


TRANSFORMING JOURNEYS

Improving east-west connectivity provides the overriding transformational opportunity for our region, also unlocking opportunities to improve north-south connectivity.

Taken together this will transform what is currently a series of discrete functional economic areas and housing markets, creating a better connected and interrelated region, delivering agglomeration benefits for businesses and levelling up opportunities for the region.

Maximising the benefits and opportunities arising from the investment in strategic infrastructure is at the heart of realising our ambition for the region. The clarity provided on the future development of our transport system will enable partners to bring forward proposals for their communities with greater confidence. In this way it will enable our economic potential to be realised and the region's future housing needs to be met.



 **Aylesbury railway station**


The East West Rail Main Line

Policies

- 7** We support the delivery of the East West Rail project (including its Eastern Section), with the expectation that Phase 2 of the Western Section is open from Oxford – Bedford by 2024, Aylesbury – Milton Keynes by 2025 and the Central Section by 2030.
- 8** We will work with Network Rail and the EWRCo to prioritise delivery of East West Rail as a digitally connected and enabled corridor.
- 9** We will work with the EWRCo and Network Rail and neighbouring STBs to identify opportunities to realise the longer-term potential of the East West Main Line in support of economic activity and planned housing growth.
- 10** We will work with partners, the EWRCo and Network Rail to ensure that where the East West Main Line intersects existing main lines the opportunity is taken to establish regionally significant transport hubs: priority will be given to developing proposals in the following locations:
 - Oxford Stations
 - Bicester Stations
 - Aylesbury Station
 - Bletchley/Milton Keynes Stations
 - Bedford Midland Station
 - East West Rail/East Coast Main Line
 - Cambridge/Cambridge South Stations.
- 11** We will work with partners to prioritise investment in improved local connectivity at East West Main Line stations with their local communities.

The historical dominance of London within the UK economy means that the vast majority of our region's strategic transport linkages are radial in nature, centred on the capital.



 **Work underway on East West Rail at Bletchley station**

Improving east-west connectivity across our region has been consistently identified as one of the most significant barriers to it realising its economic potential. East West Rail has been at the heart of the region's strategic priorities for 25 years.

Delivery of a strategic railway connecting East Anglia, with central, southern and western England has been the shared strategic ambition of the local authorities comprising the East West Rail Consortium (EEH provides the officer and administrative support to the Consortium). The core focus for the East West Main Line is to achieve a step-change in east-west connectivity, linking Ipswich and Norwich with Cambridge, Milton Keynes, Oxford and beyond that towards Swindon and onwards to Bristol and South Wales.

The Consortium has promoted the East West Rail project in three sections:

- Western Section: linking Oxford – Bicester – Bletchley/Milton Keynes – Bedford, with services also serving Aylesbury
- Central Section: linking Bedford – Cambridge
- Eastern Section: linking to the east of Cambridge.

Though each section of East West Rail brings with it benefits to the communities it serves, the full transformational benefit will only to be realised through the delivery of all three sections to create the East West Main Line.

Travel patterns will be transformed. The East West Main Line will, for the first time, offer a fast, reliable, and attractive rail link across and within our region that will have a competitive advantage to the private car.

The benefit of the East West Main Line lies not just in the improved connectivity between those urban areas it directly serve, but also in the opportunity created where the route crosses the radial main line routes centred on London.

Identifying these points as regionally significant rail interchanges creates opportunities to offer users a range of new rail-based journey options. Our baseline of the existing rail network offer provides the foundation on which to work with the rail sector and identify the measures required to make those options real. Central to this will be the principle of journey options requiring no more than one-stop interchange.

Removing the need for rail users to transit through London will additionally provide some relief to rail services on the radial main lines to/from the capital.



 **What remains of the old Varisty line in Swanbourne which will be reopened by East West Rail**



 **Old Varsity Line track in Winslow which will become East West Rail**

The transformational benefit of the East West Main Line to the region, its residents and businesses, will be enhanced further by ensuring it is delivered as a digitally enabled corridor, one that provides improved digital connectivity for both passengers and communities close to the rail corridor.

The commitment by Government to deliver the current proposals for the Western and Central sections of the East West Rail project represents a first step in realising the full benefit of this transformative link for the region and beyond.

Building on the confidence generated by the work of the EWRCO, we will work with local authorities to ensure that the opportunities created by this investment are used to shape the location of future economic and housing growth proposals.

Delivery of the current East West Rail proposal will be transformational in its own right. However the longer term potential of the East West Main Line to support planned growth and encourage further shift in passenger and freight movements on to the railway will require additional investment in its capacity and capability.

As a strategic link in the wider national network, realising its longer term potential will deliver benefits more widely for the transport system. We will work with the EWRCO and Network Rail to develop the longer-term potential of the East West Main Line over and above that of the current proposal.

Other East West Arcs

Policies

- 12** We will prioritise improvements to east-west connectivity to support economic activity and in support of planned housing growth, including:
 - i) A northern arc connecting north Oxfordshire, Northamptonshire, and Peterborough
 - ii) A southern arc connecting Buckinghamshire, southern Hertfordshire and Cambridgeshire.
- 13** We will work with Western Gateway and Network Rail to develop proposals that strengthen connectivity between Swindon/Oxford and the South West and South Wales in support of economic activity and planned growth.

The output from the opportunities mapping, supported by other technical studies, illustrates the extent to which east-west connectivity acts as a constraint right across our region.

Building on that output has identified two additional east-west arcs where improved connectivity will support the delivery of planned economic and housing growth:

- A northern arc that links north Oxfordshire, Northamptonshire and Peterborough
- A southern arc that links Buckinghamshire, southern Hertfordshire and Cambridgeshire, and which improves orbital connectivity.



 **Corby Railway Station**

The opportunities mapping also highlights the strategic importance of improving connectivity between Oxford and Swindon. Indeed the National Infrastructure Commission in its report identified the need to use improved east-west connectivity in our region as the catalyst for strengthening linkages westward to the South West and South Wales. We will work with the rail sector to ensure that the benefit of investment in the East West Rail project extends through to Didcot Parkway and onward towards Swindon.

Improving connectivity between Oxford and Milton Keynes is a strategic issue for the region. We will continue to work with our partners within the region and nationally to identify the most appropriate infrastructure solutions required to support the delivery of planned growth in this area, consistent with the vision and principles of this strategy

Improving North-South Connectivity

Policies

- 14** We will work with Government, Network Rail, Highways England and Oxfordshire County Council to develop a long-term solution to challenges on the Didcot – Oxford – Bicester/ Banbury corridor.
- 15** We will work with Network Rail, Government and adjoining Sub-national Transport Bodies to maximise the allocation of released capacity on the classic network as a result of HS2 to benefit connectivity within the region.
- 16** We will work with Government, Network Rail, adjoining STBs and partners to develop a solution that improves connectivity on the Luton – Bedford – Wellingborough/Kettering – East Midlands corridor.
- 17** We will work with the Cambridgeshire and Peterborough Combined Authority, Cambridgeshire County Council and Peterborough City Council alongside Network Rail and Government to support the priorities identified in the Cambridgeshire Rail Corridor Study.
- 18** We will work with partners, including Government and Highways England to develop a long-term solution to the challenges of the A1 (East of England) corridor.



 **Cambridge North Railway Station**



 **The A6 bridge over the Great River Ouse in Bedford**

The benefit of transformed east-west connectivity creates consequential opportunities to improve north-south connectivity along a number of key corridors. These are:

- *Swindon/Didcot – Oxford – Bicester/Banbury*: this corridor forms part of the strategically important Southampton – Oxford – West Midlands corridor, the significance of which is exemplified by the pressures placed on both the rail corridor and the A34. A long- term solution to the challenges of supporting the economic opportunities within Oxfordshire and enabling strategic movements is required. The outputs from the Oxfordshire Rail Corridor Study will form a key component of the solution
- *Northampton – Milton Keynes/Bletchley – Aylesbury – Old Oak Common*: the combination of delivery of East West Rail (Western Section) and HS2 creates opportunities to develop a new regional service linking these regionally significant hubs with key economic opportunities and allowing easier access to Heathrow Airport and HS2
- *Luton – Bedford – Wellingborough/Kettering – East Midlands*: forms part of the Midland Mainline along which improved connectivity is important in support of planned growth, as well as in order to strengthen the economic linkages with the East Midlands to mutual benefit.


In the longer term completion of HS2 will create opportunities to reallocate capacity on the existing (classic) rail network, including the West Coast Main Line, the Midland Main Line and East Coast Main Line. We will continue to work with Network Rail and adjoining Sub-national Transport Bodies to maximise the benefit of such opportunities for the region.

Transforming Intra and Inter Regional Journeys

Policies

- 19 We will prioritise investment in the development of public transport based solutions when improving intra-regional connectivity between Regionally Significant Hubs, Areas of Economic Opportunity and Areas of Significant Change.
- 20 To realise our decarbonisation commitments, while supporting economic growth, we will expect infrastructure owners to ensure that all new strategic infrastructure investment is designed as digitally enabled corridors.
- 21 We will support investment in the Strategic Road Network and Major Road Network where this meets one or more of the following criteria and is consistent with wider environmental objectives:
 - a) Protects and enhances the existing infrastructure asset
 - b) Delivers a solution to an identified problem on the existing infrastructure asset
 - c) Enables access to new economic opportunities and/or additional housing growth.
- 22 We will, working with Network Rail, Highways England and public transport operators, identify the level of service required between Regionally Significant Hubs, Areas of Economic Opportunity and Areas of Significant Change to achieve improved intra-regional connectivity; the levels of service will be reviewed on a bi-annual basis.



 **St Albans City Station one of the busiest stations in the Heartland**

Improved connectivity between our regionally significant hubs, areas of economic opportunity and areas of significant change will be important moving forward if we are to support our business community. Improved connectivity will also be important in support of the need to level up opportunities for our residents. Improved connectivity between these locations will improve access to skills pools as well supporting improvements in productivity, quality of life, employability, education and participation.

Where there is a need to improve intra-regional connectivity we will prioritise the development of public transport based solutions, complemented by investment in improved local connectivity.

This strategy recognises that there will continue to be a need to invest in our highway network. At the regional level this means the Strategic Road Network and the Major Road Network. Where that investment is taken forward we will determine the most appropriate allocation of additional capacity created using the hierarchy of modes.

Investment in our road network will be particularly important where it supports one or more of the following criteria:

- It protects and enhances our existing infrastructure asset thereby improving network resilience and productivity for businesses
- It is required to provide a solution to an identified problem on the existing infrastructure asset, particularly where this is required to the delivery of planned growth
- It is required to enable access for new economic opportunities or to enable planned housing or economic growth.

Our programme of connectivity studies reflects the need to develop a package of measures to support economic and housing growth opportunities. Through them we will work with partners to ensure that the travel implications of longer term ambitions for local communities are reflected in our future infrastructure requirements.



 **Swindon Railway Station**

CONNECTING PEOPLE WITH OPPORTUNITIES



 **A sign outside Cambridge North Station**

Providing people with connectivity to employment opportunities and the services they require allows individuals to realise their potential and achieve their personal ambitions.

A lack of choice in connectivity denies people choice and can give rise to concerns about the implications for the health and well-being of individuals, and by extension the wider family group. It is particularly important to see areas that currently experience social deprivation, due in part to poor connectivity, as areas of potential: ones where investment in improved connectivity could reduce social inequalities across, and within our region.

Increasingly connectivity can be achieved digitally, as an alternative to physical links. This can create new opportunities for individuals by providing them with access to jobs and services, whilst reducing the need to travel.

The growth in e-commerce is further evidence of how changes in the business models of companies are having an effect on the need for travel. It also serves to emphasise the importance of planning for and making appropriate provision for freight and logistics needs at the local level.

Notwithstanding the rise of the digital economy, residents and businesses will continue to need access to services and other supporting facilities (including social infrastructure) that requires travel.

There is much that the public sector can do to create the conditions that enable a more sustainable pattern of activity – through the framework that it sets out in Local Plans to the ways it plans for and delivers services for residents and businesses. Likewise the policy frameworks used by Government to plan for and deliver its services can, and do, have a significant effect on the need to travel. We will support our partners to embed transport orientated development principles at the forefront of the Local Plan process.

The polycentric nature of the Heartland means that the existing pattern of movements is complex. This makes it important to ensure that the solutions put forward for investment are tailored to local needs. The information held in the Regional Evidence Base provides an invaluable insight that will support partners in the development of those solutions.

Through our first mile/last mile project we have analysed the existing behaviour of the region’s population. This enables proposals to be developed that are bespoke to the needs of the local community and their local connectivity requirements, thereby increasing the likelihood of their success.

In developing solutions for improved local connectivity it is essential to avoid exacerbating difficulties arising from issues relating to access to, and the affordability of transport.



 **Cycling in rural north Bucks**



 **The Redways in Milton Keynes**

Transport Orientated Development

Policies

- 23** We will work with local planning authorities and local enterprise partnerships to use the opportunities created by investment in strategic transport infrastructure and services to shape the location of future economic and housing growth proposals. We will work with partners to ensure integration of travel modes and local connectivity are integral components of any such proposals
- 24** We will support the development and delivery of high quality, segregated mass transit systems where there is the potential market for its long-term sustainability: priority will be given to supporting the delivery of such systems in the following locations:
- Cambridge (the CAM)
 - Milton Keynes
 - The A414 corridor in Hertfordshire

Investment in strategic transport infrastructure – to improve inter-regional and intra-regional journeys – creates opportunities that are of regional significance within the urban areas that it serves.

Investment in rail services has a particularly powerful impact, one that will act as a catalyst for change. Working with partners we will ensure that the opportunities created by having improved access to rail services by sustainable and active travel modes, is used to shape future economic and housing growth proposals brought through the Local Plan system.

Investment in dedicated infrastructure to support buses and other mass transit systems can have a similar catalytic effect where it can be demonstrated that there is the potential market for its long-term sustainability

Rail stations and stops on mass transit systems have the potential to be the focus for a transport oriented development. In order to realise this potential, the investment in strategic connectivity must be complemented by investment in local connectivity as part of a co-ordinated package.

Measures to encourage active travel and co-ordination with onward local bus services are particularly important, both to residential areas and areas of economic activity within the surrounding urban area. Where possible, this should be supported by investment that repurposes the existing infrastructure in favour of such measures



 **The Oxfordshire village of Eynsham**

Improving Local Connectivity

Policies


- 25 We will work with partners to establish 'mobility hubs' in areas of significance as locations where interchange between travel modes is actively enabled.
- 26 We will work with public transport operators and the Government to develop industry-led solutions that enable frictionless travel using a combination of travel modes.

Across the region there is a high prevalence of communities with low population densities – both within our urban areas and more widely amongst small market towns and their surrounding rural hinterlands.

At the same time, the growth in user-focused transport services enabled by smart phones, and facilitated by the spread of contactless payment, continues to transform the opportunities for public transport to create new integration, ticketing and timetabling options all of which enhance the user experience.

In our rural areas, a frequent and conventional bus service is becoming increasingly difficult to provide. However, the wider social and economic benefits of local and regional bus services make it essential that we continue to work with Government, local partners and our bus operators to create an accessible and future-ready bus network across the region. Innovation and digital solutions have a key role to play in bus and coach services of the future.



 **Artists impression of Cambridge metro CAM**

Interchange between modes of travel can introduce 'friction' into the journey. Users seek reassurance that the interchange will be convenient, predictable, reliable and safe, as well as being supported by appropriate facilities on site.

The establishment of 'mobility hubs' that serve local communities within a larger urban area offers the opportunity to offer 'frictionless' interchange between modes, primarily bus, rail and active travel. In addition, mobility hubs provide an opportunity for integrated planning of modes, integrating not just public transport but future mobility solutions and a comprehensive network of pedestrian and cycling routes. Adequate provision at hubs will be needed for disabled parking, drop-off zones and taxi provision.

Onward connectivity from the hubs into local communities creates opportunities to encourage active travel to/from local public transport services. These should be considered as part of a comprehensive approach to improving local connectivity in areas of regional significance.

Mobility hubs are locations where demand for movement can be concentrated in a way that supports local public transport services, primarily via bus-provision, ensuring greater opportunity to run services where they otherwise may not have been viable. Park and ride facilities are an example of mobility hubs, but they could also be a viable way of improving local connectivity between district centres in larger urban areas.



 **A bus stop outside St Albans City Station**



 **Zurich offices in Swindon**

Rural Connectivity

Policies

- 27 We will work with partners to develop tailored solutions for our smaller market towns and rural areas that improve local connectivity, including exploring options for centres of mobility.

A particular challenge exists in improving connectivity in our small market towns and their rural hinterlands. This is an issue for both residents and businesses operating from them, as well for those wishing to access the towns and their rural hinterlands

With 34% of our population living in our small market towns and their hinterland, connectivity in rural areas is a strategic issue that needs to be addressed by this strategy.

Connectivity for our rural communities face a number of challenges, including:

- Access to digital connectivity, which is critical for businesses based in our rural communities, yet the cost of its provision can be a barrier to making the required investment
- The digital economy, which is encouraging new business models for consumer goods and new ways of accessing services and facilities, creating challenges for the future of our small market towns
- Traditional business models for providing public transport in rural areas becoming increasingly unsustainable, leading to the reduction, and in some instances removal, of services.

The connectivity requirements of our small market towns are a function of, and influenced by their function within the overall hierarchy of settlements for that part of our region.

Where a town acts as commuter settlement for a larger regionally significant hub this results in a concentrated flow of movements that are predictable and capable of sustaining local public transport services. A similarly sized town that is free-standing is more likely to perform as a sub-regional centre for its rural hinterland. The resulting pattern of movements is more varied and disparate, making the case for traditional solutions harder to sustain.

Investment in digital connectivity in rural areas will enable businesses to operate more efficiently and provide opportunities to conduct business remotely, thereby reducing the need for travel. In addition, digital connectivity offers the potential for innovative solutions to be developed where there remains a need to travel. Where there is a travel need that is to be met opportunities to make provision for and encourage the use of low-carbon travel choices should be prioritised

Although the scale of their application will be different, the concept of 'mobility hubs' offers the opportunity to concentrate demand for travel in ways that support connectivity to adjoining urban areas or areas of economic opportunity.



 **Students at the University of Northampton**

MAKING THE HEARTLAND WORK FOR THE UK



Artists impression of Luton Airport DARTs central terminal

Connecting to Global Markets

Policies

- 28** We will work with infrastructure owners/operators, Network Rail, Highways England and the Government to improve surface access by public transport to international airports in order to reduce the environmental footprint of their operations, with priority given to:
 - Luton Airport – with a focus on improving travel opportunities via services on the Midland Main, and ensuring the right level of service and capacity on the Direct Air Rapid Transit service (DART)
 - Heathrow Airport – with a focus on improved interchange and connectivity via the Old Oak Common transport hub, and through delivery of Western Rail Access to Heathrow.
- 29** We will work with relevant Sub-national Transport Bodies, as well as Network Rail and Highways England, to prioritise the development of proposals that enable improved connectivity along the key inter-regional corridors: priority will be given to identifying solutions to future needs on the following corridors:
 - Swindon/Southampton – Reading – Didcot/Oxford – West Midlands
 - London – Luton – Bedford – East Midlands.

As one of the world's leading economic regions our continued success is dependent upon being connected globally – both physically and digitally.

Notwithstanding the growth in digital connectivity, the physical access provided through the UK's international gateways – most of which lie outside of our region – continues to be fundamental to our global competitiveness.

It is important that this strategy actively encourages investment in improved surface access connectivity that reduces the environmental footprint of those gateways, in particular:

- *Luton Airport* – located within the region, a focus for European services and a key hub for private business aviation services in Europe. Delivery of the Direct Air Rapid Transit (DART) will improve connectivity between Luton Airport Parkway Station and the airport. Improving travel opportunities via national rail services stopping at Luton Airport Parkway is key to reducing the need to travel to the airport by private car
- *Heathrow Airport* – located within London, the UK's global hub airport and a key gateway for business travellers and international visitors with interests in our region. Realisation of the potential to develop a new regional rail service linking Northampton – Milton Keynes/Bletchley – Aylesbury – Old Oak Common will represent a step change in public transport connectivity for those requiring access to Heathrow Airport. Delivery of the Western Rail Access to Heathrow will improve connectivity for large parts of the Thames Valley, including Oxfordshire.

We will work with adjoining Sub-national Transport Bodies and Network Rail to assess the need for improved surface access to the other international gateways that support our region including Stansted Airport, Birmingham Airport, East Midlands Airport (for freight) and St Pancras International. Swindon acts as a gateway between the Heartland and the South West and South Wales and we will work with adjoining Sub-national Transport Bodies to improve connectivity along this corridor to the benefit of economic activity in both regions.



A freight train passes through Corby railway station

Realising the Potential for Rail Freight

Policies

- 30** We will work with Network Rail and all relevant Sub-national Transport Bodies to develop proposals that increase freight on the rail network with priority given to the following corridors:
 - Felixstowe to Nuneaton
 - East West Main Line
 - Southampton to West Midlands.
- 31** We will work with Network Rail and all relevant Sub-national Transport Bodies to maximise the conveyance of construction materials by rail with priority given to the following corridors:
 - Midland Main Line – providing access into the region from aggregate sources in the Midlands
 - Great Western Main Line – providing access into the region from aggregate sources in western England and Wales.

Our evidence base has highlighted that freight and logistics is one of the largest contributors to carbon emissions. It is also potentially the most difficult to implement solutions to reduce emissions.

Encouraging greater use of rail for freight and logistics will provide additional resilience for the business community, whilst also acting on the need to make progress with reducing the carbon emissions.

Rail is most effective when hauling loads between medium and long distances. Our study of the freight and logistics sector identified that a high proportion of road based freight involves trips over 200/300 km. Many of these movements are prime candidates for a shift to rail for the trunk haulage, with the final stage of the journey being delivered by vehicles powered by electricity or other low carbon fuels.

Unlocking the opportunity to grow the market for rail freight requires investment in infrastructure to provide the capacity and resilience to enable rail freight to be a more attractive offer for logistics companies. It will also require investment in facilities and the supporting network of Strategic Rail Freight Interchanges if we are to build on the current strength and growth of intermodal rail freight services.

The Heartland is uniquely placed to benefit from growth in use of rail freight given it is at the heart of the 'Golden Triangle' for logistics with many of the world leading distribution companies already operating national distribution centres here. Our strategic infrastructure already accommodates significant freight flows linked with international gateways at Felixstowe, Southampton and London Gateway, with shippers forecasting long-term growth in these flows in response to economic growth and the use of global supply chains. Forecasts for the sector consistently predict strong growth for intermodal freight and construction materials.

The 23 active rail freight terminals in our region already handle a mixture of containerised freight, construction materials, domestic waste, automotive and metals. The provision of additional floor space served by rail freight terminals acts to increase the attractiveness and competitiveness of rail versus road haulage.



 **London Luton Airport from the air**

Demand for rail freight is forecast to grow exponentially in the long-term, driven by continued growth in deep-sea shipping markets, particularly at the Port of Felixstowe. Investment in the capacity of the Felixstowe branch line will enable 47-48 trains per day in each direction, however longer term there is a need to increase this further to at least 60 trains per day.

Bottlenecks on the Felixstowe-Nuneaton line mean that a significant proportion of containerised freight travels south along the Great Eastern Main Line, across North London and onward to multiple destinations. This leads to conflict with the need to provide additional capacity for rail passenger services, particularly along the North London line. The need to integrate rail passenger services between Shenfield and London along the Great Eastern Main Line as the full Crossrail service becomes operational will only exacerbate the need for additional rail freight capacity along the key corridors for rail freight movements.



 **Starship robots in Milton keynes**

The constraints on rail connectivity between Felixstowe and the Golden Triangle of Logistics places additional pressure on our strategic road infrastructure, with consequential implications for their operation and carbon emissions. Investment in rail freight will realise benefits on the strategic road network.

Whilst delivery of the Ely Area Capacity Enhancements currently planned will provide some additional capacity on the Felixstowe to Nuneaton corridor, further investment in that corridor will be required if rail freight is to realise its full potential.

In addition the East West Main Line has the potential to act as a catalyst for transformational change in the rail freight offer by:

- *Providing alternative routing:* trains operating between the Port of Southampton and Daventry International Rail Freight Terminal (DIRFT) could use the East West Main Line and thereby avoid the need to operate via Birmingham or London. Trains serving the Port of Felixstowe could use the East West Main Line avoiding the need to traverse the heavily-congested North London Line
- *Enabling rail delivery of construction materials:* as the transformational infrastructure investment at the heart of our region, the East West Main Line has the potential to enable delivery of aggregates by rail to freight terminals in our region. It offers the opportunity to directly support the delivery of planned growth in ways that reduces the pressure on local roads and deliver wider environmental benefits in the process
- *Growth in intermodal rail freight:* given the role East West Main Line has to play in supporting the realisation of economic opportunities there is the potential to develop new freight handling facilities along the corridor thereby providing businesses and communities with quicker access to goods, as well as providing new business and employment opportunities in their own right.

The need to meet the increased demand in construction materials required to enable delivery of planned growth within the region is another market where the scope for rail growth is significant. Making additional capacity available on the Midland Main Line as a strategic rail freight corridor is of regional significance.

In the west, containerised freight from Southampton, serving Daventry and the West Midlands, is constrained by capacity issues between Didcot and Oxford, and along the West Coast Main Line. In addition, construction materials moved into the region from the Mendips and Wales make the Great Western Main Line a second strategic rail freight corridor for the region.

We will continue to work with the freight and logistics sector, along with Network Rail and the EWRCO to develop detailed proposals that will enable the potential for rail freight to be realised. Given the strategic nature of the rail freight movements we will work closely with adjoining Sub-national Transport Bodies and London to promote and prioritise investment in enabling infrastructure.

Specific opportunities that we will prioritise include:

- Identifying required enhancements along the Felixstowe to Nuneaton corridor, particularly between Bury St Edmunds and Ely, and in the Leicester area
- Exploring the potential benefit of providing a chord at Manton that would offer a route serving Felixstowe that would avoid the need to transit London
- Exploring the potential for an east-north chord at Bletchley between the East West Main Line and the West Coast Main Line would again offer a route serving Felixstowe which would avoid the need to transit London
- Understanding the nature of existing capacity constraints between Bletchley and Milton Keynes and their possible infrastructure solutions, both pre and post HS2 to ensure freight requirements are taken fully into consideration.



 **Symmetry Park in Swindon**

Strategic Rail Freight Interchanges

Policies


- 32 We will support the development of Strategic Rail Freight Interchanges where they support the ambitions of this strategy.

Realising the full potential of the rail network to accommodate additional rail freight requires the availability of rail connected warehousing. These facilities range in size from Strategic Rail Freight Interchanges to smaller intermodal facilities.

The shortage and cost of land-supply for industrial storage and distribution in London may see more companies relocating their distribution centres in the Heartland.

We will work with partners and the freight and logistic sector to identify the need for additional Strategic Rail Freight Interchanges where these support the overall ambition for our region.



 Daventry International Rail Freight Terminal

Supporting Road Freight

Policies

- 33 We will work with Highways England, local highway authorities and the freight sector to ensure that strategic corridors for road freight and logistics are fit for purpose: priority will be given to the following corridors:
 - The M25/M1
 - The A34 and M40 north of Oxford
 - The A1 corridor (north of Huntingdon)
 - The A14
 - The A508 into Northampton.
- 34 We will work with Highways England, local highway authorities and the freight sector to use improved planning and the application of innovative solutions to reduce the impact of freight on the environment, in terms of carbon emissions and its impact on communities living in and around freight corridors.
- 35 We will work with Highways England, local highway authorities and the freight sector to address the need for secure overnight lorry parking and their associated facilities.
- 36 We will work with local transport authorities and the freight and logistic sector to ensure the local servicing and support needs of the business community are met.

This strategy acknowledges that road haulage will remain an important part of the freight and logistics sector.

We will work with Highways England, local highways authorities and the freight sector to ensure the key parts of the Strategic Road and Major Road Networks continue to support the movement of road haulage and thereby minimise the impact of road freight on local communities. A key issue in this regard will be ensuring the provision of adequate overnight parking for lorries and the associated facilities.

While the Strategic and Major Road Networks are crucial to the long distance movement of road freight, movement of goods to, and around urban centres is vital for the retail, leisure and cultural sectors. Failure to account of these requirements in the development of the local transport system will lead to increased congestion, deterioration in air quality and difficulties for businesses to operate efficiently.

As a centre of innovation in the UK we will harness the opportunity to trial new solutions that enable the servicing and support needs of the business community in our urban centres to be met. Priority will be given to the implementation of solutions that provide the required level of access whilst at the same time reducing the impact of freight and logistics on local communities and their environment.



 The A5 Dunstable Northern Bypass

IMPLEMENTATION

A Mechanism for Change

This strategy is the foundation on which we will plan the strategic development of the region's transport system. Ensuring its policies are implemented will be the key to its success.

The strategy sets out the need for change in order to deliver our vision for the region's transport system: change in the way we develop solutions to the issues to be addressed, change in the way we appraise the merits of individual proposals, and change in the way we plan for and deliver an investment pipeline.

This will require a whole-system approach which brings consideration of individual networks together as a single transport system: one that meets the expectations of its users – both individuals and businesses.

Ultimately delivery of specific proposals will remain the responsibility of individual infrastructure owners and service providers. Implementation at the regional level will complement and build upon their role, providing added value in three ways:

- Strategic influence – ensuring the regional voice shapes the development of national investment programmes, overseen by the Government and delivered by Network Rail, EWRCo and Highways England
- Co-ordination – providing the mechanism for developing and implementing solutions which offer most benefit at a regional scale
- Accelerating delivery – helping to ensure that schemes and initiatives which cross local authority boundaries are delivered efficiently and that the benefits for our communities and businesses are realised as soon as possible.

In identifying solutions for implementation it is important to take into account the opportunities and challenges created by decisions in other areas of public sector policy, including but by no means limited to consideration of proposals in the land use planning system. In the same way the choices made in respect of transport solutions need to support wider ambitions for place-making at the local level.

The COVID-19 pandemic has demonstrated the ability to achieve fundamental shifts in travel behaviour at scale and at pace. Change, driven by necessity and if applied consistently at scale, is not only possible, but deliverable providing the imperative for change is compelling.

The pandemic also served to highlight the need to treat fixed and mobile digital infrastructure as integral components of a co-ordinated approach to providing individuals and businesses with access to services. Investing in the quality and resilience of digital networks will be crucial to sustaining long-term change in travel patterns (including a reduction in overall travel), and travel behaviours.

And in keeping with the whole-system approach, the need to decarbonise our transport system highlights the importance of the investment made in the utility infrastructure networks – in particular electricity supply networks and/or other low carbon fuels – being aligned with investment in our transport system.

Harnessing Innovation

We will continue to harness the opportunity created by the region being a centre for science and technology based innovation. The focus provided by the Government's Industrial Strategy – and in particular its four Grand Challenges – will encourage the development of new business models within the transport sector which both meet the need to improve connectivity and deliver environmental net gain.

We will build on the region's existing successes to continue to grow our global significance as a region of innovation, particularly in the key sectors of high performance technology, life sciences, creative and digital technologies and aerospace.

The business models operating in large parts of the retail and service sectors will undergo further change, most likely at an accelerated pace in the aftermath of COVID-19. We will use this as the opportunity to embed fundamental change in travel demand and travel behaviour to the benefit of individuals, their communities and businesses.

Creating Confidence, Providing Flexibility

Investment in strategic infrastructure requires a long-term commitment at national and regional level. Maintaining and repurposing our existing assets requires investment – both revenue and capital. Developing and delivering proposals takes time and typically extends over a number of political cycles.



Fundamentally our approach to implementation has to generate confidence:

- For business investors - clarity that the transport system will provide access to the labour pool and to markets
- For the local authorities - certainty that the investment required to support planned growth will be available
- For local communities - reassurance that infrastructure will be delivered in a timely manner.

At the same time our approach must also be flexible enough to actively encourage new solutions and business models to come forward, and to do so at pace.

This is a key challenge facing the transport system as we transition from a traditional approach to investment to the one required to achieve our strategic ambition for the region.

The timescales associated with strategic investment are such that proposals currently in the early stages of development may need re-evaluation in order to determine whether their benefits remain consistent with our strategic ambition. Where they are not, we will use our programme of connectivity studies to identify alternative proposals.

Connectivity Studies

Our programme of connectivity studies forms a key part of this strategy's implementation.

The development of the programme has been shaped by the information held in the Regional Evidence Base, together with responses to the Outline Transport Strategy. The programme identifies those parts of the region where there is a need to work with partners to identify the proposals that need to be taken forward into the investment pipeline for delivery.

Our approach to each study will ensure that the solutions taken forward support delivery of planned housing and economic growth, and doing so in a way that addresses challenges that already exist on the transport system. Each study will be co-designed with partners. This will enable our partners to use the connectivity studies to identify the implications of future growth scenarios they are considering as part of their longer-term ambition for their communities.

The studies will also enable the transport implications of choices in other areas of public sector policy to be considered. This is particularly important where new models of service delivery are being considered that would have the potential to significantly change future travel demand.

Accelerating Delivery of Commitments

Investment in the region's transport system has not kept pace with economic growth. The additional demand generated by the growth has resulted in the performance of our transport system deteriorating. Congestion has increased and reliability has decreased, as has the overall resilience of individual networks. This has a direct impact on the productivity of the economy and has implications for our residents as they travel.

Where the need for investment in our transport system has been established we will continue to work with infrastructure owners and service providers to accelerate the delivery of that investment. This includes committed schemes included in Highways England's Road Investment Strategy, EEH's Major Road Network programme and Network Rail's investment pipeline.

We will work with Network Rail, the EWRCo and Highways England to ensure that their investment programmes reflect the needs of our region. We support these infrastructure owners as they take individual proposals through their statutory processes into delivery.

THE INVESTMENT PIPELINE

A Co-ordinated Approach

A key benefit of a regional approach lies in the ability to provide a clear, prioritised view of strategic transport investments and to do so in a way that ensures investment in individual networks is co-ordinated in order to deliver on a shared strategic ambition.

The co-ordination of investment is all the more important given the crucial role that digital infrastructure, and indeed utility infrastructure, has to play in realising our strategic ambition for the region's transport system.

We will work with all infrastructure owners to ensure that their long-term strategic planning activity is co-ordinated with our programme of connectivity studies. This will realise efficiencies and ensure we embed the need for a whole-system approach into our way of working across the region.

The programme of connectivity studies will ensure that regional priorities inform and shape the future development of strategic infrastructure networks that are the subject of cyclical reviews. These include:

- Network Rail's Rail Network Enhancements Pipeline
- Highways England's Road Investment Strategy
- EEH's Major Road Network Investment Pipeline
- Future Rail Franchise Specifications
- Digital Infrastructure
- Five-year Assessment Management Plans for utility infrastructure – in particular energy supply.

The output from the connectivity studies –specifically the solutions identified – will establish the need for investment in infrastructure and services. Those solutions will be fed into the region's investment pipeline for subsequent development and delivery.

We will review the investment pipeline on a five-year cycle. This will enable the region to ensure that its requirements shape the investment programmes of Highways England and Network Rail. It will also provide our partners with the confidence to allocate resources to develop detailed proposals for implementation.

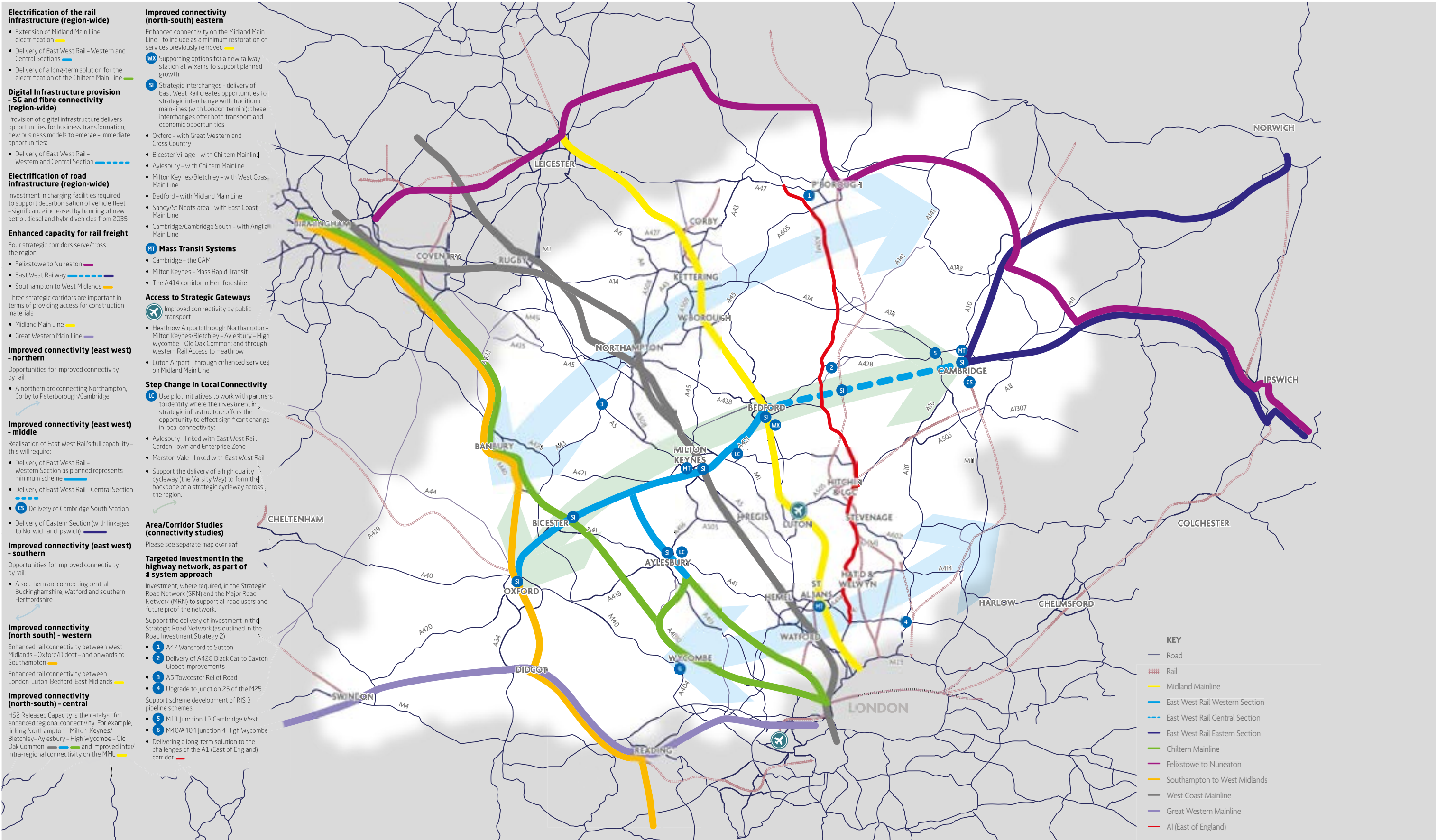
Investment Pipeline

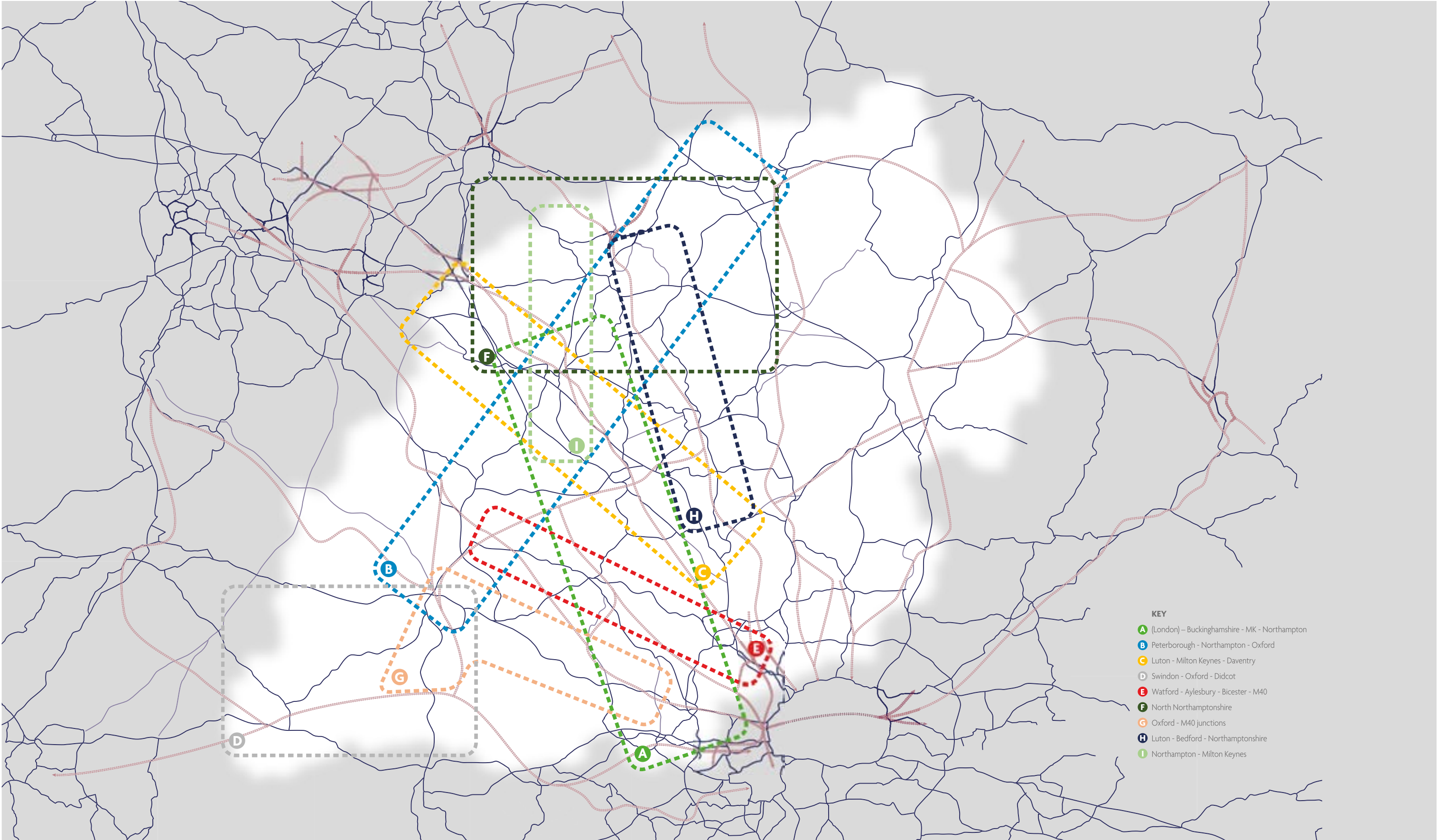
Strategic Issue	Infrastructure Opportunity
Electrification of the rail infrastructure (region-wide).	Decarbonisation of rail network (relevant for both passenger and freight services) – immediate opportunities: <ul style="list-style-type: none">• Extension of Midland Main Line electrification• Delivery of East West Rail – Western and Central Sections• Infill electrification schemes to enable electric haulage of freight services• Delivery of a long-term solution for the electrification of the Chiltern Main Line.
Digital Infrastructure provision – 5G and fibre connectivity (region-wide).	Provision of digital infrastructure delivers opportunities for business transformation, new business models to emerge – immediate opportunities: <ul style="list-style-type: none">• Delivery of East West Rail – Western and Central Section.
Electrification of road infrastructure (region-wide).	Investment in charging facilities required to support decarbonisation of vehicle fleet – significance increased by banning of new petrol, diesel and hybrid vehicles from 2035
Enhanced capacity for rail freight.	Four strategic corridors serve/cross the region: <ul style="list-style-type: none">• Felixstowe to Nuneaton• East West Railway• Southampton to West Midlands. Two strategic corridors are important in terms of providing access for construction materials: <ul style="list-style-type: none">• Midland Main Line• Great Western Main Line.
Improved connectivity (east west) – northern.	Opportunities for improved connectivity by rail: <ul style="list-style-type: none">• A northern arc connecting Northampton, Corby to Peterborough/Cambridge.
Improved connectivity (east west) – middle.	Realisation of East West Rail's full capability – this will require: <ul style="list-style-type: none">• Delivery of East West Rail – Western Section as planned represents minimum scheme• Delivery of East West Rail – Central Section• Delivery of Cambridge South Station• Delivery of Eastern Section (with linkages to Norwich and Ipswich).
Improved connectivity (east west) – southern.	Opportunities for improved connectivity by rail: <ul style="list-style-type: none">• A southern arc connecting central Buckinghamshire, Watford and southern Hertfordshire.
Improved connectivity (north south) – western.	Enhanced rail connectivity between West Midlands – Oxford/Didcot – and onwards to Southampton. Enhanced rail connectivity between London-Luton-Bedford-East Midlands.
Improved connectivity (north-south) – central.	HS2 Released Capacity is as the catalyst for enhanced regional connectivity. For example, linking Northampton – Milton Keynes/Bletchley – Aylesbury – High Wycombe – Old Oak Common and improved inter/intra-regional connectivity on the MML.

Table continued overleaf

Strategic Issue	Infrastructure Opportunity
Improved connectivity (north-south) eastern.	Enhanced connectivity on the Midland Main Line – to include as a minimum restoration of services previously removed. Supporting options for a new railway station at Wixams to support planned growth.
Strategic Interchanges – delivery of East West Rail creates opportunities for strategic interchange with traditional main-lines (with London termini): these interchanges offer both transport and economic opportunities.	Strategic Interchanges: <ul style="list-style-type: none"> • Oxford – with Great Western and Cross Country • Bicester Village – with Chiltern Mainline • Aylesbury – with Chiltern Mainline • Milton Keynes/Bletchley – with West Coast Main Line • Bedford – with Midland Main Line • Sandy/St Neots area – with East Coast Main Line • Cambridge/Cambridge South – with Anglian Main Line.
Mass Transit Systems.	<ul style="list-style-type: none"> • Cambridge – the CAM • Milton Keynes – Mass Rapid Transit • The A414 corridor in Hertfordshire.
Access to Strategic Gateways.	Improved connectivity by public transport: <ul style="list-style-type: none"> • Heathrow Airport: through Northampton – Milton Keynes/Bletchley – Aylesbury – High Wycombe – Old Oak Common; and through Western Rail Access to Heathrow • Luton Airport – through enhanced services on Midland Main Line.
Step Change in Local Connectivity.	Use pilot initiatives to work with partners to identify where the investment in strategic infrastructure offers the opportunity to effect significant develop change in local connectivity: <ul style="list-style-type: none"> • Aylesbury – linked with East West Rail, Garden Town and Enterprise Zone • Marston Vale – linked with East West Rail Support the delivery of a high quality cycleway (the Varsity Way) to form the backbone of a strategic cycleway across the region.
Area/Corridor Studies (connectivity studies).	Use connectivity studies to develop integrated package of measures that connect key strategic locations across the region. Priority areas for study work are: <ul style="list-style-type: none"> • London – Bucks – Milton Keynes – Northampton • Peterborough – Northampton – Oxford • Luton – Milton Keynes – Daventry • Swindon – Didcot – Oxford • Watford – Aylesbury – Bicester – M40 • North Northamptonshire • Oxford – M40 junctions • Luton – Bedford – Northamptonshire • Northampton – Milton Keynes.

Strategic Issue	Infrastructure Opportunity
Targeted investment in the highway network, as part of a system approach.	Investment, where required, in the Strategic Road Network (SRN) and the Major Road Network (MRN) to support all road users and future proof the network. Support the delivery of investment in the Strategic Road Network (as outlined in the Road Investment Strategy 2): <ul style="list-style-type: none"> • A47 Wansford to Sutton • Delivery of A428 Black Cat to Caxton Gibbet improvements • A5 Towcester Relief Road • Upgrade to Junction 25 of the M25 Support scheme development of RIS 3 pipeline schemes <ul style="list-style-type: none"> • M11 Junction 3 Cambridge West • M40/A404 Junction 4 High Wycombe Delivering a long-term solution to the challenges of the A1 (East of England) corridor.





Capacity and Capability

A review of the infrastructure delivery process, undertaken in collaboration with our partners, has identified a number of ‘pinch-points’ where lack of access to specialist skills and knowledge introduces risk into the development and delivery of individual projects. Experience suggests that more efficient management of programmes and scheme development could reduce overall costs by as much as 20%. Managing this risk will represent better value for money to the public sector, as well as creating greater confidence within the community that proposals will be delivered in a timely manner.

We will therefore establish a ‘centre of excellence’: a regional resource which will provide our partners with access to the specialist skills and support required to address the identified ‘pinch points’. Access to this resource will support our partners realise efficiencies that will help accelerate the delivery of investment and reduce costs.

The establishment of a regional ‘centre of excellence’ accessible to all partners will ensure the knowledge and experience accumulated through the development of individual proposals is retained within the region. Enabling all partners to have access to that accumulated knowledge will enable the benefits to be applied more widely to their own proposals.

Delivery of the Pipeline

The region’s investment pipeline establishes the need for investment in order to support the delivery of planned growth. Realising that growth will in turn be dependent upon securing the funding and/or finance to enable the region’s investment priorities to be developed and then delivered.

A combination of public and private sector funding will be required, as will a mixture of capital and revenue investment.

Adopting a co-ordinated approach to the development of the investment pipeline and its delivery will realise efficiencies by enabling a more effective use of the resources available to develop proposals and secure required permissions.

The specialist skills and accumulated knowledge held within the regional ‘centre of excellence’ will supplement existing skills available to partners. This addresses the risks previously identified by those partners that are associated with the development and delivery of investment proposals.

Regulation

As part of whole system approach to the development of the region’s transport system we will keep under review the need for change in the regulatory regime governing the sector.

Where our work identifies benefit from seeking a change we will work with other Sub-national Transport Bodies and Government to make that case in a timely manner.

Investment Framework

This strategy provides clarity on where investment in strategic infrastructure and services is required to support the work of local authorities and growth boards as they look to plan and deliver planned growth in the longer term.

It also provides the foundation for a conversation with institutional investors with regards to securing long-term commitments to invest in the region. We will work with the investment sector to develop a long-term investment framework, one that enables institutional investors to work with the region to secure the long-term strategic ambition of the region.

Monitoring and Evaluation Framework

In order for the ambitions in the region’s transport system to be measured, we will undertake a review of its impact. Using a series of indicators, we will be able to evaluate the impact of our interventions and their level of success.

The indicators set out below form the basis for a monitoring and evaluation framework that can be assessed and reported on an annual basis.

Principle	Indicator	Measure
Achieving net-zero carbon emissions from transport no later than 2050.	Delivering a net-reduction in CO2 emissions at 5-year intervals.	Baselining and measuring the region’s aggregated CO2 estimates (ongoing via PV – local authority CO2 estimates).
Achieving net-zero carbon emissions from transport no later than 2050.	Conserving and enhancing the provision of ecosystem services from the region’s natural capital and contributing to environmental net gain.	Baselining and measuring environmental assets and ecosystem services within the Arc (potentially in the future via OxCam’s Local Natural Capital Plan indicator maps) or Defra’s Biodiversity Metric 2.0.
Achieving net-zero carbon emissions from transport no later than 2050.	An improvement in air quality arising from transport related vehicle emissions at identified sites.	Baselining and measuring air quality at identified sites (ongoing via PV) and DEFRA monitoring networks map.
Improving quality of life and wellbeing through an inclusive transport system accessible to all which emphasises sustainable and active travel.	An increase in the number and percentage of journeys made by walking and cycling between 2-5k and public transport between 5k-60k.	Baseline and measure Census/NTS data at a regional level to measure method of travel to work by distance travelled.
Improving quality of life and wellbeing through an inclusive transport system accessible to all which emphasises sustainable and active travel.	Greater levels of accessibility and inclusivity available to all transport users.	Undertake bespoke research with partners to develop appropriate measure.
Supporting the regional economy by connecting people and businesses to markets and opportunities.	Reduced journey time variability of the strategically important road network.	Baseline and monitor journey time variability of the strategically important road network (bespoke data required).
Supporting the regional economy by connecting people and businesses to markets and opportunities.	An increase in the number of people able to access fixed and mobile broadband.	Baseline and monitor Ofcom coverage data (bespoke data required).
Supporting the regional economy by connecting people and businesses to markets and opportunities.	A decrease in generalised journey time between the Heartland’s key rail nodes.	Baseline and monitor journey time speed (ongoing through Rail Study).
Ensuring the Heartland works for the UK by enabling the efficient movement of people and goods through the region and to/from international gateways.	Increase the number of rail freight movements and its market share.	Baseline and monitor rail freight volumes and percentage of freight moved by rail than by road (bespoke DfT/NR data required).
Ensuring the Heartland works for the UK by enabling the efficient movement of people and goods through the region and to/from international gateways.	Reduction in time taken by public transport to international airports.	Baseline and monitor travel times to international airports (bespoke TRACC analysis).

HAVE YOUR SAY

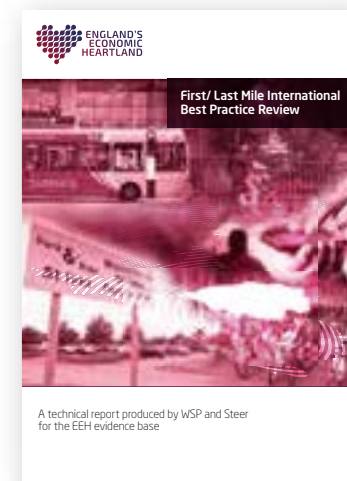
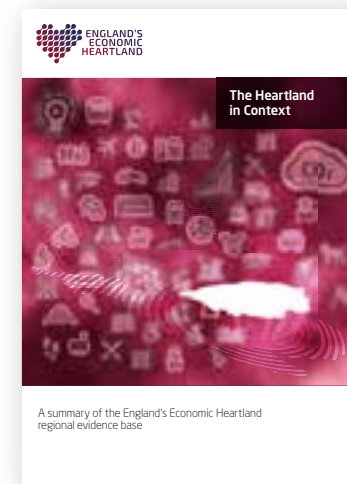
England's Economic Heartland is holding a formal public consultation on this Draft Transport Strategy, which runs until midnight on October 6, 2020. The consultation also invites feedback on the Integrated Sustainability Appraisal and our plans for statutory status.

The consultation is your chance to shape the final version of our Transport Strategy. An online consultation survey is available on our website, www.EnglandSEconomicHeartland.com.


The website also contains the information that has been used to shape the strategy, as well as documents and videos explaining our proposals in more detail.

The final version of the Transport Strategy will be published at the turn of the year.

England's Economic Heartland has released a number of technical studies and documents which underpin the Transport Strategy. These are available on our website www.EnglandSEconomicHeartland.com, alongside the Integrated Sustainability Appraisal




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