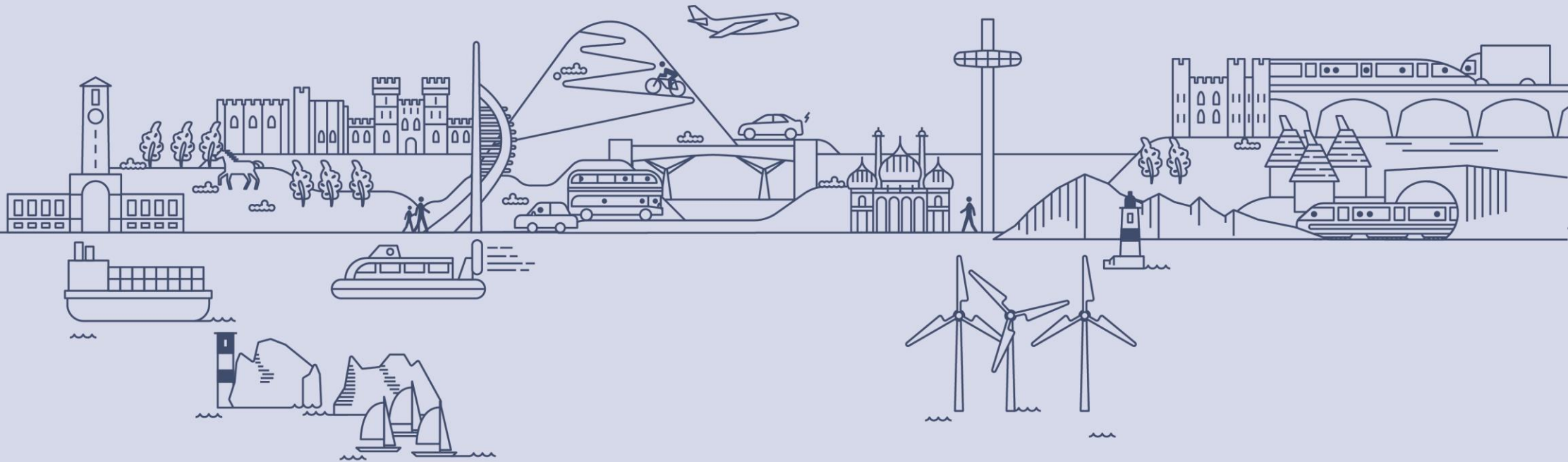


Levelling Up Thematic Plan

Version 5.4

June 2022



Part 1: Introduction

Introduction

Purpose

This Thematic Plan outlines the relationship between the UK Government's Levelling Up White Paper and the strategic objectives of TfSE.

This plan forms part of TfSE's Area Study Programme, which developed Strategic Outline Programme Cases for four areas within the South East of England. It complements five other Thematic Plans (see **Figure 1.1** overleaf) for Rail; Bus, Mass Transit and Shared Mobility; Strategic Active Travel and Micromobility; Highways; and Decarbonisation.

This plan assesses the content and objectives of the Levelling Up White Paper and reviews how these impact TfSE's overarching strategy.

Using a range of data sets to assess various indicators of inequality and deprivation, this plan will propose a series of interventions to address the identified issues and recommend how investment in transport infrastructure can contribute to Levelling Up the South East.

Contents

This report provides an analysis of the role of transport in the South East of England in the Government's Levelling Up agenda.

The rest of this plan is presented in six Parts, which are listed below.

- **Part 2** describes the **context** of Levelling Up in relation to the South East.
- **Part 3** details the **issues and opportunities** for levelling up the South East.
- **Part 4** describes the **vision and objectives** of Levelling Up the South East through investment in transport.
- **Part 5** details the **location specific interventions**.
- **Part 6** reviews the **benefits and cost** of the proposed packages of interventions.
- Finally, **Part 7** considers **delivery** options for moving the South East's Levelling Up strategy forward.

Next Step

TfSE's Strategic Investment Plan will make the case for investing in the Levelling Up.

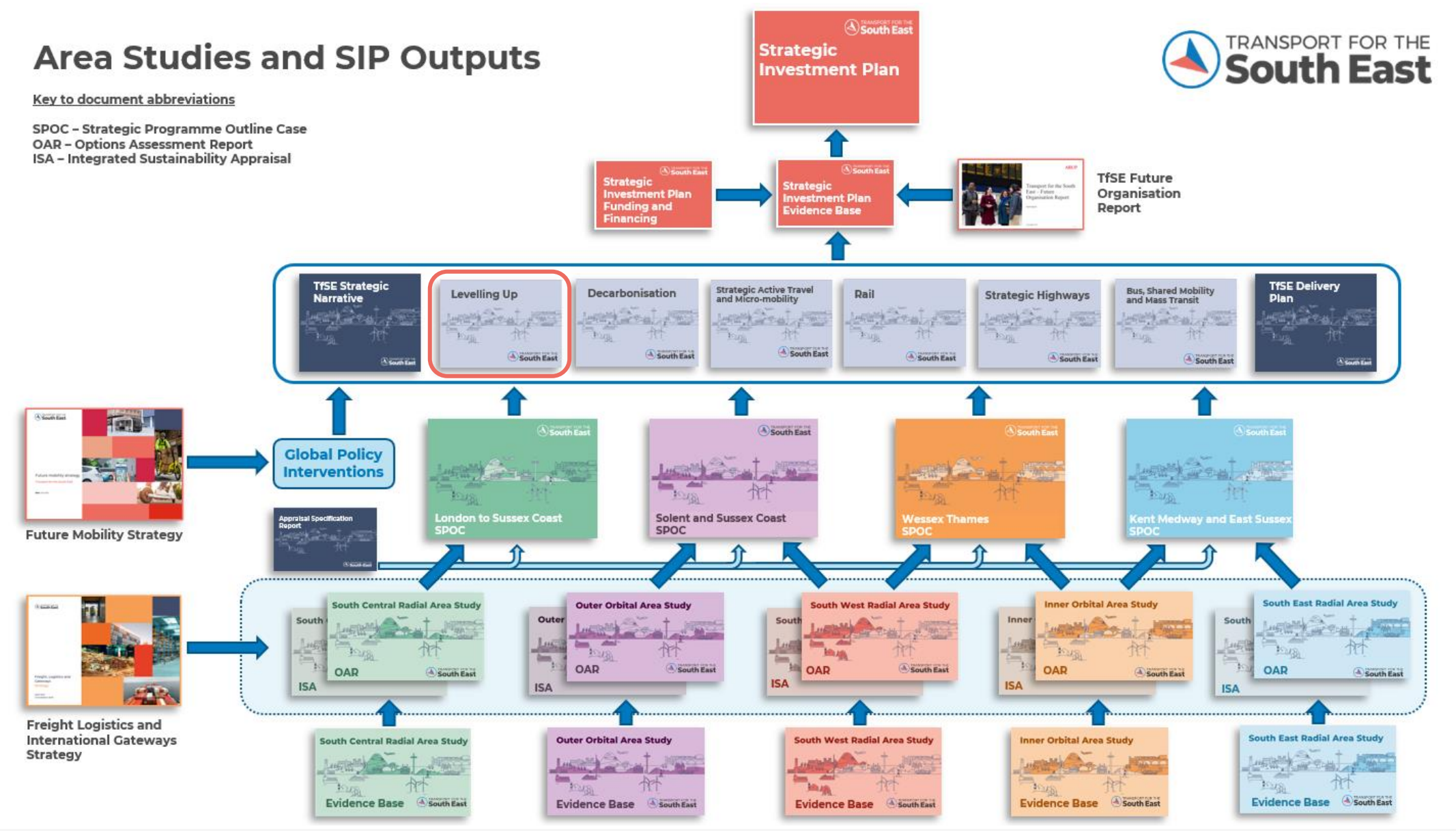
TfSE is developing a Strategic Investment Plan (SIP) that will synthesise the technical work undertaken by TfSE to date and present a compelling case for investment in all modes of transport in South East England.

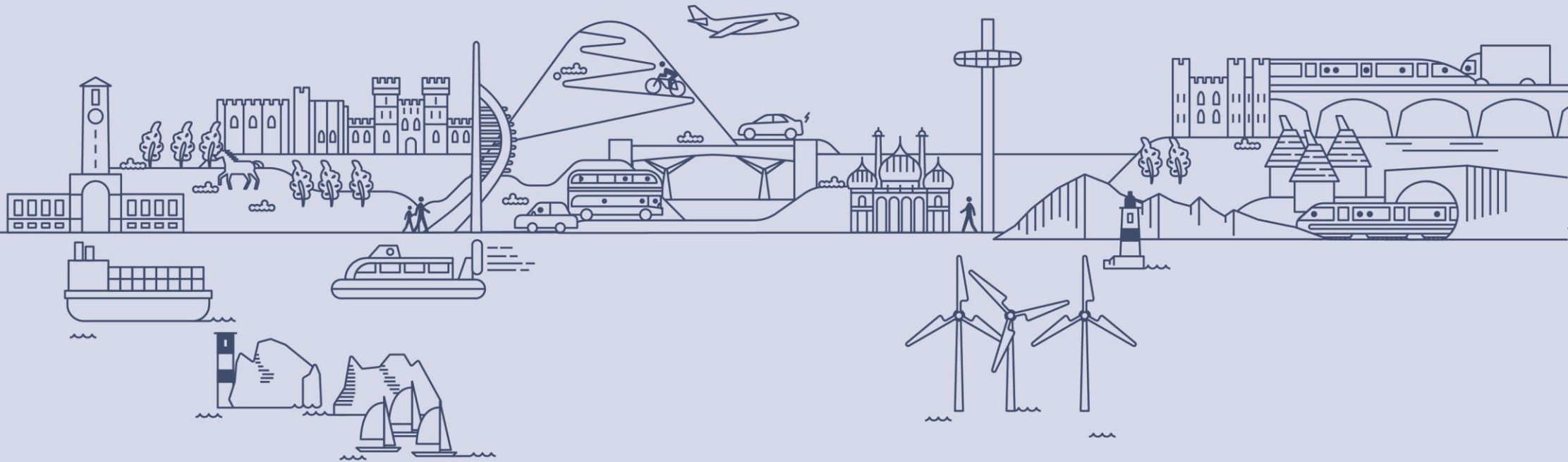
The SIP will include a more detailed examination of potential funding opportunities beyond central government, and it will outline how TfSE, its partners, and its constituent authorities will work together to deliver positive change.

Although the Transport Strategy approved and published in 2020 is not a Statutory Document, the UK government has stated it will give "due regard" to it. The SIP is an integral part of the Transport Strategy development process, articulating the case for investment and a delivery plan to 2050.

A Draft SIP is being published for a 12 week public consultation from 20 June 2022. A final version of this document is expected to be adopted by TfSE's Partnership Board early in 2023.

Figure 1.1: TfSE Area Studies and Strategic Investment Plan Document Hierarchy





Part 2: Context

Recent trends in UK inequality

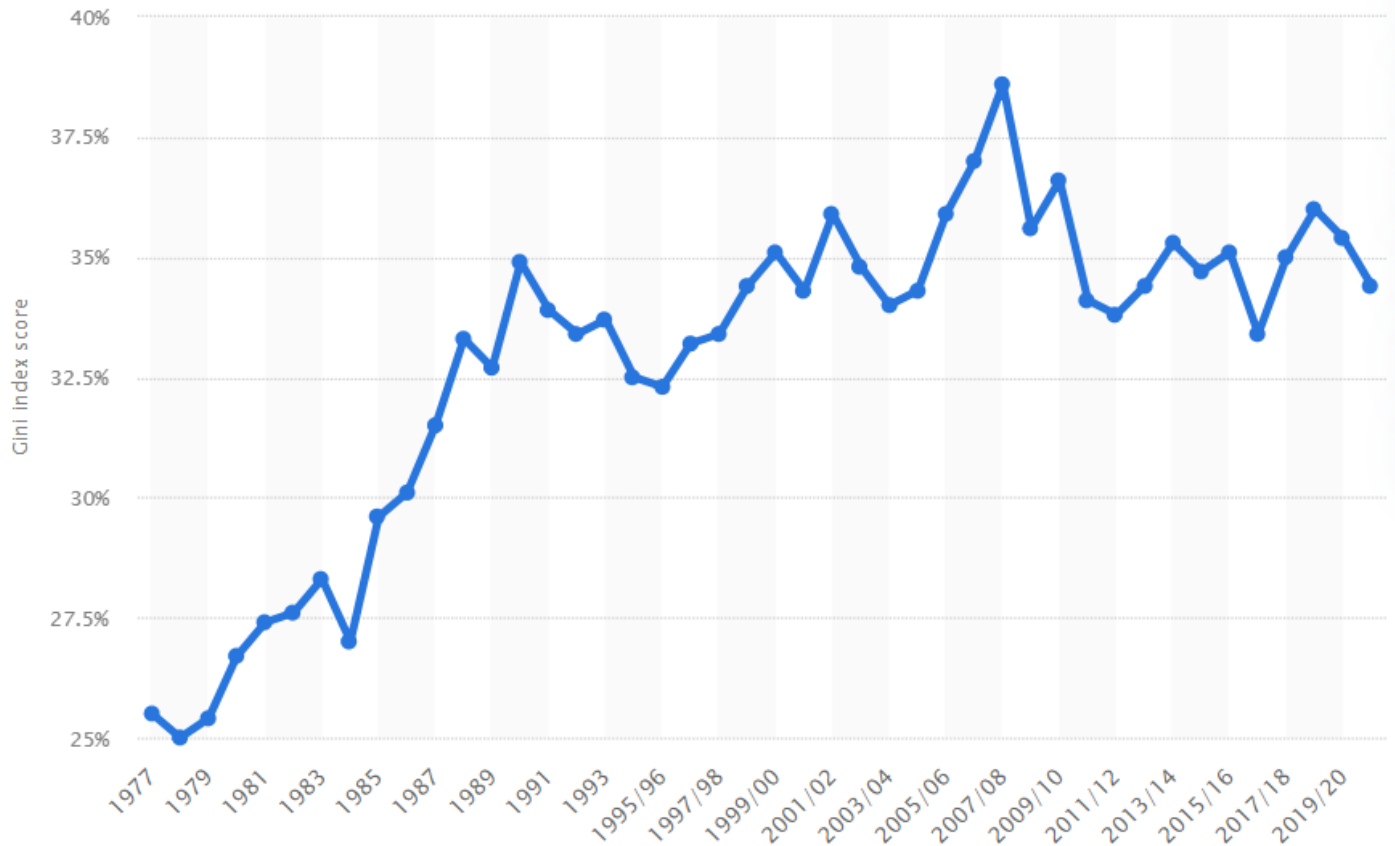
Despite being a prosperous nation with a well performing economy, inequality in the UK has increased in recent decades.

The Gini coefficient is the most widely used summary measure of inequality in the distribution of household income. It serves as a gauge of economic inequality by measuring income distribution among a population, whereby 0% represents perfect equality and 100% represents maximum inequality.

Figure 2.1 shows how the UK’s Gini coefficient has increased from around 25% in the late 1970s to around 35% in 2020, representing an increase in inequality during this period.

The Government have an ambition to reverse this trend and transform the United Kingdom into a fairer and more just society, where every individual is given the opportunity to achieve a good standard of health, education and employment.

Figure 2.1: Gini coefficient of the United Kingdom from 1977 to 2021 ¹



Context

The Levelling Up White Paper

The Levelling Up White Paper, titled *Levelling Up the United Kingdom*, was published in February 2022.

The Paper presents a thorough examination of a range of socio-economic indicators which are used to evidence the narrative that *‘not everyone shares equally in the UK’s success’*. It sets out the government’s strategy for addressing inequalities through a range of policy interventions which target various indicators of inequality.

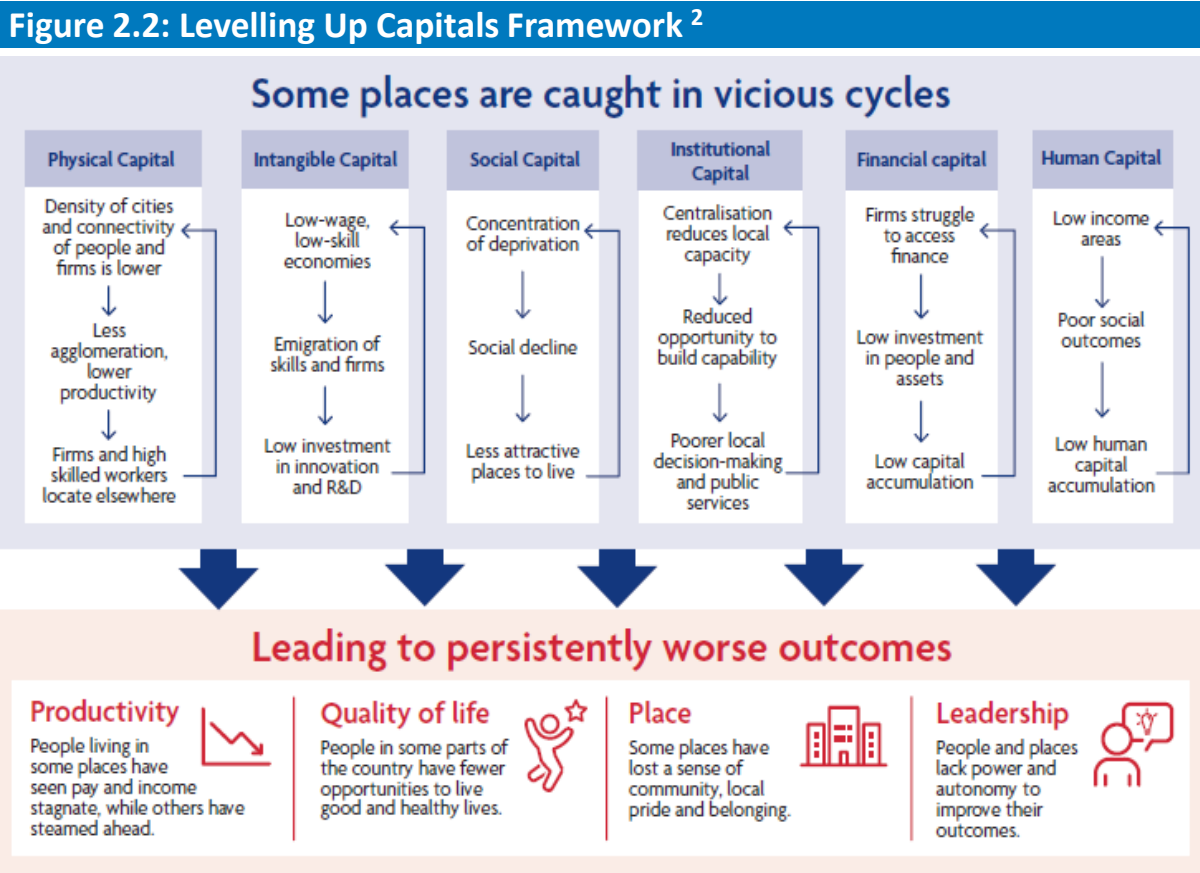
The Paper declares Levelling Up as a mission to challenge and change this unfairness and inequality of opportunity by creating a platform from which *‘people everywhere live longer and more fulfilling lives, and benefit from sustained rises in living standards and well-being’*.

A Framework of Capitals

The Paper presents the Levelling Up agenda in a framework of six capitals: physical, intangible, social, institutional, financial and human (Figure 2.2).

These capitals are interdependent such that the interaction of each determines the overall outcomes, with places caught in a vicious cycle of decline in one capital likely to underperform in all capitals. Physical Capital refers to the ability of people to connect with opportunities for employment and other key services.

Where this is restricted, the benefits of agglomeration are limited, productivity is lower, and firms and high skilled workers may locate elsewhere. Whilst connectivity (including transport) is only one component of the framework, transport has an important role to play in breaking the vicious cycle of decline and helping places achieve better outcomes.



The Levelling Up Missions

The White Paper defines 12 focus areas and associated missions, each with an objective to guide policy across government over the coming decades.

Table 2.1 details each of the 12 focus areas and missions, and how they relate to transport. The role of transport in contributing to each of the missions will be assessed in the following part of this thematic plan.

The DfT Levelling Up Toolkit

The Department for Transport published a policy document in February 2022 titled *Transport Business Cases: The Levelling Up Toolkit*.

This document is designed to advise how a transport business case should contribute toward delivering the DfT’s strategic priority to *Grow and Level Up the Economy*. The toolkit highlights the transport barriers to levelling up and the

indicators that could be used to evidence the case for change and investment.

The toolkit acknowledges the importance of investing in the transport network and the role that improved connectivity has to play in achieving the Levelling Up objectives.

It notes that investing in transport creates larger and more unified labour markets, enhances business connectivity and improves access to local services.

Table 2.1: The Levelling Up Focus Areas and Missions ³

Focus Area	Mission	Relationship to transport
<i>Boost productivity, pay, jobs and living standards by growing the private sector, especially in those places where they are lagging</i>		
Living Standards	By 2030, pay, employment and productivity will have risen in every area of the UK, with each containing a globally competitive city, and the gap between the top performing and other areas closing.	This is driven by employees access to employment opportunities and employers access to skilled labour, as well as business to business connectivity, including agglomeration benefits.
Research & Development (R&D)	By 2030, domestic public investment in R&D outside the Greater South East will increase by at least 40%, and over the Spending Review period by at least one third. This additional government funding will seek to leverage at least twice as much private sector investment over the long term to stimulate innovation and productivity growth.	This is influenced by the availability of strategic transport connections to London, international gateways and other major economic hubs to attract inward investment.

Table 2.1: The Levelling Up Focus Areas and Missions ³

Focus Area	Mission	Relationship to transport
Transport Infrastructure	By 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares and integrated ticketing.	Enhanced public transport services will help improve access to employment opportunities and other key services, and create more integrated places which are less reliant on private vehicles.
Digital Connectivity	By 2030, the UK will have nationwide gigabit-capable broadband and 4G coverage, with 5G coverage for the majority of the population.	Improved digital connectivity and increased home working will result in a reduction in the need to travel. Digitisation of the transport network will improve operational resilience.
<i>Spread opportunities and improve public services, especially in those places where they are weakest</i>		
Education	By 2030, the number of primary school children achieving the expected standard in reading, writing and maths will have significantly increased. In England, this will mean 90% of children will achieve the expected standard, and the percentage of children meeting the expected standard in the worst performing areas will have increased by over a third.	Affordable and convenient access to primary schools is important to achieving good attendance at school, which in turn impacts standards and grades. School choices which result in longer journey times may discourage active or sustainable travel. Increased private vehicle usage has impacts related to air quality, road safety, physical inactivity and poor public health outcomes.
Skills	By 2030, the number of people successfully completing high-quality skills training will have significantly increased in every area of the UK. In England, this will lead to 200,000 more people successfully completing high-quality skills training annually, driven by 80,000 more people completing courses in the lowest skilled areas.	Skill attainment can, to an extent, be attributed to the provision of access to education, particularly further and high education, and employment opportunities. Where these are abundant, the number of people attaining high quality skills will be higher.
Health	By 2030, the gap in Healthy Life Expectancy (HLE) between local areas where it is highest and lowest will have narrowed, and by 2035 HLE will rise by five years.	Health outcomes are, to an extent, affected by the affordability and convenience of access to GPs, hospitals and other healthcare services.

Table 2.1: The Levelling Up Focus Areas and Missions ³

Focus Area	Mission	Relationship to transport
Wellbeing	By 2030, well-being will have improved in every area of the UK, with the gap between top performing and other areas closing.	General access to key services can have a significant impact on wellbeing. Wellbeing will be better where access to key services is abundant.
<i>Restore a sense of community, local pride and belonging, especially in those places where they have been lost</i>		
Pride in Place	By 2030, pride in place, such as people's satisfaction with their town centre and engagement in local culture and community, will have risen in every area of the UK, with the gap between top performing and other areas closing.	Pride of Place can be improved by creating communities with high quality transit systems, urban realm and walking and cycling infrastructure.
Housing	By 2030, renters will have a secure path to ownership with the number of first-time buyers increasing in all areas; and the government's ambition is for the number of non-decent rented homes to have fallen by 50%, with the biggest improvements in the lowest performing areas.	Good transport connectivity can make sites more desirable and unlock areas for future growth. The development of residential sites will address the shortfall in housing supply and make home ownership a viable option for more people.
Crime	By 2030, homicide, serious violence and neighbourhood crime will have fallen, focused on the worst affected areas.	Improved public realm and urban design can contribute to safer streets and lower neighbourhood crime.
<i>Empower local leaders and communities, especially in those places lacking local agency</i>		
Local Leadership	By 2030, every part of England that wants one will have a devolution deal with powers at or approaching the highest level of devolution and a simplified, long-term funding settlement.	A clear sub-regional vision, including an identifiable pipeline of evidenced transport interventions, can support the move toward devolution deals.

The South East in context

The area within the authority of Transport for the South East is characterised by a range of place typologies.

Unusually for the UK, it does not have one dominant urban centre, as London's status as a global city has had growth limiting affects on places within its orbit. The South East does contain urban conurbations of significant population and communities in need of Levelling Up.

Figure 2.3 shows the top 30% most deprived areas in the South East. The highest rates of deprivation are located to the east of the region, particularly around the Kent coastal areas of Medway, Swale and Shepway. The Solent conurbations also have high rates of deprivation.

The least deprived areas of the South East are located across Berkshire and Surrey in places with good connectivity to London. In Sussex and Hampshire, the least deprived areas are generally located inland, with coastal areas experiencing higher rates of deprivation.

Place Typologies

Coastal and Estuarine Communities

The region's population centres can be categorised into four groups. The first are communities situated along the coast and Thames Estuary, many of which are characterised by high levels of deprivation and poor strategic and inter-urban connectivity to London and other economic hubs within the TfSE area, for example Margate and Eastbourne.

Regional Centres

Secondly, regional centres are typically situated along major radial corridors with strong connectivity to London and other major economic hubs of the TfSE area, for example Reading, Southampton and Brighton. These places are not typically deprived but do, as is common in cities across the UK, have pockets of significant deprivation.

Post-industrial decline

Places which have experienced post-industrial decline also commonly have high levels of deprivation. For example, the Medway towns, Portsmouth, and

Maidstone have all experienced reductions in their industrial sectors.

Post-war new towns and expansion

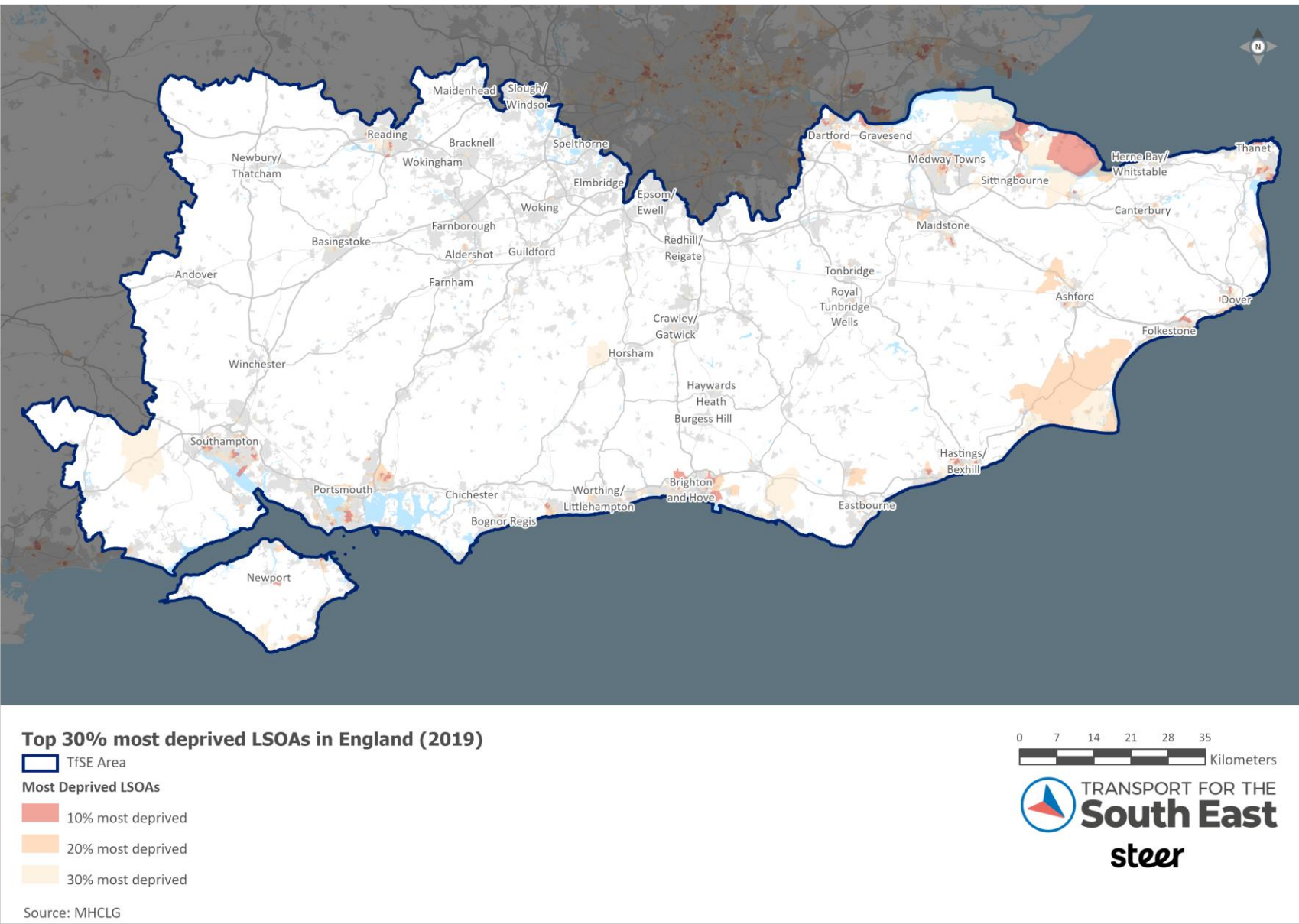
Towns such as Slough, Crawley and Dartford, which all benefit from good connectivity to London, often underperform on socioeconomic indicators compared to other places with similar levels of access to London. These towns grew rapidly through the second half of the 20th century due to planned development including the relocation of households from London.

Levelling Up the South East

With inequality prevalent across such a range of contexts, there is no one approach or policy intervention that can be systematically applied to address it's cause and moderate it's impact. Instead, a range of interventions will be required to address the challenges unique to each place, and to ensure levelling up is achieved across region.

The next part of this Plan will review each of the Levelling Up focus areas and assess how transport can contribute to achieving their missions.

Figure 2.3: Top 30% most deprived LSOAs in the South East, 2019 ⁴



Summary

Transport and the Levelling Up agenda

Transport has a critical role to play in delivering the objectives of the Levelling Up White Paper across the South East.

The influence transport will have in supporting the Levelling Up agenda can broadly be understood in the following five ways:

Socioeconomic Outcomes: In relation to living standards, local authorities will be targeting positive changes in the socioeconomic indicators of populations residing in left behind communities. Transport is key to connecting these communities to areas of opportunity, and bringing opportunity to areas of deprivation.

Connectivity: High-quality public transport, active travel and highway connections are necessary to enable the sustainable and equitable development of left-behind communities. Good connectivity will enable the development of these communities by improving

access to educational and employment opportunities. Improvement in digital connectivity is also a key facet of the Levelling Up agenda.

Accessibility: Left behind areas are often characterised by poor levels of transport infrastructure and local accessibility, created by the legacy of historical issues of car-dominated planning and a lack of walking, cycling or public transport provision.

Cost of Travel: high monetary and time costs can often be a barrier for walking, cycling and public transport usage, resulting in high-levels of car dependency. Improved walking and cycling accessibility, combined with affordable public transport fares will enable improved educational and employment outcomes.

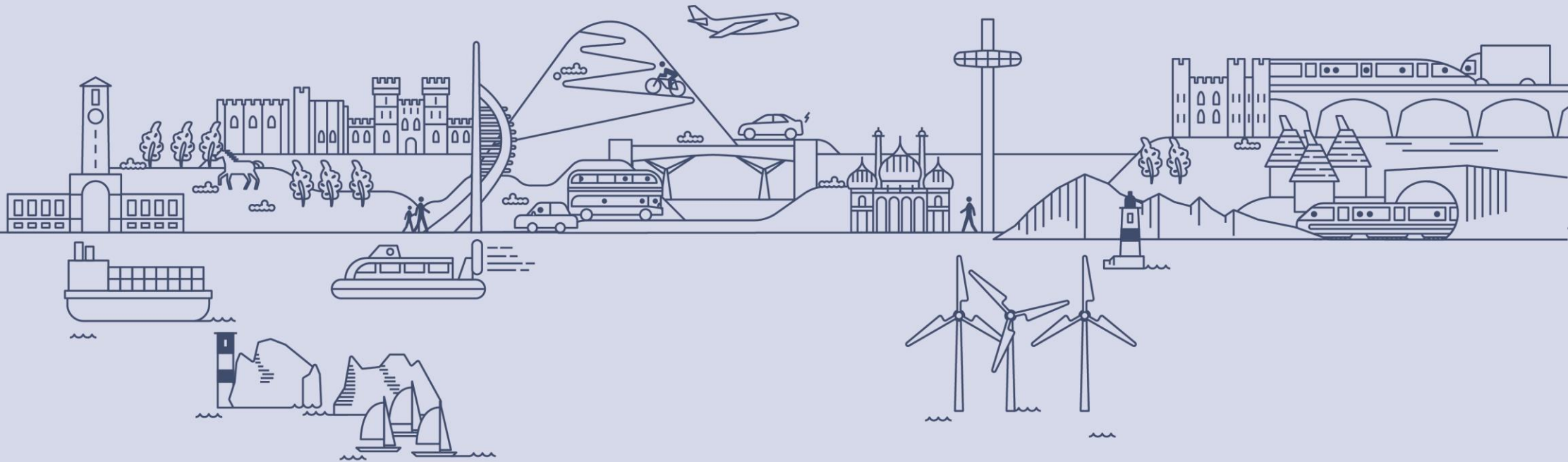
Supporting new development: new housing developments provide an opportunity to improve deprived areas through the provision of new infrastructure and services. Local authorities will look to undertake this in a

manner which minimises disruption to community cohesion and existing social networks.

Quality of Place: Pride of place, along with public health and wellbeing, have been impacted by 20th century planning regulations which promoted car-dominated and single-use developments resulting in poor levels of human-scale built environment.

As such, there is a need to analyse and disseminate a number of place typologies across the south east, not only new towns.

The subsequent parts of this plan will explore the issues and opportunities for Levelling Up the South East through investment in transport infrastructure. Each of the 12 Levelling Up missions will be assessed in relation to transport in the region.



Part 3: Issues and Opportunities

The Levelling Up Missions

Introduction

This section will assess the issues and opportunities through the lens of the Levelling Up missions.

The Levelling Up White Paper contains 12 focus areas, each with a dedicated mission and objective. Each focus area will be assessed to determine how it relates to the strategic objectives of Transport for the South East. The 12 focus areas or “Missions” are:

- Living Standards
- Research & Development
- Transport Infrastructure
- Digital Connectivity
- Education
- Skills
- Health
- Well-being
- Pride in Place
- Housing
- Crime
- Local Leadership

The Levelling Up Missions

The Levelling Up missions

The following pages will assess the first four focus areas, relating to living standards, research & development, transport infrastructure and digital connectivity. These focus areas have a shared objective to:

‘boost productivity, pay, jobs and living standards by growing the private sector, especially in those places where they are lagging’.

Living Standards

The Levelling Up Mission for Living Standards is that:

‘By 2030, pay, employment and productivity will have risen in every area of the UK, with each containing a globally competitive city, and the gap between the top performing and other areas closing’.

The link between transport and this mission can broadly be understood by the following three factors:

- Access to employment
- Access to labour
- Agglomeration benefits

Access to Employment

Access to a large and varied employment market gives employees greater choice of labour opportunities, including to higher skilled and higher wage labour.

Good access is driven by the level of connectivity between labour and job markets, whereby places which are well connected to commercial centres will perform better than those isolated from employment opportunities or where distance makes travel time and cost prohibitive to accessing employment, as illustrated by **figure 3.1** which shows the relationship between connectivity and deprivation.

The map illustrates that most areas of deprivation are located in urban areas and not in high value high growth areas. Unless residents can easily travel to economic hubs with high value jobs, improved socioeconomic outcomes are unlikely to be realised. The employment opportunities in deprived areas are typically not in high value sectors, so residents of these communities must have the ability to commute to access high value employment opportunities.

Access to Labour

Access to a large and skilled labour force is key to achieving improved living standards.

Inward investment will be attracted to areas with access to a readily available pool of skilled labour. Where this is connected to employment opportunities, household income and living standards will increase.

Figure 3.2 shows areas of deprivation in relation to major transport links, with deprivation generally located in areas not on radial transport routes to London.

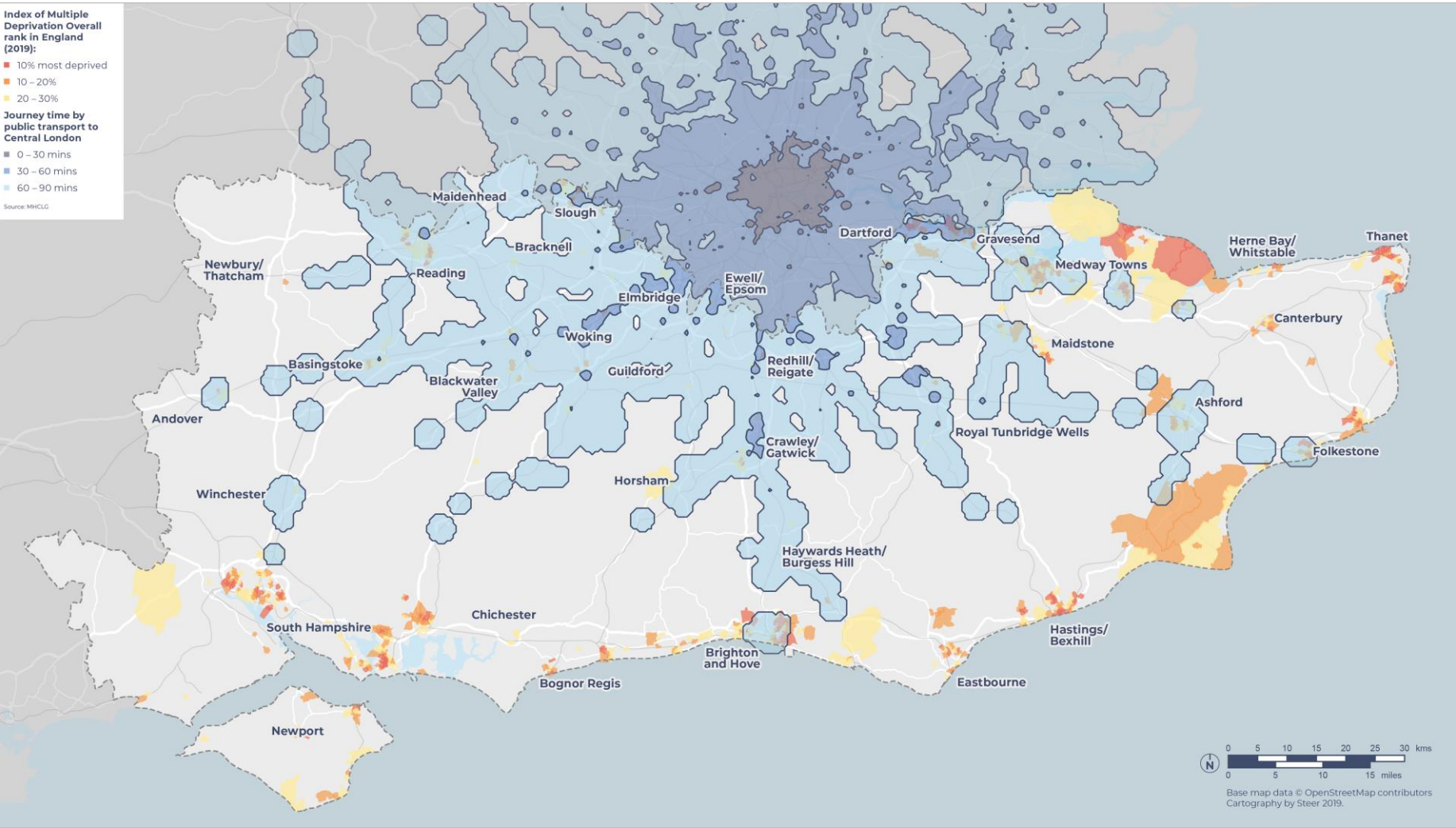
Agglomeration Benefits

The agglomeration effect describes the impact on an economy of companies and industries clustering together.

The development of employment clusters across the South East will help promote the benefits of agglomeration across the area. Where these benefits are realised, living standards will improve as a result of the increased access to opportunity. Clustering should therefore be encouraged to help attract investment and drive improvements in living standards. **Figure 3.3** shows key priority industries in the South East.

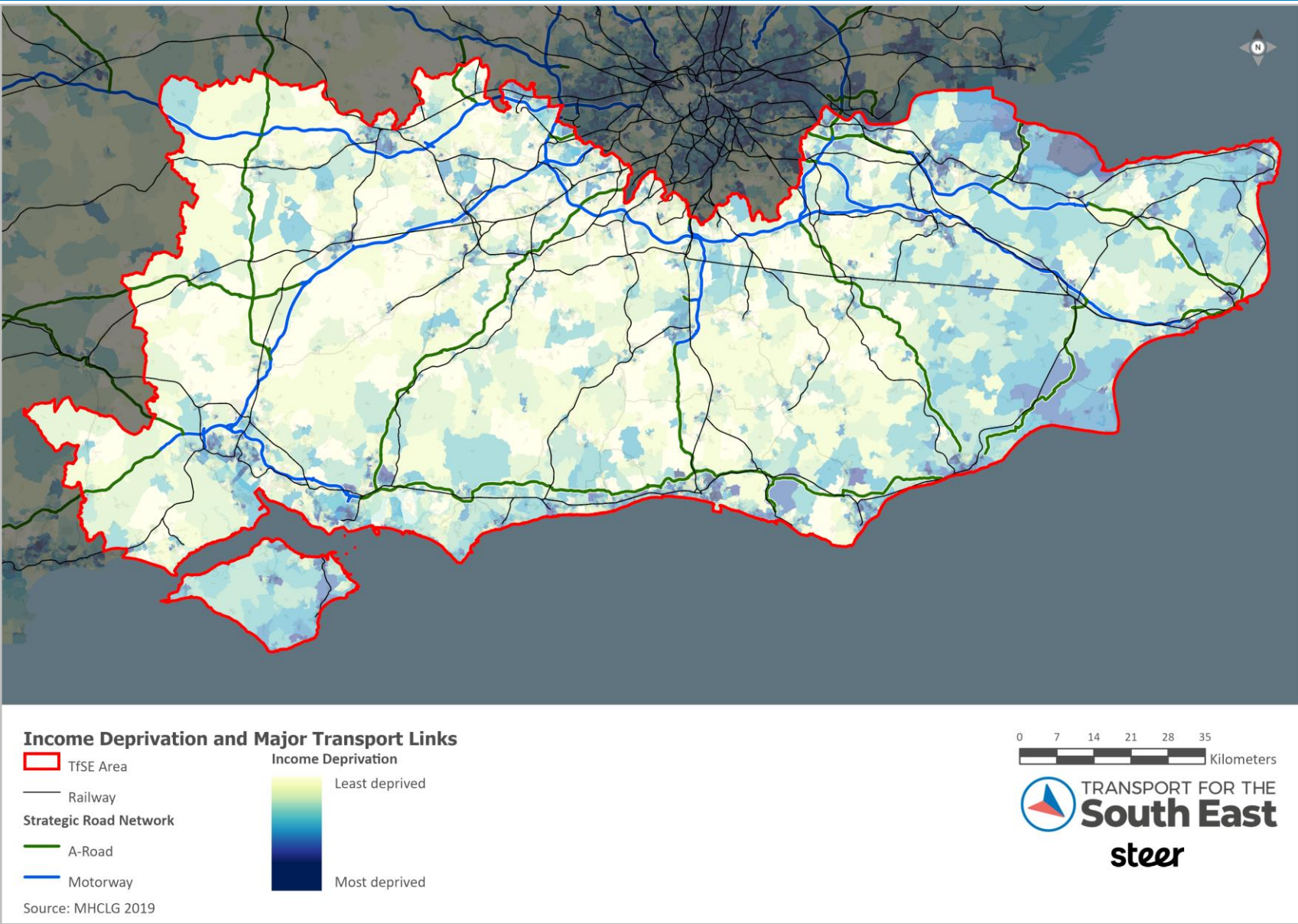
The Levelling Up Missions

Figure 3.1: Connectivity and Deprivation ⁵



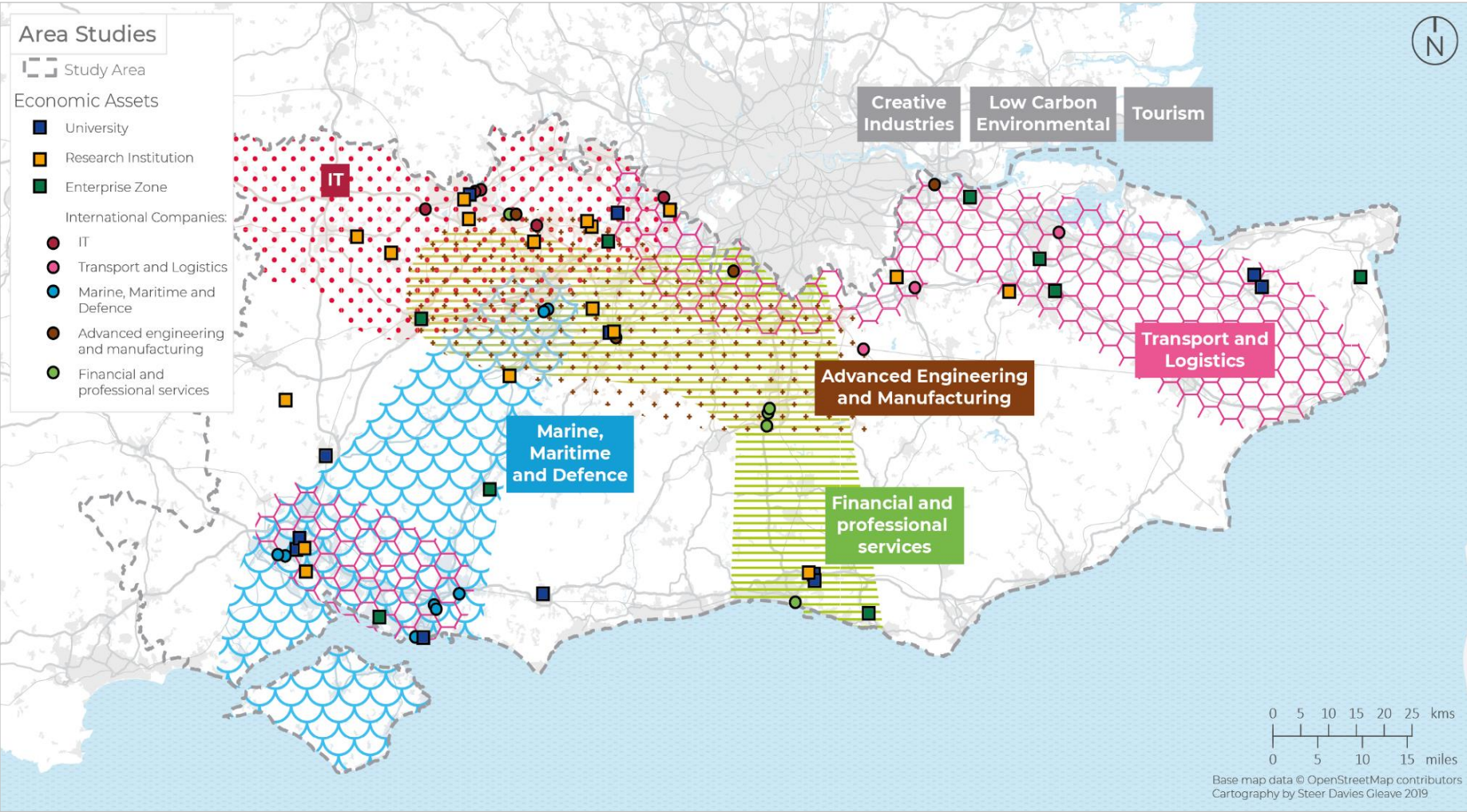
The Levelling Up Missions

Figure 3.2: Income Deprivation and Major Transport Links ⁶



The Levelling Up Missions

Figure 3.3: Key Priority Industries in the South East



The Levelling Up Missions

London's influence

Figure 3.4 illustrates the relationship between Public Transport Travel Time from London and Mean Gross Annual Pay in 2021.

The map shows a loose correlation between these two metrics. The highest levels of Mean Gross Annual Pay are in areas of Surrey and Berkshire. However, some areas of the South East with a similar travel time from London, for example in Kent and East Sussex, have a lower Mean Gross Annual Pay.

Good connectivity to London generally equates to higher mean gross annual pay, which tends to follow transport corridors. Although connectivity to London is important in spreading wealth, public transport accessibility is not the sole factor influencing Mean Gross Annual Pay across the region.

The Medway towns, for example, have good transport connections but low Mean Gross Annual Pay. This is likely a result of a low skilled low wage local economy, rather than poor transport connectivity.

Travel time variances

Figure 3.5 on page 21 illustrates the relationship between Public Transport Travel Time and Gross Value Added per Head in 2016.

The map shows there is a relationship between these two metrics, with areas with faster public transport travel time to London having higher measures of GVA per head.

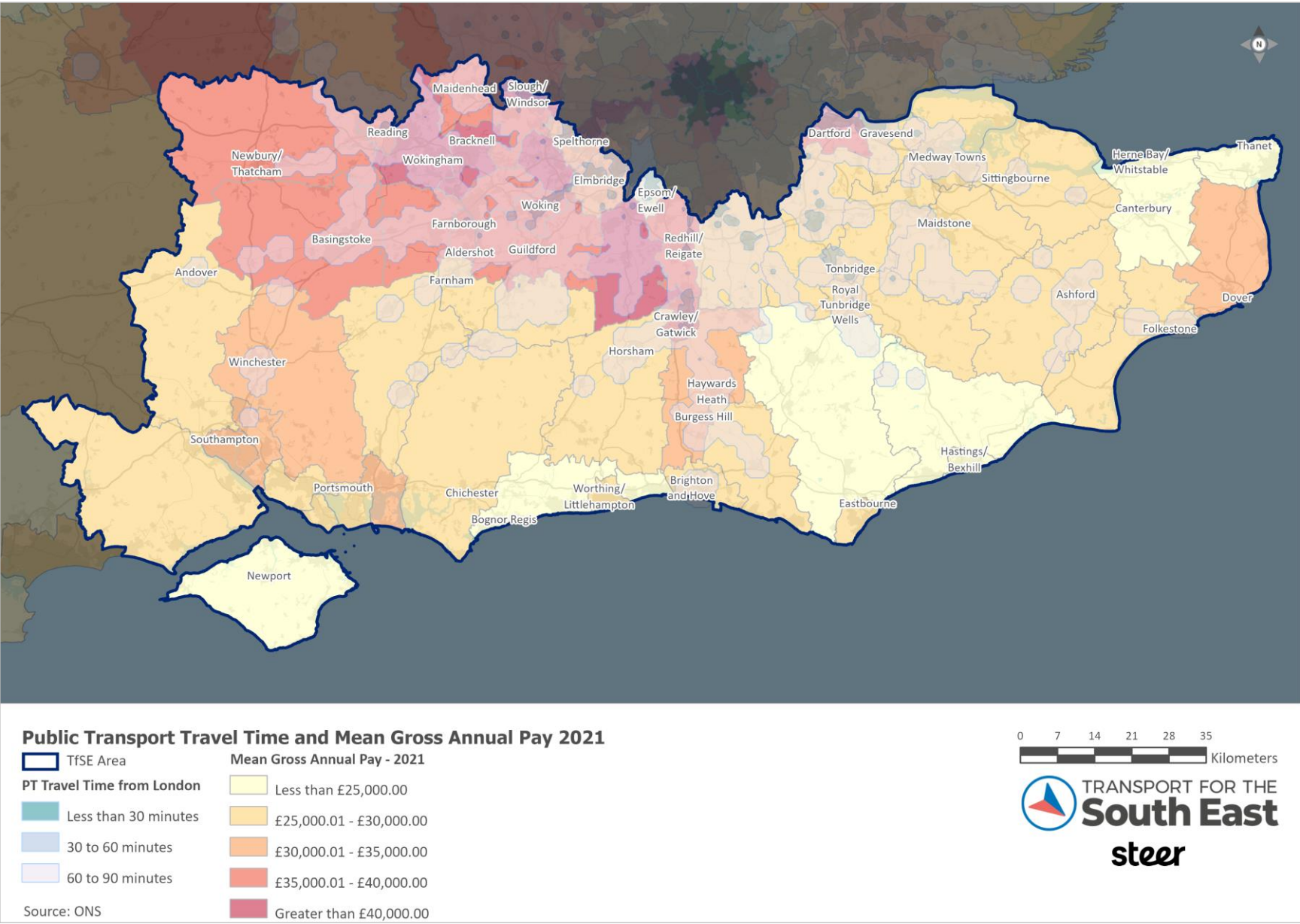
For example, parts of Berkshire and Surrey which are within 60 minutes Public Transport Travel Time from London have a GVA per Head greater than £35,000. Whilst the connectivity to London is important, there are other factors contributing to the prosperity of these places.

Conversely, areas of Kent such as Gravesend, the Medway Towns and Sittingbourne, as well as coastal areas in Kent and East Sussex, have a GVA per Head of less than £20,000. The variation between these two areas of the South East demonstrates the challenges involved in Levelling Up the region.

It should be noted that the data presented in **Figure 3.5** is aggregated to district council level, and that further variations exist within these areas depending on the density and spatial coverage of the transport network.

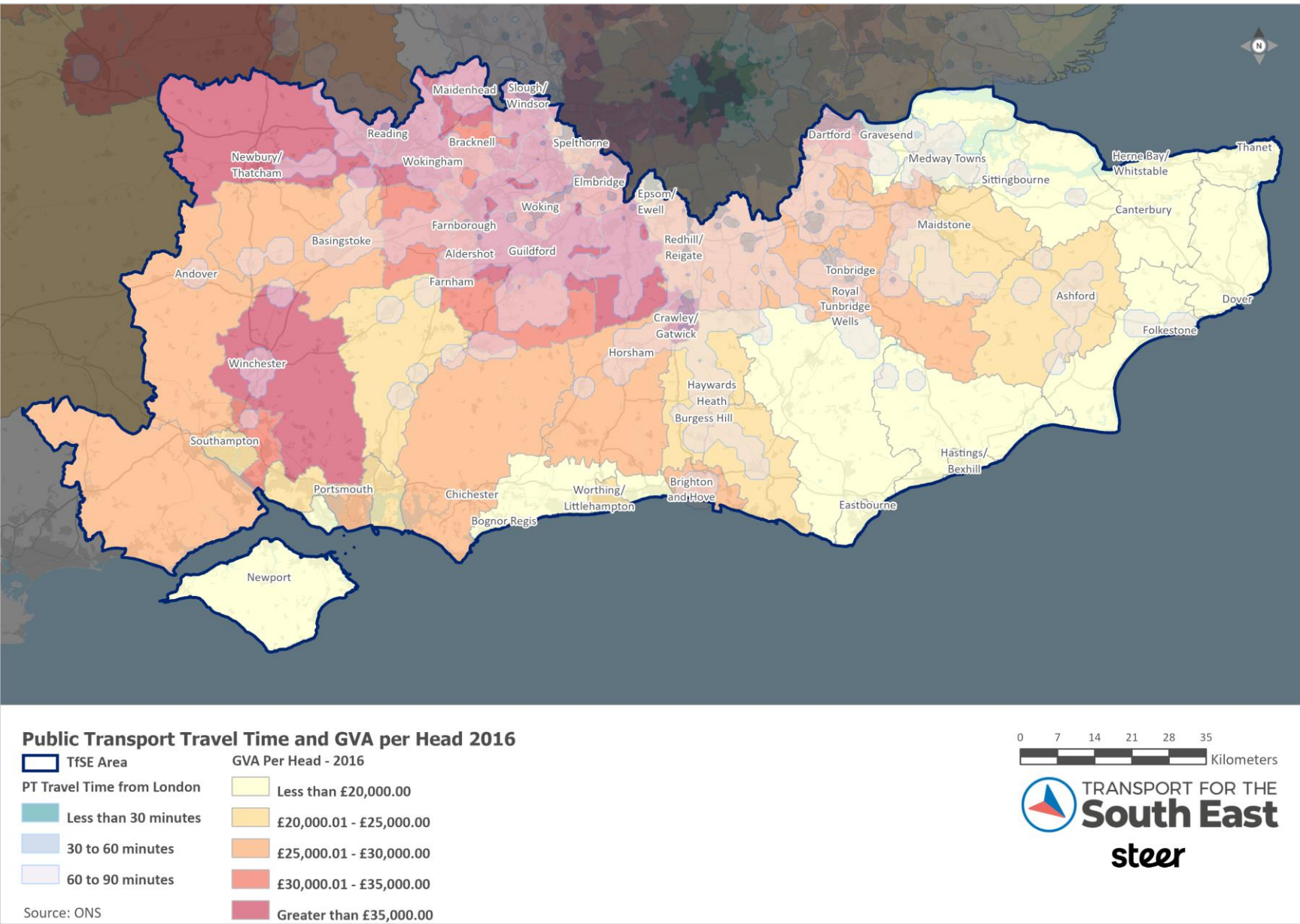
The Levelling Up Missions

Figure 3.4: Public Transport Travel Time from London and Mean Gross Annual Pay in the South East, 2021 ⁷



The Levelling Up Missions

Figure 3.5: Public Transport Travel Time and GVA per Head in the South East, 2016 ⁸



The Levelling Up Missions

Research and Development

The Levelling Up mission for research and development is that:

‘By 2030, domestic public investment in R&D outside the Greater South East will increase by at least 40% and over the Spending Review period by at least one third. This additional government funding will seek to leverage at least twice as much private sector investment over the long term to stimulate innovation and productivity growth.’

Although this mission uses the South East as a benchmark for growth across the rest of the UK, there is an indirect relationship between this mission and transport in the South East.

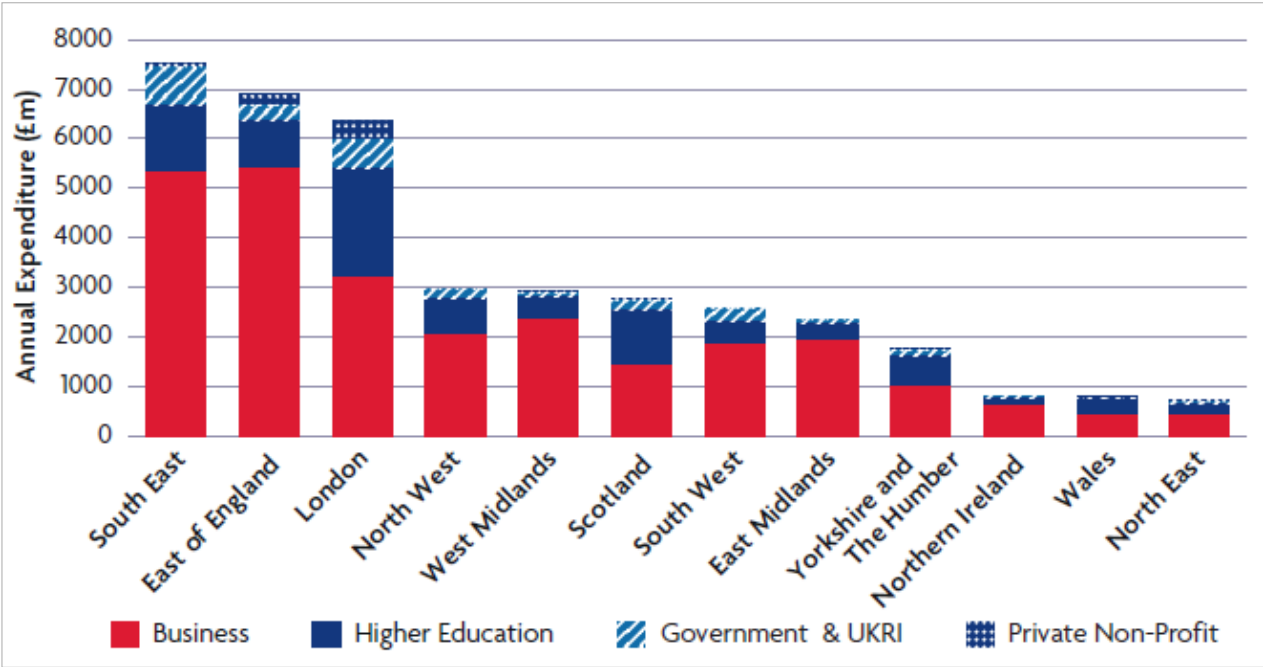
Access to a large quantum of skilled labour can attract companies to invest in R&D capability, and it is the region’s strategic connections to London, as well as it’s international gateways and other major economic hubs, which are key to attracting this skilled labour. Transport in the South East also has an important role to play in facilitating collaboration and increased

R&D spending across the UK. As **Figure 3.6** illustrates, the South East currently benefits from the highest level of spending of all UK countries and regions. However, communities in the South East which are in need of levelling up, for example Medway, Eastbourne and Littlehampton, do not generally benefit from this investment because it is generated by or targeted at industries based in prosperous areas of the region, and not at deprived communities

in need of levelling up, which also tend to lack good access to high investment areas.

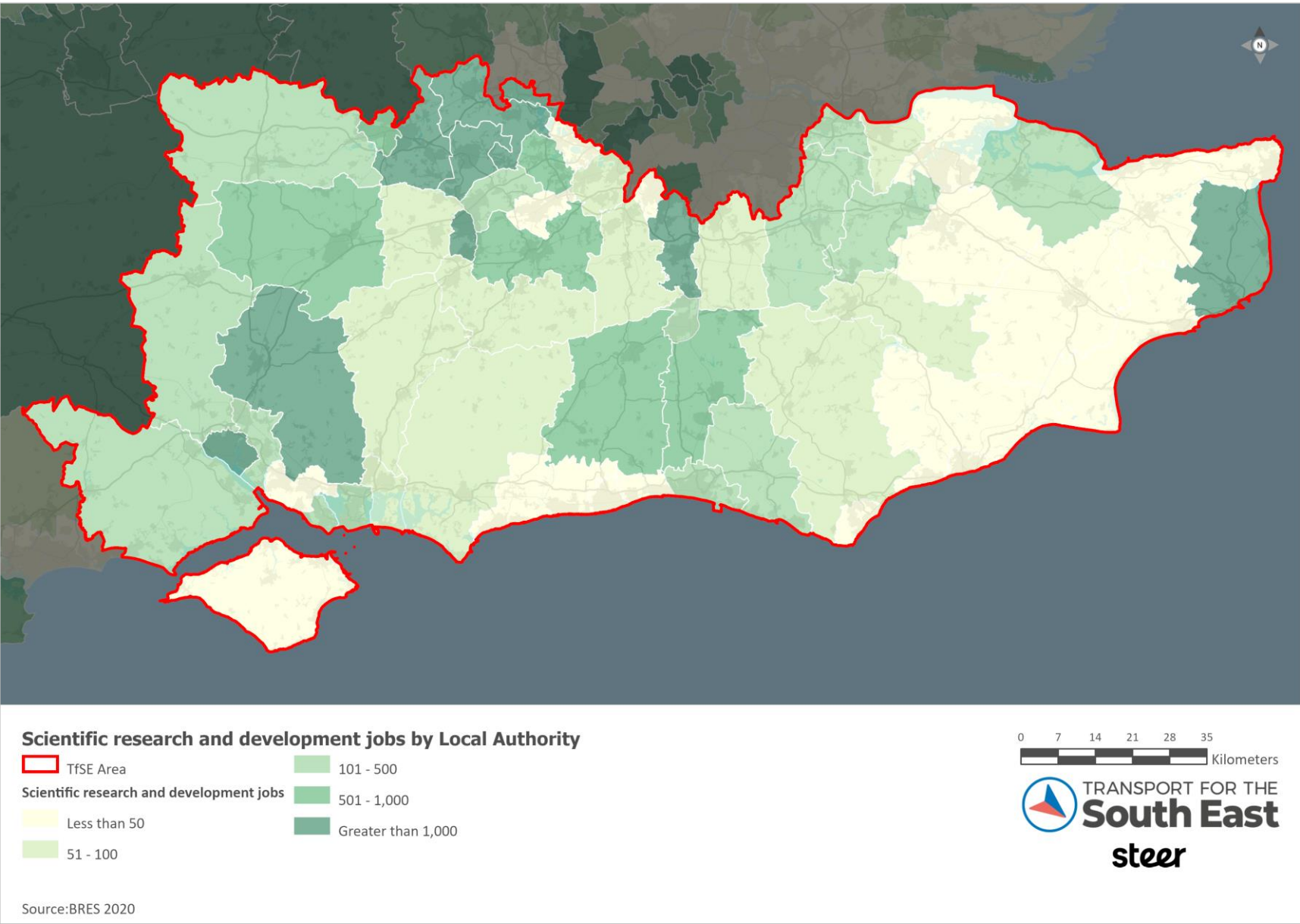
Figure 3.7 shows the number of scientific research and development job by local authority. These are mostly found to the west of the region, with a high concentration around the Reading and Winchester conurbations. The lowest number of jobs in this field can be found in Kent, with the exception of the far east of the county.

Figure 3.6: R&D expenditure, UK countries and regions, 2019 ⁹



The Levelling Up Missions

Figure 3.7: Scientific research and development jobs by Local Authority in the South East ¹⁰



The Levelling Up Missions

Transport Infrastructure

The Levelling Up mission for transport infrastructure is that:

‘By 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares and integrated ticketing.’

This objective aims to see levels of public transport service operate closer frequencies typical of London’s commuter rail network, at four or more trains per hour.

Figure 3.8 shows the difference in journey times to key services by car and walking and public transport. The correlation here is predominantly between rural and urban areas, as rural areas are less well served by public transport and have longer walking distances to key services. In these communities, residents need their own vehicle to access education, employment and other opportunities. This disadvantages and further marginalises people who may not be able to afford their own vehicle.

Transport can help address these issues and Level Up the South East. By connecting people to employment opportunities, and other key services, transport can have a positive impact on a range of social and economic indicators, including productivity, educational attainment, health and wellbeing, and pride in place.

There can also be a reverse relationship however, with variations in the provision of transport infrastructure exacerbating existing inequalities, by accelerating positive outcomes in well connected places, and entrenching deprivation in places with less connectivity. Investment in public transport and active travel is critical to achieving equity of opportunity. In particular, buses and other forms of shared mobility are crucial to facilitating improved and more affordable access to local employment and education opportunities and other key services.

For example, 77% of jobseekers outside of London do not have regular access to a car, van or motorbike for personal use for work or interviews. To address this, increased bus frequencies and reduced fares are required to remove the barriers to travel for people without access to a car.

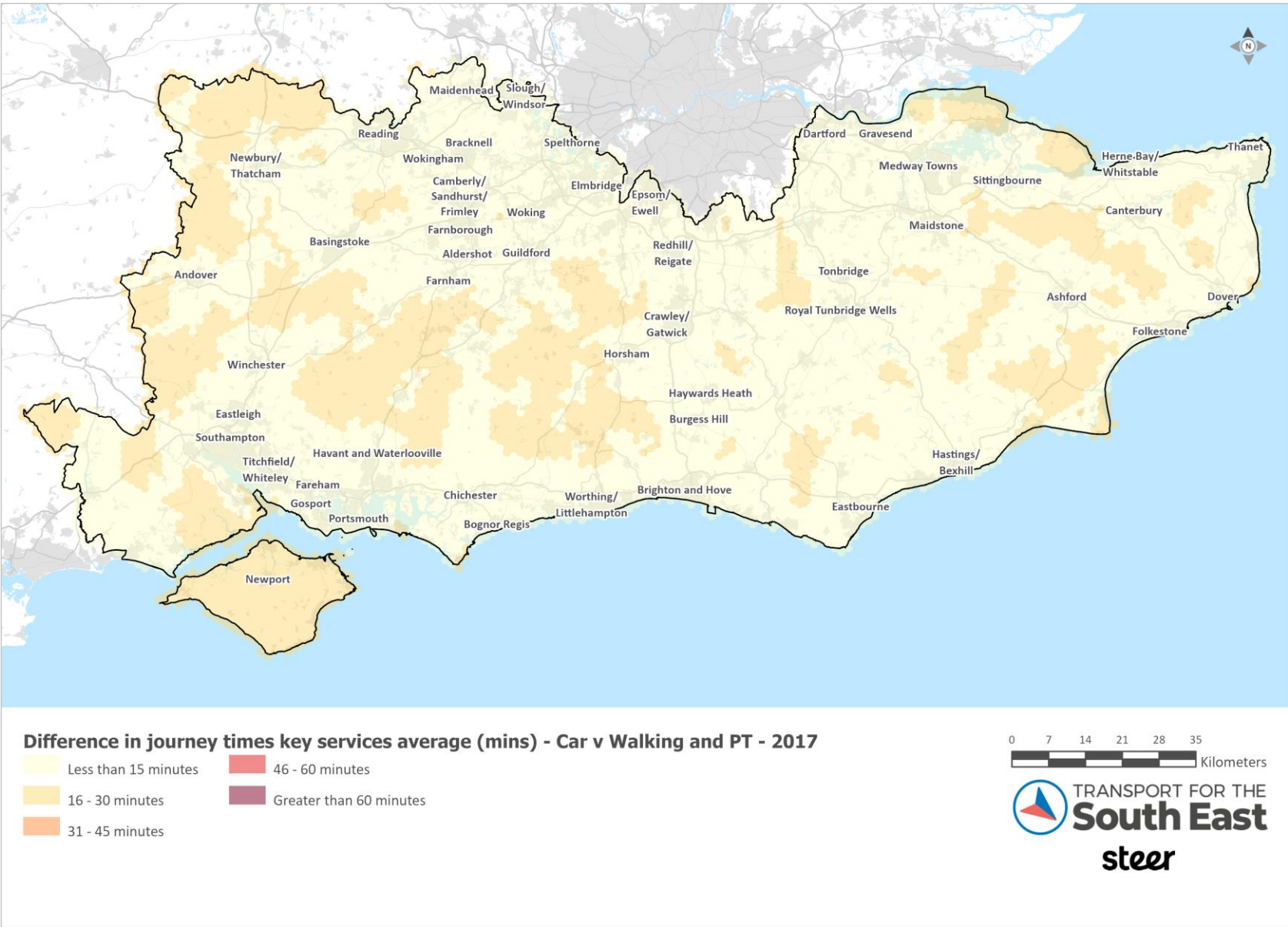
In urban areas, new bus priority lanes are needed to make bus journeys faster, more reliable and more attractive to passengers.

This, and other types of public transport improvements, can help reduce distances between places and provide people with more opportunities to access education, employment and other essential services. Extensive transport networks are required to avoid less well-connected places being left behind.

Figure 3.9 illustrates average journey times to key services by walking and public transport and **Figure 3.10** shows bus services per hour during the Monday morning peak. The map illustrates the challenge of accessing key services in areas which are poorly served by public transport, particularly more rural areas. These challenges have grown owing to the impact of the pandemic on ridership and consequential service operations viability by bus operators leading to a removal of services.

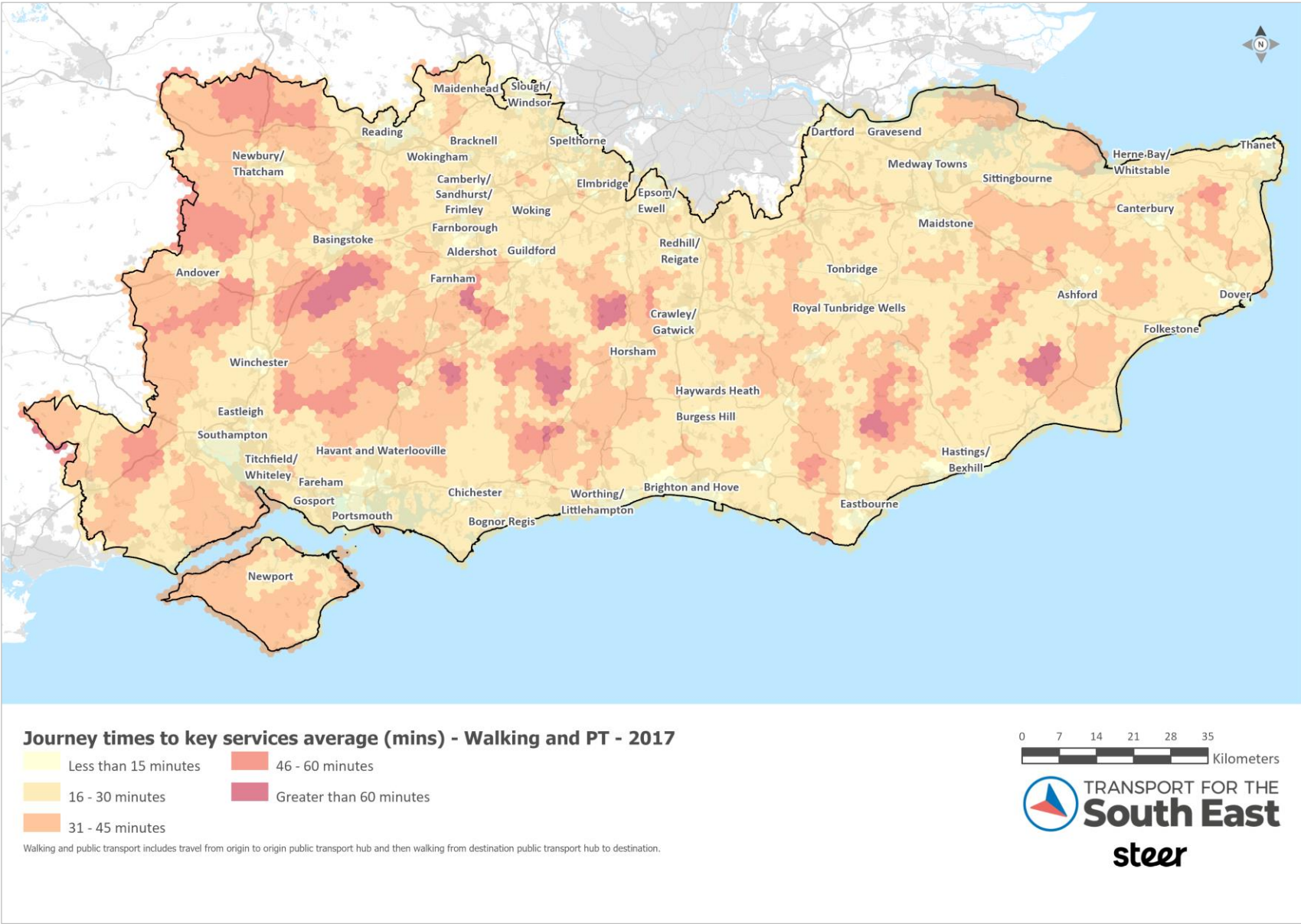
The Levelling Up Missions

Figure 3.8: Difference in journey times to key services average (mins) – car v walking and public transport ¹¹



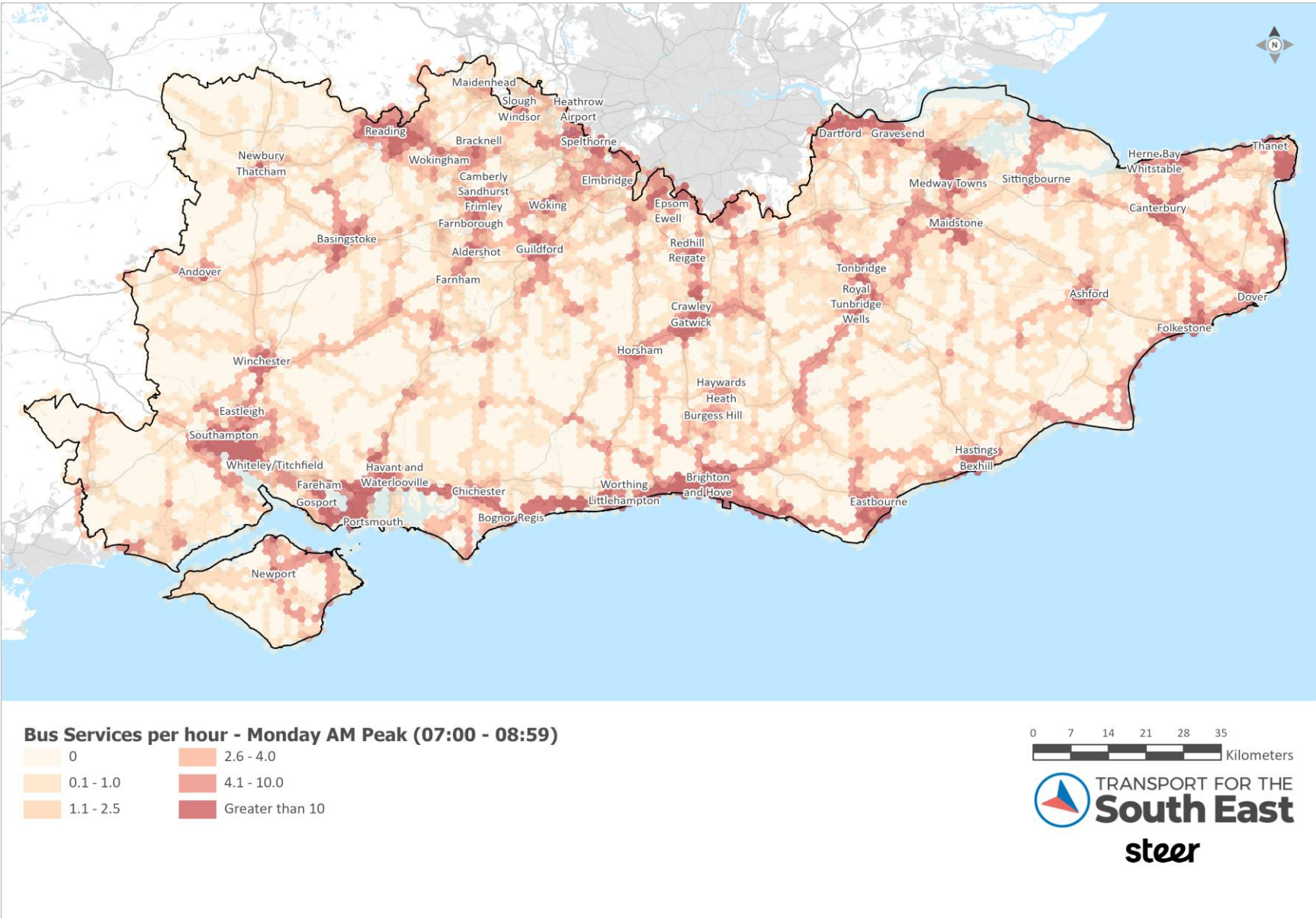
The Levelling Up Missions

Figure 3.9: Journey times to key services average (mins) – Walking and PT ¹²



The Levelling Up Missions

Figure 3.10: Bus Services per hour – Monday AM Peak ¹³



The Levelling Up Missions

Transport affordability is also an important factor in determining an individual's ability to access key services, as inadequate public transport increase reliance on private vehicles. **Figure 3.11** shows trends in transport affordability and how the cost of bus and rail travel has increased faster than private vehicles in recent decades.

Figure 3.12 shows LSOAs with low car ownership and high average public travel time to services. These areas are generally situated in urban coastal communities.

In Kent, more than 40% of households in Thanet, Dover and Folkestone do not have access to a car and are more than 15 minutes average travel time to key services. Other communities with these characteristics include areas of Brighton and Hove, Portsmouth and Southampton, where pockets of urban deprivation exist.

Figure 3.13 shows the relationship between the index of multiple deprivation and journey time to central London by public transport. The most deprived places in the South East, which rank in the 10% most deprived in England, are mostly coastal communities which are more than 90

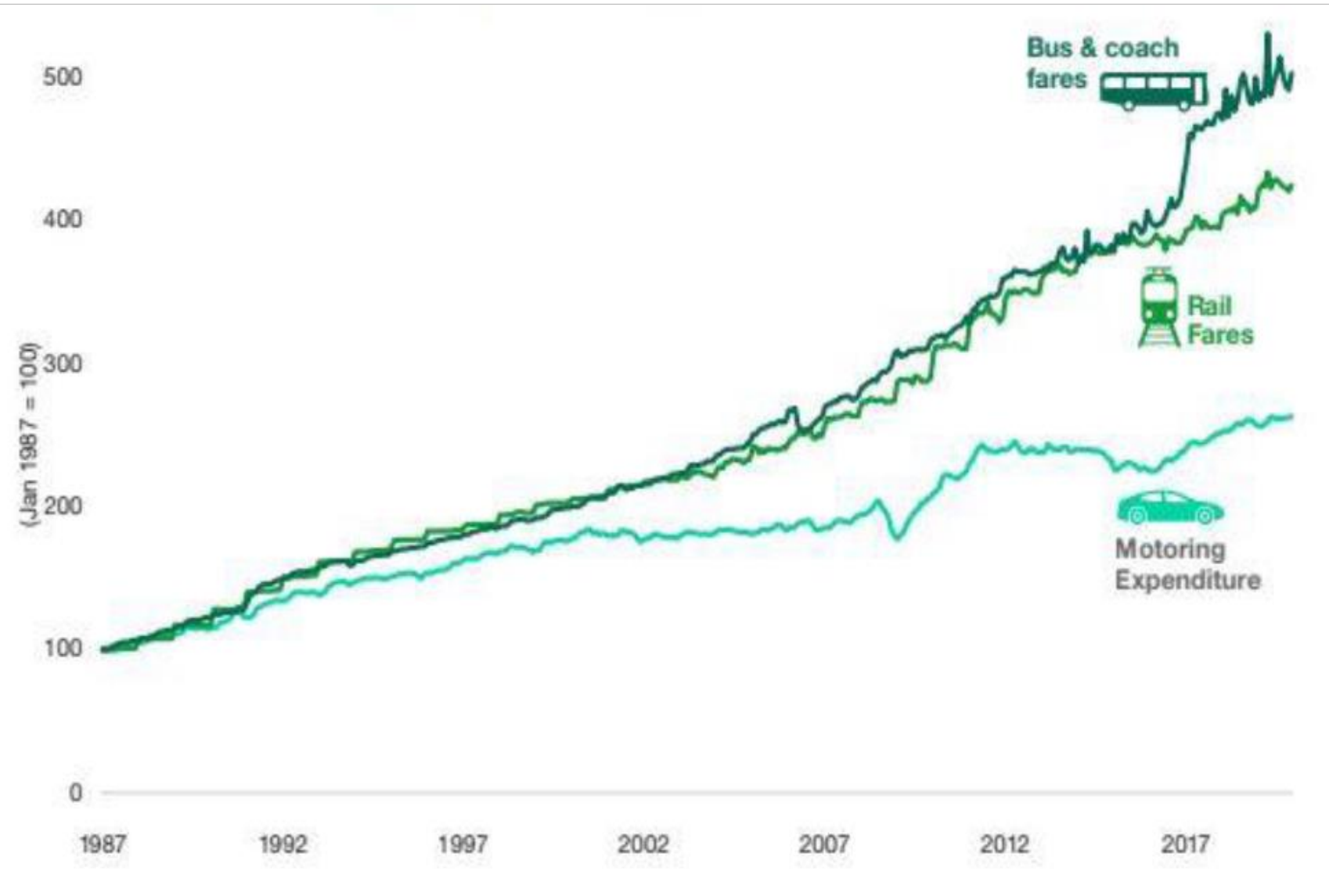
minutes journey time by public transport to Central London.

Some places which are better connected to central London by public transport, for example Ashford, the Medway towns, Gravesend and Dartford, also experience high levels of deprivation.

This demonstrates that good connectivity does not necessarily equate to prosperity, and that the task of reducing inequality and Levelling Up the South East is complex and multi- faceted.

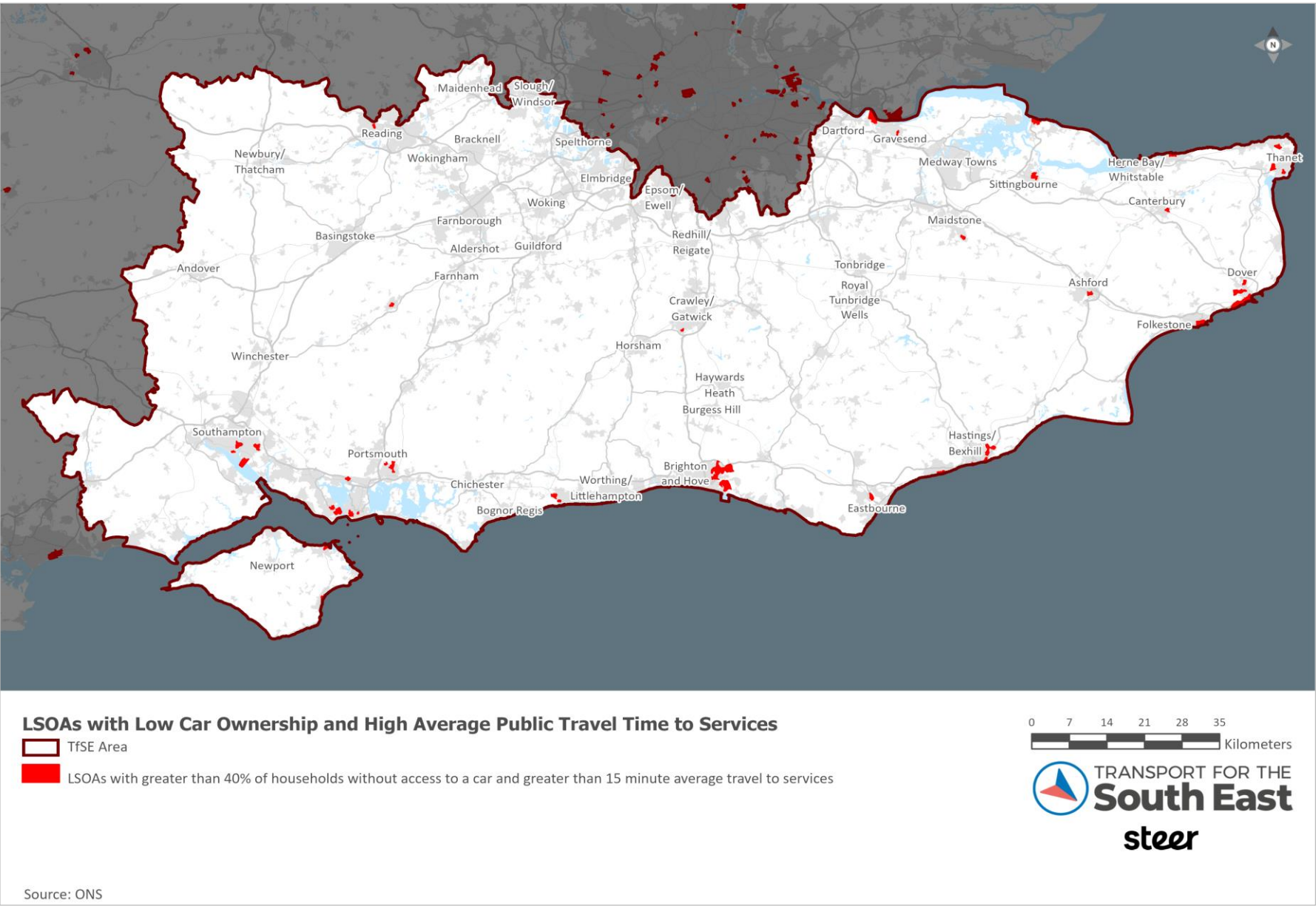
The Levelling Up Missions

Figure 3.11: Trends in affordability of transport ¹⁴



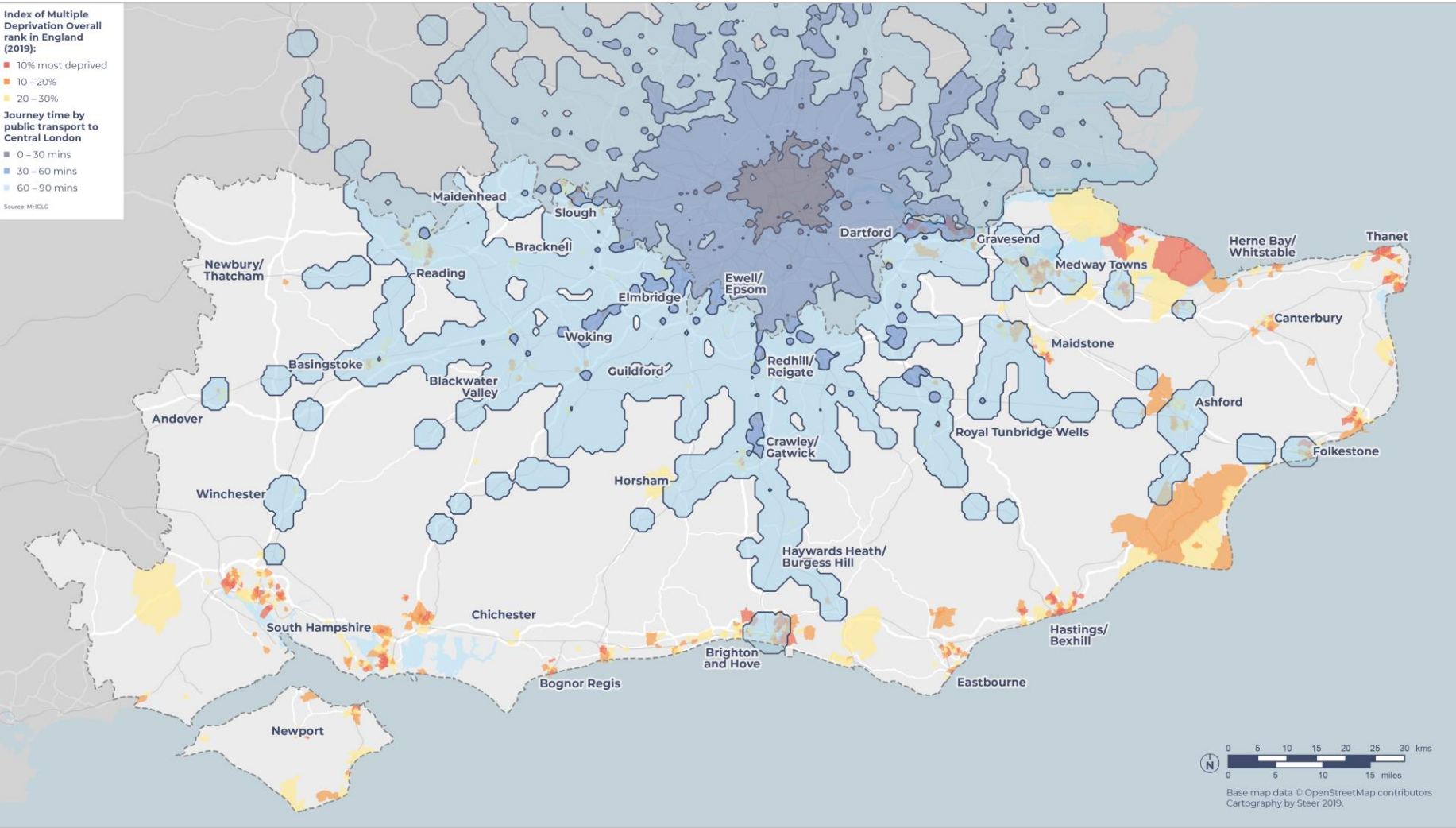
The Levelling Up Missions

Figure 3.12: LSOAs with Low Car Ownership and High Average Public Travel Time to Services ¹⁵



The Levelling Up Missions

Figure 3.13: Connectivity and Deprivation ¹⁶



The Levelling Up Missions

Digital Connectivity

The Levelling Up Mission for Digital Connectivity is that:

'By 2030, the UK will have nationwide gigabit-capable broadband and 4G coverage, with 5G coverage for the majority of the population.'

Improved digital connectivity has the potential to drive growth and productivity across the South East. Importantly, it has the potential to increase the size of local labour markets and widen access to employment through increased opportunities for remote working. This allows both workers and companies to locate away from high cost urban centres, enabling a more balanced distribution of growth.

Furthermore, improved digital connectivity will reduce the overall need to travel, particularly for business. This may allow the relationship between connectivity and deprivation to be decoupled, such that people living in isolated communities still have the opportunity to access high value jobs.

Improved digital connectivity will also enable increased digitisation of the transport network, to improve network management and operational capacity. Furthermore, increased access to online information and digitally enabled services could be used to influence travel behaviours and encourage passengers to travel by public transport.

Access to a good internet connection enables people to work from home and therefore access to a greater range of employment opportunities. Good digital connectivity also enables people to benefit from new and future mobility options which are digitally dependent.

Figure 3.14 illustrates median download speeds by output area. The map shows a concentration of areas with slow download speeds across Kent and East Sussex, in the New Forest and pockets of West Sussex and Hampshire.

Whilst some of these areas are deprived, there are also pockets of fast download speeds in deprived areas of Kent. The

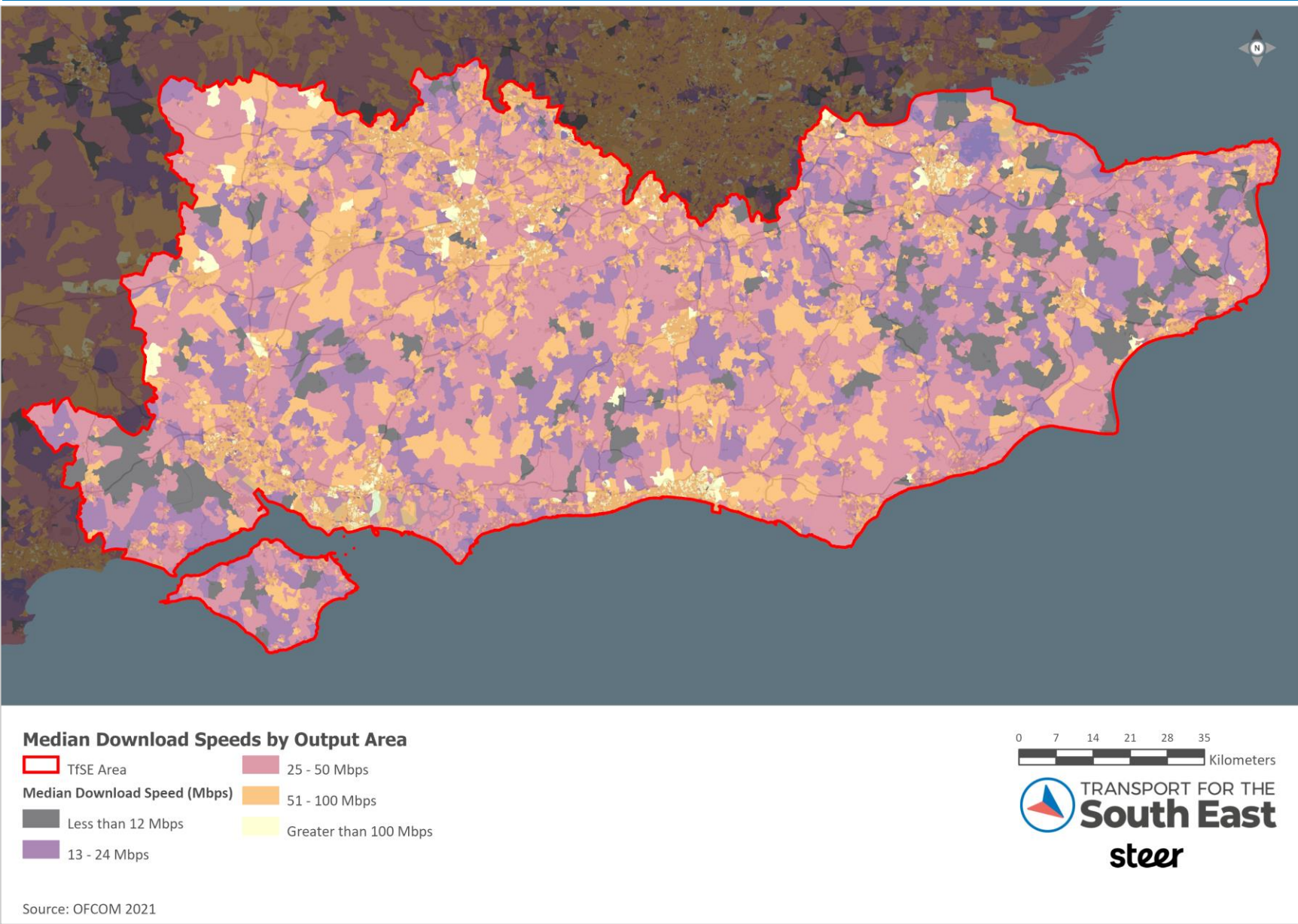
highest concentration of places with fast download speeds are in Berkshire, Surrey, west Hampshire and Brighton and Hove.

The data shows a limited correlation between download speeds and deprivation. Instead, the correlation is between rural and urban areas, rather than between prosperous and deprived communities.

Gigabit and 4G availability are also important enablers of growth and prosperity, as areas with good access to gigabit and mobile networks are more likely to be able to attract investment and encourage business.

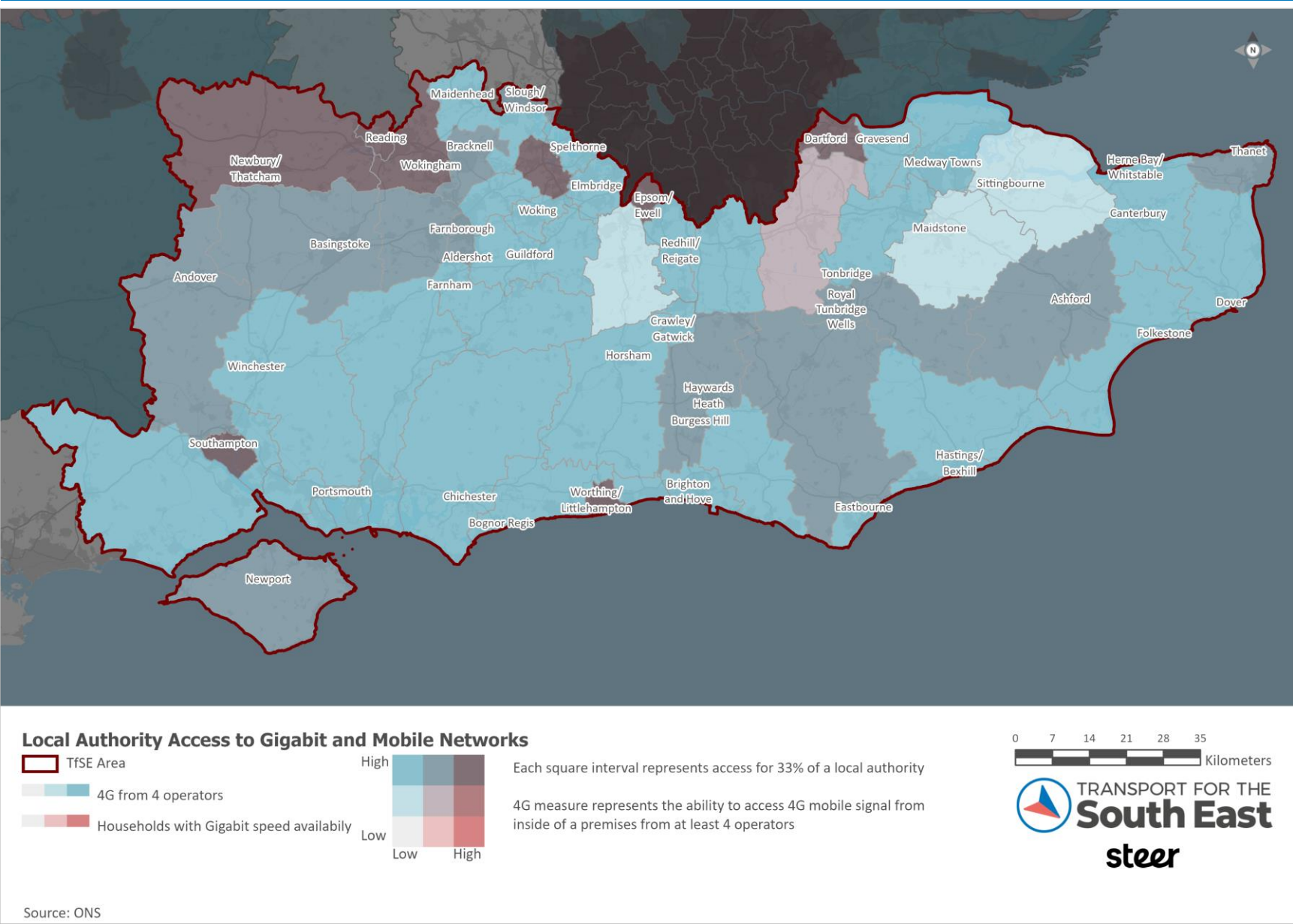
Figure 3.15 shows local authority access to gigabit and mobile networks. It shows that 4G mobile connectivity is good across the South East region, with the exception of Swale, Maidstone in Kent and the Mole Valley in Surrey. Similarly, most areas of the region benefit from good gigabit availability, with Dartford in Kent being an outlier.

Figure 3.14: Median Download Speeds by Output Area in the South East ¹⁷



The Levelling Up Missions

Figure 3.15: Local Authority Access to Gigabit and Mobile Networks ¹⁸



The Levelling Up Missions

Education

The Levelling Up mission for education is that;

‘By 2030, the number of primary school children achieving the expected standard in reading, writing and maths will have significantly increased. In England, this will mean 90% of children will achieve the expected standard, and the percentage of children meeting the expected standard in the worst performing areas will have increased by over a third.’

Access to education is critical to enabling children to develop the skills needed to succeed in life. A good standard of education creates more employment opportunities, higher income and therefore a better standard of living. Spreading education opportunities equally is key to levelling up the South East.

Education deprivation occurs when students leave formal education without the qualifications and skills needed to gain meaningful employment. **Figure 3.16** shows the proportion of the population aged 16 to

64 with level 3+ qualifications by local authority district in 2021. Level 3+ refers to A levels, a higher education diploma, an advanced apprenticeship and above.

The map shows a significant gap in educational attainment across the South East. The areas with the lowest levels of attainment, where the proportion of the population with level 3+ qualifications is between 37% and 52.8%, include Dartford, Swale and Thanet in Kent, and Crawley, Eastbourne, Rother and Hastings in Sussex. The highest levels of educational attainment are across Hampshire, Berkshire and Surrey.

This demonstrates a strong correlation between educational attainment and deprivation, with the worst performing areas also amongst the most deprived in the region.

Figure 3.17 shows education deprivation in the South East, with the darker shaded areas representing the most deprived. This map closely mirrors the educational attainment data illustrated in **figure 3.16**, with the most deprived areas having the poorest education outcomes. These are mostly concentrated in

the east of the region, and particularly in coastal communities. Education deprivation is also high in the metropolitan areas of Southampton and Portsmouth.

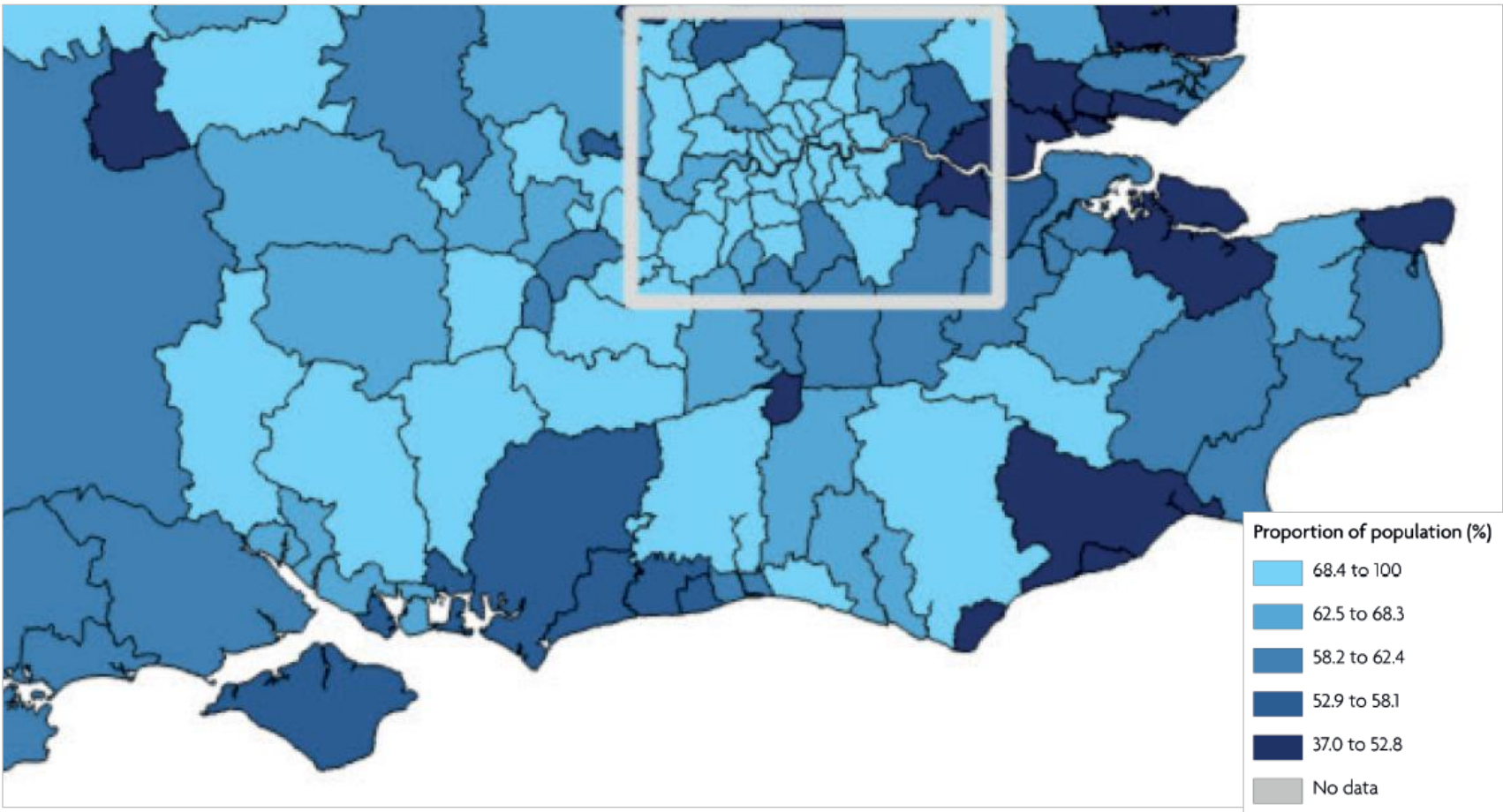
An important factor in being able to access education is the journey time to and from schools, which if long can act as a barrier to good attendance. **Figure 3.18** shows LSOAs with a greater than 15 minute access time to primary schools. These areas are mostly in rural parts of the South East, with a particularly high concentration in rural Hampshire, between Basingstoke and Winchester, and in the New Forest.

This trend does not closely correlate to deprivation, with the most deprived communities in the region generally having good access to primary schools.

As shown in **figures 3.19**, trends for access to secondary schools are similar to those for primary schools. Access is generally good (within 30 minutes) in the most deprived areas of the region, with the longest access times being in rural communities, particularly to the west of the region.

The Levelling Up Missions

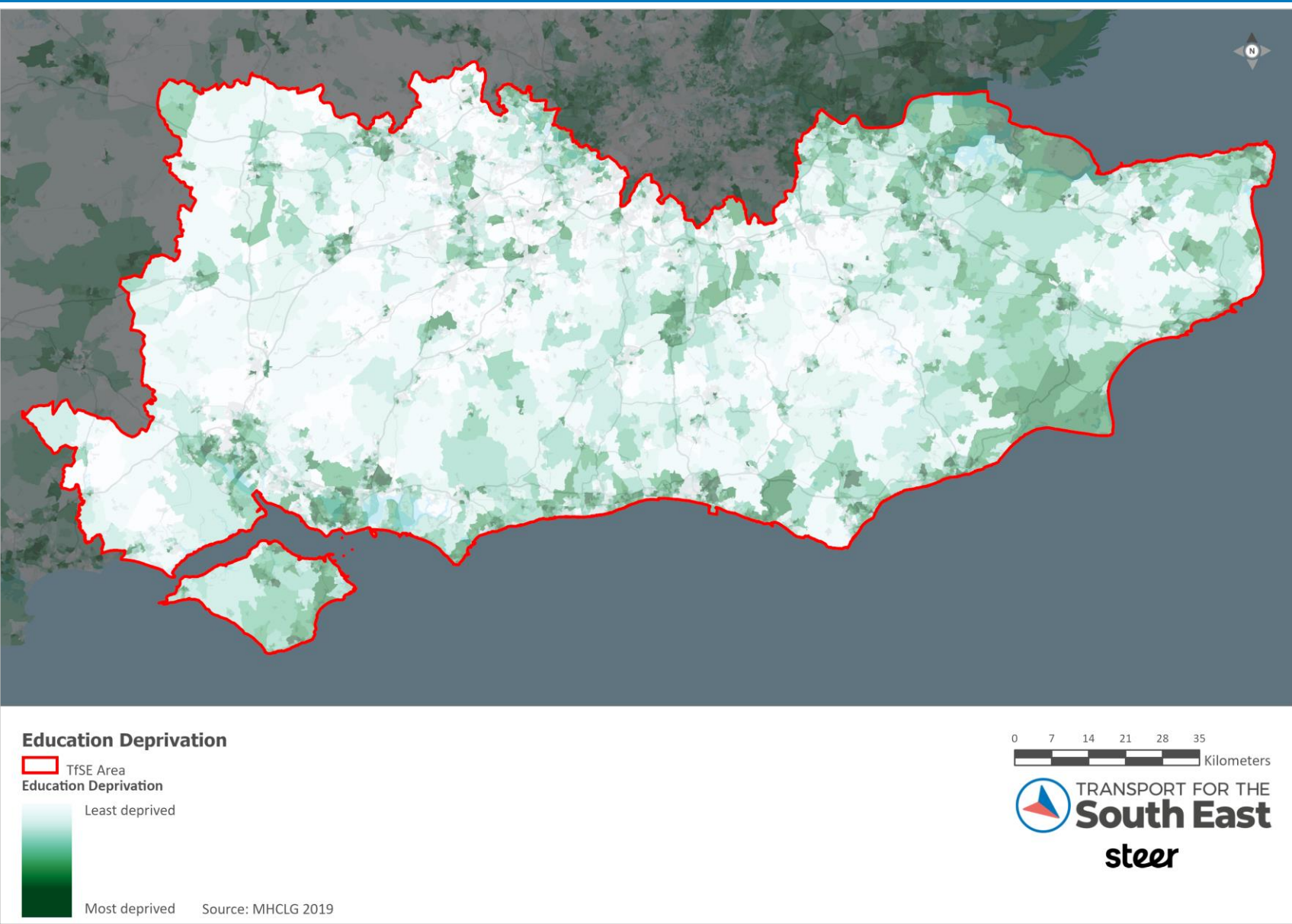
Figure 3.16: Proportion of population aged 16 to 64 with level 3+ qualifications by local authority district ¹⁹



¹ Levelling Up the United Kingdom White Paper, 2022, page 10

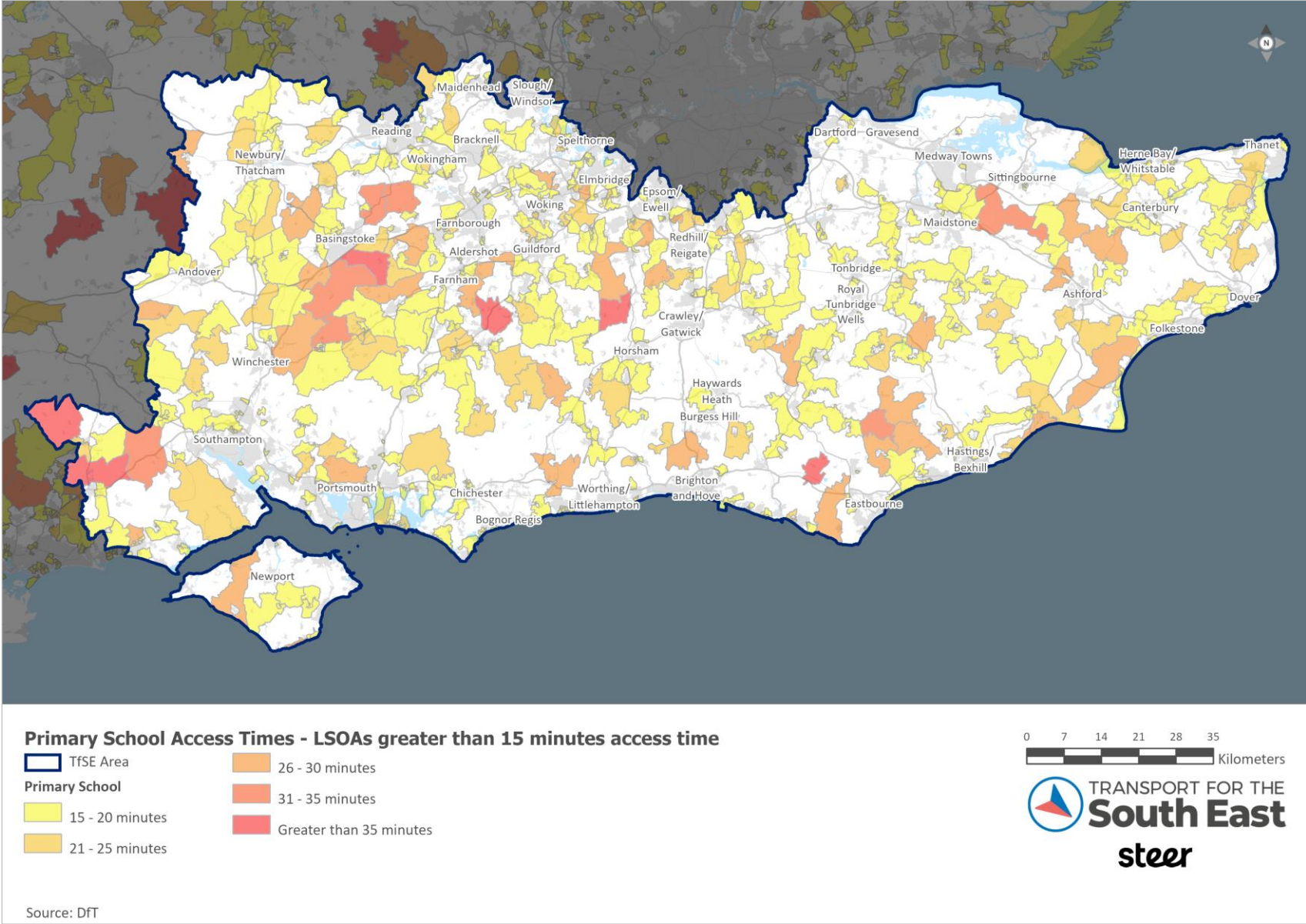
The Levelling Up Missions

Figure 3.17: Education Deprivation in the South East ²⁰



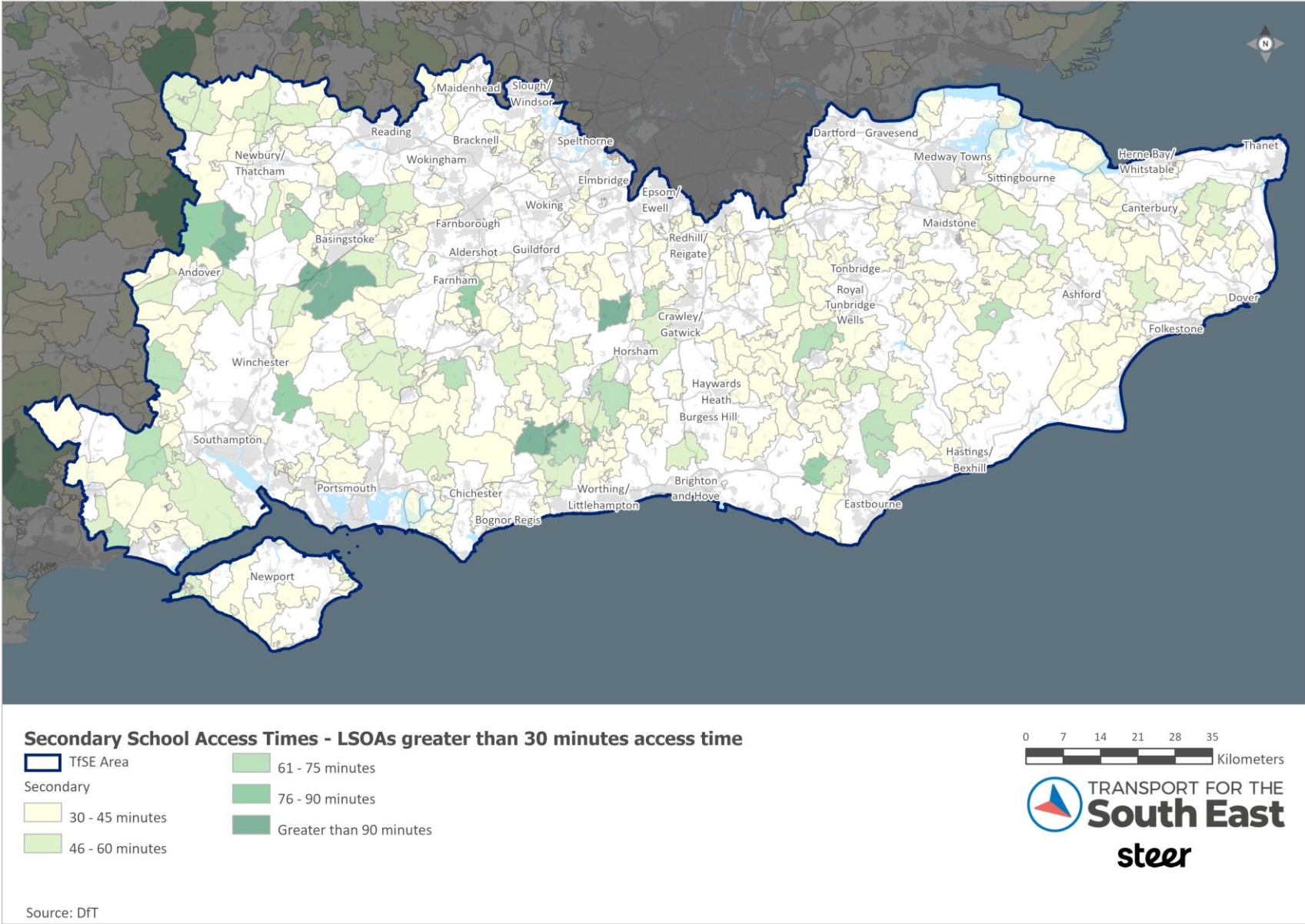
The Levelling Up Missions

Figure 3.18: Primary School Access Times – LSOAs greater than 15 minutes access time ²¹



The Levelling Up Missions

Figure 3.19: Secondary School Access Times – LSOAs greater than 30 minutes access time ²²



The Levelling Up Missions

Skills

The Levelling Up mission for skills is that:

'By 2030, the number of people successfully completing high-quality skills training will have significantly increased in every area of the UK. In England, this will lead to 200,000 more people successfully completing high-quality skills training annually, driven by 80,000 more people completing courses in the lowest skilled areas.'

Access to further education, apprenticeships and employment are all important in allowing people to develop high quality skills to maximise their income and improve their life outcomes. Good transport connectivity is a key enabler to unlock this access, with well connected communities able to benefit from a greater number and variety of education and employment opportunities.

Figure 3.20 illustrates access times to further education. The spatial pattern of places with greater than 60 minutes access time reflects a weak correlation with deprivation, as these communities are generally located in prosperous rural areas of the region across Hampshire and West Sussex.

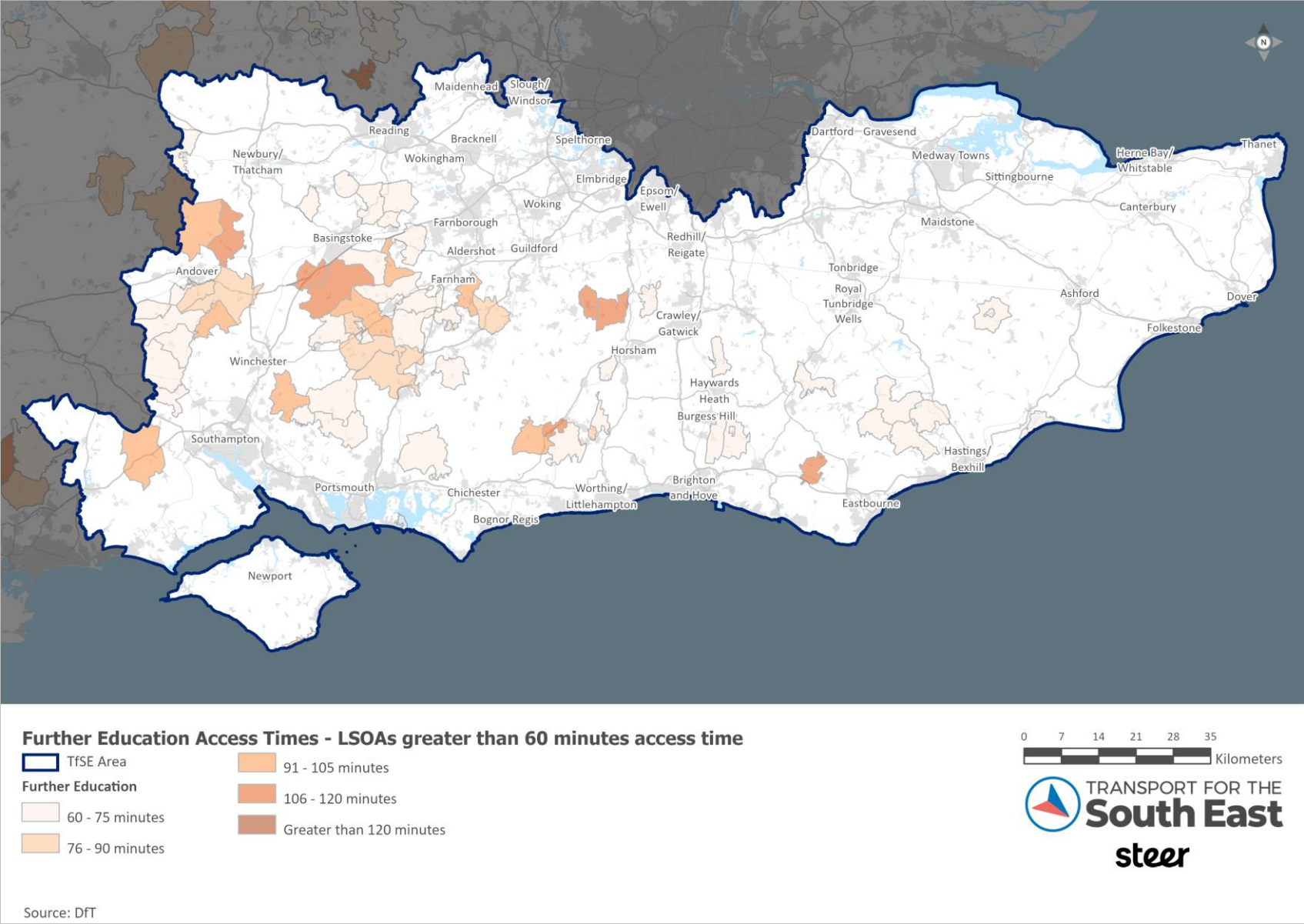
Figure 3.21 shows local authorities in the lowest quartile for a combination of four key metrics:

- level 3+ equivalent skills in the adult population;
- Gross Value Added per hour worked;
- median gross weekly pay; and
- healthy life expectancy.

The local authorities with all four measures in the bottom quartile are Thanet in Kent and Rother and Eastbourne in East Sussex. These local authorities consistently rank amongst the most deprived in the South East. Nearly all local authorities throughout Berkshire, Surrey and West Sussex do not have any of the four measures in the lowest quartile.

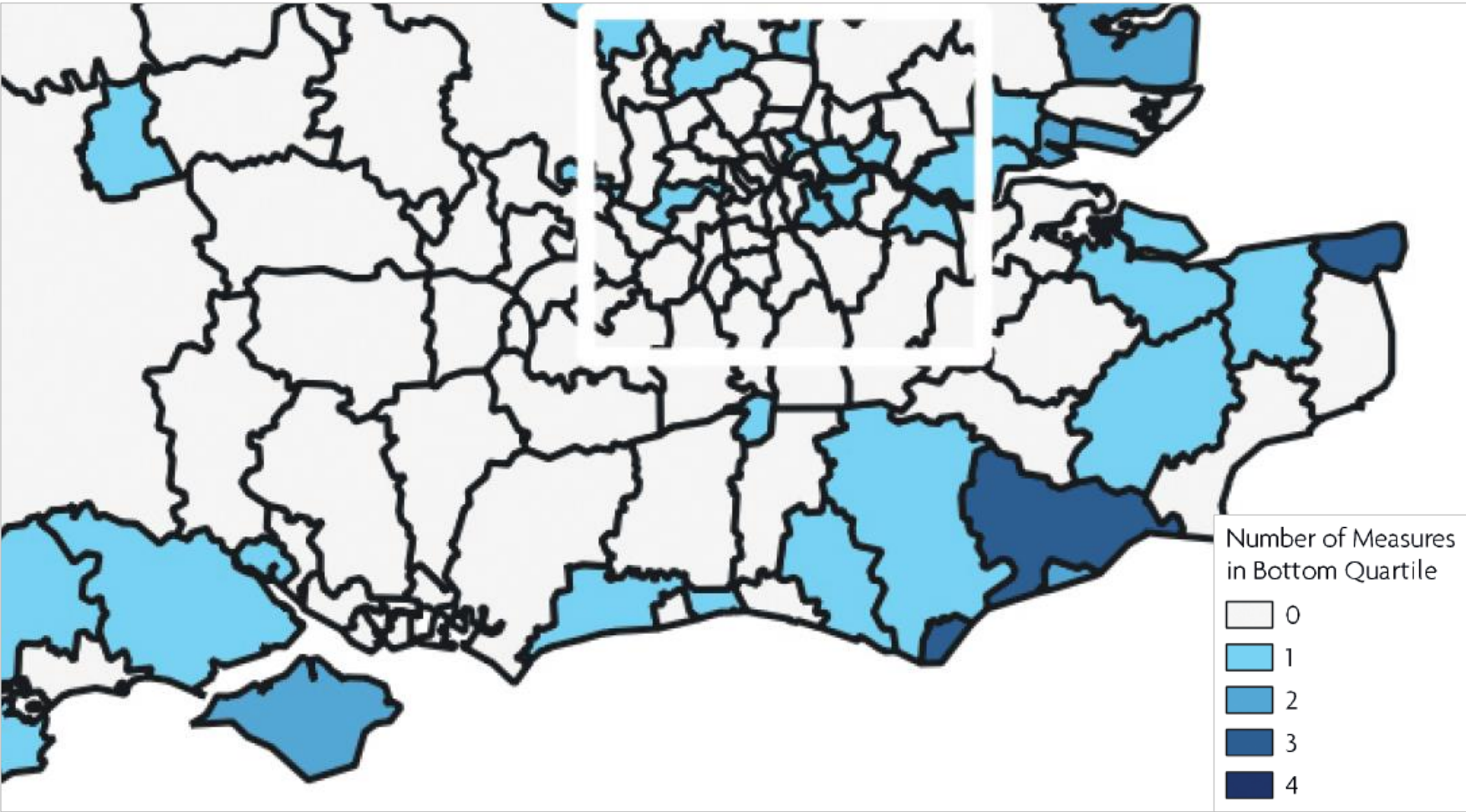
The Levelling Up Missions

Figure 3.20: Further Education Access Times – LSOAs greater than 60 minutes access time ²³



The Levelling Up Missions

Figure 3.21: Local authorities in the bottom quartile for level 3+ equivalent skills in the adult population, Gross Value Added (GVA) per hour worked, Median Gross Weekly Pay and healthy life expectancy ²⁴



The Levelling Up Missions

Health

The Levelling Up mission for health is that:

‘By 2030, the gap in Healthy Life Expectancy (HLE) between local areas where it is highest and lowest will have narrowed, and by 2035 HLE will rise by five years.’

Similarly to other focus areas and missions, access to key services is critical to achieving positive outcomes. In the case of health, this includes access to hospitals, GP surgeries and other healthcare professionals.

There is a clear correlation between deprivation and health, whereby the most deprived communities have the poorest health outcomes. As illustrated in **figure 3.22**, the number of years lived in good health for both males and females decreases by each decile of deprivation.

Females living in the 10% most deprived neighbourhoods in England can expect to have around 52 years healthy life expectancy, and a total life expectancy of 79 years, compared to the least deprived decile, where healthy life expectancy is 71 years and total life expectancy is 86 years. A

similar trend is evident for male life expectancy and healthy life expectancy.

The provision of transport infrastructure has an important role to play in determining health outcomes. Investment in active travel can encourage people to walk and cycle more frequently, therefore improving physical and mental health and reducing the risk of poor health.

Figure 3.23 shows the proportion of overweight and obese adults in the South East. There is a strong correlation between areas with the highest rates of obesity and deprivation, with coastal and estuarine communities containing some of the worst rates of adult obesity.

Figures 3.24 and 3.25 show healthy life expectancy at birth for males (figure 27) and females (figure 28). Both maps illustrates similar trends of lower life expectancy in the more deprived areas of the region.

The relationship between access to health services and average life expectancy is shown in **figure 3.26**. The areas with the lowest life expectancy are primarily to the east of the region, in particular the coastal

communities of east Sussex and the Thames Estuary.

Communities with greater than one hour average access time to GPs or hospitals, which tend to be located inland, generally have lower life expectancy. Conversely, communities with the highest life expectancy of above 84 years are generally located in the least deprived areas and benefit from good access to health services.

Communities in most need of levelling up are therefore those with limited access to healthcare services, which is not only a consequence of the provision of the services themselves, but also a result of poor transport connectivity to access them.

The Levelling Up Missions

Figure 3.22: Life Expectancy and Healthy Life Expectancy, England neighbourhoods by deprivation decile, 2017 – 2019 ²⁵

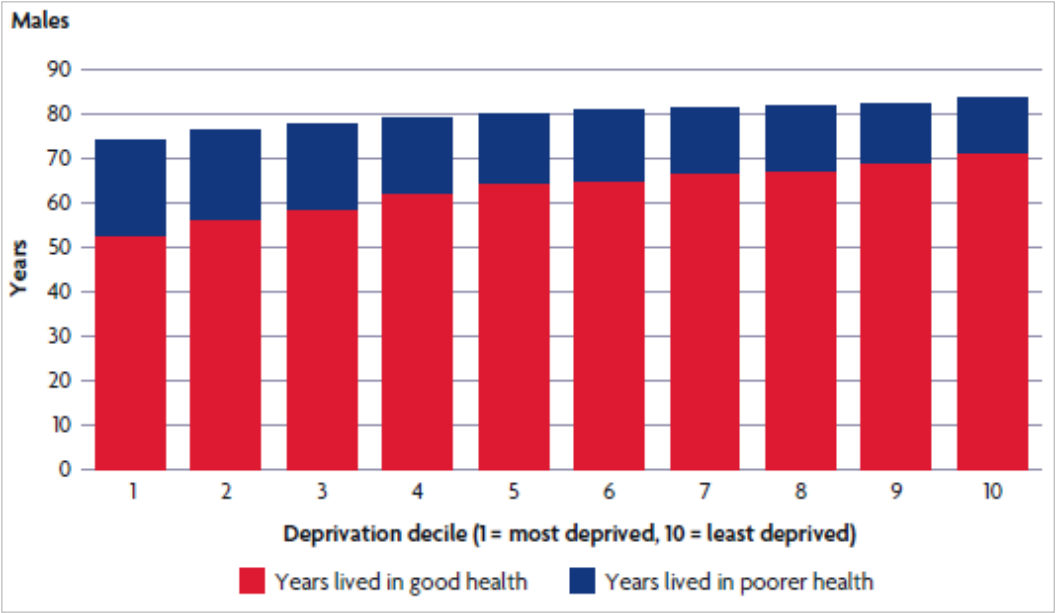
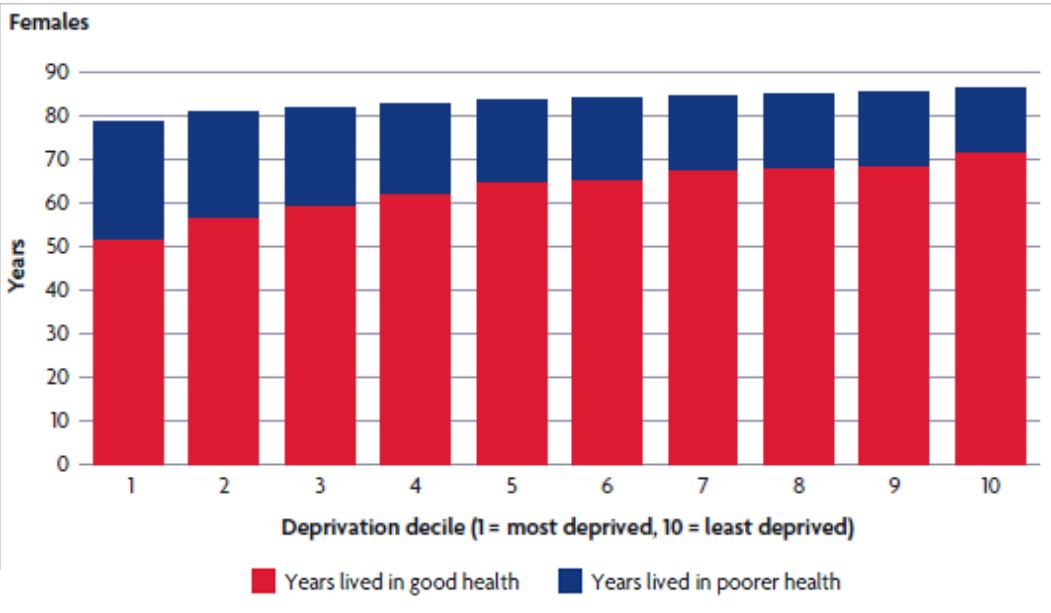


Figure 3.23: Overweight and obesity prevalence by local authority, 2019/2020 ²⁶

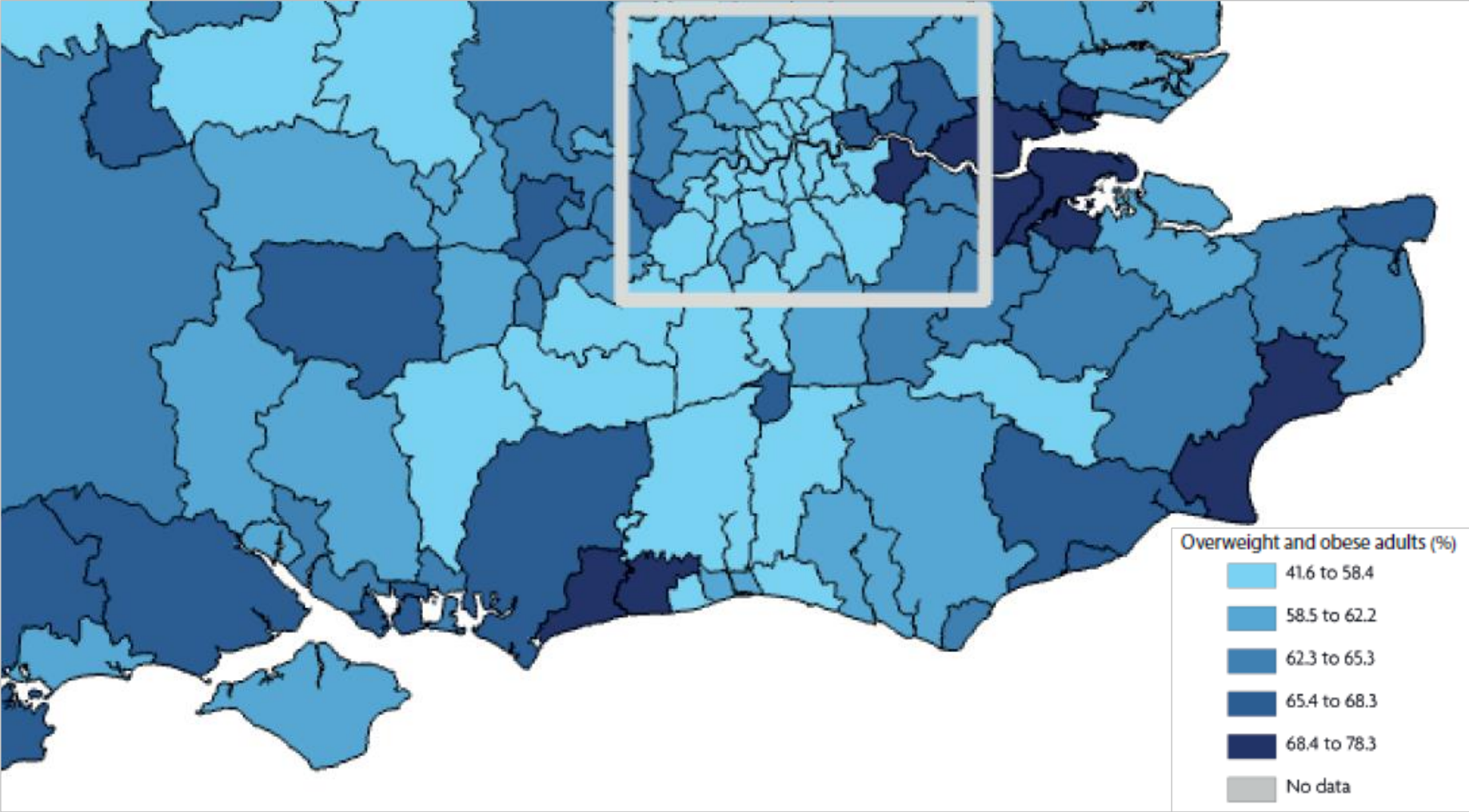


Figure 3.24: Healthy life expectancy at birth (Males) by local authority, 2017-2019 ²⁷

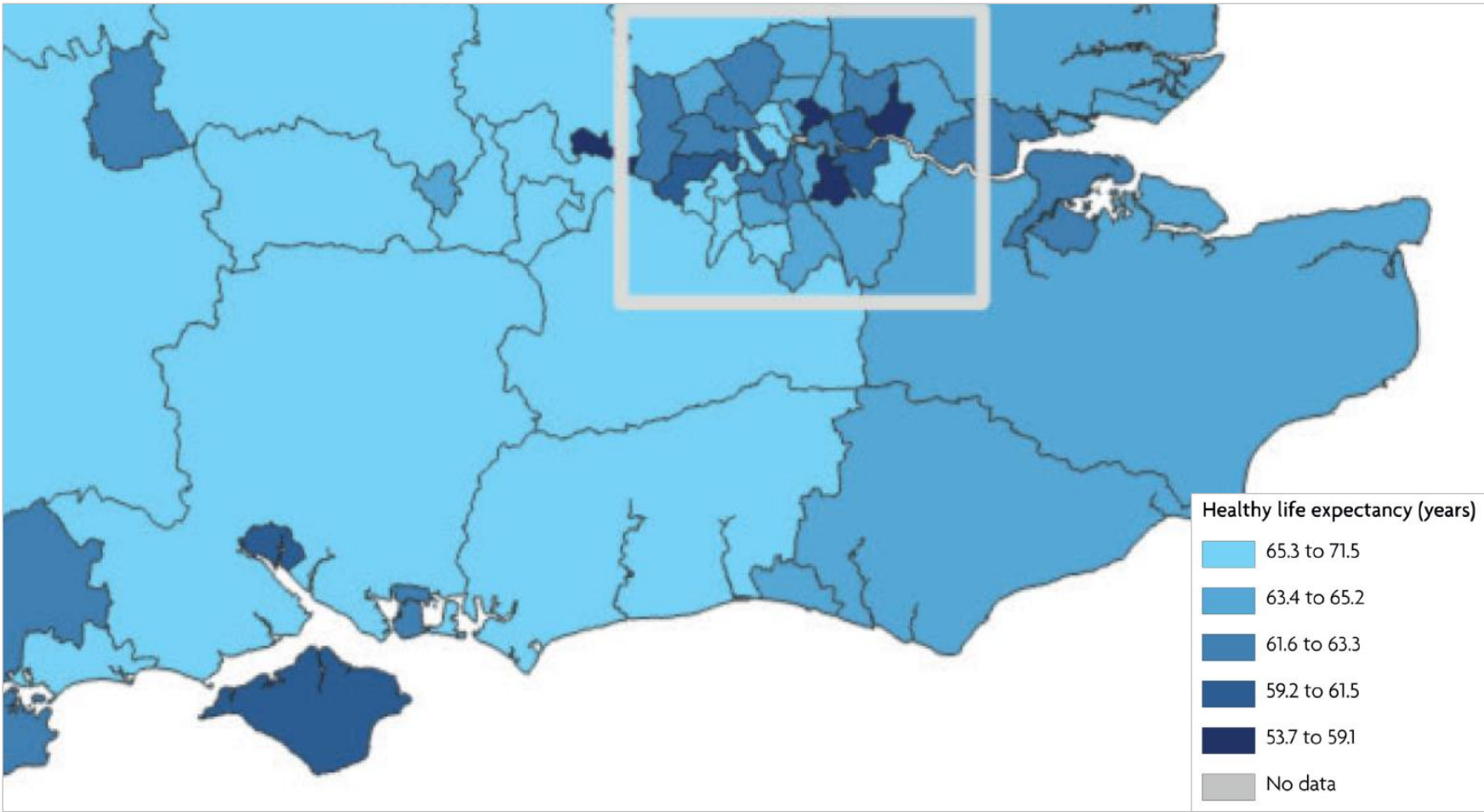
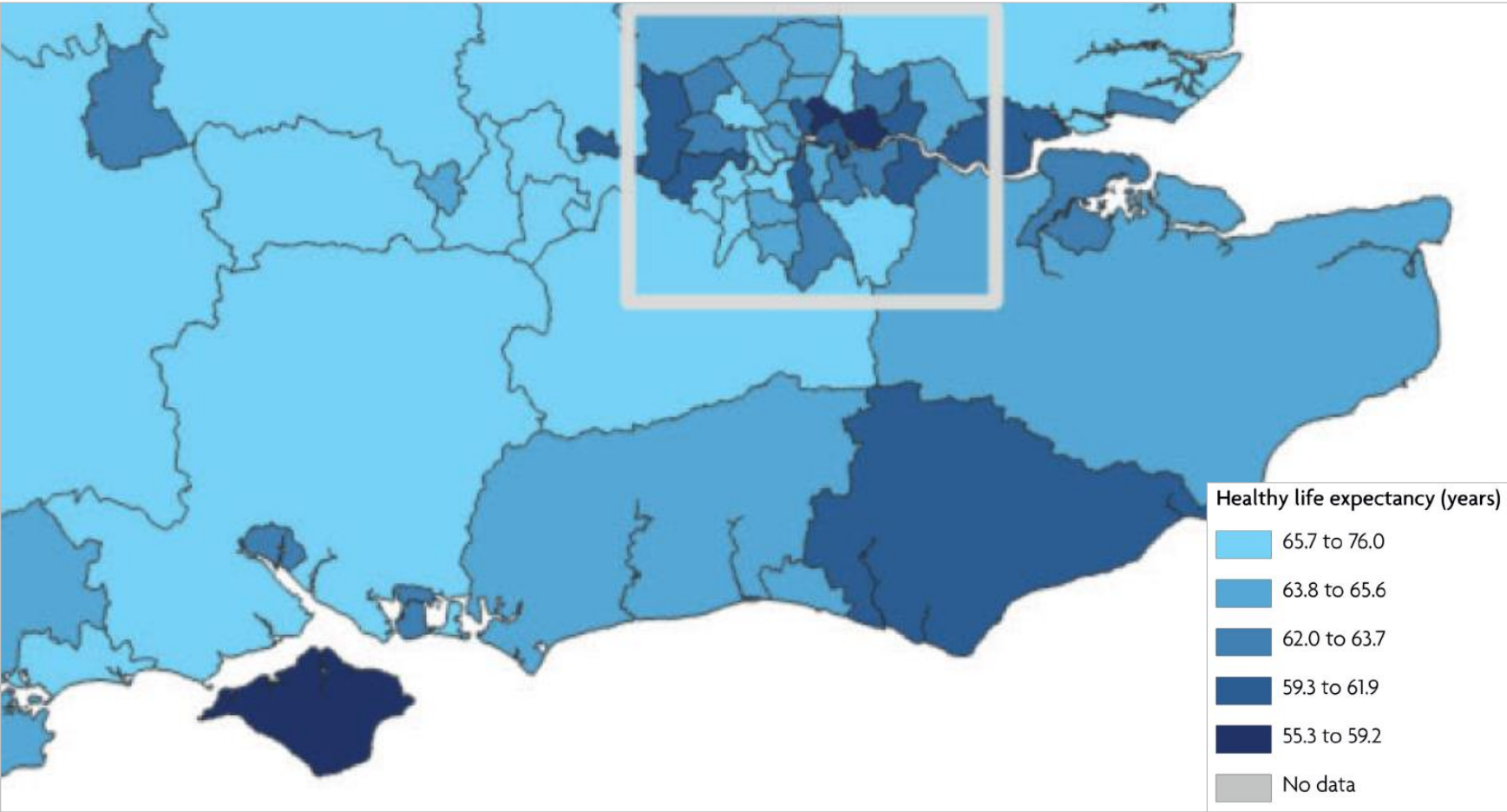
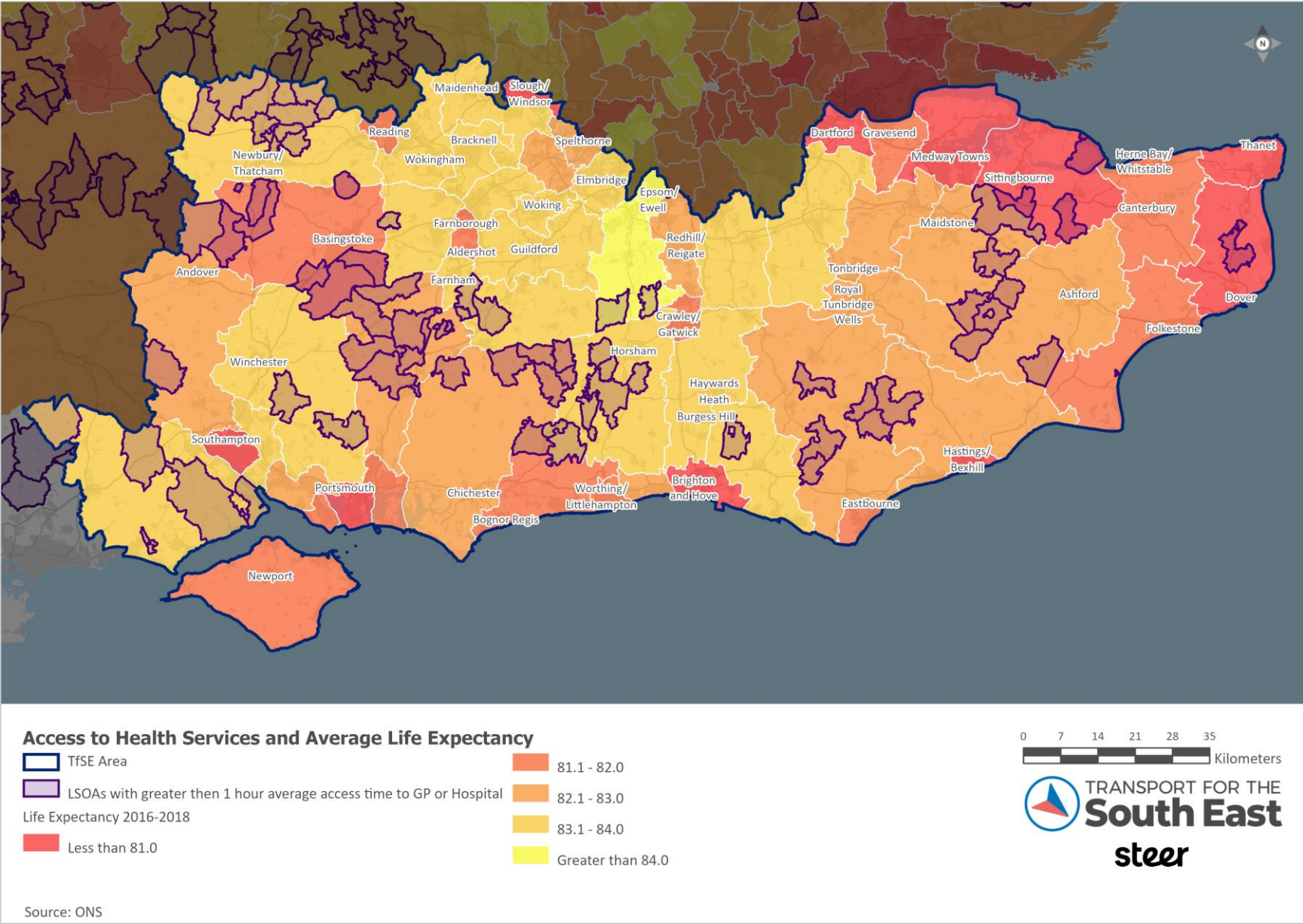


Figure 3.25: Healthy life expectancy at birth (Females) by local authority, 2017-2019 ²⁸



The Levelling Up Missions

Figure 3.26: Access to Health Services and Average Life Expectancy ²⁹



The Levelling Up Missions

Wellbeing

The Levelling Up mission for Wellbeing is that:

‘By 2030, well-being will have improved in every area of the UK, with the gap between top performing and other areas closing.’

Wellbeing is closely related to an individual's ability to lead a full and active life. As such, places which are well connected with access to key services, including healthcare and leisure, can help promote good wellbeing.

An important factor in enabling good wellbeing is physical activity, which is related to access to green space and the provision of space to participate in sports and leisure activity. The quality of the environment is also important in encouraging walking and cycling to promote positive wellbeing.

Figure 3.27 shows the location of Air Quality Management Areas (AQMAs) in relation to the most deprived areas of the South East, which are largely located in urban centres along major roads. There is a weak correlation with deprivation however, with many of the AQMAs located in prosperous areas of Berkshire and Surrey. The location

of AQMAs is largely determined by the volume of traffic, which is higher in prosperous communities where car ownership is more common.

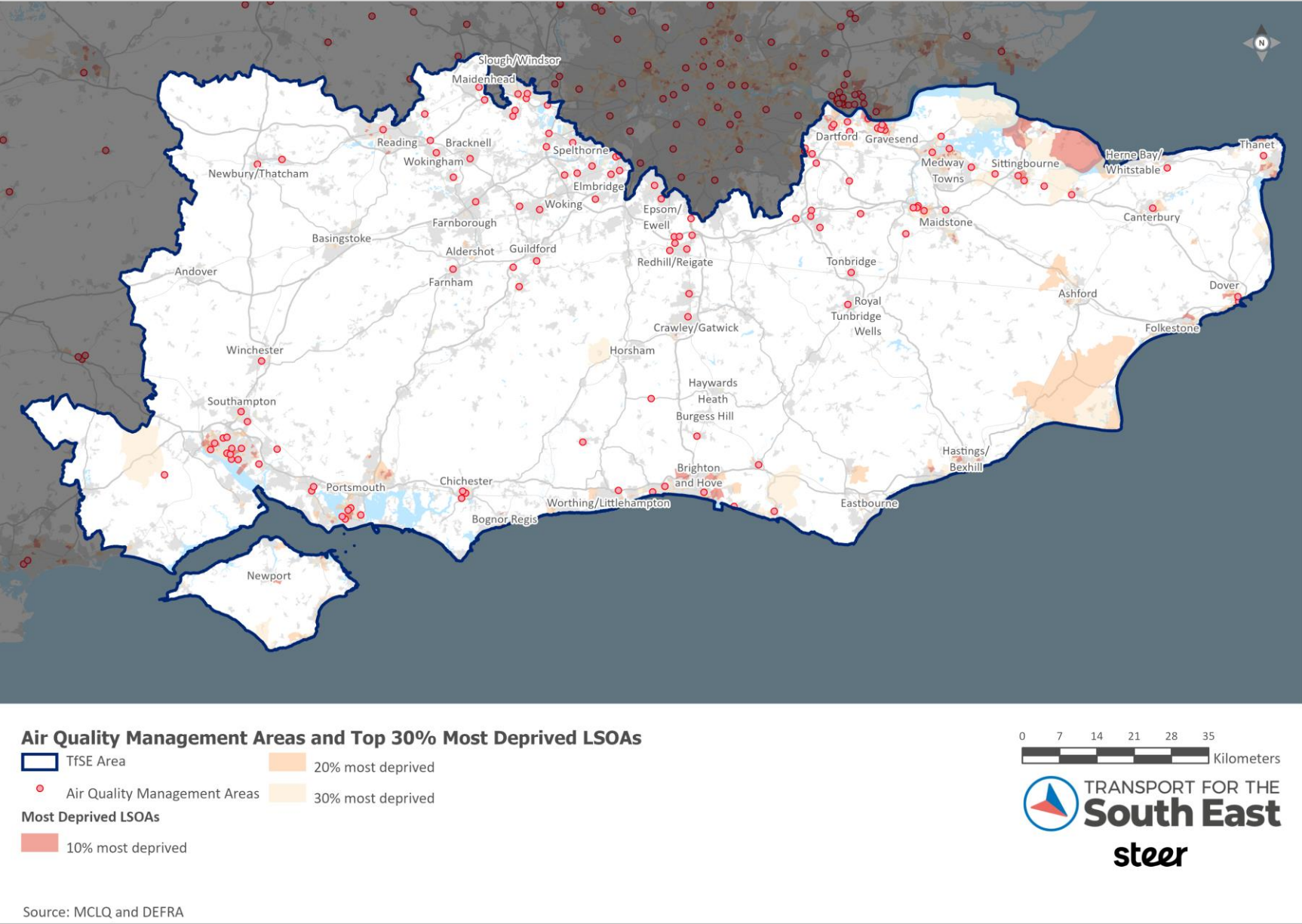
There are also a number of AQMA's in deprived areas, most notably in communities along the Thames Estuary and in across Southampton and Portsmouth.

Another metric which can be considered as an indicator of wellbeing is the number of people killed and seriously injured (KSI) in road traffic accidents. **Figure 3.28** illustrates the number of KSIs per million vehicles kilometres. The areas with the highest rates of incidence are across east and west Sussex, the Medway towns, Brighton and Hove and the Isle of Wight.

This does not represent a strong correlation with deprivation, as some of the more deprived places in the region have low rates of people killed and seriously injured by vehicle kilometres.

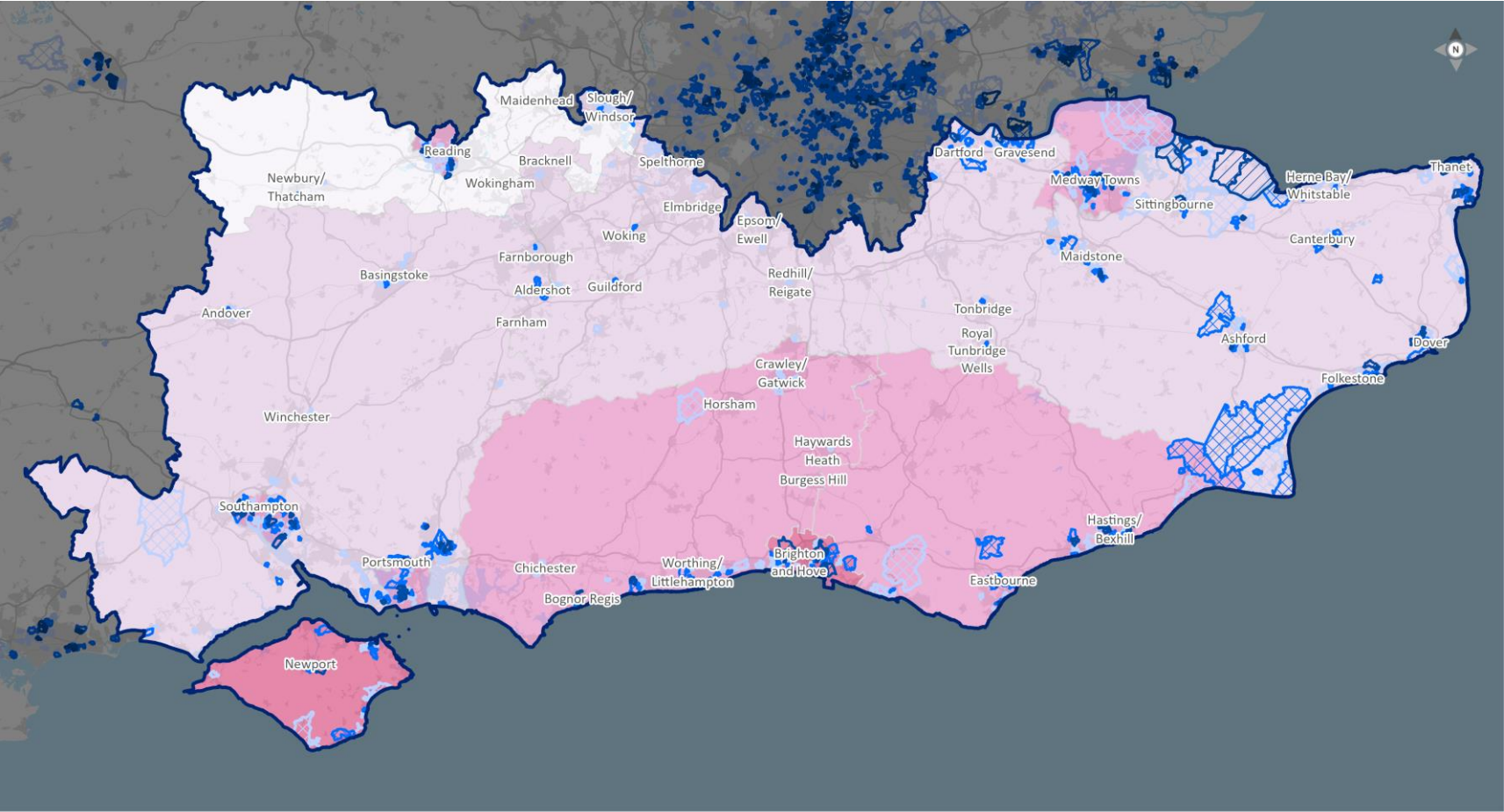
The Levelling Up Missions

Figure 3.27: Air Quality Management Areas and Top 30% Most Deprived LSOAs ³⁰



The Levelling Up Missions

Figure 3.28: Killed and Seriously Injured by Vehicle Kilometres ³¹



Killed and Seriously Injured by Vehicle Kilometres

- TfSE Area
- 0.06 - 0.10
- 0.11 - 0.15
- Greater than 0.15
- Less than 0.05



Source: ONS, STATS19

The Levelling Up Missions

Pride in Place

The Levelling Up mission for Pride in Place is that:

‘By 2030, pride in place, such as people’s satisfaction with their town centre and engagement in local culture and community, will have risen in every area of the UK, with the gap between top performing and other areas closing.’

People’s sense of pride in where they live is an important factor in influencing their satisfaction with their town centre and engagement with their local community. It is a subjective indicator, measured more by people’s experiences rather than quantitative analysis. Pride in place can be determined by a range of factors, including the history of the place or how it is perceived in the local and national consciousness.

The quality of a place also determines how people feel about it. For example, high quality public realm and local services can create a greater sense of satisfaction and encourage people to engage more in their community.

Creating safe spaces for people to meet in public can foster improved community cohesion, participation and life satisfaction.

Similarly, high quality public transport and active travel infrastructure is important to enabling people’s engagement with their local community, and experience of the place they live.

Communities with good quality walking and cycling facilities, with wide and well lit public spaces, encourage a more personable interaction with the built environment compared to streets which are dominated by motor traffic.

Well designed neighbourhoods and good quality streets with ready access to key services and green spaces can help to improve safety, reduced crime, encourage physical activity and improve public health.

Interventions to improve pride in place must, therefore, target the most deprived places in order to maximise the benefits of creating vibrant and cohesive communities with engaged, healthy and proud residents.

Figure 3.29 shows mean life satisfaction score across local authorities in the South East with a score range of 0 to 10 for least to most satisfied.

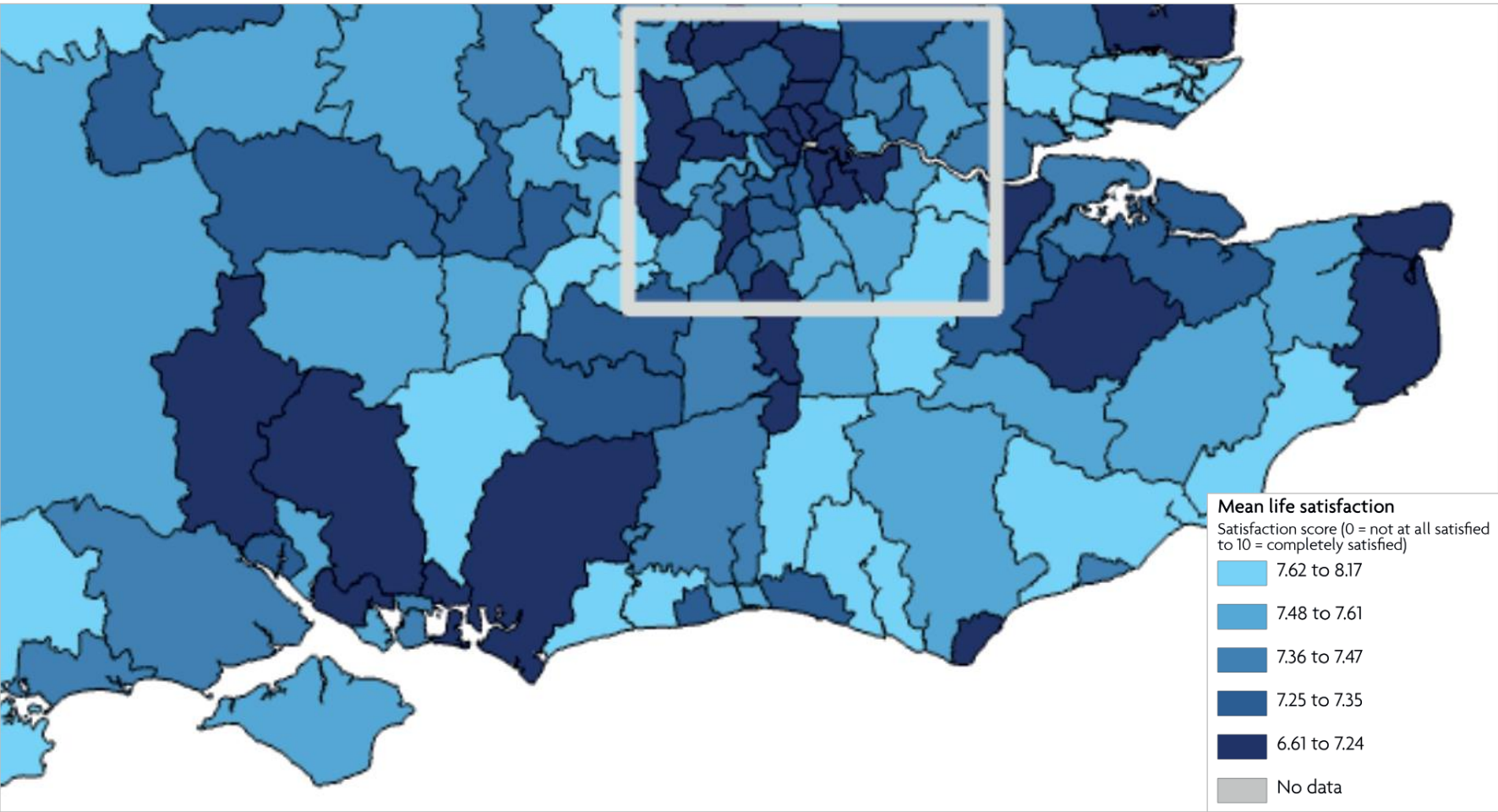
The local authorities with the lowest satisfaction score include the Test Valley, Winchester in Hampshire, Chichester and Eastbourne in Sussex, and Maidstone, Thanet and Dover in Kent.

The local authorities with the highest mean life satisfaction score are Shepway and Sevenoaks in Kent, Mid Sussex, Arun and Lewes in Sussex, East Hampshire, and Surrey Heath, Woking and Runnymede in Surrey.

These locations represent a weak correlation to deprivation in the South East. For example, Shepway is one of the more deprived local authorities in the region but records a high life satisfaction score.

Conversely, the Test Valley is a relatively prosperous area but records a low life satisfaction score. This indicates that deprivation is therefore not a key determinant of life satisfaction.

Figure 3.29: Life satisfaction, UK local authorities, 2020 ³²



The Levelling Up Missions

Housing

The Levelling Up mission for housing is that:

‘By 2030, renters will have a secure path to ownership with the number of first-time buyers increasing in all areas; and the government’s ambition is for the number of non-decent rented homes to have fallen by 50%, with the biggest improvements in the lowest performing areas.’

Good quality housing is fundamental to people’s ability to live happy and healthy lives. Poor quality housing is commonly one of the biggest issues in deprived communities, and is associated with a range of other socioeconomic outcomes such as health, crime, educational attainment and general living standards.

Housing is less affordable where demand is highest or where the supply is constrained by, for example, spatial planning policies or the topology of the area, as is the case along the coastal and estuarine communities in Sussex and Kent. Affordability is also an issue in desirable areas where housing supply has not kept pace with demand, for example in north east Kent.

Figure 3.30 shows average residential earnings mapped against median household price ratio and the most deprived LSOAs. It illustrates that the most unaffordable areas in the region are in the more prosperous places, for example communities in Hampshire, West Sussex and Surrey.

Similarly, areas with the most affordable housing are generally located in the more deprived communities to the east on the region, particularly in Kent.

Crime

The Levelling Up mission for crime is that:

‘By 2030, homicide, serious violence and neighbourhood crime will have fallen, focused on the worst affected areas.’

Investment in high quality public realm and urban design can create safer streets and reduce neighbourhood crime. For example, the provision of street lighting can help make pedestrians and cyclists feel safer when walking at night, and benches and other resting places can encourage pedestrians to dwell and activate the street

space. This helps generate a greater sense of safety amongst people using public spaces.

The objective of the final focus area and mission is to:

‘empower local leaders and communities, especially in those places lacking local agency.’

Local Leadership

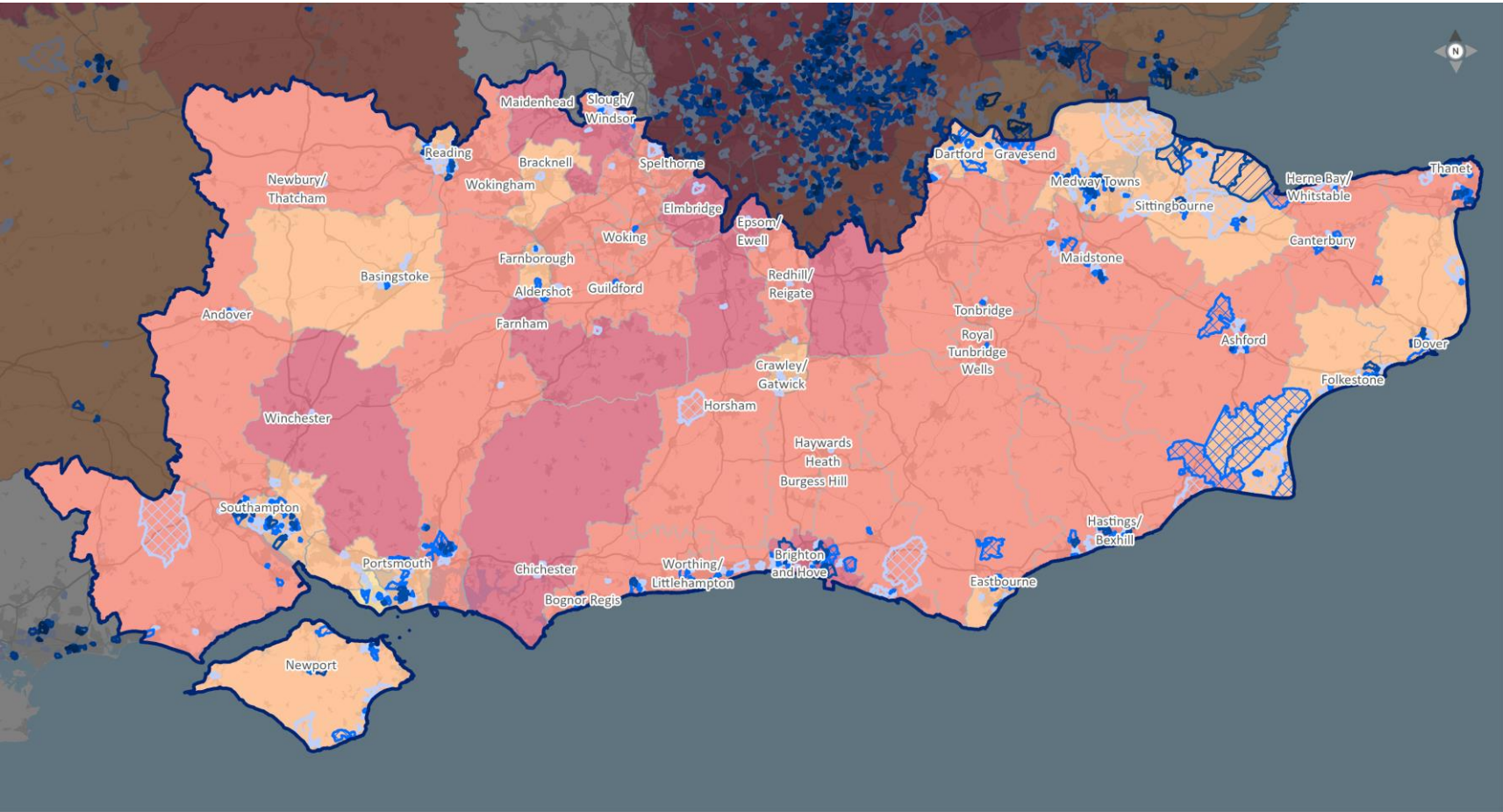
The Levelling Up mission for local leadership is that:

‘By 2030, every part of England that wants one will have a devolution deal with powers at or approaching the highest level of devolution and a simplified, long-term funding settlement.’

To achieve the objective for local leadership, the development of a transport strategy for the South East, along with a Strategic Investment Plan and Local Development Plans will provide a clear strategy for transport and related spatial policy areas. This will form the basis for the powers granted to a devolved authority for the South East.

The Levelling Up Missions

Figure 3.30: Average Residential Earnings / Median Household Price Ratio and Most Deprived LSOAs ³³



Average Residential Earnings / Median Household Price Ratio and Most Deprived LSOAs

TFSE Area

Household Affordability Ratio

5.01 - 7.50

7.51 - 10.00

10.01 - 12.50

12.51 - 24.78

Most Deprived LSOAs

10% most deprived

20% most deprived

30% most deprived

0 7 14 21 28 35

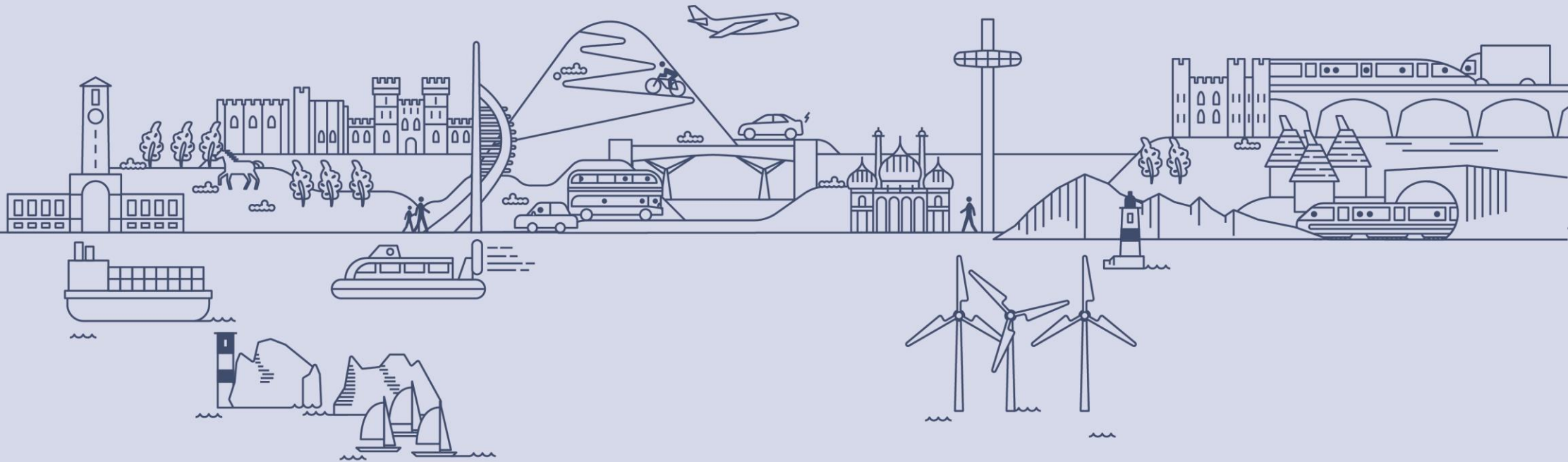
Kilometers

TRANSPORT FOR THE

South East

steer

Source: ONS



Part 4: Visions and Objectives

Vision and Objectives

TfSE Strategy

The vision and objectives for the South East's Levelling Up strategy are designed to align and support the wider vision and objectives set out in TfSE's Strategy and Area Studies.

The vision for Levelling Up the South East reflects the TfSE Transport Strategy Vision, which is presented below:

“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.”

Area Study Objectives

The key objectives emerging from the Area Study Programme are centred around an ambition to deliver a transport system that:

- Enables a more prosperous, resilient, and equitable economy.
- Delivers better socioeconomic outcomes, especially in deprived areas.
- Protects the natural and historic environment.
- Achieves the UK Governments goal of Net zero carbon emissions.
- Improves safety for all highway users.
- Promotes sustainable housing and employment growth.
- Unlocks regeneration opportunities, especially in coastal communities.
- Strengthens the resilience of the transport system and economy.
- Delivers high quality connectivity for freight, especially between the South East's international gateways and the rest of the country.

Need for Intervention

Investment in transport infrastructure is critical to achieving the missions set out in the Levelling Up White Paper.

Without intervention, inequalities across multiple socioeconomic indicators would widen and inequality and deprivation across the South East would increase, making the objectives of the Levelling Up agenda unachievable.

Access to education and employment opportunities would be limited for people who are restricted to using public transport, and places caught in the vicious cycle of decline would continue to experience worse outcomes in productivity, quality of life and pride in place.

Prosperity and higher value commercial development opportunities would be concentrated in already well performing places, and the powers of local leadership and governance required to improve socioeconomic outcomes would be weakened, with a limited sense of autonomy and self-determination.

Strategic Narrative

Key Strengths

The Strategic Investment Plan sets out a Strategic Narrative underpinning the case for investing in the South East.

This narrative starts by highlighting the key strengths of the South East, including:

- a highly productive economy;
- a highly educated workforce;
- strong links and access to London;
- strengths in Financial/Professional Services, Advanced Engineering/Manufacturing, IT, Marine/Maritime, Defence, Transport/Logistics, Tourism, Low Carbon, and Creative Industries;
- several national and world leading universities;
- a favourable investment environment;
- available land for regeneration and development;
- a varied and highly valued natural environment; and
- a rich cultural and historic environment.

Key Challenges

The South East faces several challenges and threats, which in the Strategic Narrative are grouped into eight themes.

The first four focus on broader issues where action is required across multiple sectors:

- **Decarbonisation** of the transport system is not happening fast enough.
- The South East's transport systems need to adapt to a **new normal**- i.e. post pandemic, post Brexit environment.
- There is a need to “**level up**” **left behind communities**.
- There is a need for sustainable **regeneration and growth**.

The second group of these four themes have a more direct relevance to transport:

- The South East's largest conurbations lack **world class urban transit systems**.
- **East – West Connectivity** is poor.
- Radial Corridors lack **resilience** in places.
- There are gaps and vulnerabilities in the networks that serve **Freight and Global Gateways**.

The Role of Transport in Enabling Levelling Up

Transport has an important role to play in helping to **Level Up** left behind communities in the South East.

A range of interventions can be applied to help address the challenges of deprivation and socioeconomic inequality, including:

- High quality public transport to help **increase connectivity** in the most isolated communities.
- Targeted investment in left behind communities to **improve accessibility** for people reliant on public transport.
- Commercial models which support low **cost of travel** on public transport and disincentivize private vehicle usage.
- New, integrated residential developments which **embed public transport** and **active travel** in everyday mobility.
- Enhancements in the **quality of places** to improve pride in place and promote good public health and wellbeing.

Problem Statements

A Bottom-up approach for identifying key issues

The Area Study Programme identified specific problems (weaknesses and/or challenges) that many stakeholders wish to see the Strategic Investment Programme address.

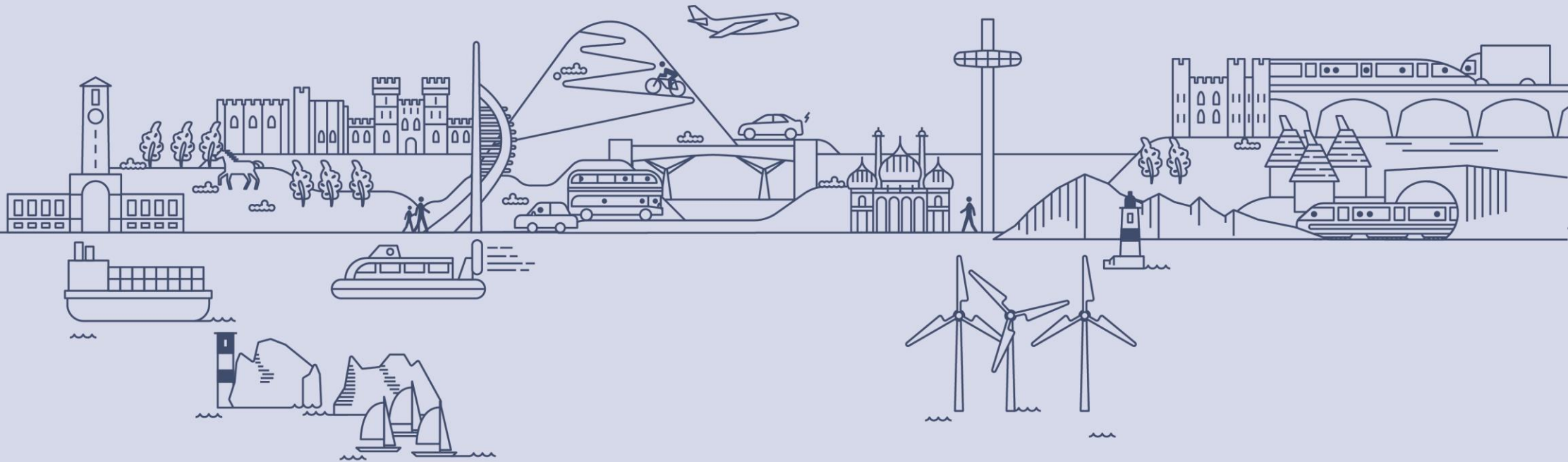
Some of these problem statements refer directly to the rail network, while others are broad but could still be relevant to the rail network. A list of the key problem statements that could be addressed (at least partially) through rail network interventions is provided below.

Global Problem Statements

- Transport is not decarbonising fast enough.
- Climate change threatens the resilience of transport networks.
- Freight is heavily reliant on highways, especially for first-mile-last-mile deliveries.
- Numerous parts of the South East have unacceptably poor socioeconomic outcomes.
- Demand for public transport has been negatively affected by COVID-19.
- Some parts of the South East appear to be too reliant on a small number of industrial sectors.
- The economic influence of London dominates many areas in the South East.
- Housing affordability presents a barrier to achieving social equity objectives.
- There is a recognised need for housing – but in the right places, supported by the right infrastructure, planned to deliver sustainable transport outcomes.
- The benefits of new technologies are not accessible to everybody.
- We need better coordination between land-use and transport planning.
- Rural communities are being left behind in digital, active travel, and public transport connectivity.
- Too many transport services and networks are inaccessible to all users.
- For many people, public transport fares are too high and too complicated.

Other relevant Problem Statements

- Rural communities are being left behind in digital, active travel, and public transport connectivity.
- Too many transport services and networks are inaccessible to all users.
- For many people, public transport fares are too high and too complicated.
- Kent/Medway is “cut off” from the rest of the UK by London and the Thames.
- Highway congestion undermines public transport on the Isle of Wight.
- Ferry services on the Isle of Wight do not facilitate the same level of access to services as the mainland
- Ferry fares are high and do not provide enough access for the Isle of Wight.
- Poor connectivity is holding coastal communities back
- The geography of the South Coast forces people and goods moving along the coast to travel long distances inland to complete their journeys.



Part 5: Location Specific Interventions

Introduction

TfSE has worked with key stakeholders and technical advisors to develop several coherent Packages of Interventions that aim to deliver TfSE's vision and objectives.

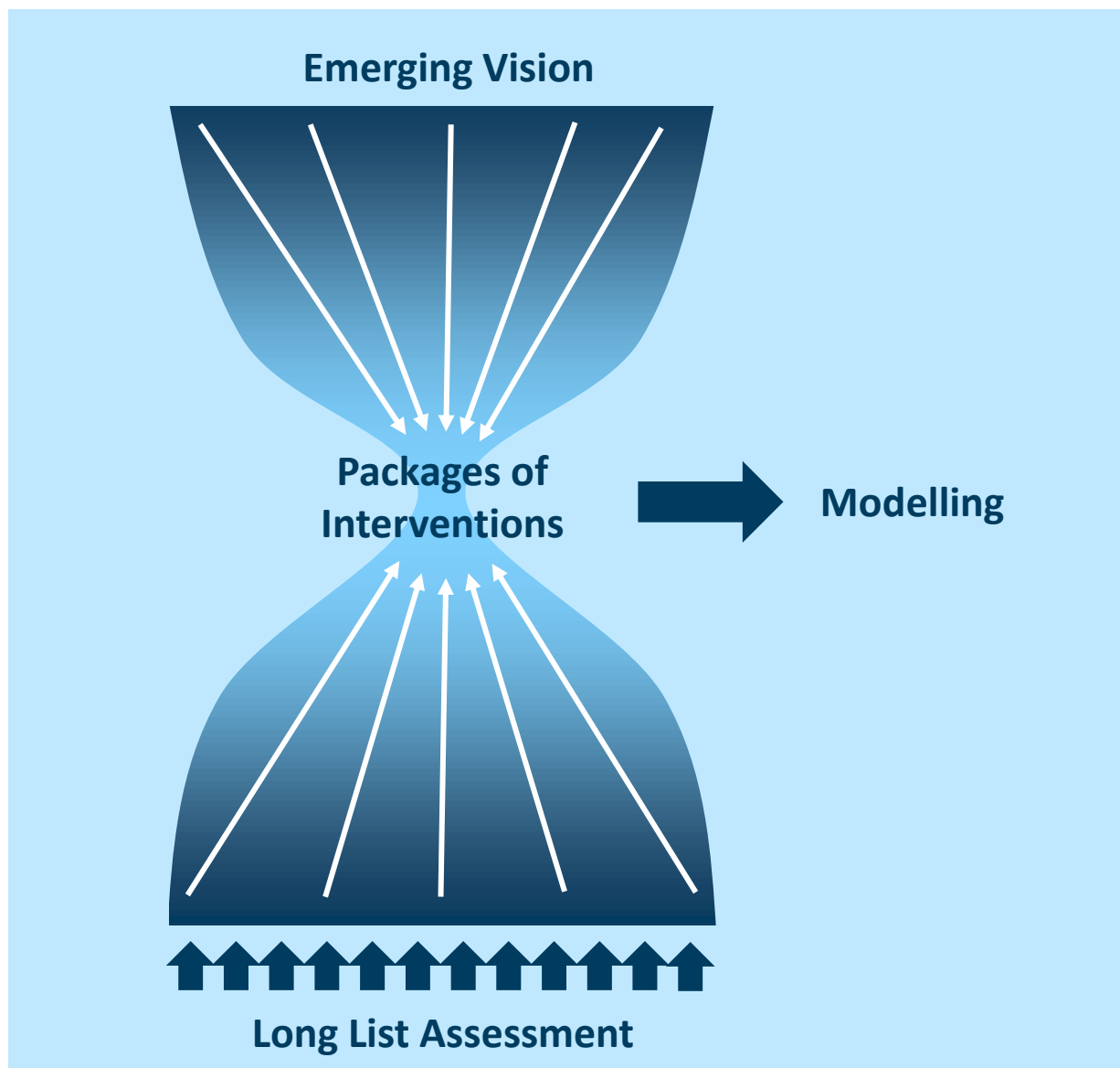
These Packages have been developed through workshops, discussions, and careful analysis of results of the assessment of a long list of options. In essence, this reflects both a 'top down' i.e., vision led approach and a 'bottom up' i.e., individual intervention assessment approach. **Figure 5.1** illustrates the essence of this combined approach.

Of the 31 packages developed across the Area Study Programme, we believe 13 Place Based and 3 'global' package interventions directly support TfSE's ambitions to Level Up left behind communities in the South East.

The place-based packages are presented over the remainder of this section. The Global Policy Packages are:

1. **Public Transport Fares:** This reverses the real terms increase in the cost of public transport compared to motoring.
2. **Virtual Living:** The pandemic has shown how virtual working can help reduce demand for transport services.
3. **Integration and Access:** This delivers improvements in integration and accessibility across and between all modes of transport.

Figure 5.1: Approach to Package development



Packages of Interventions

The Area Studies Programme has identified **Packages of Interventions** that serve areas of the South East in need of Levelling Up. The interventions included in these Packages are summarised below and presented on the following pages.

Package A: South Hampshire Rail (Core)	Package B: South Hampshire Rail (Enhanced)	Package C: South Hampshire Mass Transit
A1 Solent Connectivity Strategic Study	B1 Southampton Central Station - Woolston Crossing	C1 Southampton Mass Transit
A1a Botley Line Double Tracking	B2 New Southampton Central Station	C2 South East Hampshire Rapid Transit
A1b Netley Line Signalling and Rail Service Enhancements	B3 New City Centre Station	C3 New Southampton to Fawley Waterside Ferry Service
A1c Fareham Loop / Platform	B4 South West Main Line - Mount Pleasant Level Crossing Removal	C4 Southampton Cruise Terminal Access for Mass Transit
A1d Portsmouth Station Platforms	B5 West Coastway Line - Farnham to Cosham Capacity Enhancements	C5 M271 Junction 1 Strategic Mobility Hub
A1e South West Main Line - Totton Level Crossing Removal	B6 West Coastway Line - Cosham Station Relocation	C6 M27 Junction 5 / Southampton Airport Strategic Mobility Hub
A1f Southampton Central Station Upgrade and Timetabling	B7 Eastleigh to Romsey Line - Electrification	C7 M27 Junction 7/8 Strategic Mobility Hub
A1g Eastleigh Station Platform and Approach Flyover Enhancement	B8 Havant Rail Freight Hub	C8 M27 Junction 9 Strategic Mobility Hub
A2 Waterside Branch Line - Reopening and Electrification	B9 Fratton Rail Freight Hub	C9 M275 Junction 1 Strategic Mobility Hub
A3 West of England Service Enhancements	B10 Southampton Container Port Rail Freight Access and Loading Upgrades	C10 Clarence Pier Bus-Hovercraft Interchange
A4 Additional Rail Freight Paths to Southampton	B11 Southampton Automotive Port Rail Freight Access and Loading Upgrades	C11 Improved Gosport - Portsmouth and Portsmouth - Hayling Island Ferries

Packages of Interventions

The Area Studies Programme has identified **Packages of Interventions** that serve areas of the South East in need of Levelling Up. The interventions included in these Packages are summarised below and presented on the following pages.

Package D: Isle of Wight Connectivity	Packages E & H: Sussex Coast Active Travel	Package G: Sussex Coast Mass Transit
D1 New Isle of Wight Mass Transit System and Active Travel Enhancements	E1 Solent Active Travel (including LCWIPs)	G1 Shoreham Strategic Mobility Hub
D1a Bus Mass Transit - Newport to Yarmouth	H1 Sussex Coast Active Travel Enhancements (including LCWIPs)	G2 A27/A23 Patcham Interchange Strategic Mobility Hub
D1b Bus Mass Transit - Newport to Ryde		G3 Falmer Strategic Mobility Hub
D1c Bus Mass Transit - Newport to Cowes	Package F: Sussex Coast Rail (Core)	G4 Eastbourne/Polegate Strategic Mobility Hub
D1d Isle of Wight Railway Service Enhancements	F1 West Coastway Strategic Study	G5 Sussex Coast Mass Rapid Transit
D1e Isle of Wight Railway Extensions - Shanklin to Ventnor	F2 West Worthing Level Crossing Removal	G6 Eastbourne/Wealden Mass Rapid Transit
D1f Isle of Wight Railway Extensions - Shanklin to Newport (or Mass Transit alternative)		G7 Hastings/Bexhill Mass Rapid Transit
D2 Isle of Wight Ferry Service Enhancements		G8 A27 Falmer – Polegate Bus Stop and Layby Improvements
D2a Operating Hours and Frequency Enhancements		
D2b New Summer Route - Ryde to Southampton		

Packages of Interventions

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Package I: Sussex and Solent Coast Highways

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

Packages J & K: London to Sussex Coast Rail (Core)

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 and Capacity Enhancements
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

Packages of Interventions

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Package L: London to Sussex Coast Mass Transit

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

Package M: London to Sussex Coast Active Travel

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

Packages of Interventions

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Package N: London to Sussex Coast Highways

N1 A22 N Corridor (Tandridge) - South Godstone to East Grinstead Enhancements (LLM Pipeline)	N10 A272 Crawley Western Link Road and Cycleway
N2 A24/A243 Knoll Roundabout and M25 J9A (MRN Pipeline)	N11 A24 Dorking Bypass
N3 A22 Corridor Package 2 (Polegate - Halisham New Offline Carriageway) (MRN Pipeline)	N12 A24 Dorking - Capel New Roundabout
N4 A2270/A2101 Corridor Movement and Access Package (MRN Pipeline)	N13 A24 Corridor Improvements Horsham to Capel (LLM Pipeline)
N5 M23 Junction 8a New Junction and Link Road - Redhill	N14 A23 Hickstead and Bolney Junction Enhancements
N6 M23 Junction 9 Enhancements - Gatwick	N15 A23/A27 Patcham Interchange Junction Enhancements
N7 A23 Carriageway Improvements - Gatwick to Crawley	N16 A26 Lewes - Newhaven Realignment and Junction Enhancements
N8 A264 Horsham - Pease Pottage Carriageway Enhancements	N17 A26 Lewes - Uckfield Enhancements
N9 A264 Crawley - East Grinstead Dualling and Cycleway	N18 A22 Uckfield Bypass Dualling
	N19 A22 Smart Road Trial Proposition Study

Package O: Wessex Thames Rail (Core)

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

Packages of Interventions

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Package P: Wessex Thames 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

Package Q: Wessex Thames Active Travel

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

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 Enhancements

Package R: Wessex Thames 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 Enhancements

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)

Packages of Interventions

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Package S: Kent, Medway and East Sussex Classic Rail

- 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
- 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

Packages T & U: Kent, Medway and East Sussex High Speed Rail

- 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

Packages of Interventions

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Package V: Kent, Medway and East Sussex 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 - Extension to Hoo Peninsula
- V6** Medway Mass Transit - Extension to Maidstone
- 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

Package W: Kent, Medway and East Sussex 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

Packages of Interventions

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Packages X & Y: Kent Medway, and East Sussex Highways | LTC

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

Package A: South Hampshire Rail (Core)

Overview

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.

These form part of the Solent Connectivity Strategic Study (formerly the Solent Continuous Modular Strategic Plan), the main objective of which is to deliver additional local rail services so that most of the stations in the area currently served by infrequent one train per hour (1tph) services get a much more frequent "semi metro" 2 to 3tph (or perhaps "metro" 4tph) service frequency.

The plan includes interventions such as the provision of an additional through line / overtaking line at Fareham, increasing capacity on the Botley line to twin tracks, adding platform capacity at Portsmouth Harbour, signalling improvements on the Netley Line, and timetable changes to maximise capacity at Southampton Central.

A key enabler to the plan is the provision of sidings at Totton and a solution to a level crossing constraint in this area. This would then allow many local trains from Southampton to be run on to Totton for two reasons: 1) to reduce platform demand/improve capacity at Southampton Central by having fewer trains terminate there, and 2) to improve service to Totton which is currently under-served.

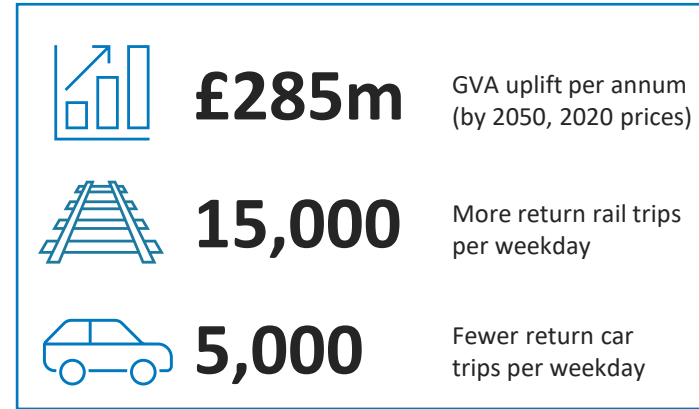
The Solent Connectivity Strategic Study will also complement passenger rail services to be introduced to the Fawley Branch Line and serve a large planned development in this area. While alternative uses for this railway have been explored, there appears to be consensus that this corridor should develop as (an ideally electrified) heavy rail service. Ferries could also complement this service.

These improvements will contribute to the Levelling Up objectives by making rail a more attractive option than motoring and helping to connect previously underserved communities to employment opportunities.

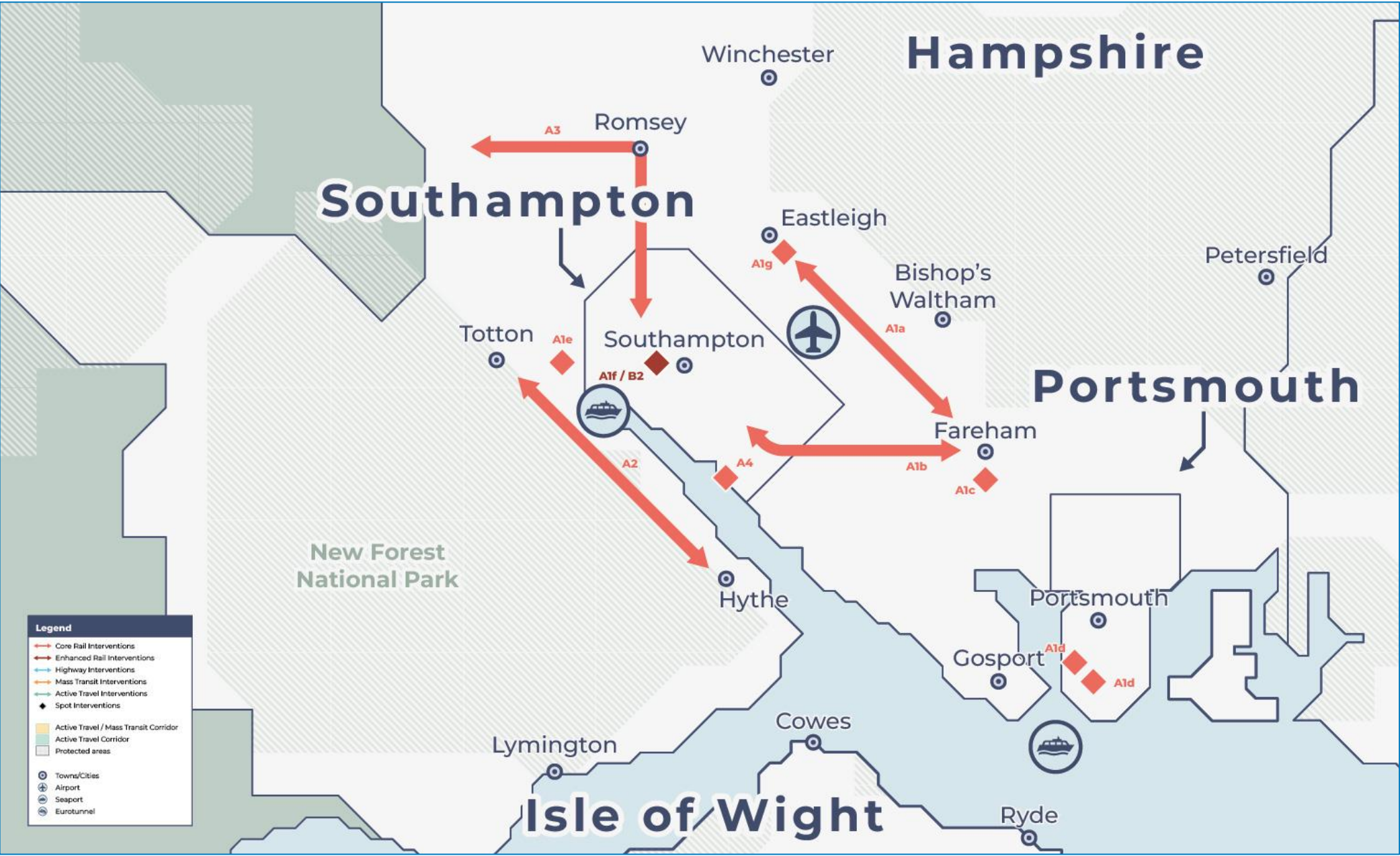
Benefits

- **Capacity** enhancements across the whole Solent conurbation
- Improvements in **service frequencies**, especially for urban metro services
- Better **interchange** and **service quality** at Southampton Central station
- More new and growing communities will have **access** to the national rail network

Modelling Results



Package A: South Hampshire Rail (Core)



Package B: South Hampshire Rail (Enhanced)

Overview

Building on the core package, TfSE’s strategic studies have a horizon as far as 2050 and an ambition to deliver transformational change in sustainable travel options across South Hampshire. 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, akin to four trains per hour – a “metro” level of service.

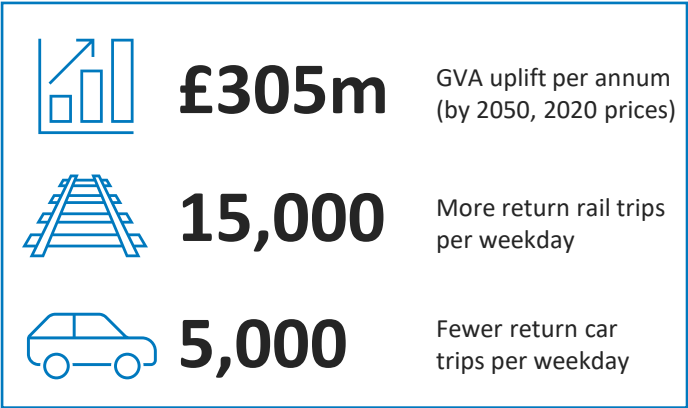
There are also aspirations to grow freight and provide better connectivity between South Hampshire, the West of England, the Midlands, and beyond. This requires more capacity than the current network can provide. The key bottleneck preventing this from being realised is the tunnel between Southampton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

TfSE has worked with key stakeholders to develop a longer-term package of scheme that unlock significant capacity and shorter journey times between Southampton and Portsmouth City Centres. This could include a potential new underground link between Southampton Central and the Netley Line providing a more direct route and deconflicting north-south and east-west rail movements. Investment in these rail enhancements will deliver significant benefits in relation to the Levelling Up missions. Increased train frequencies and reduced journey times will encourage more people to travel by rail, and more freight traffic will help attract inward investment.

Benefits

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

Modelling Results (additional to core)



Package C: South Hampshire Mass Transit

Overview

TfSE and the Area Study Working Group believe the South Hampshire conurbation is large enough and dense enough to support world class mass transit systems.

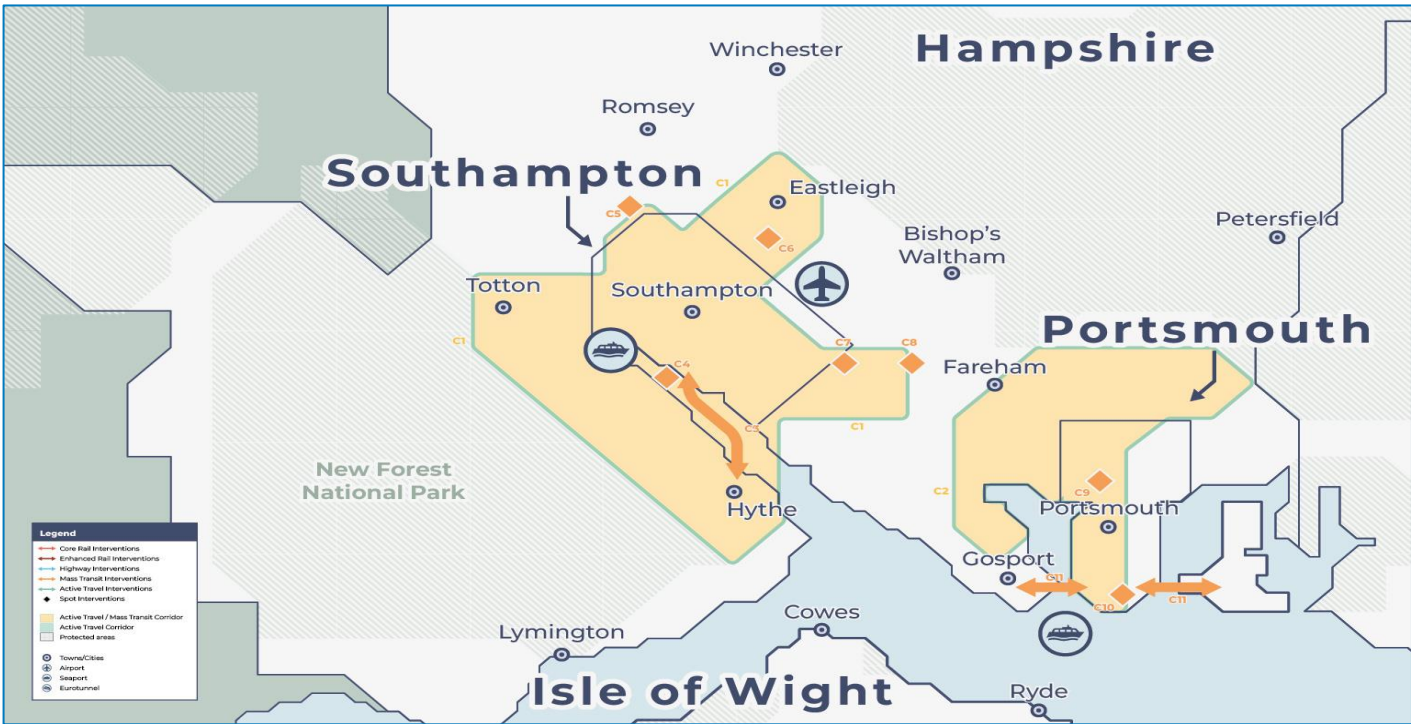
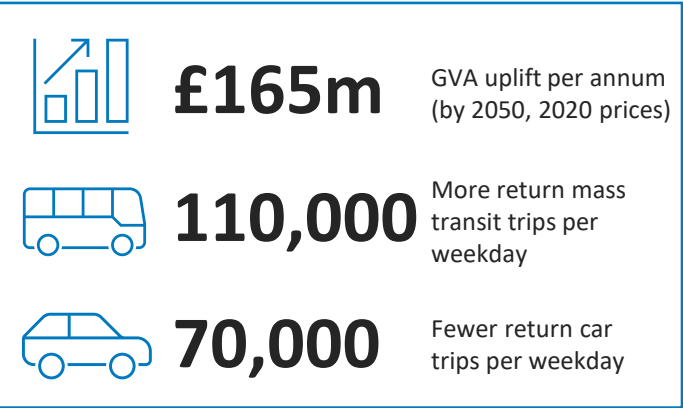
Portsmouth City Council are developing and delivering a comprehensive high quality Bus Rapid Transit that will serve the Portsmouth City Region. Southampton City Council also aspire to develop a Mass Transit System for their city region – which could take the form of Light Rail Transit, tram-train, Bus Rapid Transit, and/or ferries (and terminal facilities).

Both mass transit systems will be supported by a high-quality urban rail service (see packages for core and enhanced rail in South Hampshire) and, where good interchange opportunities are available, strategic mobility hubs. These hubs should provide interchange across a range of modes including active travel and new mobility choices, as well as having the potential for the co-location of services and potentially new development and enhanced public realm to improve place-making. This package includes interventions to improve access for peninsulas/islands, in particular, through improving and expanding ferry services. A world class, London comparator, mass transit system across the South Hampshire conurbation will help achieve the ambitions of the Government’s Levelling Up strategy by connecting more people to more opportunities, and enhancing the sense of pride people have in the places they live.

Benefits

- **Transformation improvement** in the quality, speed, and frequency of mass transit services in the Solent
- Better **interchange** and **service quality** at Strategic Mobility Hubs
- Improvements in **connectivity** between **islands and peninsulas** in the Solent
- **Significant mode shift** from car to bus, ferry, and tram, and enhance place-making

Modelling Results



Packages D & E: Isle of Wight Connectivity

Overview

TfSE believe the Isle of Wight has the characteristics to support a high-quality, integrated mass transit system.

TfSE and key stakeholders have identified a package of interventions aimed at improving connectivity between the Isle of Wight and the Mainland and improving connectivity within the Isle of Wight itself.

Stakeholders from the Isle of Wight and wider Solent region all raised opportunities to transform ferry services, through increasing frequency of services, extending hours of operation, more affordable ferry fares, and the possibility of new seasonal routes.

The Isle of Wight has the potential to be an exemplar for public transport given its size and unique characteristics.

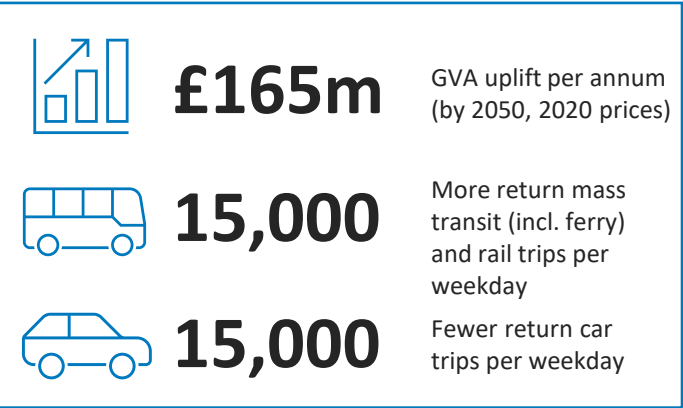
With investment in ferries and public transport on the Island, there is opportunity to make the most of existing infrastructure by reinstating disused railways and complementing rail with a bus-based Mass Transit system connecting key destinations across the Island including ferry terminals and tourism hotspots and delivery of the LCWIP and island-wide segregated active travel routes.

The physical remoteness of the island contributes to levels of deprivation. Investment in transport connectivity is critical to ensuring it continues to benefit from its proximity to the South Hampshire conurbation and achieves the Levelling Up objectives.

Benefits

- **Transformational improvement** in the quality, speed, and frequency of ferry services between the Isle of Wight and Mainland.
- **Seamless integration** between ferry and public transport on the mainland and the Isle of Wight supporting sustainable onward connectivity.

Modelling Results



Package E: South Hampshire Active Travel

Overview

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

Investment in active travel is critical to achieving the ambitions of the Levelling Up White Paper. Increased rates of walking and cycling have direct benefits to public health and wellbeing, including reduced levels of obesity and improved mental health.

Reduced car dependency and a modal shift to active travel helps address issues of poor air quality. Cleaner air, quieter urban environments due to less noise from vehicle traffic, and more space for high quality public realm are all important factors in creating better places to live and improving civic pride. High quality urban centers which prioritise people are key foundations to thriving and prosperous places.

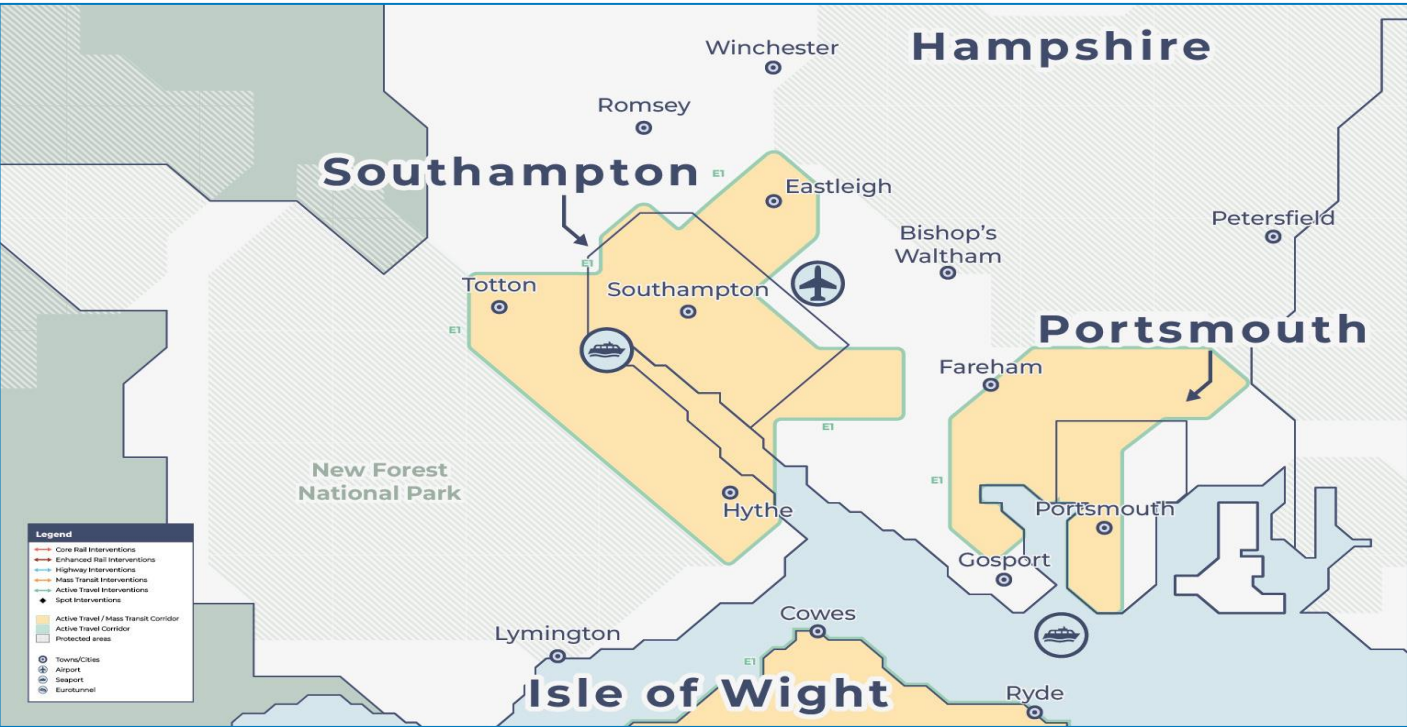
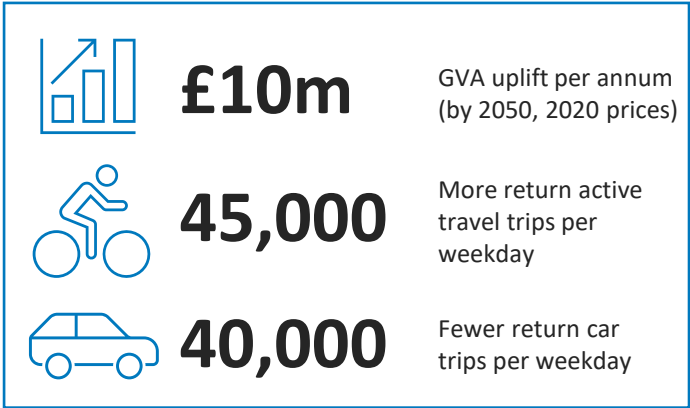
Enhanced infrastructure also benefits bike hire schemes, e-bikes and e-scooters.

As with all sustainable mode packages, behaviour change interventions, locally, are required to optimise benefits.

Benefits

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

Modelling Results



Package F: Sussex Coast Rail

Overview

Network Rail has worked with Local Transport Authorities to develop a package of improvements for the West Coastway and East Coastway lines.

The West Coastway Strategic Study (formerly Continuous Modular Strategic Planning), if delivered, would result in faster journeys and more capacity between Brighton and Hove and Southampton. However, there is not enough capacity to accommodate all stakeholder aspirations on this corridor.

The package identified here supports those interventions that best support inter-urban and long-distance journeys – those for which car alternatives have greatest emissions and other sustainable modes are less likely to provide attractive alternatives.

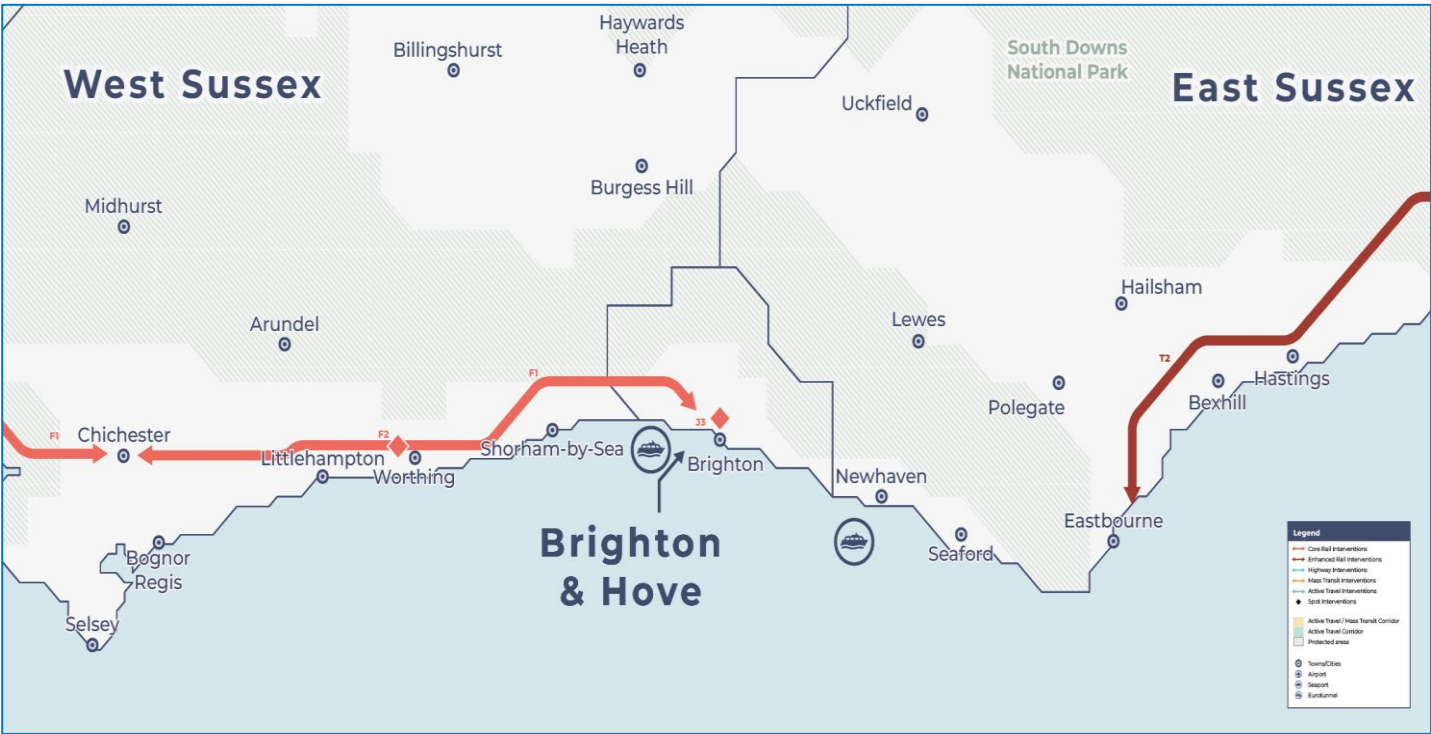
In the east of the area, a proposal to extend high speed rail services off High Speed 1 at Ashford along an upgraded Marsh Link Line to Hastings, Bexhill and Eastbourne has been identified. This has the potential to almost half journey times between Hastings as London, as well as considerable improvements to more local, and inter-urban travel.

All interventions in this package help improve access to opportunities, expand labour markets, and bring business closer together, as well as increase investment in the communities along the coast

Benefits

- **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

Modelling Results (excl. High Speed services to Hastings, Bexhill and Eastbourne)



Package G: Sussex Coast Mass Transit

Overview

TfSE believes there is a strong case for high-quality mass transit on the Sussex Coast.

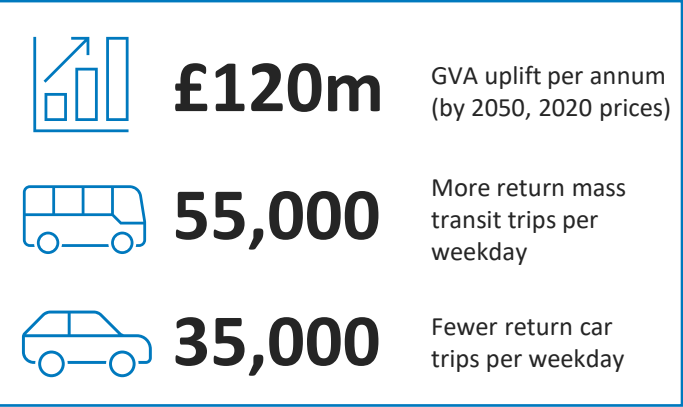
Brighton and Hove City Council is developing plans for a high-quality public transport system along the Brighton seafront, and how to best integrate all public transport across the city, including using strategic mobility hubs to intercept car trips heading into the city. Details are to be finalised, but the typology of the city lends itself strongly to Bus Rapid Transit. There are longer term options to extend or compliment this system in East and West Sussex. At this stage, extending in East Sussex appears to be more technically feasible than West Sussex where the focus is in on supporting the existing bus network. Additionally, there are proposals for improved mass transit infrastructure and services Eastbourne and Hastings.

Developing a mass transit system along the Sussex Coast will help communities more affordably access opportunities in more prosperous places such as Brighton and Hove and Chichester.

Benefits

- Significant improvement in the quality, speed, and frequency of mass transit services in Sussex Coast conurbation
- Better **interchange** and **service quality** at intermodal Strategic Mobility Hubs on the periphery of Brighton & Hove and, potentially, Eastbourne
- Significant **mode shift** from car to mass transit services

Modelling Results



Package H: Sussex Coast Active Travel

Overview

All three Local Transport Authorities on the Sussex Coast have ambitious plans to improve cycling and walking in their areas. This is fully supported by this study.

Within Brighton & Hove, there is a sizeable intervention to renew seafront structures to support active travel.

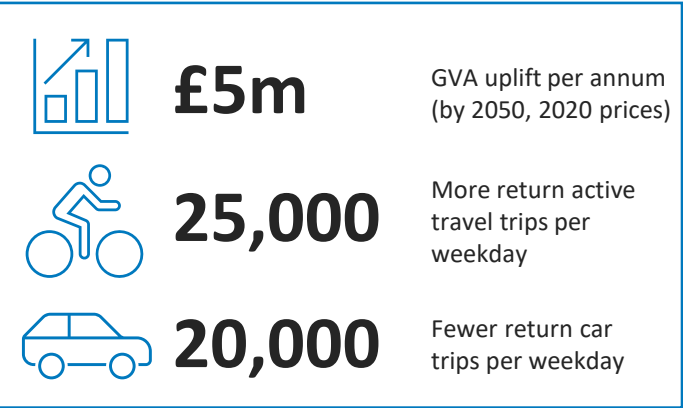
Several smaller scale highways interventions are also proposed to support housing growth along the Sussex Coast. Most of these interventions include public transport and active travel elements, such as those being proposed for the A29 between Bognor Regis and Littlehampton, and the A259 between Chichester and Bognor Regis. Transforming places through investment in active travel, especially places which experience multiple levels of deprivation, can break the vicious cycle of decline and help reinvigorate communities.

Increased active travel can help improve socioeconomic outcomes related to quality of life and productivity, and reframe the narrative of communities into positive, progressive and healthy places.

Benefits

- **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

Modelling Results



Package I: Solent and Sussex Coast Highways

Overview

This package contains interventions that help deliver TfSE’s vision for a high-quality highway between the areas’ two largest conurbations.

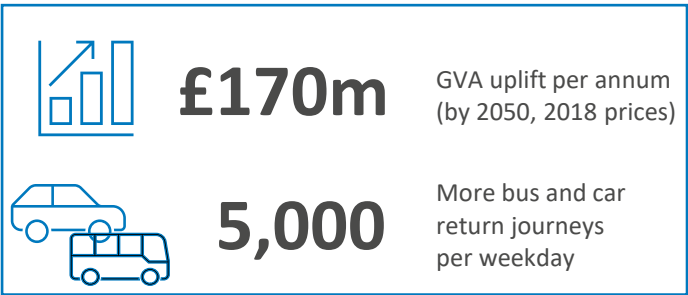
This does not necessarily mean delivering a grade separated dual carriageway – more modest interventions may be appropriate, but a priority is a long-term solution for Worthing. Addressing pinch-points along the A27, but not at Worthing, is likely to increase congestion in the town. Any highway intervention proposed in this package should be designed to de-conflict local and longer-distance traffic, and address safety and air quality issues. They should support (and be supported by) public transport and active travel improvements. Several interventions unlock opportunities to reallocate road-space to active travel and public transport.

This is reflected in modelling analysis that indicates these highways interventions could stimulate almost as many more bus trips on the A27 corridor as private car trips if supported by service enhancements.

The parallel A259 corridor provides a complimentary function alongside the A27 in providing access to coastal communities (Bognor and Littlehampton) from the SRN but also linking coastal communities (Brighton - Peacehaven - Newhaven - Seaford – Eastbourne – Bexhill – Hastings).

Southampton Access M27 Junctions and A326 Capacity Enhancements open up residential and commercial development (e.g. Fawley Waterside) and improve access to the Port of Southampton and the wider Solent Freeport and its growth.

Modelling Results



Benefits

- **Safer highways**, notably in urban areas
- **Faster, more reliable highway journeys** between Brighton and South Hampshire
- **Improved air quality** in urban areas
- Scope to **reallocate road-space to active travel and public transport**
- **Reduced impact of road traffic** on the South Downs National Park



Package J: London to Sussex Coast Rail (Core) | London – Sussex Coast Rail (Reinstatements)

Overview

In collaboration with Network Rail and the Local Transport Authorities a package of rail interventions has been developed which will enhance connectivity, and reliability between London and the Sussex Coast.

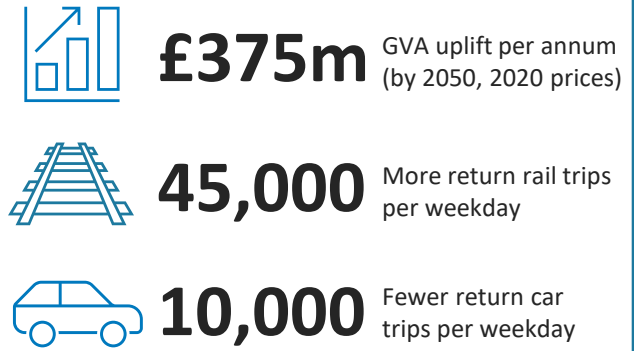
The **Core Rail Package** addresses key bottlenecks on the Brighton Main Line, enabling faster, more reliable services. It also provides line speed enhancements allowing for faster journeys on the Arun Valley Line and the East Coastway Line. Electrification of the Uckfield Branch of the Oxted Line stimulates positive operational and environmental impacts.

The **Railway Reinstatements Package** brings back into use the Uckfield – Lewes railway and the Tunbridge Wells West – Tunbridge Wells (Central) railway. This will increase resilience of rail connectivity between the South Coast and London whilst creating a new east west rail link between the Brighton Main Line and Hastings Line.

Several other historical railways have been considered for reinstatement, but the study found the conversion to active travel corridors would have a more positive impact.



Modelling Results



Benefits

- Improvements to **resilience** of north south rail trips
- Increased **reliability** on Brighton Main Line serving key strategic locations
- **Faster journeys** on Brighton Main Line, Arun Valley Line and East Coastway Line.
- Improved access to **boost** (currently) **less prosperous coastal areas**.
- Enhanced **connectivity** from Brighton via Lewes and Uckfield to Tunbridge Wells.
- Large reduction in **carbon emissions**.

Package L: London to Sussex Coast Mass Transit

Overview

TfSE and the Area Study Working Group believe that there are parts of the London to Sussex Coast Area which are populous and dense enough to support a bus based-transit network.

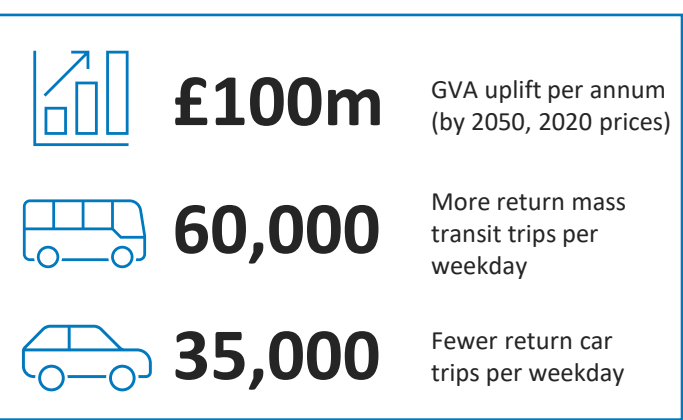
The **Mass Transit Package** will build on the success of the Fastway Bus Rapid Transit system in Crawley/Gatwick. Its expansion will be on high growth corridors towards (and within) nearby Major Economic Hubs. This expansion will include investing in segregated bus infrastructure where feasible on corridors to the north (Redhill), south (Haywards Heath), east (East Grinstead and Tunbridge Wells) and the west (Horsham). In addition, mass transit systems are proposed for Brighton and Hove and the wider Sussex Coast, if feasible, including the Eastbourne/South Wealden area.

This system will be supported by general improvements to non-BRT buses and Strategic Mobility Hubs at Falmer, Three Bridges, and on the periphery of Eastbourne. The overall mass transit network and service provision will be designed to provide an integrated network which facilitates seamless journeys across the London to Sussex Coast area and beyond.

Benefits

- Improvement in the **speed, frequency** and **connectivity** of mass transit services
- Better **interchange** and **service quality** at Strategic Mobility Hubs
- Improvement in the **journey experience** with better quality vehicles
- Significant mode shift** from car to bus

Modelling Results



Package M: London to Sussex Coast Active Travel

Overview

All four Local Transport Authorities in the London to Sussex Coast area have ambitious plans to improve cycling and walking in their areas. This ambition is supported by this study.

The **Active Travel Package** expands on this, delivering improvements to enable reinstatement of the National Cycle Network routes between Crawley and Brighton & Hove and between Crawley and Chichester. This will be complemented by a more direct Avenue Verte, serving international leisure trips.

The package also includes continued roll out of regional cycleways in the four Local Transport Authorities. This will involve development of consistent branding and wayfinding and creation of an integrated network with assurance of cycle path quality.

Several highway interventions – including bypasses at Godstone and improvements to the Uckfield bypass – unlock opportunities for pedestrians and cyclists by freeing up more public space in town centres.

Benefits

- Significant **mode shift** from car to active travel, with associated health benefits
- Improvements in **air quality**, particularly in urban parts of the area
- Improvements to the urban and rural public realm in South Central Area, improving **quality of life** and unlocking **regeneration** opportunities

Modelling Results



£10m

GVA uplift per annum
(by 2050, 2020 prices)



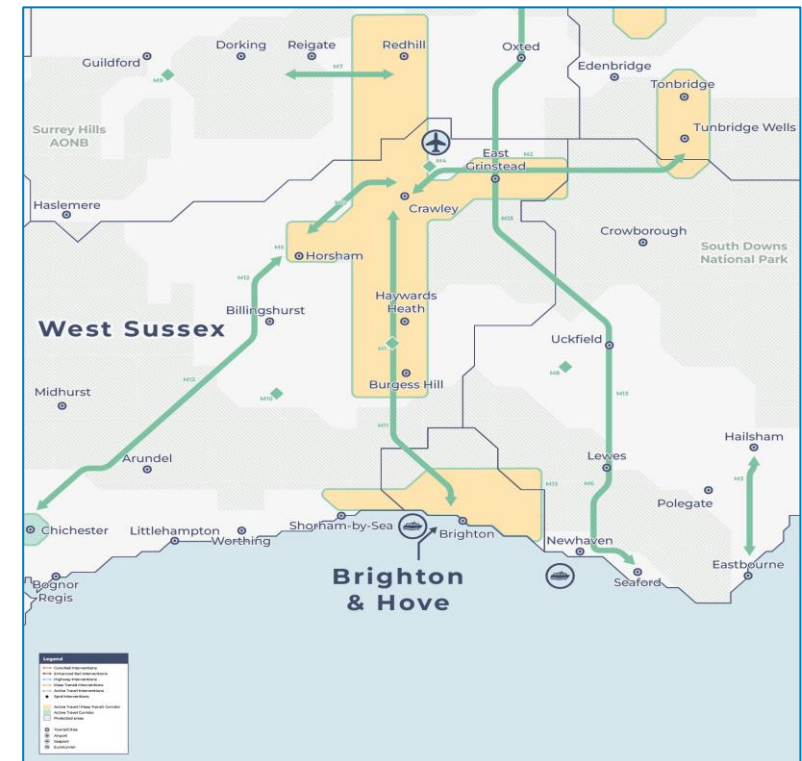
40,000

More return active
travel trips per
weekday



35,000

Fewer return car
trips per weekday



Package O: Wessex Thames Rail

Overview

TfSE, in collaboration with Network Rail and local stakeholders, have developed a comprehensive package of interventions that will deliver greater capacity and resilience to strategic railways which will translate to a higher number of passenger and freight services to be run across the Wessex Thames area.

This package includes new infrastructure interventions, the largest of which involve establishing new rail links to Heathrow, possibly via interchange Reading in the medium-term.

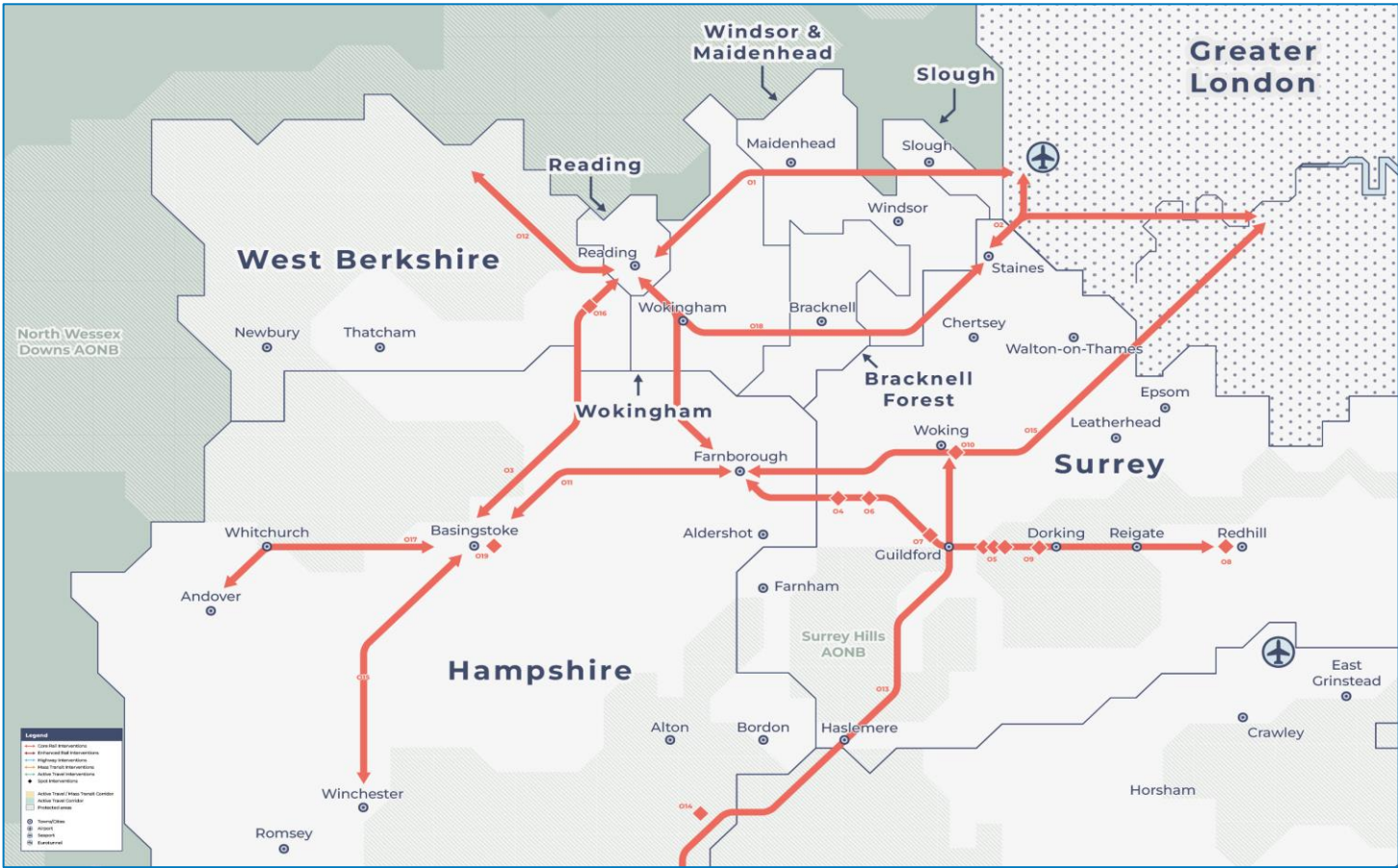
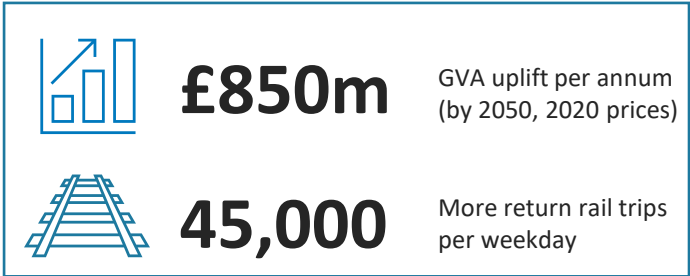
This package also includes targeted infrastructure enhancements at known bottlenecks along Strategic Rail corridors including Woking, Guildford and Basingstoke. This will translate to more capacity for both passenger and freight services to the Solent Ports.

This package delivers a transformational change in orbital rail connectivity, connecting Major Economic Hubs across the area. Additionally, there is a focus on out-of-region connectivity to other prominent regions in Great Britain.

Benefits

- Increased **capacity** on key corridors
- Increased **resilience and reliability**
- **Faster, more frequent services** connecting Major Economic Hubs
- **Faster, more frequent services** connecting the area to Global Gateways

Modelling Results

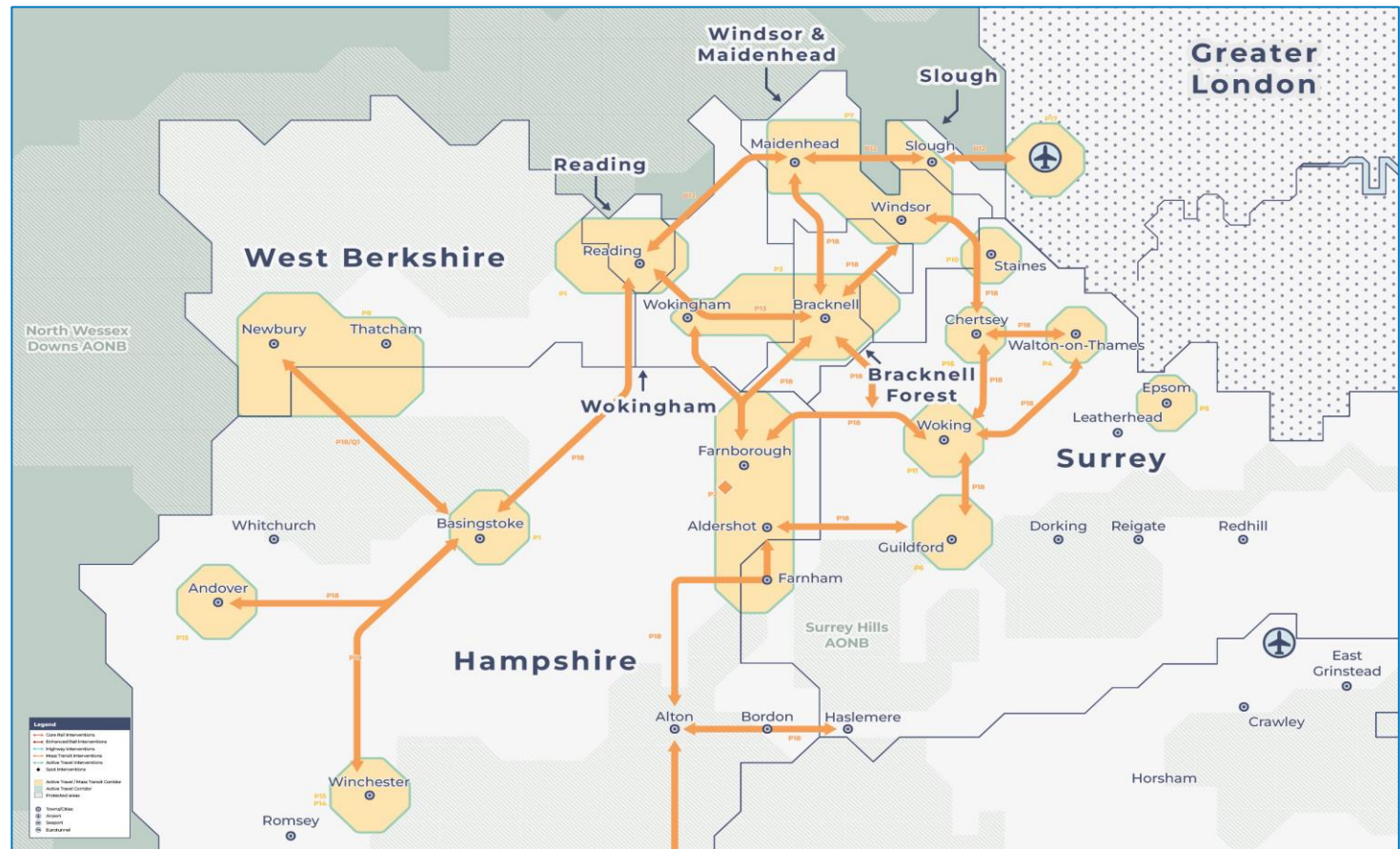


Overview

Mass transit options have been considered for Major Economic Hubs across the area. Enhancements include increasing the frequency, operating hours, reliability and catchment of bus services, supported with bus priority infrastructure where appropriate. Corridors with strong existing bus patronage, sufficient density and an appropriate network for bus priority include the Slough-M Maidenhead-Windsor corridors, on corridors within Reading and in the Blackwater Valley – Farnham, Aldershot, Farnborough, Frimley, Camberley, Owlsmoor, Sandhurst, Yately and Blackwater.

Benefits

- Improvement in the speed, frequency and connectivity of mass transit services
- Better interchange and service quality at Strategic Mobility Hubs
- Better service quality
- Significant mode shift from car to bus



Package Q: Wessex Thames Active Travel

Overview

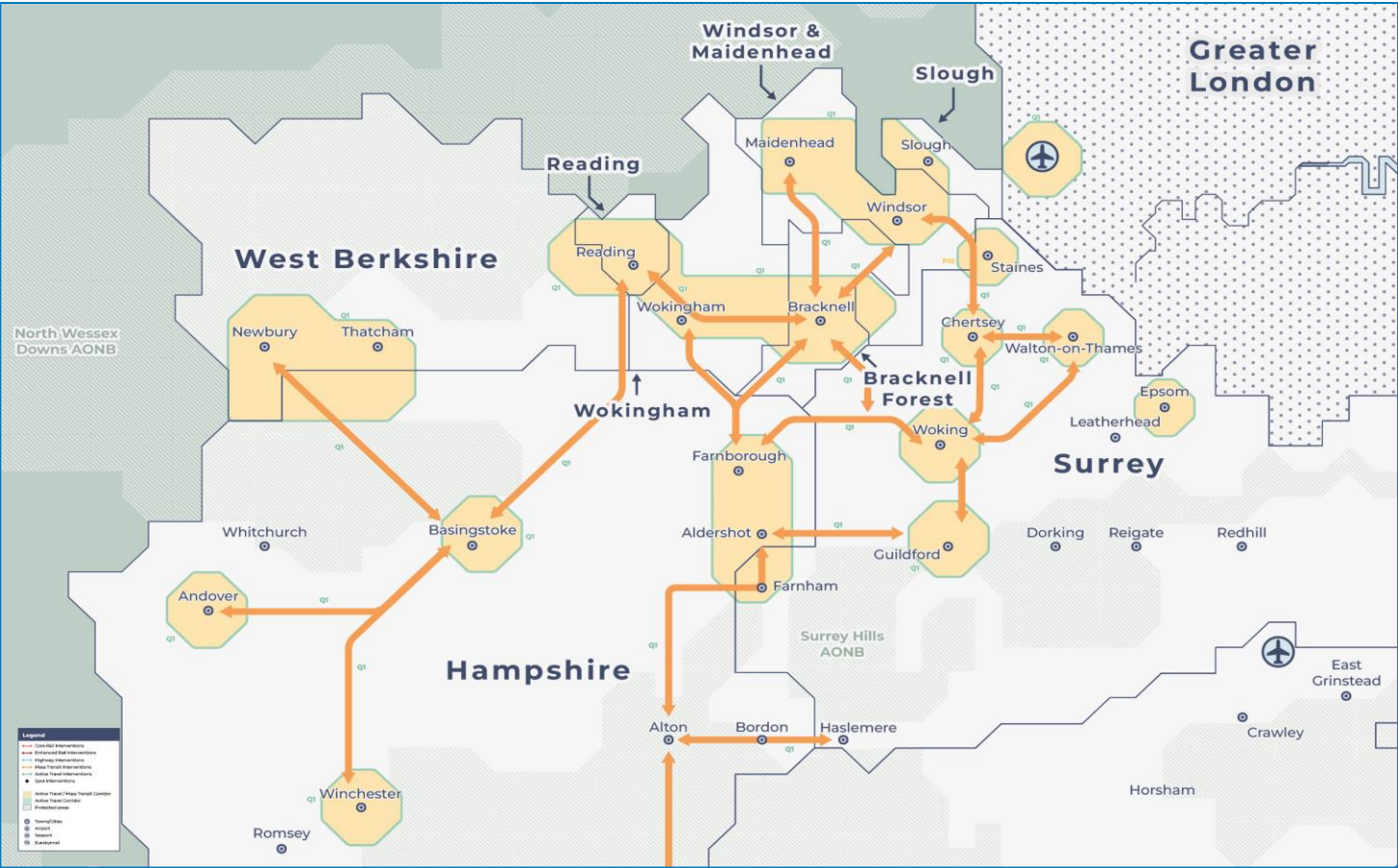
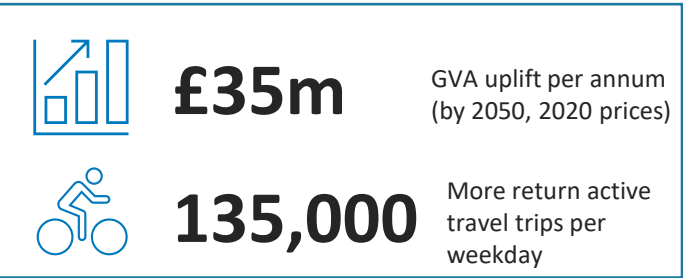
Local Transport Authorities supports the creation of extensive walking and cycling networks that serve the requirements of local residents and connect key destinations within centres such as railway stations, schools, hospitals and promote local placemaking.

For each of the centres and corridors identified previously which stand to benefit from bus service enhancements, priority, and Mass Transit, the opportunity for a series of urban mobility interventions which increase the attractiveness of active travel have been identified. Innovations such as e-bikes now make cycling longer-distances between centres possible. Through providing segregated cycling infrastructure in line with LTN 1/20 where capacity permits, there is opportunity to make these cycle trips safer, more accessible and faster for users. Inter-urban mobility corridors can also support cycling for leisure and other purposes for those who live along or near corridors. Lastly, they can support local placemaking, with new mobility infrastructure acting as the spine which supports a transformation of public places.

Benefits

- Significant mode shift from car to active travel, with associated health benefits
- Improvements in air quality
- Improvements to the urban and rural public realm, improving quality of life and unlocking regeneration opportunities

Modelling Results



Package S: Kent, Medway and East Sussex (KMES) Classic Rail

Overview

This package adds capacity to the classic rail network in the South East Area. It targets the areas of Kent that lie closest to London.

Areas further away from London will be served by high speed rail interventions described in the following slide.

The package includes several interventions that add capacity through additional services (e.g. Crossrail to Ebbsfleet, Thameslink to Maidstone) as well as interventions that materially increase track and platform capacity (e.g. through capacity released by the Bakerloo Line extension).

It also includes interventions that improve the integration of the rail system – notably at Ebbsfleet, Canterbury, Maidstone, and Strood – where several railway lines cross each other without providing easy interchange from one railway to another.

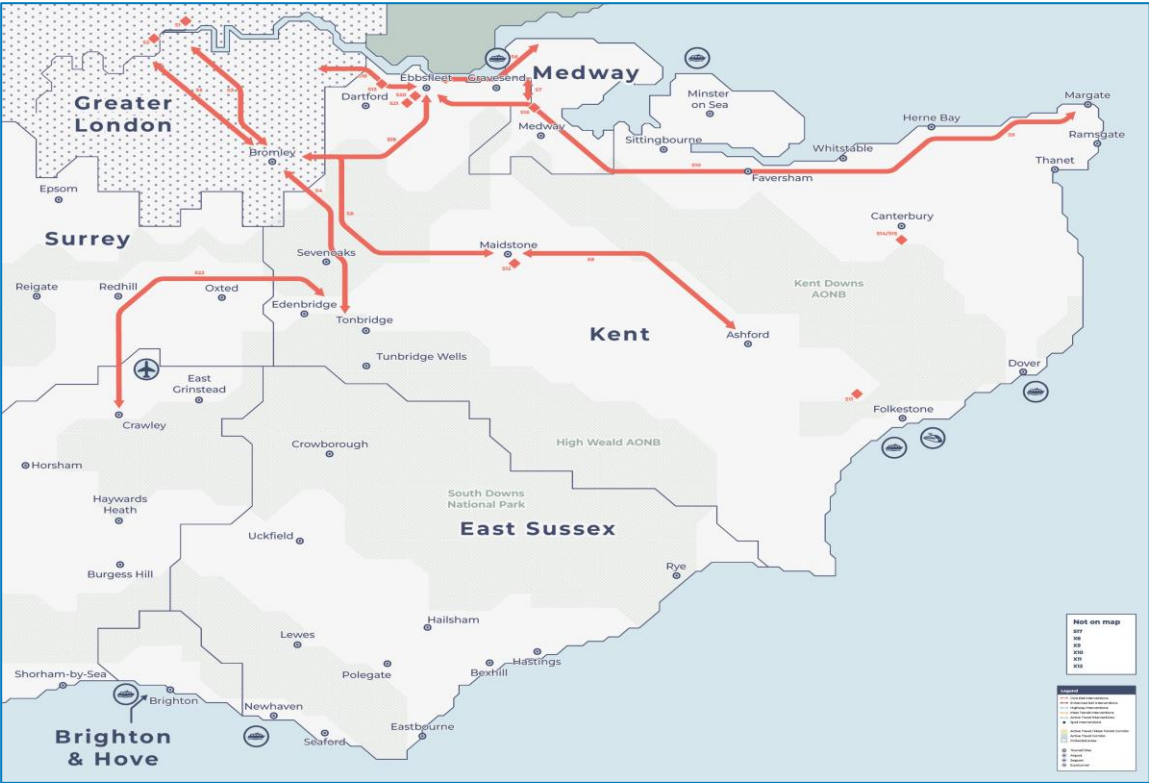
It also includes the introduction of passenger rail services on the Grain Branch and direct services between Gatwick Airport and Mid/East Kent.

These interventions will deliver improved connectivity across this area of the South East, which contains some of the most deprived communities in the region. Targeting investment in these areas will help achieve the Levelling Up objectives.

Benefits

- **Capacity** enhancements at key bottlenecks on radial corridors
- Improvements in **service frequencies**, especially for urban metro services
- Better **interchange** between rail services and other modes
- Better rail access for new/growing areas.
- Large **reduction in carbon emissions**.

Modelling Results



Packages T & U: KMES Rail High Speed (East) | KMES Rail High Speed (North)

Overview

These packages includes some of the more radical interventions in the long list for this study. They are based around expanding the domestic high speed service to deliver transformational improvements in journey times to Kent, Medway, and East Sussex.

The **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

The **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 represented for this package reflects one of the more interventionalist options.

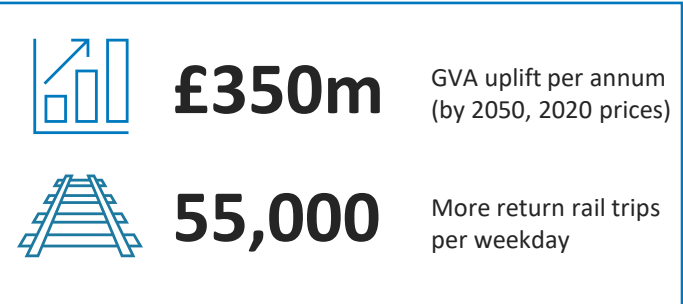
There are also opportunities to replace domestic service rolling stock on HS1 and expand the fleet to capitalise on network enhancements.

These two packages have the potential to reach some of the most deprived communities in the South East, for example coastal areas around Hastings and the Medway estuary. Slashing journey times between these places and London would achieve a significant uplift in GVA.

Benefits

- Transformational improvements in journey times between London (and the rest of the UK) and the South East coast.
- Potentially transformational improvements in capacity between London and coastal Kent/Medway/East Sussex, delivering significant economic **boost to left behind coastal areas**.
- Large **reduction in carbon emissions**.

Modelling Results



Package V: Kent, Medway, and East Sussex Mass Transit

Overview

This package delivers improvements to bus services in Kent, Medway, and East Sussex.

The scope for improvements and expansion are particularly strong in the North Kent 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 includes an opportunity to create a new Medway River Crossing to enable faster journeys between the north and south of this conurbation by bus/mass transit and active modes (e.g. walk, wheel, cycle and microtransit such as bike hire and e-scooters).

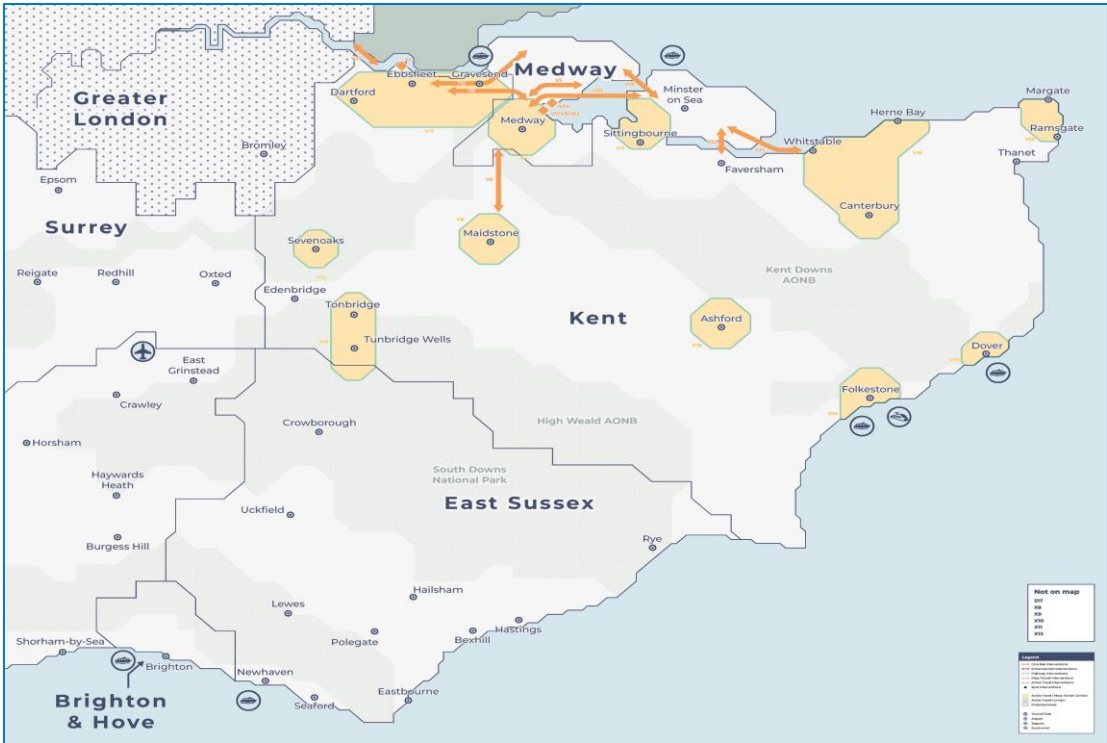
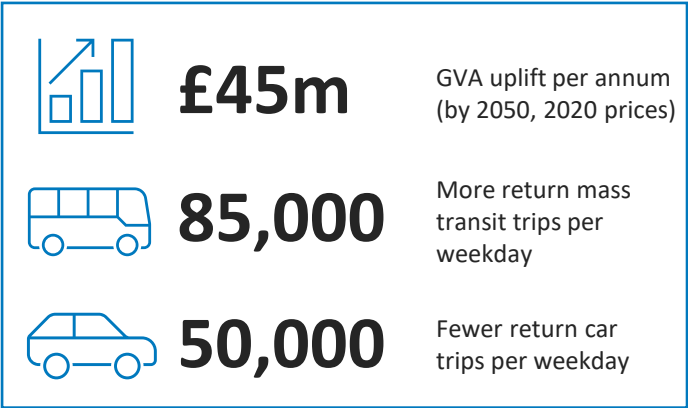
This intervention assumes all other conventional bus services in the Kent, Medway & East Sussex area experience general improvements in journey times, frequencies, and service quality.

Improvements to bus services can deliver immediate benefits to communities previously underserved by public transport. Connecting areas of high deprivation to a range of opportunities will help improve educational attainment, skills and the living standards of individuals living in such places.

Benefits

- **Significant improvements** in the quality, speed, and frequency of bus services in Kent, Medway, and East Sussex
- Better **interchange** between bus and rail
- Improvements in **connectivity** between **islands and peninsulas** in North Kent
- **Modal shift** from car to bus (and in some instances, ferries)

Modelling Results



Package W: Kent, Medway, and East Sussex Active Travel

Overview

This package delivers general uplift in the quality of walking and cycling infrastructure, particularly in urban areas.

Kent County Council has identified inter-urban corridors on the cycling network and identified several gaps in national and regional cycle networks that many stakeholders wish to see addressed. Urban areas are identified with most need and potential for investment.

Similarly, East Sussex County Council has developed a Local Walking and Cycling Infrastructure Plan which provides details of network of routes for its main towns including Bexhill, Hastings, Battle and Rye.

The development of walking and cycling infrastructure is a key mechanism to delivering the objectives of the Levelling Up White Paper.

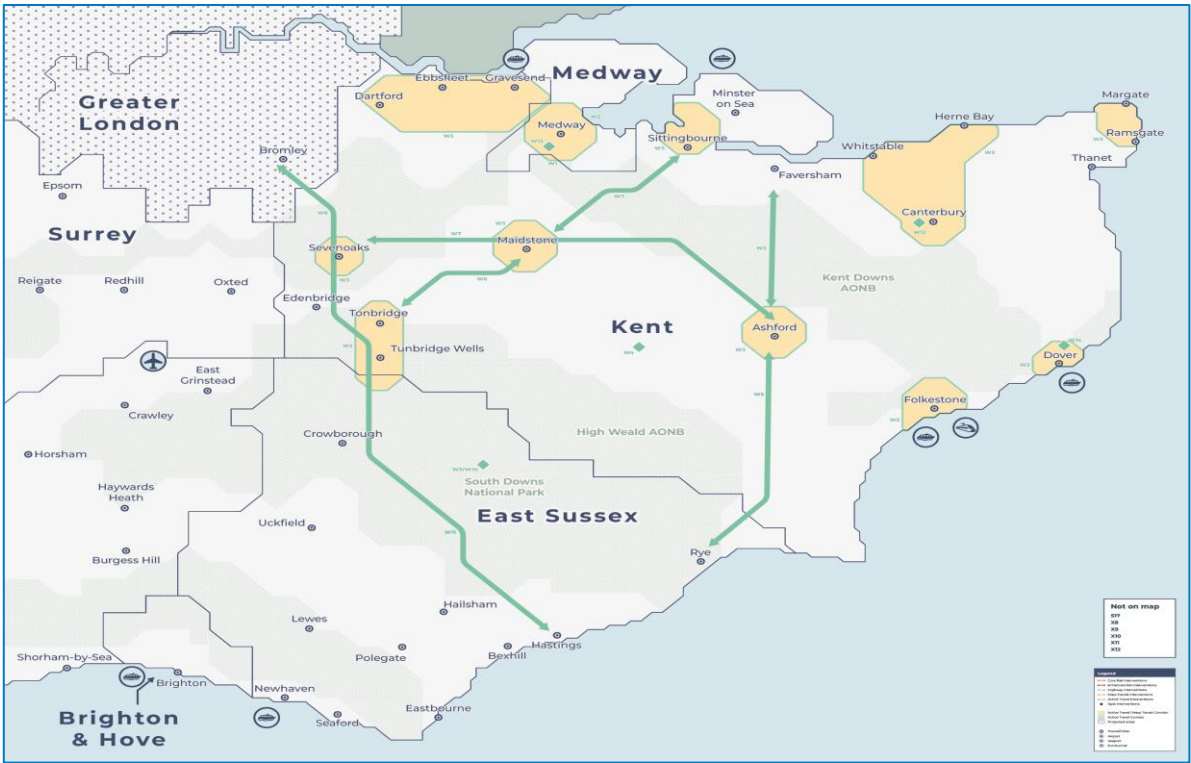
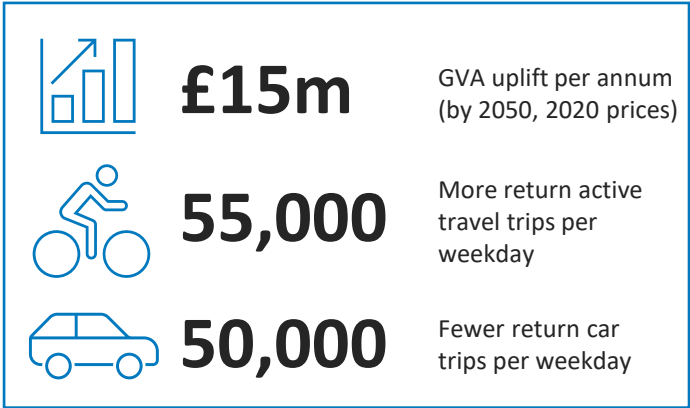
Targeting walking and cycling infrastructure in high density urban areas, especially the more deprived areas of the north Kent coast, will help transform these communities into better places to live. For example, road space which is reallocated from private vehicles to active travel creates healthier streets and fosters more cohesive communities.

Street designs which prioritise active travel help improve public health, wellbeing, and pride in place. More active streets also result in reduced neighborhood crime.

Benefits

- Material improvements to the urban realm of urban areas, 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

Modelling Results



Packages X & Y: Kent, Medway, and East Sussex Highways | Lower Thames Crossing

Overview

The Kent, Medway and East Sussex highways package delivers the Kent Bifurcation strategy – which strengthens the resilience of Channel Port access corridors – and improved connectivity for coastal areas.

This package includes several interventions that aim to improve the resilience of the M2/A2 and M20/A20 corridors, improve the connectivity of Coastal East Sussex (via the A21 corridor), and relieve 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.

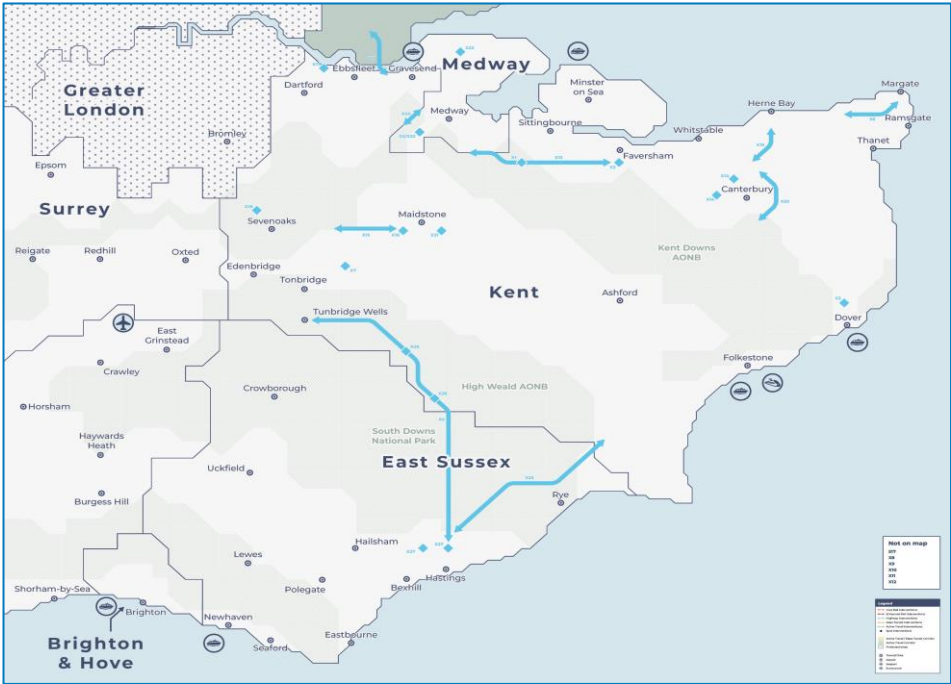
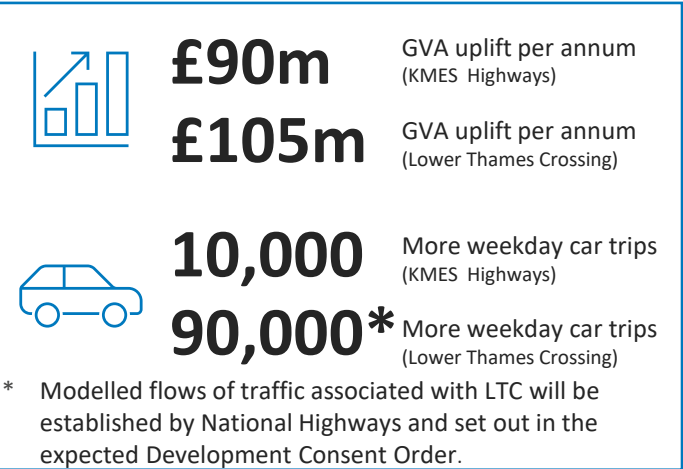
Any highway intervention on this corridor should be designed to de-conflict local and longer-distance traffic, safety and air quality. They should support (and be supported by) public transport improvements.

When modelled in isolation, these interventions are projected to increase carbon emissions. This effect will diminish if this package is combined with Global Policy and other mode interventions.

Benefits

- **More resilient** corridors serving the key Channel Ports
- **Safer highways**, notably in urban areas
- **Faster, more reliable highway journeys** between London and communities in Kent, Medway and East Sussex
- **Improved air quality** in urban areas
- Scope to **reallocate road space to active travel and public transport**

Modelling Results



Global Interventions

Overview

Part 5 of this Plan has presented 13 packages of location specific interventions which could be adopted to achieve the objectives of the Levelling Up White Paper.

The proposed interventions offer a range of multi-modal solutions targeted at the most deprived areas of the South East.

When combined, they present a comprehensive set of packages, which have been devised to have a transformational impact on the targeted communities.

Global or non-site-specific interventions

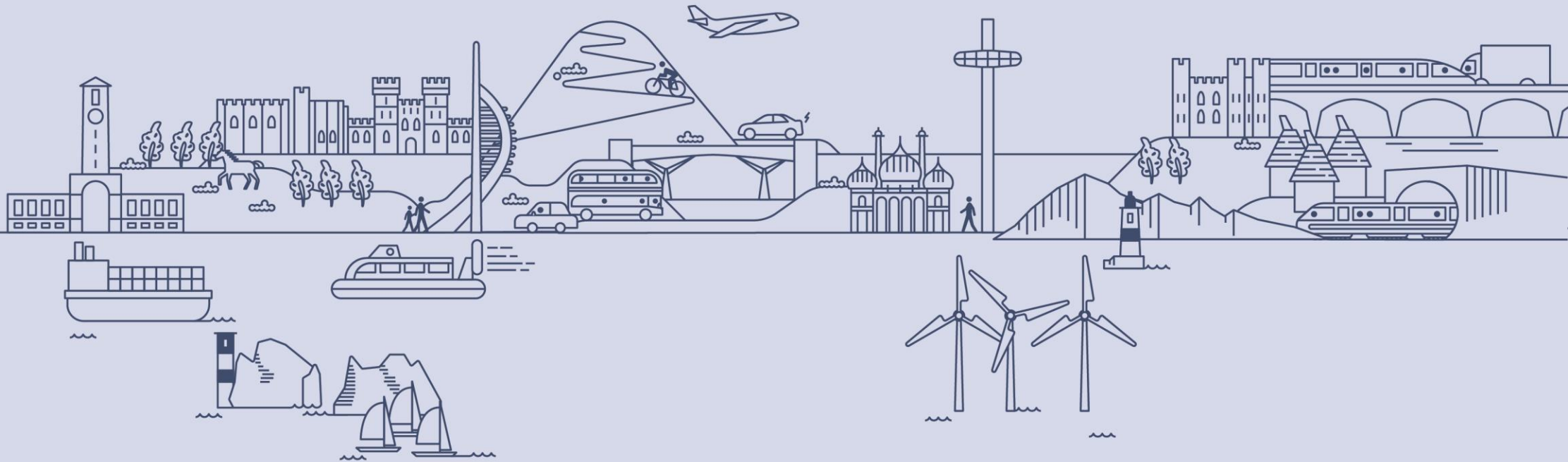
Our strategy also supports the following global and non-site-specific interventions:

- Strategic Mobility Hubs
- Rural bus service improvements
- Improved Rural Demand Responsive bus/taxi services
- Integrated ticketing, that's simpler, more affordable and promotes greater use of public transport, in particular multi-modal trips; and
- Behavioral change campaign
- Electric cycle, scooter, and micro-mobility infrastructure, including dockless or docked hire schemes for the public and businesses
- Integration into economic, spatial and transport policy, as well as major sites and assets
- Policy response to emerging technologies
- South East Future Mobility Forum

Additional Interventions

In order to deliver the vision and objectives outlined above, our strategy supports the following additional interventions:

- Mass transit expansion to existing systems and further consideration of where Mass Transit is best suited to operate
- The ongoing support to local authorities in their BSIPs
- Build on the success of high-quality bus services in Reading, Brighton, Blackwater Valley, Southampton, Portsmouth and Crawley Gatwick, extending the reach of these networks in surrounding areas and particularly those less well served
- Learn lessons, from home and abroad, and apply the principles high-quality bus networks and priority measures to other parts of the South East; and
- Support the roll out and enhancement of (digital) demand responsive transit (trials) in rural areas and make permanent if demand warrants



Part 6: Benefits and Costs

Benefits and Costs

Modelling Benefits

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 a 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 land-use in each zone (i.e., housing units and business premises);
- changes in households, population and the workforce in each zone;
- changes in employment (jobs filled) in each zone and the unemployment rates;
- changes on CO₂ emissions from transport activity;
- 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 bus Generalised Journey Times (GJTs) within and between each zone (by mode).

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 (BaU), which is based on the Department for Transport's National Trip End Model (NTEM) that also projects employment and population growth to 2050.

The results of modelling all the packages of Interventions that support levelling up are presented in **Table 6.1** on the following page.

Estimating Costs

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 6.1.

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 contractor's preliminaries and overhead and profit, temporary works and traffic management where required. Allowances for professional fees, upgrades, and relocation have also been added to the construction cost estimate. To reflect the maturity of the design a risk allowance has been applied.

Operations, Maintenance, Renewal and impacts on tax revenue are excluded from these costs.

“Levelling Up” Packages Impacts

Table 6.1: “Levelling Up” Packages Impacts

Package	Pop ⁿ (2050)	New Jobs (2050)	GVA (£m in 2050)	Total CO ₂ (Tonnes in 2050)	Car Trips (weekday return in 2050)	Rail Trips (weekday return in 2050)	MT Trips (weekday return in 2050)	Total Trips (weekday return in 2050)	Capital Construction Costs (£m, 2020 prices)
Solent and Sussex Coast									
South Hampshire Rail (Core)	1,050	1,550	285	-	-5,000	15,000	-	5,000	600
South Hampshire Rail (Enhanced)	1,150	2,000	305	-	-5,000	15,000	-	10,000	3,700
South Hampshire Mass Transit	1,300	1,000	165	-30,000	-70,000	-	110,000	5,000	1,800
South Hampshire Active Travel	150	50	10	-10,000	-40,000	-	-5,000	-	350
Isle of Wight Multi-Modal	1,950	1,500	165	-	-15,000	5,000	15,000	5,000	250
Sussex Coast Rail	700	350	80	-	-	5,000	-	5,000	350
Sussex Coast Mass Transit	850	550	120	-10,000	-35,000	5,000	55,000	5,000	450
Sussex Coast Active Travel	<50	<50	5	-5,000	-20,000	-	-5,000	-	250
South Coast Highways	250	700	170	45,000	5,000	-	5,000	5,000	3,400
London – Sussex Coast									
London – Sussex Coast Rail (Core)	6,250	2,350	375	-10,000	-10,000	45,000	-	30,000	500
London – Sussex Coast Rail (R'ment)									
London – Sussex Coast Mass Transit	1,350	800	100	-15,000	-35,000	-	60,000	5,000	400
London – Sussex Coast Active Travel	50	<50	10	-10,000	-35,000	-	-5,000	-	1,100

Abbreviations

- MT: Bus and Mass Transit
- AT: Active Travel (walking and cycling)

Reporting units

- GVA (Gross Value Added) is GVA per annum in 2050 in 2020 prices
- Carbon emissions are CO₂ tonnes equivalent
- Costs are in 2020 prices
- Changes in trips are weekday return trips

“Levelling Up” Packages Impacts

Table 6.1: “Levelling Up” Packages Impacts (cntd.)

Package	Pop ⁿ (2050)	New Jobs (2050)	GVA (£m in 2050)	Total CO ₂ (Tonnes in 2050)	Car Trips (weekday return in 2050)	Rail Trips (weekday return in 2050)	MT Trips (weekday return in 2050)	Total Trips (weekday return in 2050)	Capital Construction Costs (£m, 2020 prices)
Wessex Thames									
Wessex Thames Rail	3,100	3,750	850	-5,000	-5,000	50,000	-	35,000	7,200
Wessex Thames Mass Transit	3,300	1,300	245	-55,000	-130,000	-5,000	225,000	10,000	1,000
Wessex Thames Active Travel	500	<50	35	-30,000	-120,000	-	-10,000	-	400
Kent, Medway, and East Sussex (KMES)									
KMES Classic Rail	6,150	1,500	140	-15,000	-	15,000	-	20,000	3,700
KMES High Speed Rail (East)	5,800	1,400	125	-15,000	-	15,000	-	15,000	1,000
KMES High Speed Rail (North)	11,700	2,450	225	-15,000	-	35,000	-	35,000	7,300*
KMES Mass Transit	1,550	400	45	-25,000	-50,000	-	85,000	-	700
KMES Active Travel	450	250	15	-10,000	-50,000	-	-5,000	-	100
Lower Thames Crossing	1,200	950	90	65,000	10,000	-	-	5,000	2,800 ⁺
KMES Highways	1,600	1,400	105	45,000	85,000	-	-5,000	75,000	3,800

* Assumes High Speed Rail option goes via Chatham rather than Rochester

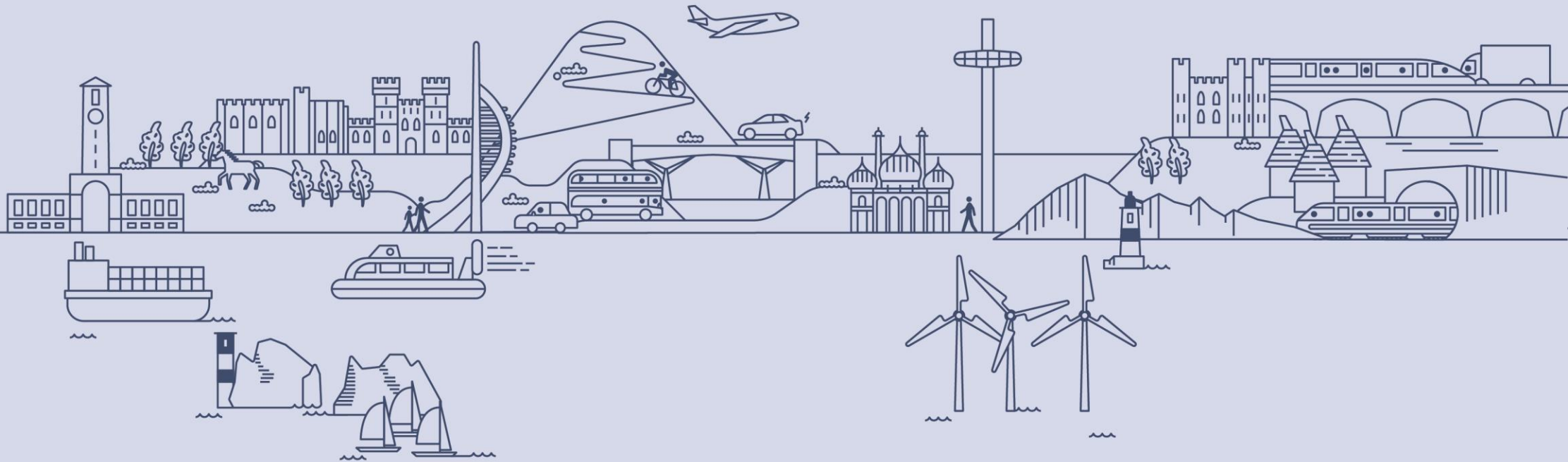
⁺ Assumes assignment of 40% of Lower Thames Crossing capital costs to Kent geographically

Abbreviations

- MT: Bus and Mass Transit
- AT: Active Travel (walking and cycling)

Reporting units

- GVA (Gross Value Added) is GVA per annum in 2050 in 2020 prices
- Carbon emissions are CO₂ tonnes equivalent
- Costs are in 2020 prices
- Changes in trips are weekday return trips



Part 7: Delivery

Introduction

TfSE will work with partners to deliver the packages of interventions outlined in Part 5.

The delivery of the packages of interventions will need to consider:

- timing and phasing;
- roles and responsibilities;
- funding and financing; and
- monitoring and evaluation.

This part provides an overview of a suggested approach to the topics listed above.

Timing and Phasing

Implementation timescales are presented in **Table 7.1** overleaf.

Some interventions often present “quick wins” for Local Transport Authorities and other delivery parents.

Delivery, will be dependent on each individual intervention and its local context, the complexity of the scheme, the stage of scheme and business case development, as well as funding.

Indicative phasing is contained within the Delivery Plan.

Roles and Responsibilities

As outlined in the Introduction, local transport authorities will typically be responsible for delivering the Area Study Packages and Global Interventions, with support from partners where necessary.

TfSE’s role will reflect its current and likely future status as an established Sub National Transport Body for South East England. It is assumed there would 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 building consensus and capacity to deliver its transport strategy through others. It will tailor its approach to the mode, scale, and level of development of each prioritised intervention.

A suggested approach for delivering the Packages of Interventions – including Global Policy Interventions – is provided in Table 7.2.

Timing and Phasing

Table 7.1: Timing and Phasing of different intervention type

Category	Sub-Category	Time	Max Years	Pre-SOBC	SOBC	OBC	FBC	Pre-DCO/PI*	DCO/PI*	Delivery
Rail	Rail - New Offline Rail Infrastructure	15-20 years	20	20	15	12	10	8	6	5
Rail	Rail - New Online Rail Infrastructure	5-10 years	10	10	7	6	5	4	3	2
Rail	Rail - Service Improvement	0-7 years	7	7	5	4	3	N/A	N/A	1
Rail	Rail - Reinstating Line	10-15 years	15	15	12	10	8	7	5	4
Rail	Rail - Level Crossing Removal	5-7 years	7	7	6	5	4	3	2	1
Mass Rapid Transit	MRT - New BRT/MRT	5-10 years	10	10	7	6	5	4	3	2
Mass Rapid Transit	MRT - New Ferry/Waterway	5-8 years	8	8	6	5	4	N/A	N/A	2
Mass Rapid Transit	MRT - Service Improvement	0-5 years	5	5	4	3	2	N/A	N/A	1
Mass Rapid Transit	MRT - New Strategic Mobility Hub	3-5 years	5	5	4	3	2	2	1	1
Mass Rapid Transit	MRT - Infrastructure Improvement	3-5 years	10	10	8	7	6	N/A	N/A	1
Active Travel	Active Travel - New Cycleway/Footways	2-5 years	5	5	4	3	2	N/A	N/A	1
Active Travel	Active Travel - Improved Cycleways/Footways	1-3 years	4	4	3	2	1	N/A	N/A	1
Active Travel	Active Travel - Service Improvement	0-2 years	4	4	3	2	1	N/A	N/A	1
Active Travel	Active Travel - Mobility Hubs	2-3 years	3	3	3	3	2	2	1	1
Active Travel	Active Travel - Online Road Improvements	2-3 years	3	3	3	3	2	N/A	N/A	1
Active Travel	Active Travel - Offline Road Improvements	3-5 years	5	5	4	3	3	2	1	1
Highways	Highways - Junction Improvement	3-5 years	5	5	4	3	3	2	1	1
Highways	Highways - Widening	3-5 years	5	5	4	3	3	2	1	1
Highways	Highways - New Online Infrastructure Improvement	3-5 years	5	5	4	3	3	2	1	1
Highways	Highways - Bridge/Tunnel	15-20 years	20	20	15	12	10	8	6	5
Highways	Highways - Bypass/Relief road	10-15 years	15	15	12	10	8	7	5	4
Highways	Highways - Lorry Park	5-7 years	7	7	6	5	4	3	2	1
Highways	Highways - Service Improvement	2-5 years	4	4	3	2	1	N/A	N/A	1

Roles and Responsibilities (contd.)

Table 7.1: Roles and Responsibilities – global packages

Intervention	Potential Scheme Promoter	TfSE Role
Global Package - lower public transport fares	<ul style="list-style-type: none"> Central government (e.g. Department for Transport) / Local Authorities 	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> Local Transport Authorities 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Central government (e.g. Department for Transport) 	<ul style="list-style-type: none"> Further strategy development Stakeholder engagement Pre-feasibility work Advocacy
Global Package – integrated spatial and transport planning	<ul style="list-style-type: none"> Central government (e.g. Department for Transport and Department for Levelling up, Housing and Communities) / Local Transport Authorities / Local Planning Authorities 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Central government (e.g. Department for Transport and Department for Culture, Media, Sports and Digital) / Local Authorities / Private Sector 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Central government (e.g. Department for Transport and Department for Business, Environment and Industrial Strategy) / Local Authorities / Private Sector 	<ul style="list-style-type: none"> 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

Roles and Responsibilities (contd.)

Table 7.1: Roles and Responsibilities - rail

Intervention	Potential Scheme Promoter	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)	<ul style="list-style-type: none"> • Today: Department for Transport • Future: Great British Railways 	<ul style="list-style-type: none"> • 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).	<ul style="list-style-type: none"> • Open Access Operators 	<ul style="list-style-type: none"> • 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	
	<ul style="list-style-type: none"> • Department for Transport (very large projects e.g. Crossrail) • Network Rail (most schemes e.g. Croydon Area Remodelling) 	<ul style="list-style-type: none"> • 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	
	<ul style="list-style-type: none"> • Likely Network Rail and, later on, Great British Railways • TfSE could be a joint scheme promoter 	<ul style="list-style-type: none"> • 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

Roles and Responsibilities (contd.)

Table 7.1: Roles and Responsibilities – bus, ferry, mass transit and shared mobility

Intervention	Potential Scheme Promoter	TfSE Role
Mass Transit services that can be introduced without new infrastructure, but which will likely require local government support.	<ul style="list-style-type: none"> Local Authority TfSE could be a joint scheme promoter 	<ul style="list-style-type: none"> 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
Mass Transit services that can be introduced without new infrastructure, and without Central Government Intervention (e.g., more Fastrack services).	<ul style="list-style-type: none"> Local Authority TfSE could be a joint scheme promoter 	<ul style="list-style-type: none"> Stakeholder engagement with operators, local partners and central government Use of and providing access to TfSE's emerging analytical framework Advocacy
For Mass Transit services requiring new infrastructure (e.g. the larger mass transit interventions/networks proposed in the South East	Schemes under development	
	<ul style="list-style-type: none"> Department for Transport (very large projects) Local Transport Authorities (smaller schemes e.g. HIF) 	<ul style="list-style-type: none"> 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	
	<ul style="list-style-type: none"> Local Transport Authorities TfSE could be joint scheme promoter 	<ul style="list-style-type: none"> 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

Roles and Responsibilities (contd.)

Table 8.1: Roles and Responsibilities – active travel and micromobility		
Intervention	Potential Scheme Promoter	TfSE Role
Active travel packages	<ul style="list-style-type: none">Local Transport Authorities / Active Travel England / Sustrans National Highways / TfSE	<ul style="list-style-type: none">Stakeholder engagement, where appropriate, with local partners, Sustrans, National Highways and central governmentPre-feasibility workPotential joint scheme promotionBusiness case and scheme development and support, including use of and providing access to TfSE’s emerging analytical frameworkAdvocacy and securing funding

Roles and Responsibilities (contd.)

Table 7.1: Roles and Responsibilities

Intervention	Lead Authority	TfSE Role
For Strategic Road Network infrastructure	Schemes under development	
	<ul style="list-style-type: none"> National Highways 	<ul style="list-style-type: none"> 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
For Strategic Road Network infrastructure	Schemes not currently under development	
	<ul style="list-style-type: none"> National Highways Local Transport Authorities 	<ul style="list-style-type: none"> Programme management, including 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
For other highways infrastructure	Schemes under development	
	<ul style="list-style-type: none"> Local Transport Authorities 	<ul style="list-style-type: none"> Programme management, including 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

Other Delivery Considerations

Funding and Financing

The Strategic Investment Plan will consider funding and financing options in detail.

This topic is are best considered from a pan-regional, multi-modal perspective, as there may be opportunities for developing linkages between modes at a local level.

Ultimately, a Full Business Case will need to be developed for each intervention, and this will be instrumental in making the case for investment. The best way of securing funding is, therefore, to prioritise those schemes that offer the most compelling case for intervention.

Funding for modal shift-related infrastructure can be sourced from:

- central government funding;
- central government loans/bonds;
- local government contributions (e.g., Workplace Parking Levy, Business Rate Supplement); and
- private investment to authorities (e.g. developer contributions – s106 & CIL).

Additional funding sources could include:

- Council Tax and Business Rates (including precepts);
- borrowing against future revenues;
- land value capture;
- alternative income streams (e.g. advertising); and
- parking revenue and road pricing hypothecation).

Given the scale of investment proposed and the range of transport infrastructure interventions, a portfolio of funding sources will be required reflecting the nature of beneficiaries and the criteria for the funds.

Governance

TfSE and local transport authorities should 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). The arrangements will vary according to the type of intervention and its stage of development.

Monitoring and Evaluation

A selection of potentially suitable KPIs for monitoring and evaluation the Packages of Interventions in this Plan are presented in **Table 7.3** on the following pages.

Theory of Change Monitoring and Evaluation Framework

Table 7.3: Key Performance Indicators - rail

Inputs	Outputs	Outcomes	Impacts
<ul style="list-style-type: none"> • Integrated planning for transport, land use and wider policy • Policy and guidance shaping the nature of the interventions developed • Funding invested in rail • Staff resource to create, design and deliver schemes 	<ul style="list-style-type: none"> • Delivery of Global Policy Interventions: reduction in public transport fares • Delivery of rail Interventions: capacity (seats, services per hour), and connectivity (better journey times, frequencies, direct/indirect services, 'turn up and go' service, internet connectivity) 	<ul style="list-style-type: none"> • Journey Time/Reliability: improvements for specific groups, perturbation recovery • Demand: increased public transport usage • Modal shift: public transport mode share increased, move to non-carbon emitting transport modes • Resilience and performance: Operating performance indicators (e.g. minutes delay/early, cancellations, etc.) • Quality: Customer Satisfaction Surveys, Service Quality Regimes, Mystery Shopper Regimes, other "trust" related/reliable indicators, enhanced interchange • Accessibility: improvement for all passengers, especially people with protected characteristics. number of fully accessible stops and stations, portion of buses, ferries, trams and other vehicles that are fully accessible • Affordability: Affordable fares for all, new products to make attractive • Revenue: Revenue raised per annum 	<ul style="list-style-type: none"> • Reduced carbon emissions to net-zero: reduced trip rates, higher sustainable transport mode share, fewer private vehicle kilometres, lower or zero emission per vehicle kilometre • Productivity: Boosted through better skills matching, knowledge sharing and agglomeration • Reduce poverty: for all residents and enable the "levelling up" of socioeconomic outcomes. • More financially sustainable public transport: Portion of operating costs recovered through revenue • Realisation of TfSE's Vision and Objectives presented in Part 4 of this Plan • Resolution of the Problem Statements identified in Part 4 of this Plan

Theory of Change Monitoring and Evaluation Framework (contd.)

Table 7.3: Key Performance Indicators – bus, ferry, mass transit and shared mobility

Inputs	Outputs	Outcomes	Impacts
<ul style="list-style-type: none"> • Integrated planning for transport, land use and wider policy • Policy and guidance shaping the nature of the interventions developed • Funding invested in bus, ferry, mass transit and shared mobility • Staff resource to create, design and deliver schemes 	<ul style="list-style-type: none"> • Delivery of Global Policy Interventions: reduction in public transport fares • Delivery of bus, ferry, mass transit and shared mobility Interventions: capacity (seats, services per hour), and connectivity (better journey times, frequencies, direct/indirect services, 'turn up and go' service, internet connectivity) 	<ul style="list-style-type: none"> • Journey Time/Reliability: improvements for specific groups, perturbation recovery • Demand: increased public transport usage • Modal shift: public transport mode share increased, move to non-carbon emitting transport modes • Resilience and performance: Operating performance indicators (e.g. minutes delay/early, cancellations, etc.) • Quality: Customer Satisfaction Surveys, Service Quality Regimes, Mystery Shopper Regimes, other "trust" related/reliable indicators, enhanced interchange • Accessibility and reduced community severance: improvement for all passengers, especially people with protected characteristics. number of fully accessible stops and stations, portion of buses, ferries, trams and other vehicles that are fully accessible • Affordability: Affordable fares for all, new products to make attractive • Revenue: Revenue raised per annum 	<ul style="list-style-type: none"> • Reduced carbon emissions to net-zero: reduced trip rates, higher sustainable transport mode share, fewer private vehicle kilometres, lower or zero emission per vehicle kilometre • Productivity: Boosted through better skills matching, knowledge sharing and agglomeration • Reduce poverty: for all residents and enable the "levelling up" of socioeconomic outcomes. • More financially sustainable public transport: Portion of operating costs recovered through revenue • Realisation of TfSE's Vision and Objectives presented in Part 4 of this Plan • Resolution of the Problem Statements identified in Part 4 of this Plan

Theory of Change Monitoring and Evaluation Framework (contd.)

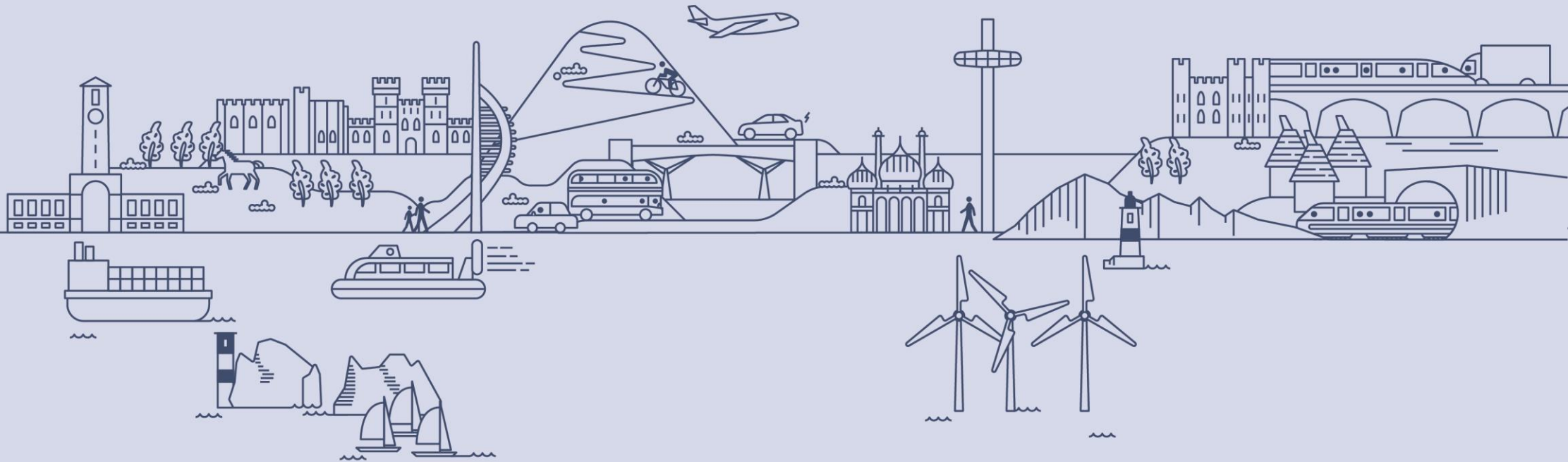
Table 7.3: Key Performance Indicators – active travel, micromobility and demand management

Inputs	Outputs	Outcomes	Impacts
<ul style="list-style-type: none"> • Integrated planning for transport, land use and wider policy • Policy and guidance shaping the nature of the interventions developed • Funding invested in Active Travel and Micromobility • Staff resource to create, design and deliver schemes 	<ul style="list-style-type: none"> • Delivery of Global interventions: including national and local road user charging, increased digital connectivity, and accelerated roll-out and take-up of active travel, shared mobility, and micro-transit solutions • Delivery of Active Travel, Public Realm and Micromobility Interventions: kilometres of safe and convenient routes; number of cycle hubs and parking; number of public transport hubs well served by active travel routes; number of behavioural change initiatives delivered. 	<ul style="list-style-type: none"> • Trip rates: reduced demand for travel • Increases in Active Travel and Micromobility: More people are walking, cycling or using micromobility due to new infrastructure • Motor traffic volumes reduced: Due to fewer people are driving shorter trips (or driving less often) • Improved connectivity: Increased ability for people to access local services by walking, cycling or micromobility • Increased accessibility to public transport: Greater access to public transport as part of multi-modal journeys 	<ul style="list-style-type: none"> • Reduced carbon emissions to net-zero: reduced trip rates, higher sustainable transport mode share, fewer private vehicle kilometres, lower or zero emission per vehicle kilometre • Improved air quality: Due to fewer people driving and reduction in congestion • Reduced congestion: Due to fewer people driving local journeys • Road safety improved: Due to high quality routes protecting people cycling from motor traffic • Public health improved: Due to more people getting daily exercise while using Active Travel or Micromobility modes • Realisation of TfSE's Vision and Objectives presented in Part 3 of this Plan • Resolution of the Problem Statements identified in Part 4 of this Plan

Theory of Change Monitoring and Evaluation Framework (contd.)

Table 7.3: Key Performance Indicators – highways

Inputs	Outputs	Outcomes	Impacts
<ul style="list-style-type: none"> • Funding invested in highways packages • Delivery of interventions 	<ul style="list-style-type: none"> • Connectivity: Faster average journey times (e.g. between Eastbourne and Chichester) • Capacity: Appropriate capacity is provided for normal demand • Reduced conflicts: Fewer flat junctions, right hand turns, and roundabouts 	<ul style="list-style-type: none"> • Reliability: Journey Time Reliability • Safety: Reduced collisions and injuries (KSI) • Air quality: Reduced particulate, SOx and NOx emissions. • Other transport interventions are easier to deliver – especially those requiring road space reallocation such as bus and active travel. 	<ul style="list-style-type: none"> • Improved place: Highways in built up areas are better suited to the needs of residents, especially vulnerable users • Agglomeration: More efficient allocation and sharing of resources within and across the region • Realisation of TfSE's Vision and Objectives presented in Part 3 of this Plan • Resolution of the Problem Statements identified in Part 3 of this Plan



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