle responsible for the design, build, finance, operations/ maintenance of the new crossing.

The public sector (government department or statutory transport authority) will normally remain the party with the legal power to levy a toll and the responsibility for setting the price. Revenue and demand risk in relation to tolling remains with the public sector.

On the Mersey Gateway, the responsibility for physically collecting the toll revenue has been transferred to the SPV operating the crossing, which acts as the agent of the local authority in collecting the tolls. On Silvertown Tunnel the responsibility for collecting the tolls is through a separate contract, and the SPV is only required to provide 'passive' infrastructure (i.e. the gantries for the cameras).

It is potentially possible to pass demand risk to the private sector under a concession model, but generally for a new crossing the market is not willing to take this risk without impacting value for money. Revenue and demand risk in relation to tolling remains with the public sector.

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It is potentially possible to pass demand risk to the private sector under a concession model, but generally for a new crossing the market not willing to take this risk without impacting value for money.

(3) Local and mass transit

Funding for local transport and urban mass transit solutions is generally very context-specific and accordingly does not fit within established modal regulatory funding settlements. The guided busway system in Cambridge, for example, was paid for by a combination of Government grant, local developer charges and operator contributions.

Mass transit interventions are good examples of where TfSE can support its stakeholders in identifying and developing funding and financing solutions that reduce the call on traditional sources.

There are some tools already available in local settings to monetise and capture project-specific benefits – but they are relatively limited, because they account for a small proportion of the total value that is created, and only rarely deliver this back to delivery bodies, especially at the local level.

In recent years there has been a growing recognition of the need for new approaches that seek to more efficiently and 'smartly' monetise a share of the benefits that projects deliver for a wider range of beneficiary groups other than just national taxpayers and passengers. These mechanisms seek to align the funding of projects with the value that they create, in a way that the standard tax system does not, while simultaneously reducing the call on conventional budget funding.

Examples include:

- The Greater Manchester Transport Fund – including the expansion of Metrolink – is part-funded by a Council Tax levy that monetises a share of benefits to residents.
- Crossrail is part-funded by the London Business Rate Supplement that monetises a share of benefits to businesses, and by the Mayoral Community Infrastructure Levy (CIL) that monetises a share of benefits to property developers.
- The Northern Line Extension is part-funded by developer contributions intervention and an Enterprise Zone, as well as by incremental business rate receipts received by two London boroughs.
- In Nottingham, a Workplace Parking Levy raises funds for the local authority to contribute towards financing a new tram system and redevelopment of the conventional rail station.
- Each of the mechanisms above is very context specific. Many are currently only available to established political geographies (such as Mayoral Combined Authorities) which have access to devolved funding powers. They therefore are not currently available in the South East.

However, over the course of the SIP's multi-decade investment horizon, and as the devolution agenda continues to evolve (for example with the establishment of new Mayoral Combined Authorities and 'county deals'), it is conceivable – and indeed may be necessary – that innovative new funding mechanisms will form part of future funding deals for major transport interventions.

Mechanisms that may play such a role in the future delivery of the SIP include:

- The diversion of incremental revenues from existing taxes or charges in specified locations, e.g. the CIL, business rates, Council Tax or Stamp Duty.
- Increased rates, or other enhancements, to existing taxes and charges such as a Council Tax precept, business rates supplement or a supplementary CIL.
- New local charging mechanisms, such as a betterment levy or 'transport premium charge' (TPC), or land pooling or sharing the proceeds of development rights.

There is also an opportunity to look at funding reform beyond the prism of specific interventions or modes. For example, there is a growing trend for broader 'growth deals' with government whereby a package of investments is agreed that might stretch beyond transport to, for example, housing delivery, and in return unlock either matched funding and/or access to wider revenue-raising powers at a local level.

See South East Hampshire Rapid Transit Worked Example.

Appendix C provides further detail about some of these alternative funding mechanisms.

WORKED EXAMPLE

South East Hampshire Rapid Transit

Solent and Sussex Coast -
South Hampshire Mass Transit Package

Description

The South East Hampshire Rapid Transit network is a series of interventions aimed at making public transport more accessible, efficient and popular in Portsmouth and the surrounding area.

It includes the Eclipse Bus Rapid Transit (BRT) system which currently runs on 4.5km of dedicated track between areas in Gosport and Fareham, as well as lanes that are dedicated to buses, and technology which gives priority to buses at junctions.

There is an ambition to expand Eclipse / a BRT system from Gosport to Fareham, Welborne and Portsmouth. Based on analysis undertaken by the authority in 2018-19, it was hoped that the South East Hampshire Rapid Transit network would eventually serve 14 large development sites which will together deliver 17,750 new homes and 306,000 sqm of employment floor space – comprising 42% of new dwellings and over 72% of new employment floor space in the Portsmouth city region to 2036.

Following consultation with local stakeholders, the SIP includes works associated with the following corridors: City Centre – Havant, City Centre – Waterlooville, City Centre – Fareham, Fareham – Gosport, Havant – Waterlooville, Fareham – Welborne and Fareham – Whiteley.

For the purposes of the SIP, a cost of around £500m is assumed for this scheme, to be delivered between 2030 and 2032.

Funding and financing options

The scheme provides a good example of the way in which bespoke funding packages are often developed to support local and mass transit projects.

The first phase of the Eclipse BRT route received funding in 2012 from central government (£20m through the Community Infrastructure Fund), Hampshire County Council (around £4m) supported by Local Transport Plan grants, and developer contributions (around £0.5m). Additionally, the operator, First Group, invested £2.8m in new vehicles and marketing.

An extension to the Eclipse network in 2021 followed a similar pattern. It was funded by £6.93m from DfT's National Productivity Investment Fund, £1.4m from the Transforming Cities Fund and £3.27m from Hampshire County Council. In addition, First Bus has committed to investing £3.8m in a new bus fleet.

Future extensions will likely follow a similar pattern of joint funding by various partners. Local authorities will have a key role to play, recognising the localised nature of much of the benefit generated; however their capacity to contribute will continue to be constrained by the revenue-raising powers that are available to them. From a private sector perspective, the performance of the existing network suggests that there may be further future operating surpluses – although the relative contribution of this will be subject to both commercial arrangements and future patronage levels.

Certain ancillary revenues may, in certain circumstances, play a role in a bespoke package for the scheme. These include Over-Site Development (OSD) and other real estate opportunities at stops and termini, depending on the ownership of the land in question. Commercial and retail income (e.g. kiosks at stops and termini) may also contribute but are likely to be relatively modest in terms of overall costs. Other options could include offering EV charging points if synergies with the BRT infrastructure allow these to be delivered cost effectively.

5. Active travel infrastructure

Active travel (walking, wheeling and cycling) infrastructure is different to other types of transport infrastructure in that it is effectively free to use and does not involve user contributions.

Active travel infrastructure is generally delivered and paid for by local authorities (although there are some exceptions such as National Highways' dedicated Cycling, Safety and Integration Fund). Local authorities are encouraged to develop Local Cycling and Walking Infrastructure Plans (LCWIPs) to coordinate the delivery of active travel programmes.

To deliver this infrastructure, local authorities can use their core discretionary sources of revenue, with a particular role for developer contributions from CIL and Section 106 agreements where the infrastructure in question supports wider development programmes.

More commonly, local authorities bid into government grant programmes to help fund active travel. There have been dedicated programmes such as the Active Travel Fund, Places to Ride Programme, Bikeability programme and Cycle Ambition Cities Programme. Additionally, bids are made into programmes with broader transport or regeneration objectives. The Local Growth Fund, Stronger Towns Fund, the Levelling up Fund, the Future High Streets Fund, the Transforming Cities Fund and Housing Infrastructure Fund have all been used to support active travel and cycling.

Going forward, the Government has committed to streamlining the process for accessing funding for active travel infrastructure as part of the 'Gear Change' strategy. In January 2022, a new executive agency of the DfT, Active Travel England (ATE), was established to – amongst other things – coordinate £2bn of new government funding in this area.

While the quantum of available funding may change, as will the way it is distributed, the Government's new strategy is clear that responsibility for delivery will remain with local authorities. TfSE's role in promoting active travel and cycling interventions will be to support local authorities engaging in this process. Additionally, to the extent that interventions cross local political boundaries, there is a role coordinating between local authorities.

See the Avenue Verte worked example.

WORKED EXAMPLE

Avenue Verte

London - Sussex Coast – Active Travel Package

Description

The Avenue Verte is a 247-mile cycle and walking route starting at the London Eye in London and ending at Notre Dame in Paris, passing through Surrey, West Sussex and East Sussex and crossing the Channel via the Newhaven – Dieppe ferry.

The route is a mixture of on-road, mainly quiet lanes, and traffic-free stretches on old railway paths and riverside routes.

The scheme envisaged in the SIP would involve a series of enhancements and extensions to the network by way of wayfinding across minor roads, safety interventions at junctions, some new cycleways where the route runs on busier highways, and potentially the conversion of part a disused railway.

For the purposes of the SIP, a cost of around £70m is assumed for this scheme, to be delivered in the 2030s.

Funding and financing options

Historically, cycling and walking infrastructure has been delivered and paid for by local authorities. In some cases, local authorities have been able to part fund investments in active travel by successfully bidding into government grant programmes, some of which (such as National Highways' dedicated Cycling, Safety and Integration Fund) have been specifically designed for this purpose.

With large-scale and cross-border schemes such as the Avenue Verte, while we expect responsibility to remain with local authorities, there may be opportunities to consider alternative approaches.

Firstly, the Government has committed to streamlining the process for accessing funding for active travel infrastructure as part of the "Gear Change" strategy. In January 2022, a new executive agency of the DfT, Active Travel England (ATE), was established to – amongst other things – coordinate £2bn of new government funding in this area. This reflects a growing emphasis on active travel as a means of improving health outcomes and supporting the decarbonisation of transport and may lead to a different approach to the provision of funds for local areas.

Secondly, in common with other forms of locally-delivered transport, the funding options available to local areas may expand as a result of future devolution of revenue-raising powers and decision-making responsibility.

Finally, although active travel is unlikely to be appropriate for user charges, there are innovative options that could be considered such as the potential opportunity to lay ducting along cycleways which could be used for fibre or other utilities. Liverpool has a "Dig Once" programme which does exactly that, supported by a joint venture for fibre.

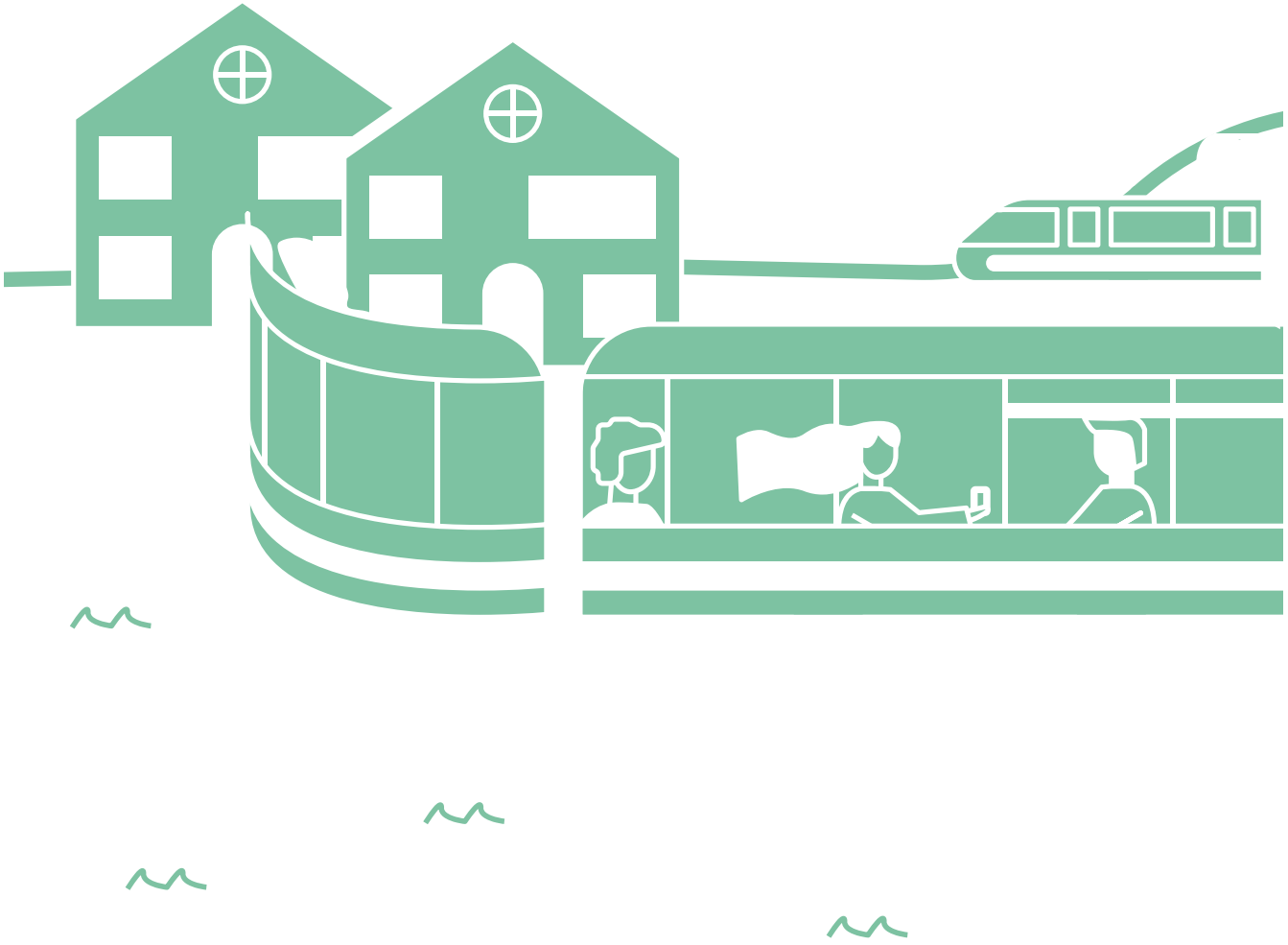
6. Ports and maritime

In the UK, the majority of ports and shipping operations are provided by private enterprises, with little public sector financial support.

The only exceptions to this are where services provide a 'lifeline' (i.e. transporting fresh food), such as the Hebridean ferry service in Scotland which has public ownership of vessels as a protection against operator failure.

Commercially viable ferry services, such as from mainland England to the Isle of Wight, are privately run. Fares, as well as service frequency and quality, are generally determined by the ferry operator, and based on commercial viability rather than regulatory requirements. Improvements to such services, including the delivery of new assets such as quays or shops, is therefore a private matter.

See Isle of Wight ferry service enhancements worked example.



WORKED EXAMPLE

Isle of Wight ferries

Solent and Sussex Coast – Isle of Wight Package

Description

The Isle of Wight is served by three main ferry operations: Red Funnel, Wightlink and Hovertravel. Although there is some competition between operators, in practice this is limited.

During the pandemic, parts of the UK's competition laws were suspended to allow the ferry companies to work together to maintain minimum service levels. This was revoked in 2021.

The scheme envisaged in the SIP includes increased frequency and longer operating hours on existing routes, a new route between Ryde and Southampton (requiring three or four vessels) and improved integration with public transport networks on both the island and the mainland.

It is assumed there will be no requirement for new port infrastructure.

For the purposes of the SIP, no costs have been accounted for as it is assumed any investment will be privately sourced. This is based on the assumption that the current non-regulated and non-subsidised commercial market will continue to operate.

Funding and financing options

The ferry companies serving the Isle of Wight are private for-profit entities operating in a **non-regulated, commercial market**, with no oversight of government (e.g. Public Service Obligation), central or local.

No subsidy is provided, and only in particular circumstances does Government provide support, such as during the Covid pandemic and as part of the 2021 Maritime Accessibility Fund (from which both Wightlink and Red Funnel were awarded around £300k to make upgrades to the accessibility of their services).

In 2009, the Office of Fair Trading concluded that under this non-regulated framework, operators deliver "a fairly comprehensive, year-round service" and more recent Government pronouncements have indicated that this arrangement is unlikely to change.

Although revenue support (and some form of service obligation) may be implemented in the future, it is assumed at this stage that no public funding will be provided to support the addition of new services. On the basis that services are commercially viable with higher demand, it is assumed that the costs of increasing frequencies would therefore be **recovered by the operators through fares**.

If new ferries were to be required to meet the increase in service patterns, the costs of doing so (either purchased outright or using lease arrangements) would also be **borne by the operator**. For example, when Red Funnel commissioned a new ro-ro freight ferry from the UK shipbuilder Cammell Laird in Birkenhead (designed to provide additional year-round freight capacity for the Southampton-East Cowes route which handles 53% of all freight movements across the Solent), the ship, at a cost of £10m, was financed by the company.

TfSE's role in supporting the 'funding journey'

In the absence of a major restructuring of TfSE into a delivery body with revenue raising and borrowing powers, it is highly likely that financing and risk management will continue to be for other parties, including DfT, Great British Railways and National Highways, to manage (either directly or via private finance and related mechanisms). The way we will interact with these key stakeholders is set out in the next chapter.

In particular, we are open to exploring ways in which TfSE can support funding and financing solutions – especially in terms of:

- developing business cases;
- assessing the broad spectrum of procurement routes (including those that lend themselves to private finance);
- helping identify and secure a broad range of funding sources for interventions (including thinking creatively about commercial revenues, user charges and new value-capture charging mechanisms); and
- supporting the efficient and accountable flow of funds to the interventions for which they are required.

While TfSE's working hypothesis is that established and conventional funding and financing solutions will be the most common avenue for paying for the interventions we have identified (at least in the earlier phases of the programme), this does not always have to be the case.

The reliance on conventional sources is driven not by lack of ambition, but by the fact that neither TfSE, nor the local authorities and transport authorities we speak for, have many alternative options available to us.

While we accept that devolution is a highly-complex matter, the fact of the matter is that places such as London and Greater Manchester, which have greater freedom to raise revenue locally, are in a position to deliver more ambitious programmes of transport investments, and to drive their own strategic direction in terms of how and where the funds are spent.

The history of devolution in the UK has demonstrated that the more funding levers that are provided to local places, the more capacity there can be to move away from user funding and grant and towards a genuine beneficiary-led approach.

This includes tapping into windfall gains for developers, landowners and businesses – for example through mechanisms such as strategic infrastructure tariffs, business rates supplements and council tax precepts (all of which are available to authorities in the UK with the greatest levels of funding and decision making devolution).

We recognise that with funding responsibility come challenges and risk. Places which have been given funding powers still need to take their communities along with them on the journey – as seen with the congestion charging proposal in Greater Manchester rejected in a referendum, or the difficulties in progressing future business rates supplements presented by the requirement for a ballot of affected businesses.

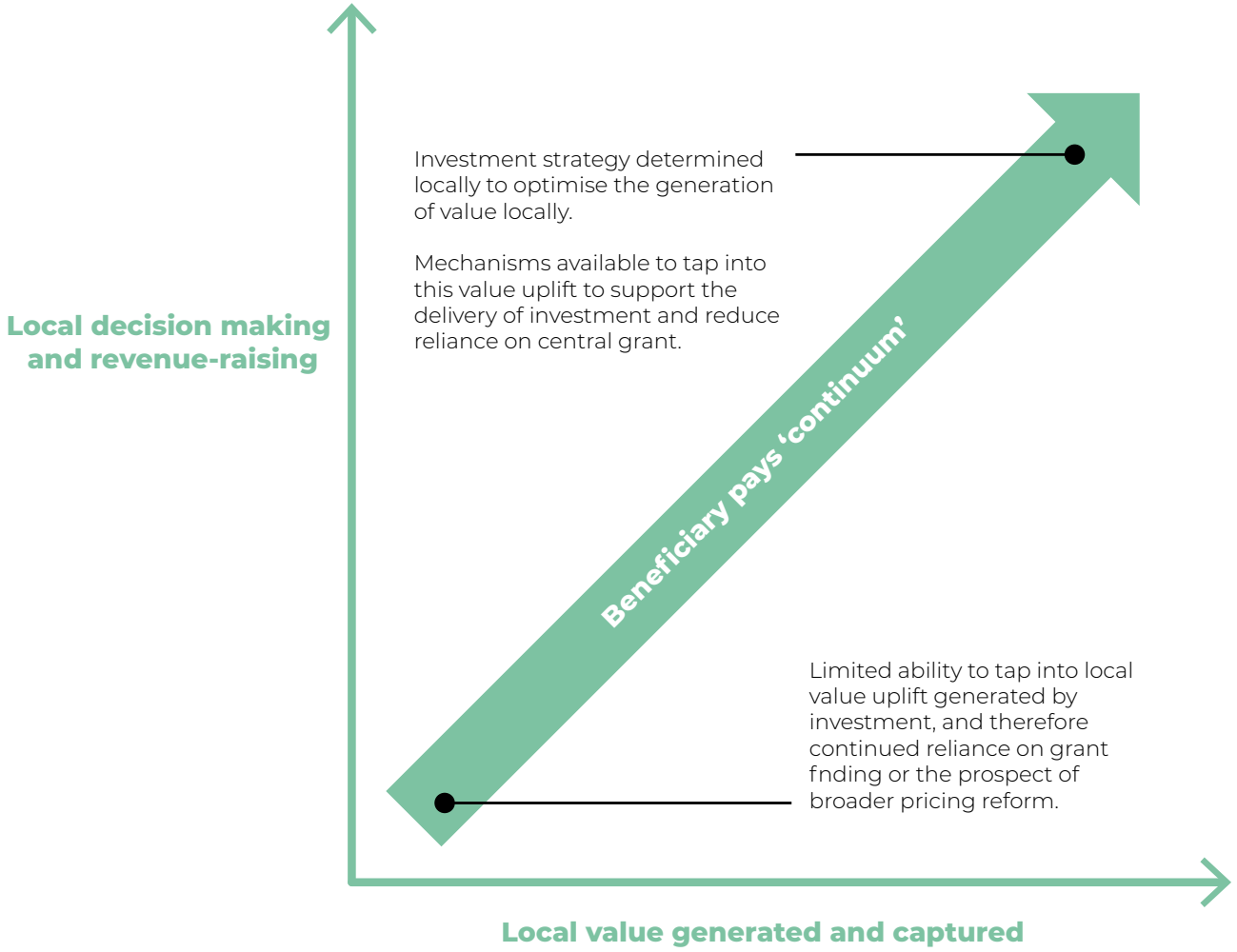
Furthermore, moving towards a genuine beneficiary-led approach needs to recognise that (regardless of the level of devolution) different interventions and different places have different degrees of potential for local value generation (and capture), and there will also be important differences between them at any one time and over time. The type or location of an intervention can determine the potential level of local contribution and potential requirement for funding from central government.

For example, urban mass transit interventions in London and other major cities can potentially deliver the best against this objective owing to strong and resilient property values that respond to connectivity enhancements, local control of public transport fareboxes, devolved funding powers and the strength and size of the local economy. In places where the potential to generate value uplift is more limited (e.g. where land values are low or because the powers available to generate revenue are limited), funding reform may not be suitable and the solution will instead require continued grant funding or, potentially, leveraging alternative user pricing mechanisms.

TfSE's SIP, which has at its heart broad socio-economic and environmental objectives in addition to improving access and connectivity, can be considered relatively 'low down' the continuum shown in Figure 10 due to the devolution situation, with progress potentially slow and therefore possibly dependent on broader transport pricing reforms. While we believe our programme will generate significant local value uplift, the means of leveraging it are scarce.

The challenges of moving up that continuum are complex, but TfSE would welcome a dialogue with Government around options for the future, because the potential prize is reduced reliance on centrally-derived funding, which we suspect is desirable for all.

While we want to optimise the role of a beneficiary-led approach within the South East, the approach needs to be consistent with funding strategies that are being developed for programmes elsewhere in the UK in the interest of having demonstrable fairness between places and regions. We look forward to working with our partners, including other Sub-national Transport Bodies, to make this a reality.



Delivery

Roles and Responsibilities

TfSE will work closely with partners to deliver the packages of interventions and will be involved in defining:

- roles and responsibilities;
- timing and phasing;
- governance;
- stakeholder engagement; and
- monitoring and evaluation.

No single organisation will be solely responsible for delivering this plan – its delivery is very much a shared endeavour. A summary of the key agencies we expect to be involved is presented in Table 3 and is summarised by organisation below.

Transport for the South East

TfSE's role will reflect its current and likely future status as an established Sub-national Transport Body for South East England. In the short- to medium-term, it is assumed there will be no significant change in the current distribution of powers, funding mechanisms and democratic accountability in South East England at a local level.

TfSE's role will, therefore, focus on:

- further strategy development, including a refresh of the Transport Strategy and Strategic Investment Plan every five years or sooner;
- programme management including scheme prioritisation, government and stakeholder engagement, and monitoring and evaluation;
- joint scheme promotion;
- pre-feasibility work and funding for relevant scheme promoters, likely delivery partners, and other key stakeholders;
- onward business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework;
- advocacy and securing funding; and
- procurement and sourcing of supply chains for development / planning and construction / operations staff resource and resource funding to support the above as well as build capacity and capability within scheme promoters' own organisations.

Through building consensus and capacity to deliver its transport strategy through others, TfSE will tailor its approach to the mode, scale and level of development of each prioritised intervention.

Central Government

Central Government will play a significant role in delivering many of the packages of interventions in this plan. This includes the Department for Transport, but also other government departments and their agencies and arm's length bodies. Their role will include:

- setting national policy for existential and wide ranging topics including climate change and new technology regulation;
- setting investment and business case development frameworks to guide the planning and delivery of interventions;
- guiding the development and delivery of nationally significant infrastructure and networks (e.g. through setting National Policy Statements);
- regulating the transport system (including economic and safety regulation); and
- in some cases, funding interventions.

Network Rail and Great British Railways

The British rail industry is currently undergoing one of the most significant periods of structural reform of the last three decades.

In the immediate future, it is assumed that the Department for Transport will continue to outline the strategy for the rail network,Network Rail will continue in its role as infrastructure manager for the rail network, and that train operating companies will continue to deliver passenger rail services.

However, in the medium term, we expect Network Rail's strategic and planning functions (along with other industry functions) will merge into a new government agency Great British Railways.

This new agency will lead the future development of the rail network in Great Britain and specify future infrastructure and service needs. It will also manage most passenger rail services in the South East through new passenger service contracts.

Great British Railways will therefore be one of TfSE's most important partners in delivering its vision for the South East's rail network.

National Highways

As the custodian of the English Strategic Road Network, National Highways will lead the development and delivery of interventions on this network. It will also support interventions where the Strategic Road Network (SRN) interfaces with Local Transport Authority highways.

National Highways will utilise its internal project control framework to develop the business case for highways interventions. Funding will be allocated through the Road Investment Strategy (RIS) and delivered through the Road Investment Programme (RIP). At the time of writing, a small number of highways interventions are expected to be delivered in RIS2 (2020-25), and some are being considered for RIS3 (2026-30). Some interventions are expected to be delivered beyond 2030 (e.g. Lower Thames Crossing).

TfSE will work closely with National Highways – who are members of the TfSE Partnership Board – to shape the development of Route Strategies and Road Investment Strategies and Programmes to help deliver the strategic highways interventions included in this plan.

Local Transport Authorities

Local Transport Authorities have a very significant role to play in delivering this plan. They are the custodians of their own highway networks, sponsors (in some cases, owners) of many public transport services, and can fulfil the role of sponsors for major interventions in their areas. Outside the South East, there are examples of Local Transport Authorities that own and operate tramways.

To support the delivery of this plan, Local Transport Authorities will:

- sponsor and deliver highways interventions on their networks – including bus and active travel interventions;
- sponsor and deliver other transport interventions (e.g. bus interchanges);
- sponsor, and potentially operate public transport services in their areas;
- align spatial planning and public services with transport planning to ensure development is joined up and efficient.

TfSE will work very closely with Local Transport Authorities to ensure the SIP and priorities for their areas are realised.

Private sector and third parties

Private sector partners and third parties provide important assets, operations, funding, and insights; as well as being key planning and delivery partners. Roles include:

- Land and other asset owners and developers may deliver infrastructure and services identified, or provide funding contributions towards their delivery.
- For the public transport network, typically the private sector operate rail, mass transit, bus and other shared mobility services, subject to local conditions and national legislation and regulation.
- The delivery of interventions, including the renewal and maintenance, typically relies on the private sector or non-governmental organisations (e.g. Sustrans), given resource constraints in the public sector and the potential to access a breadth and depth of experience, skills and knowledge that could not exist in any one organisation.
- Furthermore, private-sector led bodies, ranging from Local Enterprise Partnerships to Higher Education Institutions, to think tanks, all have a role in providing skills, knowledge and insights into “what works” – these organisations are integral to planning and helping to make the case for investment and change.

Local Planning Authorities

In areas of the South East served by two-tier local government, Local Planning Authorities (Districts and Boroughs) will lead on spatial planning and will set Local Plans for their areas. These plans will shape future TfSE priorities and this plan will also inform the development of future Local plans.

Table 3: Roles and Responsibilities

Intervention	Lead Authority	TfSE Role
Global package - lower public transport fares	Central Government (e.g. Department for Transport) / Local Authorities	· **Stakeholder engagement** · **Pre-feasibility work and funding for relevant scheme promoters, likely delivery partners and other key stakeholders** · **Business case development and support, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**
Global package – active travel (e.g. delivery of LCWIPs, trends in micro-mobility, wider behavioural change programmes)	Local Transport Authorities	· **Pre-feasibility work and funding for relevant scheme promoters, likely delivery partners, and other key stakeholders** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**
Global package – national road user charging	Central Government (e.g. Department for Transport)	· **Further strategy development** · **Stakeholder engagement** · **Pre-feasibility work** · **Advocacy**
Global package – integrated spatial and transport planning	Central Government (e.g. Department for Transport and Department for Levelling up, Housing and Communities) / Local Transport Authorities / Local Planning Authorities	· **Stakeholder engagement** · **Pre-feasibility work** · **Use of TfSE's emerging analytical framework** · **Advocacy**
Global package – digital technology and use of remote working and virtual access to services	Central Government (e.g. Department for Transport and Department for Culture, Media, Sports and Digital) / Local Authorities / Private Sector	· **Further strategy development** · **Stakeholder engagement** · **Pre-feasibility work** · **Business case development and support** · **Advocacy and securing funding**
Global package – decarbonisation: faster adoption and regulation for zero emission vehicles	Central Government (e.g. Department for Transport and Department for Business, Environment and Industrial Strategy) / Local Authorities / Private Sector	· **Further strategy development** · **Stakeholder engagement** · **Pre-feasibility work** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**

Intervention	Lead Authority	TfSE Role
Passenger rail services that can be introduced without new infrastructure, but which will likely require government support and/or capacity allocation within a Passenger Service Contract (or franchise).	Today: Department for Transport Future: Great British Railways	· **Stakeholder engagement between Central Government, operators, and local partners** · **Business case development, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**
Passenger rail services that can be introduced without new infrastructure, and without central government intervention (e.g. more international services to Mainland Europe, more freight services).	Open Access Operators	· **Stakeholder engagement with operators, local partners, and Central Government** · **Use of and providing access to TfSE's emerging analytical framework** · **Advocacy**
For passenger or freight rail services requiring new infrastructure (e.g. high speed services to Hastings)	**Schemes under development**	
	Department for Transport (very large projects e.g. Crossrail) Network Rail (most schemes e.g. Croydon Area Remodelling) Local Transport Authorities (smaller schemes e.g. Housing Infrastructure Fund)	· **Stakeholder engagement with Central Government and local partners** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework if at an earlier stage of development** · **Advocacy and securing funding**
	Schemes not currently under development	
	Likely Network Rail and, later on, Great British Railways TfSE could be a joint scheme promoter	· **Stakeholder engagement with Central Government and local partners** · **Pre-feasibility work** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**

Intervention	Lead Authority	TfSE Role
Mass transit services that can be introduced without new infrastructure, but which will likely require local government support.	Local Authority TfSE could be a joint scheme promoter	· **Programme management, including stakeholder engagement with local partners and operators** · **Pre-feasibility work** · **Potential joint scheme promotion** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**
Mass transit services that can be introduced without new infrastructure, and without central government intervention (e.g. more Fastrack services).	Local Authority TfSE could be a joint scheme promoter	· **Programme management, including stakeholder engagement with local partners and operators** · **Potential joint scheme promotion** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**
Mass transit services requiring new infrastructure (e.g. the larger mass transit interventions/networks proposed in the South East)	**Schemes under development**	
	Local Transport Authorities	· **Stakeholder engagement with local partners and Central Government** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework if at an earlier stage of development** · **Advocacy and securing funding**
	Schemes not currently under development	
	Local Transport Authorities TfSE could be a joint scheme promoter	· **Programme management, including stakeholder engagement with local partners and operators** · **Pre-feasibility work** · **Potential joint scheme promotion** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**

Intervention	Lead Authority	TfSE Role
Active travel packages	Sustrans / National Highways / Local Transport Authorities	· **Stakeholder engagement, where appropriate, with local partners, Sustrans, National Highways, and Central Government** · **Pre-feasibility work** · **Potential joint scheme promotion** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**
For Strategic Road Network infrastructure	**Schemes under development**	
	National Highways	· **Programme management, including stakeholder engagement with central government and local partnersBusiness case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework if at an earlier stage of development** · **Advocacy and securing funding**
	Schemes not currently under development	
	National Highways Local Transport Authorities	· **Programme management, including stakeholder engagement with Central Govenrment and local partners** · **Pre-feasibility work** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**
For other highways infrastructure	**Schemes under development**	
	Local Transport Authorities	· **Programme management, including stakeholder engagement with h central government and local partners** · **Pre-feasibility work** · **Business case and scheme development and support, including use of and providing access to TfSE's emerging analytical framework** · **Advocacy and securing funding**

Timing and phasing

In general, the vast majority of interventions included in the packages will be delivered through existing frameworks and investment cycles, in line with the Treasury Green Book and Department for Transport's appraisal guidance.

A small number of particularly complex and/or large-scale interventions may require bespoke procurement and delivery arrangements. Lessons should be captured from similar UK projects (e.g. Crossrail, HS2 etc.) to inform the approach for the delivery of these types of projects.

Timing the delivery of each intervention will also need to be carefully considered to avoid unintended negative consequences and ensure the greatest possible value for taxpayer and private investment.

Examples of this may include:

- Ensuring highway projects are not delivered before enhanced mass transit and electric vehicle charging networks are in place to avoid inducing additional private car ownership and or use of carbon-intensive vehicles,
- Improving local walking and cycling infrastructure ahead of increasing rail services to avoid unnecessary congestion at station car parks and better ensure long-term modal shift, and
- Making sure mass transit and active travel infrastructure is fully integrated with major highway projects such as the Lower Thames Crossing.

The timing and phasing of each package of intervention will be driven by their current state of development, industry funding cycles, and institutional capacity. An estimate of the schedule for each package becoming delivered and operational is presented in Table 1 (also found in the Executive Summary).

For example, any rail intervention not currently included in the Rail Network Enhancements Pipeline – which is most of the interventions in this plan – will almost certainly be phased to be delivered in Control Period 8 (2029-2034) or thereafter.

Similarly, most of the interventions planned for the Strategic Road Network will fall into Road Investment Strategy 3 funding and delivery cycle (or later). interventions delivered through Local Transport Authorities will be subject to each authority's planning and funding cycle, which may be contingent on the adoption and refresh of Local Transport plans and (at a Local Planning Authority Level) Local Plans.

Some packages have interfaces that will also affect their phasing. For example:

- most elements in the Enhanced Rail Solent package should be delivered after the Core Solent Rail package;
- the business case for many highways interventions in the Kent, Medway, and East Sussex highways package will rely on the timing and delivery of the Lower Thames Crossing; and
- the impacts of each package of intervention on carbon emissions are highly dependent on the trajectory of the decarbonisation of the transport system, which is tied to the Global Policy interventions.

There are also important interfaces within each package of intervention. For example, it will not be possible to deliver a high quality metro rail service for South Hampshire unless all interventions in the South Hampshire Rail packages are delivered. Similarly, a whole solution for the A27 relies on an end-to-end approach to this highway, rather than focussing only on "easy" schemes while putting off harder decisions.

Governance

The Cabinet Office's recommended methodology for the delivery of programmes is Managing Successful Programmes (MSP).

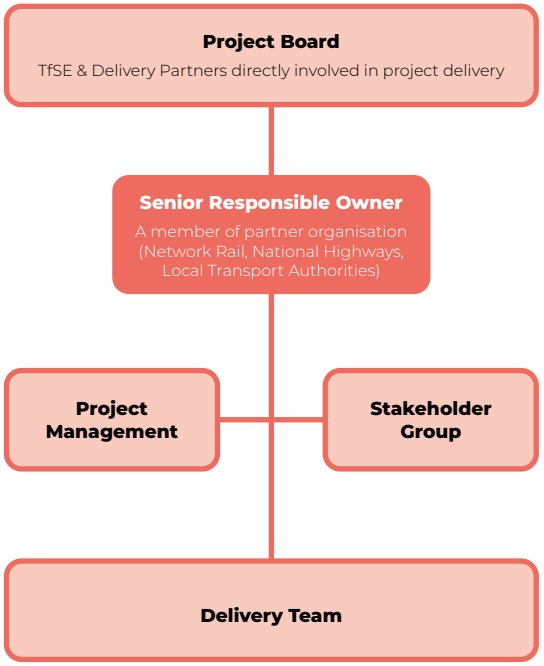
MSP represents proven good practice for successfully delivering of transformational change and is drawn from the experiences of both public and private sectors. TfSE's approach will align with this approach.

Project specific governance will need to be defined for each intervention. The overall structure should include a Senior Responsible Owner (SRO), a Project Board and key stakeholder group. An example structure is shown in Figure 11.

Under this arrangement:

- The SRO will be the Sponsor of the Project and, as such, will be responsible for the project outcomes and delivery.
- The SRO can be a member of the project delivery partner organisation (e.g. Network Rail, National Highways, Local Transport Authorities).
- The board will include members of TfSE and key delivery partners directly involved in the project delivery.
- The project board will meet regularly to review project progress and make decisions. The board will review the business case at appropriate project plan milestones.
- The stakeholder group will include organisations indirectly linked to the delivery of the project but interested in the project outcomes.

Figure 11: Project Governance Framework



Stakeholder engagement

TfSE's Technical Programme has been supported by an extensive programme of stakeholder engagement. TfSE held a public consultation on its Draft Transport Strategy in the autumn of 2019 and will hold a public consultation on this plan in the summer of 2022.

TfSE has tailored their approach to stakeholder engagement at each stage of the technical programme and will continue to evolve its approach as the SIP moves into a delivery phase.

TfSE will therefore develop a new Stakeholder and Communications plan to support the delivery of the SIP. Given the wide range of stakeholders across the region, their differing views and specific local contexts, this Stakeholder and Communications plan should reconfirm the stakeholders set out how and when and by whom they will be engaged, and the input sought from them, and its purpose in the overall project programme.

The profile of stakeholders who will need to be engaged in future stages may be different to those involved at earlier stages.

For example, there will likely need to be more engagement with potential funders and delivery partners (developers, constructors, operators, etc.) to ensure the development of the packages of interventions are informed by the best available advice.

Monitoring and evaluation

TfSE and its partners will establish appropriate governance to oversee the development, delivery and benefits realisation arising from interventions included in this strategy – particularly the larger and/or more complex interventions, which may require a bespoke approach for delivery.

TfSE will develop a set of Key Performance Indicators (KPIs) with targets which will be used to monitor and evaluate the implementation of this strategy. These should also be used by scheme promoters delivering interventions contained within this plan. A selection of potentially suitable KPIs for monitoring and evaluation the packages of interventions in this plan are presented in Table 4 for which regional and intervention specific targets will be set.

Next steps

TfSE is on a journey. Its role will evolve as it strengthens its capacity to support the delivery of this plan.

The next steps for TfSE are to:

- identify and support key interventions that deliver the SIP that require additional support and capacity;
- secure higher levels of transport investment in the South East's strategic transport network; and
- support TfSE's key stakeholders in responding to and overcoming emerging transport challenges.

TfSE will do this by:

- developing regional data, modelling, and analytics capability;
- evolving to deliver the SIP; and
- implementing supporting strategies, including the Future Mobility Strategy and the Freight, Logistics, and International Gateways Strategy.

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-distance 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 new allocated sites in Local Plans supported by high frequency bus, mass transit or rail.** · **Clear and quantified sustainable transport access and capacity for Local Plan allocated sites.**
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.** · **Increase number of bikeshare schemes in operation in the area.** · **Increase 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 region.**
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.**

Strategic priorities	Indicators
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 miles 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 of 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.**

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-distance 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 delating 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 new allocated sites in Local Plans supported by high frequency bus, mass transit or rail.** · **Clear and quantified sustainable transport access and capacity for Local Plan allocated sites.**
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.**

Appendices

Appendix A: List of interventions by package

This Appendix provides a summary of the delivery plan for the interventions contained with the Strategic Investment Plan.

The first table contains interventions that are in existing programmes are presented in the following order:

- National Highways led interventions on the Strategic Road Network
  - Road Investment Strategy 2: 2020 – 2025 schemes
  - Road Investment Plan 3 Pipeline schemes
  - Smart Motorways ProgrammeLocal Authority led interventions, with strategic prioritisation and programme management provided by TfSE
  - Large Local Major schemes
  - Large Local Major schemes pipeline
  - Major Road Network schemes
  - Major Road Network schemes pipeline
- Local Authority led interventions, supported by TfSE
  - Housing Infrastructure Fund schemes

The second table presents global package interventions. These are applicable across the whole region, led by multiple partners, or will require national delivery. As such, their costs are not known and require ongoing planning and delivery.

The third and final table presents the place-based packages of interventions. Interventions are grouped by TfSE sub-area and package.

Table information

Implementation timeframe

Interventions have been phased into one of three timeframes, indicating when the intervention will be live or complete:

- Short-Term: within the remaining years of the 2020s
- Medium-Term: the 2030s
- Long-Term: the 2040s

Costs

All costs are presented at a package level. The two numbers presented are:

- Capital costs of construction
- Annual capital costs for maintenance and renewals

They are estimates, often high-level, based on either published figures or comprising "bottom up" unit cost assumptions. All costs are mid-price estimates in 2020 prices. All intervention costs will be subject to further assessment as and when interventions are brought forward for scheme and business case development. Assessment will need to be proportionate to the stage of scheme development and adhere to relevant guidance

Capital costs of construction are summed for interventions that are within the TfSE area and not yet being implemented.

Project stage

This refers to an intervention's status or stage of development that it has reached and cleared. Typically, this aligns to the level of business case already developed. Stages include:

- Ongoing;
- Pre-Strategic Outline Business Case (Pre-SOBC): yet to develop a business case;
- Strategic Outline Business Case (SOBC);
- Outline Business Case (OBC);
- Full Business Case (FBC); and
- Implementation/Implemented: under delivery or recently completed.

Next steps

This identifies the stage of development the intervention needs to enter or complete next in order to progress. Again, this typically refers to a relevant business case stage using similar terminology as for the project stage. It is recognised that different scheme promoters and funding bodies have different terminology, and hence it is noted that it might be an equivalent stage of business case. An intervention may be at such an early stage of development that a feasibility study is required; or conversely, very well developed and seeking planning and delivery powers or consent, or already being delivered. Next steps referred to in the tables include:

- Feasibility Study;
- SOBC (or equivalent);
- OBC (or equivalent);
- Planning Permission / Powers / Consents;
- FBC (or equivalent); and
- Ongoing / Delivery.

Scheme promoter

This refers to the single or potential multiple promoters of each intervention. Options identified, with the references used in each table, include:

- Network Rail (i) – for interventions on the rail network;
- National Highways (ii) – for interventions on the Strategic Road Network;
- Transport for the South East (iii) – reflecting a role that TfSE could hold to help accelerate the delivery of the programme and derive better outcomes; and
- Local Transport Authorities (iv) – for interventions on local highways networks and other public rights of way.

In practice it is recognised that there are other likely scheme promoters (e.g. High Speed 1 Ltd. for interventions on the High Speed 1 network; Sustrans for the National Cycle Network, Local Planning Authorities, and the private sector).

Delivery Partners

Similar to identifying the scheme promoter, there can be many delivery partners. The key partners have been identified and include parties who will be required to make or could make a material contribution to the planning, funding, and delivery of an intervention. Options identified, with the references used in each table, include:

- Department for Transport (or other central govenrment departments) (1);
- Network Rail (2);
- National Highways (3);
- Active Travel England (4);
- TfSE (5);
- Local authorities (6);
- Transport operators (7);
- Other private sector organisations (8); and
- Sustrans (9)

Potential TfSE role

Ways in which TfSE can lead aspects and support planning and delivery of the programme are identified. Options identified, with the references used in each table, include:

- Programme Management (A);
- Pre-feasibility Work & Funding (B);
- (Joint) Scheme Promoter (C);
- Business Case & Scheme Development & Funding (D);
- Use of Analytical Framework (E);
- Advocacy & Securing Funding (F);
- Procurement & Sourcing (G);
- Resource Capacity & Capability Funding (H)

Table A.1: Existing and committed programmes

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
Road Investment Strategy 2 schemes (£690m / £55m p.a.)							
I1	M27 Junction 8	Short	Implementation	(Ongoing) Delivery	ii	1, 3, 6, 8	F
I2	A31 Ringwood	Short	Implementation	(Ongoing) Delivery	ii	1, 3, 6, 8	F
I5	A27 East of Lewes Package	Short	Implementation	(Ongoing) delivery	ii	1, 3, 6, 8	F
R3	A404 Bisham Junction	Short	Implementation	(Ongoing) Delivery	ii	1, 3, 6, 8	F
I3	A27 Arundel Bypass	Short	OBC	Powers / Consents	ii	1, 3, 5, 6, 8	F
R1	M3 Junction 9	Short	OBC	Powers / Consents	ii	1, 3, 5, 6, 8	F
I4	A27 Worthing and Lancing Improvement	Short	SOBC	OBC	ii	1, 3, 5, 6, 8	F
X1	M2 Junction 5	Short	SOBC	FBC	ii	1, 3, 5, 6, 8	F
Road Investment Strategy 3 Pipeline schemes (£3,900m / £280m p.a.)							
Y1	Lower Thames Crossing (costings for Kent-side only)	Medium	OBC	Powers / Consents, FBC	ii	1, 3, 5, 6, 8	F
X13	M2 Junction 4 - Junction 7 Smart Motorway (RIS3 Pipeline / SMP)	Short	SOBC	Feasibility Study	ii	1, 3, 5, 6, 8	F
I6	Southampton Access (M27 Junction 2 and Junction 3)	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 5, 6, 8	B, F
I7	A27 Lewes - Polegate	Short	Pre-SOBC	SOBC	ii	1, 3, 5, 6, 8	B, F
I8	A27 Chichester Improvements	Medium	Pre-SOBC	SOBC	ii	1, 3, 5, 6, 8	B, F
R4	A3/A247 Ripley South	Short	Pre-SOBC	SOBC	ii	1, 3, 5, 6, 8	B, F
X2	A2 Brenley Corner Enhancements	Short	Pre-SOBC	SOBC	ii	1, 3, 5, 6, 8	B, F
X3	A2 Dover Access	Short	Pre-SOBC	Feasibility Study	ii	1, 3, 5, 6, 8	B, F
X4	A21 Safety Enhancements (being brought forward to RP2)	Short	Pre-SOBC	Feasibility Study	ii	1, 3, 5, 6, 8	B, F
Smart Motorways Programme (£350m / £30m p.a.)							
R2	M3 Junction 9 – Junction 14 Smart Motorway	Short	Implementation	Paused	ii	1, 3, 6, 8	F
R15	M4 Junction 3 to Junction 12 Smart Motorway	Short	Implementation	(Ongoing) Delivery	ii	1, 3, 6, 8	F
X15	M20 Junction 3 - Junction 5 Smart Motorway	Medium	Implemented	(Ongoing) Delivery	ii	1, 3, 6, 8	F
X13	M2 Junction 4 - Junction 7 Smart Motorway	Short	SOBC	Feasibility Study	ii	1, 3, 5, 6, 8	F
Major Road Network Schemes (£250m / £15m p.a.)							
I14	A259 Bognor Regis to Littlehampton Enhancement	Short	OBC	Powers / Consents, FBC	iv	1, 4, 5, 6, 8	A, D, F, H
X6	A28 Birchington, Acol and Westgate-on-Sea Relief Road	Short	OBC	Powers / Consents, FBC	iv	1, 4, 5, 6, 8	A, D, F, H
I17	A259 (King's Road) Seafront Highway Structures Renewal Programme	Short	OBC	Powers / Consents, FBC	iv	1, 4, 5, 6, 8	A, D, F, H
N3a	A22 Corridor Package	Short	OBC	Powers / Consents, FBC	iv	1, 4, 5, 6, 8	A, D, F, H
I12	Northam Rail Bridge Replacement and Enhancement	Short	SOBC	OBC	iv	1, 4, 5, 6, 8	A, D, F, H
I15	A259 South Coast Road Corridor - Eastbourne to Brighton	Short	SOBC	OBC	iv	1, 3, 4, 5, 6, 8, 9	A, D, F, H

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
Major Road Network Scheme Pipeline (£700m / £55m p.a.)							
N3b	A22 Corridor - Hailsham to Uckfield	Short	OBC	/ Powers / Consents, FBC	iv	1, 5, 6, 8	A, F
I17	A259 (King's Road) Seafront Highway Structures Renewal Programme (MRN)	Short	SOBC	OBC	iv	1, 6, 8	A, D, F, H
I16	A259 Chichester to Bognor Regis Enhancement	Short	Pre-SOBC	SOBC	iv	1, 2, 4, 5, 6, 7, 8	A, B, D, F, H
N2	A24/A243 Knoll Roundabout and M25 J9A	Medium	Pre-SOBC	SOBC	iv	1, 3, 5, 6, 8	A, B, D, F, H
N4	A2270/A2101 Corridor Movement and Access Package	Short	Pre-SOBC	SOBC	iv	1, 5, 6, 8	A, B, D, F, H
X7	A228 Colts Hill Strategic Link	Medium	Pre-SOBC	SOBC	iv	1, 5, 6, 8	A, B, D, F, H
Large Local Major Schemes (£800m / £60m p.a.)							
R5	A31 Farnham Corridor	Short	OBC	Powers / Consents, FBC	iv	1, 5, 6, 8	A, F
I11	Portsmouth City Centre Road	Short	SOBC	OBC	iv	1, 4, 5, 6, 8	A, D, F, H
I9	A326 Capacity Enhancements	Short	SOBC	OBC	iv	1, 5, 6, 8	A, D, F, H
X5	A229 Bluebell Hill Junction Upgrades	Short	SOBC	OBC	iv	1, 3, 5, 6, 8	A, D, F, H
I10	West Quay Realignment	Short	Pre-SOBC	SOBC	iv	1, 5, 6, 8	A, B, D, F, H
R6	New Thames Crossing East of Reading	Long	Pre-SOBC	SOBC	ii	1, 5, 6, 8	A, B, D, F, H
Large Local Major Scheme Pipeline (£100m / £5m p.a.)							
N1	A22 N Corridor (Tandridge) - South Godstone to East Grinstead Enhancements	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 5, 6, 8	A, B, D, F, H
Housing Infrastructure Fund Schemes (£250m / £15m p.a.)							
R7	A320 North Corridor (HIF)	Short	OBC	Powers / Consents, FBC	iv	1, 3, 6, 8	F
S6	Hundred of Hoo Railway - Hoo Peninsula Passenger Rail Services	Medium	OBC	Powers / Consents, FBC	i, iv	1, 2, 6, 7, 8	F
X22	A228 Medway Valley Enhancements	Medium	OBC	Powers / Consents, FBC	iv	1, 3, 6, 8	F

Table A.2: Global package interventions

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
N/A	Decarbonisation - faster adoption of zero emission vehicles	Ongoing	Ongoing	Ongoing	i, ii, iii, iv	1, 2, 3, 4, 5, 6, 7, 8	B, C, D, E, F, G, H
N/A	BSIP/Enhanced Partnership Plans and public transport fare reductions	Ongoing	Ongoing	Ongoing	i, iii, iv	1, 2, 5, 6, 7, 8	B, C, D, E, F, G, H
N/A	National and local road user charging	Ongoing	Ongoing	Ongoing	ii, iv	1, 3, 5, 6, 8	B, D, E, F, H
N/A	Active travel (including LCWIPs) and micromobility trends	Ongoing	Ongoing	Ongoing	i, ii, iv	1, 2, 3, 4, 5, 6, 8, 9	B, D, E, F, H
N/A	Digital Technology - faster adoption, including remote working and virtual access to services	Ongoing	Ongoing	Ongoing	i, ii, iv	1, 2, 3, 5, 6, 7, 8	B, D, F, H
N/A	Integration and Access - across and between modes and between spatial and transport planning	Ongoing	Ongoing	Ongoing	i, ii, iii, iv	1, 2, 3, 4, 5, 6, 7, 8	B, C, D, E, F, G, H

Table A.3: Place-based packages of intervention

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
Solent and Sussex Coat							
South Hampshire Rail (Core)							
A1	Solent Connectivity Strategic Study	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	D, E, F
A1a	Botley Line Double Tracking	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	D, E, F
A1b	Netley Line Signalling and Rail Service Enhancements	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	D, E, F
A1c	Fareham Loop / Platform	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	D, E, F
A1d	Portsmouth Station Platforms	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	D, E, F
A1e	South West Main Line - Totton Level Crossing Removal	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	D, E, F
A1f	Southampton Central Station Upgrade and Timetabling	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	D, E, F
A1g	Eastleigh Station Platform and Approach Flyover Enhancement	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	D, E, F
A2	Waterside Branch Line Reopening	Short	SOBC	OBC	i	1, 2, 5, 6, 7, 8	D, E, F
A3	West of England Service Enhancements	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	D, E, F
A4	Additional Rail Freight Paths to Southampton	Short	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	D, E, F
South Hampshire Rail – Enhanced (£3,700m / 95m p.a.)							
B1	Southampton Central Station - Woolston Crossing	Long	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
B2	New Southampton Central Station	Long	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
B3	New City Centre Station	Long	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
B4	South West Main Line - Mount Pleasant Level Crossing Removal	Long	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
B5	West Coastway Line - Fareham to Cosham Capacity Enhancements	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
B6	West Coastway Line - Cosham Station Relocation	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
B7	Eastleigh to Romsey Line - Electrification	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
B8	Havant Rail Freight Hub	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
B9	Fratton Rail Freight Hub	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
B10	Southampton Container Port Rail Freight Access and Loading Upgrades	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, F
B11	Southampton Automotive Port Rail Freight Access and Loading Upgrades	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, F

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
			South Hampshire Mass Transit				
C1	Southampton Mass Transit	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	F
C2	South East Hampshire Rapid Transit	Medium	Pre-SOBC	SOBC	iv	1, 2, 3, 5, 6, 7, 8	F
C3	New Southampton to Fawley Waterside Ferry Service	Medium	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, F, H
C4	Southampton Cruise Terminal Access for Mass Transit	Medium	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, F
C5	M271 Junction 1 Strategic Mobility Hub	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	B, D, F, H
C6	M27 Junction 5 / Southampton Airport Strategic Mobility Hub	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	B, D, F, H
C7	M27 Junction 7/8 Strategic Mobility Hub	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	B, D, F, H
C8	M27 Junction 9 Strategic Mobility Hub	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	B, D, F, H
C9	M275 Junction 1 Strategic Mobility Hub	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	B, D, F, H
C10	Clarence Pier Bus-Hovercraft Interchange	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 3, 6, 8	B, D, F, G, H
C11	Improved Gosport - Portsmouth and Portsmouth - Hayling Island Ferries	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 3, 6, 8	B, D, F, G, H
			South Hampshire Active Travel				
E1	Solent Active Travel (including LCWIPs)	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F
			Isle of Wight Mass Transit and Connections				
D1a	Bus Mass Transit - Newport to Yarmouth	Medium	Pre-SOBC	Feasibility Study	iv	1, 5, 6, 7, 8	B, D, F, H
D1b	Bus Mass Transit - Newport to Ryde	Medium	Pre-SOBC	Feasibility Study	iv	1, 5, 6, 7, 8	B, D, F, H
D1c	Bus Mass Transit - Newport to Cowes	Medium	Pre-SOBC	Feasibility Study	iv	1, 5, 6, 7, 8	B, D, F, H
D1d	Isle of Wight Railway Service Enhancements	Medium	Pre-SOBC	Feasibility Study	i, iv	1, 2, 5, 6, 7, 8	B, D, F, H
D1e	Isle of Wight Railway Extensions - Shanklin to Ventnor	Medium	Pre-SOBC	Feasibility Study	i, iv	1, 2, 5, 6, 7, 8	B, D, F, H
D1f	Isle of Wight Railway Extensions - Shanklin to Newport (or Mass Transit alternative)	Medium	Pre-SOBC	Feasibility Study	i, iv	1, 2, 5, 6, 7, 8	B, D, F, H
D2a	Operating Hours and Frequency Enhancements	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 5, 6, 7, 8	B, D, F, H
D2b	New Summer Route - Ryde to Southampton	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 5, 6, 7, 8	B, D, F, H
			Sussex Coast Rail				
F1	West Coastway Strategic Study	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	B, D, E, F
F2	West Worthing Level Crossing Removal	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	B, D, F
			Sussex Coast Mass Transit				
G1	Shoreham Strategic Mobility Hub	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	B, D, E, F, H
G2	A27/A23 Patcham Interchange Strategic Mobility Hub	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, F, G, H
G3	Falmer Strategic Mobility Hub	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
G4	Eastbourne/Polegate Strategic Mobility Hub	Medium	Pre-SOBC	Feasibility Study	i, iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
G5	Sussex Coast Mass Rapid Transit	Medium	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
G6	Eastbourne/Wealden Mass Rapid Transit	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
G7	Hastings/Bexhill Mass Rapid Transit	Medium	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
G8	A27 Falmer – Polegate Bus Stop and Layby Improvements	Medium	SOBC	H, OBC	ii	1, 2, 3, 5, 6, 7, 8	D, F, H

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
			Sussex Coast Active Travel				
H1	Sussex Coast Active Travel Enhancements (including LCWIPs)	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	F
			Solent and Sussex Coast Highways				
I13	New Horsea Bridge and Tipner Bridge	Short	Pre-SOBC	SOBC	iv	1, 3, 5, 6, 8	F
I18	A29 Realignment including combined Cycleway and Footway	Short	FBC	(Ongoing) Delivery	iv	1, 3, 6, 8	F
I19	M27/M271/M275 Smart Motorway(s)	Short	Pre-SOBC	SOBC	ii	1, 3, 4, 6, 8	F
I20	A27 Tangmere Junction Enhancements	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	B, D, E, F
I21	A27 Fontwell Junction Enhancements	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	B, D, E, F
I22	A27 Worthing (Long Term Solution)	Long	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	B, D, E, F
I23	A27 Hangleton Junction Enhancements	Medium	Pre-SOBC	SOBC	ii	1, 3, 6, 8	F
I24	A27 Devils Dyke Junction Enhancements	Medium	Pre-SOBC	SOBC	ii	1, 3, 6, 8	F
I25	A27 Falmer Junction Enhancements	Medium	Pre-SOBC	SOBC	ii	1, 3, 6, 8	F
I26	A27 Hollingbury Junction Enhancements	Medium	Pre-SOBC	SOBC	ii	1, 3, 6, 8	F
			London – Sussex Coast				
			London – Sussex Coast Rail (Resilience)				
J1	Croydon Area Remodelling Scheme	Medium	OBC	Powers / Consents	i	1, 2, 5, 6, 7, 8	F
J2	Brighton Main Line - 100mph Operation	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
J3	Brighton Station Additional Platform	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	B, D, E, F
J4	Reigate Station Upgrade	Short	OBC	FBC	i	1, 2, 5, 6, 7, 8	F
J5	Arun Valley Line - Faster Services	Short	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
J6	East Coastway Line - Faster Services	Short	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
J7	Brighton Main Line - Reinstate Cross Country Services	Short	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	F
J8	New Station to the North East of Horsham	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
J9	Newhaven Port Capacity and Rail Freight Interchange Upgrades	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, F
J10	Uckfield Branch Line - Hurst Green to Uckfield Electrification	Medium	SOBC	OBC	i	1, 2, 5, 6, 7, 8	B, D, E, F
J11	Redhill Aerodrome Chord	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
			London – Sussex Coast (Reinstatements)				
K1	Uckfield - Lewes Wealden Line Reopening - Traction and Capacity Enhancements	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
K2	Uckfield - Lewes Wealden Line Reopening - Reconfiguration at Lewes	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
K3	Spa Valley Line Modern Operations Reopening - Eridge to Tunbridge Wells West to Tunbridge Wells	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
			London – Sussex Coast Mass Transit				
L1	Fastway Extension: Crawley - Horsham	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
L2	Fastway Extension: Crawley - East Grinstead	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
L3	Fastway Extension: Haywards Heath - Burgess Hill	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
L4	Fastway Extension: Crawley - Redhill	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
L5	A22 Corridor Rural Bus Service Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
L6	A23 Corridor Rural Bus Service Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
L7	A24 Corridor Rural Bus Service Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
L8	A26 Corridor Lewes - Royal Tunbridge Wells Rural Bus Service Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
L9	A26 Corridor Newhaven Area Rural Bus Service Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
L10	A272 Corridor Rural Bus Service Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
L11	A264 Corridor Rural Bus Service Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
L12	A29 Corridor Rural Bus Service Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
L13	A283 Corridor Rural Bus Service Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
L14	A281 Corridor Rural Bus Service Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
L15	Three Bridges Strategic Mobility Hub	Medium	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, F, H
			London – Sussex Coast Active Travel				
M1	Burgess Hill/Haywards Heath Local Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8	F
M2	East Grinstead Local Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8	F
M3	Eastbourne/Hailsham Local Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8	F
M4	Gatwick/Crawley Local Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8	F
M5	Horsham Local Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8	F
M6	Lewes/Newhaven Local Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8	F
M7	Reigate/Redhill Local Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8	F
M8	East Sussex Inter-urban Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F, H
M9	Surrey Inter-urban Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8, 9	B, D, F, H
M10	West Sussex Inter-urban Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F, H
M11	New London - Brighton National Cycle Network Corridor	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F, H
M12	New Crawley - Chichester National Cycle Network Corridor	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F, H
M13	London - Paris New "Avenue Verte"	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 5, 6, 8, 9	B, D, F, H

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
			London – Sussex Coast Highways				
N5	M23 Junction 8a New Junction and Link Road - Redhill	Long	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
N6	M23 Junction 9 Enhancements - Gatwick	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
N7	A23 Carriageway Improvements - Gatwick to Crawley	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
N8	A264 Horsham - Pease Pottage Carriageway Enhancements	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F
N9	A264 Crawley - East Grinstead Dualling and Cylceway	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F
N10	Crawley Western Link Road and Cycleway	Long	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F
N11	A24 Dorking Bypass	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F
N12	A24 Dorking - Capel New Roundabout	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F
N13	A24 Corridor Improvements Horsham to Capel (LLM Pipeline)	Long	Pre-SOBC	Feasibility Study	iv	1, 3, 5, 6, 8	F
N14	A23 Hickstead and Bolney Junction Enhancements	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
N15	A23/A27 Patcham Interchange Junction Enhancements	Short	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
N16	A26 Lewes - Newhaven Realignment and Junction Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F
N17	A26 Lewes - Uckfield Enhancements	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F
N18	A22 Uckfield Bypass Dualling	Short	Pre-SOBC	Feasibility Study	iv	1, 6, 8	F
N19	A22 Smart Road Trial Proposition Study	Short	OBC	Powers / Consents, FBC	iv	1, 3, 6, 8	F
			Wessex Thames				
			Wessex Thames Rail				
O1	Western Rail Link to Heathrow	Medium	OBC	Powers / Consents, FBC	i	1, 2, 5, 6, 7, 8	B, E, F
O2	Southern Rail Link to Heathrow	Long	OBC	Powers / Consents, FBC	i	1, 2, 5, 6, 7, 8	B, E, F
O3	Reading to Basingstoke Electrification	Long	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O4	North Downs Line - Electrification	Long	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O5	North Downs Line - Level Crossing Removals	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O6	North Downs Line - Service Level and Capacity Enhancements	Short	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O7	Guildford Station Upgrade	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O8	Redhill Station Upgrade	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O9	Dorking Deepdene Station Upgrade	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O10	South West Main Line / Portsmouth Direct Line - Woking Enhancement Scheme	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O11	South West Main Line / Basingstoke Branch Line - Basingstoke Enhancement Scheme	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O12	Cross Country Service Enhancements	Short	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O13	Portsmouth Direct Line - Line Speed Enhancements	Short	Pre-SOBC	(Ongoing) Delivery	i	1, 2, 5, 6, 7, 8	B, D, E, F

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
O14	Portsmouth Direct Line - Buriton Tunnel Upgrade	Long	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O15	South West Main Line - Dynamic Signalling	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O16	Theale Strategic Rail Freight Terminal	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, F
O17	West of England Main Line - Electrification from Basingstoke to Salisbury	Long	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
O18	Reading to Waterloo Service Enhancements	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F, H
	Wessex Thames Mass Transit						
P1	Basingstoke Mass Rapid Transit	Short	Pre-SOBC	H, SOBC	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P2	Blackwater Valley Mass Rapid Transit	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P3	Bracknell/Wokingham Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P4	Elmbridge Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P5	Epsom/Ewell Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P6	Guildford Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P7	Slough/Windsor/Maidenhead Area Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P8	Newbury/Thatcham Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P9	Reading Mass Rapid Transit	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P10	Spelthorne Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P11	Woking Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P12	A4 Reading - Maidenhead - Slough - London Heathrow Airport Mass Rapid Transit	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
P13	A329/B3408 Reading - Bracknell/Wokingham Mass Rapid Transit	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P14	Winchester Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P15	Andover Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P16	Runnymede Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P17	London Heathrow Airport Bus Access Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
P18	Berkshire, Hampshire and Surrey Inter-urban Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F, H
	Wessex Thames Active Travel						
Q1	Berkshire, Hampshire and Surrey Urban and Inter-urban Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 4, 5, 6, 7, 8, 9	B, D, F, H
	Wessex Thames Highways						
R8	M4 Junction 10 Safety Enhancements	Short	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
R9	M3 Junction 6 - Junction 8 Safety Enhancements	Short	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
R10	A3 Guildford Local Traffic Segregation	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	B, D, E, F
R11	A3 Guildford Long Term Solution	Long	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	B, D, F
R12	A34 Junction and Safety Enhancements	Short	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	B, D, F
R13	A322 and A329(M) Smart Corridor	Short	FBC	(Ongoing) Delivery	iv	1, 3, 6, 8	F
R14	A339 Newbury to Basingstoke Safety Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	B, D, F

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
Kent, Medway, and East Sussex (KMES)							
KMES Rail (Classic)							
S1	St Pancras International Domestic High Speed Platform Capacity	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S2	London Victoria Capacity Enhancements - Signalling and Digital Rail	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S3	Bakerloo Line Extension	Medium	SOBC	OBC	i, iv	1, 2, 6, 7, 8	E, F
S4	South Eastern Main Line - Chislehurst to Tonbridge Capacity Enhancements	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S5	London Victoria to Shortlands Capacity Enhancements	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S7	North Kent Line / Hundred of Hoo Railway - Rail Chord	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S8	Thameslink - Extension to Maidstone and Ashford	Short	FBC	(Ongoing) Delivery	i	1, 2, 5, 6, 7, 8	F
S9	North Kent Line - Service Enhancements	Short	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S10	North Kent Line / Chatham Main Line - Line Speed Enhancements	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S11	Otterpool Park/Westenhanger Station Additional Platform	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S12	Integrated Maidstone Stations	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S13	Dartford Station Remodelling/Relocation	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S14	Canterbury Interchange Rail Chord	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	B, D, E, F
S15	New Station - Canterbury Interchange	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	B, D, E, F
S16	New Strood Rail Interchange	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S17	Rail Freight Gauge Clearance Enhancements	Medium	Pre-SOBC	SOBC	i	1, 2, 5, 6, 7, 8	B, D, E, F
S18	Crossrail - Extension from Abbey Wood to Dartford/Ebbsflett	Short	SOBC	OBC	i, iv	1, 2, 5, 6, 7, 8	D, E, F
S19	High Speed 1 / Waterloo Connection Chord - Ebbsfleet Southern Rail Access	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S20	Ebbsfleet International (Northfleet Connection)	Medium	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S21	Ebbsfleet International (Swanscombe Connection)	Long	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
S22	Gatwick - Kent Service Enhancements	Short	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
KMES High Speed Rail East							
T1	High Speed East - Dollands Moor Connection	Medium	SOBC	OBC	i	1, 2, 5, 6, 7, 8	B, D, E, F
T2	High Speed 1 / Marsh Link - Hastings, Bexhill and Eastbourne Upgrade	Medium	SOBC	OBC	i	1, 2, 5, 6, 7, 8	D, F
KMES High Speed Rail North							
U1	High Speed 1 - Link to Medway (via Chatham)	Long	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F
U2	High Speed 1 - Additional Services to West Coast Main Line	Short	Pre-SOBC	Feasibility Study	i	1, 2, 5, 6, 7, 8	B, D, E, F

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
			KMES Mass Transit				
V1	Fastrack Expansion - Swanscombe Peninsula	Short	Pre-SOBC	SOBC	iv	1, 2, 3, 5, 6, 7, 8	B, D, F, H
V2	Fastrack Expansion - Northfleet to Gravesend	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, F, H
V3	Fastrack Expansion - Medway	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, F, H
V4	Medway Mass Transit	Medium	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
V5	Medway Mass Transit - Extnesion to Hoo Peninsula	Medium	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
V6	Medway Mass Transit - Extension to Maidstone	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
V7	Medway Mass Transit - Chatham to Medway City Estate New Bridge	Medium	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
V8	Medway Mass Transit - Chatham to Medway City Estate Water Taxi	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
V9	Maidstone Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 6, 7, 8	B, D, E, F, H
V10	Dover Bus Rapid Transit	Short	Implementation	Feasibility Study	iv	1, 2, 3, 6, 7, 8	F
V11	Sittingbourne Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 6, 7, 8	B, D, E, F, H
V12	Sevenoaks Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 6, 7, 8	B, D, E, F, H
V13	Thanet Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 6, 7, 8	B, D, E, F, H
V14	Folkestone Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 6, 7, 8	B, D, E, F, H
V15	Ashford Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 6, 7, 8	B, D, E, F, H
V16	Royal Tunbridge Wells/Tonbridge Bus Enhancements	Long	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 6, 7, 8	B, D, E, F, H
V17	Thames Gateway/Gravesham Bus Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 6, 7, 8	B, D, E, F, H
V18	Canterbury/Whitstable/Herne Bay Bus Enhancements	Long	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 6, 7, 8	B, D, E, F, H
V19	Ferry Crossings - New Sheerness to Hoo Peninsula Service	Medium	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
V20	Ferry Crossings - Sheerness to Chatham/Medway City Estate/ Strood Enhancements	Medium	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
V21	Ferry Crossings - Harty to Whitstable Enhancements	Medium	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
V22	Ferry Crossings - Harty to Oare Enhancements	Medium	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
V23	Ferry Crossings - Ebbsfleet - Tilbury Enhancements	Medium	Pre-SOBC	Feasibility Study	iii, iv	1, 2, 3, 5, 6, 7, 8	A, B, C, D, E, F, G, H
V24	Inland Waterway Freight Enhancements	Medium	Pre-SOBC	Feasibility Study	iv	1, 2, 3, 5, 6, 7, 8	B, D, E, F

Map Ref.	Intervention	Implementation Timeframe	Project stage	Next step(s)	Scheme promoters	Key delivery partners	Potential TfSE Role
			KMES Active Travel				
W1	Medway Active Travel Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	F
W2	Medway Active Travel - Chatham to Medway City Estate River Crossing	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8	B, D, F, H
W3	Kent Urban Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8	F
W4	Kent Inter-urban Cycleways	Short	Pre-SOBC	H, SOBC	iv	1, 3, 4, 6, 8, 9	B, D, F, H
W5	Faversham - Canterbury - Ashford - Hastings National Cycle Network Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F, H
W6	Tonbridge - Maidstone National Cycle Network Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F, H
W7	Sevenoaks - Maidstone - Sittingbourne National Cycle Network Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F, H
W8	Bromley - Sevenoaks - Royal Tunbridge Wells National Cycle Network Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F, H
W9	East Sussex Local Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8	F
W10	East Sussex Inter-urban Cycleways	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F, H
W11	Royal Tunbridge Wells - Hastings National Cycle Network Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 4, 6, 8, 9	B, D, F
W12	Canterbury Placemaking and Demand Management Measures	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 7, 8	B, D, E, F, H
W13	Medway Placemaking and Demand Management Measures	Short	Pre-SOBC	Feasibility Study	iii, iv	1, 3, 6, 7, 8	A, B, C, D, E, F, G, H
W14	Dover Placemaking and Demand Management Measures	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 5, 6, 7, 8	B, D, E, F, H
	KMES Highways						
X8	Digital Operations Stack and Brock	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 7, 8	F
X9	A20 Enhancements for Operations Stack & Brock	Short	Pre-SOBC	Feasibility Study	ii, iv	1, 3, 6, 7, 8	F
X10	Kent Lorry Parks (Long Term Solution)	Short	Pre-SOBC	Feasibility Study	ii	1, 3, 5, 6, 7, 8	F
X11	Dover Freight Diversification	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 5, 6, 8	B, D, F
X12	Kent Freight Consolidation Centres	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	B, D, F
X14	A2 Canterbury Junctions Enhancements	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
X16	M20 Junction 6 Sandling Interchange Enhancements	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
X17	M25 Junction 1a Enhancements	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
X18	M25 Junction 5 Enhancements	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
X19	Herne Relief Road	Short	Implementation	(Ongoing) Delivery	iv	1, 3, 6, 8	F
X20	Canterbury East Relief Road	Long	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F
X21	New Maidstone South East Relief Road	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F
X23	A228 Hoo Peninsula Enhancements	Short	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F
X24	Strood Riverside Highway Enhancement and Bus Lane	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 7, 8	B, D, F, H
X25	A259 Level Crossing Removals – east of Rye	Medium	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	B, D, F
X26	A21 Kippings Cross to Lamberhurst Dualling and Flimwell and Hurst Green Bypasses	Long	Pre-SOBC	Feasibility Study	ii	1, 3, 6, 8	F
X27	Hastings and Bexhill Distributor Roads	Medium	Pre-SOBC	Feasibility Study	iv	1, 3, 6, 8	F

Appendix B: Summary of Evidence Base Reports

Area Studies

- Strategic Narrative
- Delivery Plan
- Decarbonisation Thematic Plan
- Levelling-up Thematic Plan
- Rail Thematic Plan
- Bus, Mass Transit and Shared Mobility Thematic Plan
- Strategic Active Travel and Micromobility Thematic Plan
- Highways Thematic Plan
- Appraisal Specification Report
- Strategic Programme Outline Case, Options Assessment Report, and Evidence Base Report relating to:
  - Solent and Sussex Coast
  - London to Sussex Coast
  - Wessex Thames
  - Kent, Medway and East Sussex
- Integrated Sustainability Assessment

Previous Reports

- TfSE's Economic Connectivity Review (2018)
- TfSE's Transport Strategy (2020)
- TfSE's Future Mobility Strategy (2021)
- TfSE's Freight, Logistics, and International Gateways Strategy (2022)
- TfSE Future Organisation Report (2021)

Technical Studies

- Strategic Investment Plan Evidence Base (2022)
- Strategic Investment Plan Funding and Financing Technical Annex (2022)
- COVID-19 Response (January 2021)
- Bus Back Better Regional Evidence Base (TBC - 2022)
- Decarbonisation Pathways Technical Report (TBC – 2022)