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South of England North-South Connectivity

Alignment with UK Industrial Strategy: Summary Report

Bath and North East Somerset Council, Dorset County Council, Wiltshire Council

6 March 2019

Notice

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Executive Summary

1.1. Background

Large parts of the South of England experience poor strategic north-south transport connections, across an area bounded by the M5 to the west, A34 to the east, M4 to the north, and A31, A35 and Dorset coast to the south. Figure 1 shows the geography of the region.

Figure 1 – Geography of the region



Within this area, north-south connections are principally made by the A36/A46 through Bath or the A350 and A338 primary routes. Slow and unreliable journeys along these routes are constraining economic activity across Dorset, Wiltshire and the West of England.

The local authorities in the region have been working together to make the case to government for improved connectivity through the corridor. The authorities have, to date, developed a prospectus, supported by an economic study, both of which were published in October 2017¹.

The prospectus highlights the problems caused by poor connectivity in the north-south corridor. These include environmental problems in the cities, towns and villages on the route caused by slow-moving traffic, poor access to the Port of Poole and constraints to the economic performance of the region. The prospectus and supporting economic study also demonstrate the potential economic benefits of improved connectivity in the corridor.

1.2. Purpose of this study

This study has further developed the evidence by considering how improved north-south connectivity through the corridor could support the objectives of the [UK Industrial Strategy](#), which was published by the Department for Business Energy and Industrial Strategy (BEIS) in 2017, setting out the Government’s policies for transforming productivity and supporting growth.

The Industrial Strategy has a strong focus on five ‘Foundations of Productivity’, which will be critical in transforming the local and national economy, and four ‘Grand Challenges’ to put the UK at the forefront of the industries of the future.

¹ Both documents are available at <http://www.bathnes.gov.uk/services/parking-and-travel/transport-plans-and-policies/north-south-connectivity-%E2%80%93-east-bath-link>

The Industrial Strategy makes clear that proposals for major infrastructure should demonstrate how new infrastructure would support the five Foundations and help address the Grand Challenges. This study provides this evidence.

1.3. Industrial Strategy

The Industrial Strategy describes five Foundations of Productivity and four Grand Challenges. The five Foundations are:

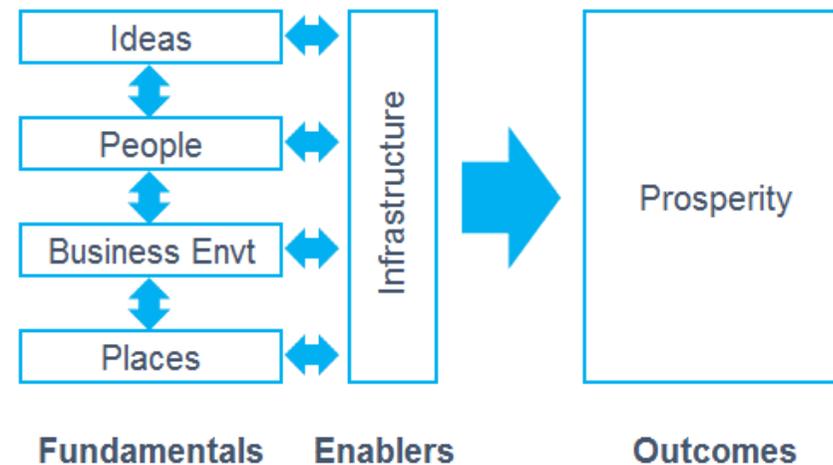
- **Ideas** – the world’s most innovative economy;
- **People** – good jobs and greater earning power for us all;
- **Infrastructure** – a major upgrade to the UK’s infrastructure;
- **Business environment** – the best place to start and grow a business;
- **Places** – prosperous communities across the UK.

The four Grand Challenges are to:

- Put the UK at the forefront of the **artificial intelligence and data revolution**;
- Maximise the advantages for UK industry from the global shift to **green growth**;
- Become a world leader in shaping the **future of mobility**; and
- Harness the power of innovation to help meet the **needs of an ageing society**.

Figure 2 illustrates the relationships between the five Foundations and prosperity outcomes. These relationships apply at both national and regional levels, and all of these conditions must be in place to support a thriving economy. It also highlights how effective infrastructure is an enabler of growth.

Figure 2 – Foundations of Productivity and Prosperity Outcomes



1.4. Why connectivity matters

Effective transport connectivity is an important component in supporting the vitality of regional economies, city regions, market towns and their hinterlands, through the following mechanisms:

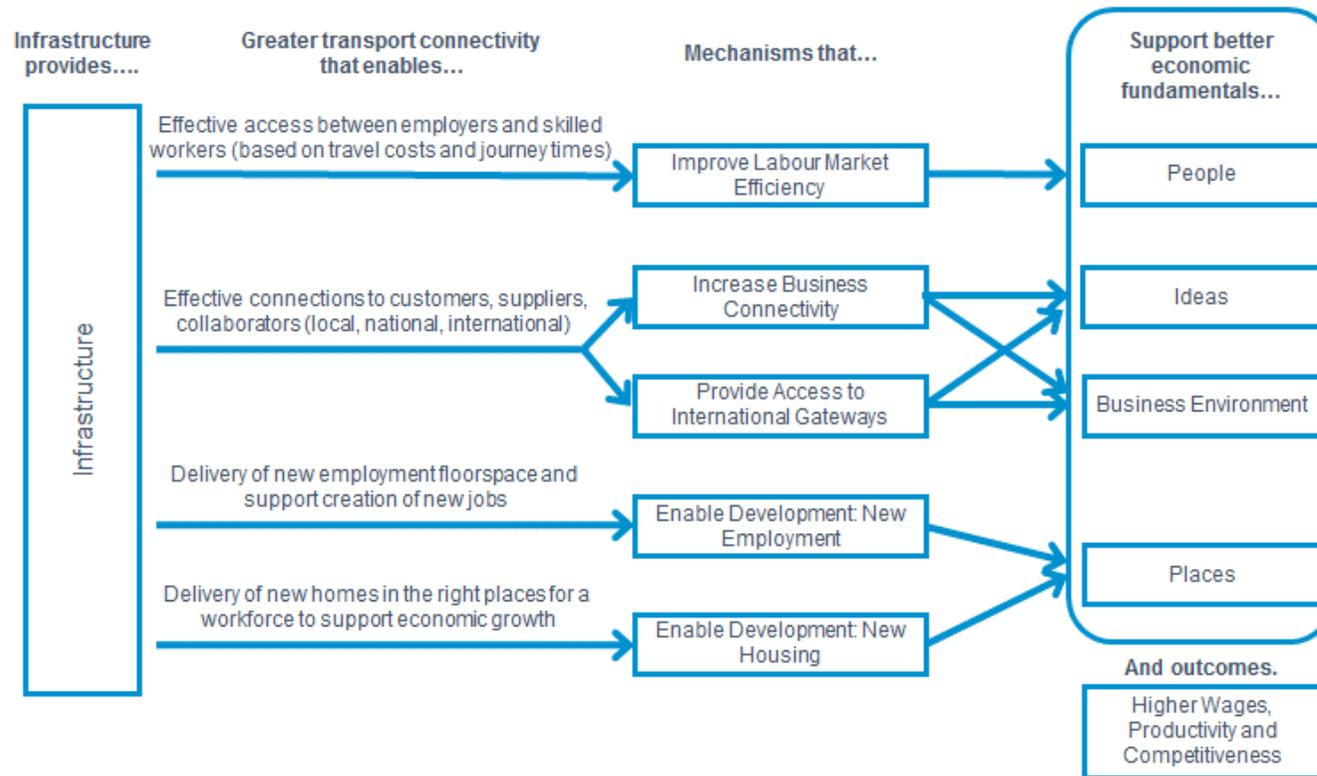
- **Improving labour market efficiency** (enabling businesses to access employees, and residents to access jobs, education and training);
- **Increasing business connectivity** (enabling businesses to access markets, supply chains and collaboration networks);
- **Access to international gateways** (enabling businesses to access global markets and encouraging inward investment and inbound tourism to the UK); and
- **Enabling development** (both new employment space to support growing businesses and new homes to meet the needs of the labour market – and the connectivity between them).

Figure 3 illustrates how these mechanisms relate to the five Foundations and support economic growth.

This report provides an Executive Summary of the key findings. A further Technical Report provides more detailed supporting evidence.

The evidence in this study has been used to investigate the strength of these potential linkages and the potential for improved north-south connectivity to support the ambitions of the Industrial Strategy.

Figure 3 – Transport connectivity and Foundations of Productivity



1.5. This corridor has potential for significant growth over the next two decades

The study area has grown strongly during the last decade and has capacity for strong growth over the next two decades, with the potential to play a very strong role in the future UK economy.

A growing population: this corridor has recently experienced stronger population growth than the rest of country. Future growth in the corridor is also forecast to be stronger than in the rest of the country. Population growth will be primarily concentrated within the city regions: Bristol and West of England, South East Dorset and Southampton / Solent area. The growth in working age population, which will be critical for sustaining economic growth, is forecast to be higher than the national average, and is also likely to be concentrated in the main urban areas.

A growing economy: this corridor has experienced significantly stronger employment growth than the rest of country. Employment growth has been strongest in the city regions: Bristol / West of England South East Dorset and Southampton, whilst employment has slightly reduced in the more rural areas. This is likely to continue in the future and reflects the forecast growth in working age population in the city regions and much lower growth (or reductions) in working age population in the more rural areas.

Employment structure: overall, the corridor has a similar economic structure to the rest of the country in terms of the proportions of people working in different sectors. However, this masks significant differences across the corridor, with strong representation of business services in the city regions, an important visitor economy on the coast and a greater focus on primary activities in the more rural areas of Wiltshire and Dorset.

Economic output: there are distinct characteristics of this corridor when examined through the lens of economic output. Certain sectors have significantly greater impact, when measured by Gross Value Added (GVA), in different parts of the corridor. There are strong clusters of manufacturing in Swindon, logistics in the Solent area, professional services in Bristol and financial services in Bournemouth. This demonstrates the diversity of the economy of the study area, with strong potential for growth from the diverse economic base.

The importance of connectivity: global research, including [evidence from Highways England](#), demonstrates the critical importance of the road network to the UK economy. It demonstrates that the road network is important in helping to improve business productivity, facilitate exports through access to international gateways and help to unlock the delivery of new homes and jobs.

The evidence demonstrates the importance of the road network in providing access to the Ports of Southampton and Poole and it plays a key role in supporting the logistics and manufacturing sectors and the visitor economy of the region.

Growth potential in the corridor: there is strong potential for growth in the economy of the study area, in terms of overall population, labour market, employment and total GVA. The most critical challenges will be in ensuring the availability of a suitably skilled workforce and enhanced connectivity to unlock this potential for sustainable and inclusive growth. This will be a strategic challenge that must be addressed over the next ten to twenty years.

1.6. Major challenges must be addressed over the medium to long term

There are a number of economic challenges in the corridor, as evidenced by data on local competitiveness, employment indicators, productivity and local workplace earnings.

Competitiveness: there is significant variation in relative competitiveness across the study area. Table 1 (overleaf) provides data from the [UK Competitiveness Index](#) to summarise the competitiveness of different parts of the study area, including rankings of each District (from a total of 379 Districts across the UK).

Table 1 – Competitiveness Index of Study Area

Local Authority	UKCI 2013	Rank 2013	UKCI 2016	Rank 2016
Test Valley	104.8	71	106	66
Bristol	103.9	75	104.7	72
Swindon	102.4	83	104.1	75
Bath & North East Somerset	102.4	84	101.6	91
Poole	98.3	116	97.9	120
New Forest	98.9	110	97.8	122
Wiltshire	97.4	122	96.6	132
East Dorset	92.4	161	94.5	148
Southampton	90.1	192	92.8	166
West Dorset	95.3	136	92.5	170
Bournemouth	92.5	160	92	172
Christchurch	92.3	162	91.9	173
Purbeck	90.6	187	91.7	174
Mendip	89.9	198	91.3	176
North Dorset	87.7	230	90.3	191
Corridor average	95.9	139	96.4	137

Source: [UK Competitiveness Index](#).

The most competitive areas are focused around the larger city regions (West of England and Solent) and other locations with good strategic road and rail connectivity. Competitiveness is lower in the more remote areas with poor strategic connectivity. Many of the more peripheral areas also experienced a reduction in competitiveness to 2016. This appears to reinforce the impression of different speed economies across the study area.

This is a practical reality of the geography of the region: different parts of the region perform different roles, as villages, market towns, cities and international gateways. Each area faces different challenges and specific obstacles to good growth, which include schools and educational attainment, higher education institutions, R&D-focused firms, growing firms employing talented people, affordable housing and effective place planning.

The other headline economic indicators in the corridor (employment, productivity and earnings) are also consistent with the overall competitiveness rankings for Districts in the corridor.

Employment: the study area, overall, is performing better in employment terms than the national average, but there are significant variations, with challenges across several indicators in certain areas including Southampton, Bournemouth, West Dorset, North Dorset and Mendip.

Productivity: there are significant disparities in productivity across the study area, with the lowest productivity (and relative declines in productivity) in Wiltshire, Bournemouth & Poole, Dorset and Somerset. These patterns show a clear correlation with the competitiveness data for different districts.

Earnings: overall wages are broadly similar to the average for England outside London, for both workplace and resident wages. However, this masks significant differentials between Districts in the study area: the lower wages in more rural areas are consistent with the lower overall competitiveness ratings and productivity in these areas.

These indicators summarise the primary economic challenges in the corridor. This evidence demonstrates that there is a strong case for improving economic performance to facilitate inclusive growth across the corridor.

1.7. There are linked causes: these are the foundations for unlocking local growth

There is a clear rationale to tackle the bigger picture and address the five Foundations that drive local growth. These are all closely linked and relate to innovation and ideas, people and skills, business environment, places and regional infrastructure.

Innovation and Ideas: innovation and ideas are critical to driving productivity and ‘good growth’ in the economy, particularly with the increased focus on digital technologies. There are significant variations in the innovation capacity in different parts of the study area. R&D investment, proportions of people working in science and technology and the proportions of people with higher-level qualifications are significantly higher in the West of England, Swindon & Wiltshire and Solent than in Dorset and Somerset.

The higher levels of innovation activity are in areas with more skilled people, deeper business connections and improved connectivity. Innovation networks in the South West are enabled by good connections along the M4 and M5

corridors. Activity in South East Dorset and the Solent is enabled by road and rail links to London and the Midlands. There appears to be limited networking of innovation activities in the north-south corridor. This is likely to be due to different economic structures in the different areas, but poor connectivity is also likely to be one of the potential constraints.

People: higher-level qualifications and STEM skills will be important in meeting the needs of the future economy. However, there are significant variations in educational attainment across the study area. There are low levels of attainment in Southampton, Poole, Purbeck and North Dorset. ‘Coldspots’ of educational attainment are not limited to the urban areas: there are also significant challenges in places such as Trowbridge and Gillingham. There is also clear evidence that labour markets are influenced by poor connectivity in the region, with significantly narrowed travel horizons for people earning lower wages.

Business environment: the region has a relatively high proportion of ‘laggard’ businesses which are not growing, competing internationally or exporting. These businesses are characterised by low productivity and they are dragging-down the performance of the area. The greatest challenges with low productivity are focused amongst SMEs, in production, manufacturing and distribution in Dorset and financial services in Wiltshire. This appears to be directly related to the relative peripherality and costs of servicing the rural areas. 5G technologies, if effectively developed and delivered, could help to tackle some of the issues that rural businesses and professionals face in these areas over the medium term.

Higher productivity activities are focused around the main urban areas, which attract higher-value sectors, larger employers (that drive better business practices) and higher productivities through clustering of activities. This demonstrates that there is a strong relationship between road connectivity and the ability to attract and grow businesses, the representation of different sectors and business performance in the corridor.

Places: the study area has a number of strengths under the ‘Places’ foundation, with generally very high quality of life and innate strengths. Many areas have very high house prices, which reflect their attractiveness to high-paid workers but also strong growth pressures in these areas.

The area is an attractive destination for businesses and residents, meaning that there is strong forecast growth in both population and jobs. It will be critical to plan effectively for this growth, including provision of effective infrastructure to facilitate sustainable travel choices and mitigate the effects on existing communities.

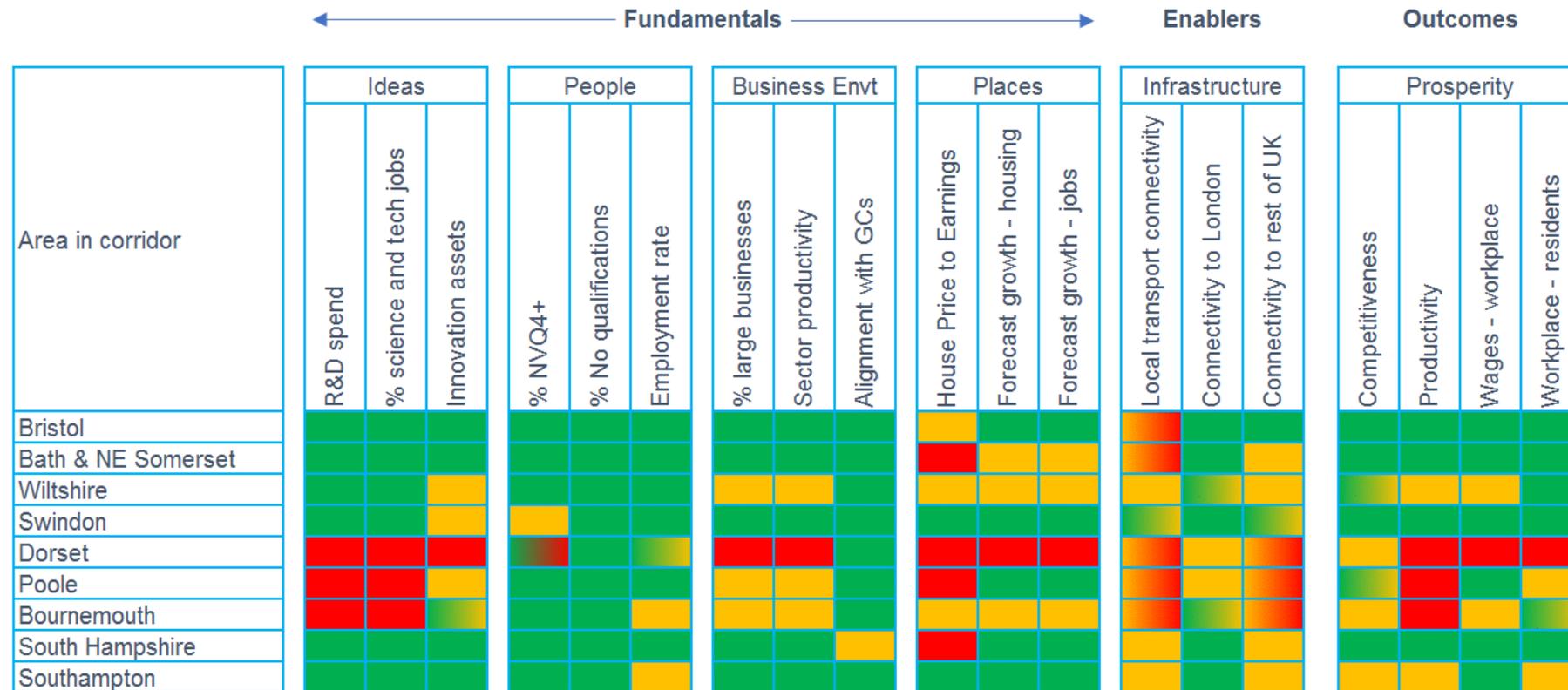
The evidence shows that many parts of the area perform well in terms of quality of life, with a high-quality environment, good health and high levels of educational attainment. However, there are challenges in the urban areas, which will require a coherent approach to planning for inclusive growth to tackle deprivation and worklessness which undermines the wider economy and social inclusion.

Infrastructure: there are clear connectivity challenges on the major north-south routes through the study area. Average journey speeds on the A36 are only slightly higher than 30mph and average speeds are lower than 30 mph on the A350. These compare with typical journey speeds on the Strategic Road Network of around 60 mph. This means that some journeys typically take twice as long as many journeys on routes connecting major towns and cities across England. These slow (and unreliable) journeys are contributing to the problems of peripherality in large parts of the region.

This is creating problems in labour markets across the region, with fragmented travel to work areas and narrow areas of search for employment opportunities. It is adding to business costs and reducing productivity, particularly in the rural areas, and is constraining the ability to grow and attract new businesses. Congestion problems are also a significant factor in planning for new housing and employment growth in the corridor.

These challenges are inter-linked and constrain the economic potential of different parts of the corridor. Figure 4 summarises these challenges.

Figure 4 – Summary of economic challenges



Source: Atkins analyses.

This shows clear relationships between the Foundations and economic outcomes in each area. All of the Foundations must be addressed in tackling the productivity challenges and supporting 'good growth' in the corridor. There are different issues between areas:

- In Bristol and Bath, the most critical issues relate to addressing housing shortages and tackling local transport connectivity;
- In Dorset, Bournemouth and Poole, there are multiple inter-linked challenges, including local and strategic connectivity, all of which impact on the prosperity of the area.
- In Wiltshire, this shows a need to enhance local innovation assets, support higher-value businesses, support housing and employment growth and improve local and strategic connectivity;

1.8. The corridor will play a key role in addressing the Grand Challenges

The corridor has strong potential to support the UK's four Grand Challenges:

- **Artificial intelligence and data:** many parts of the corridor are well equipped to respond, including the digital cluster in South East Dorset, robotics, cybersecurity and data cluster in the West of England and growing strengths of the ICT cluster in Corsham. These capabilities will be central to the development of the future economy of the corridor.
- **Clean growth:** this also shows strong potential, including new vehicle propulsion technologies in a belt from the West of England to Swindon, agricultural technologies supporting the rural areas of Swindon and Wiltshire and marine technologies on the South Coast.
- **Ageing society:** the corridor is home to clusters of activity focused on robotics (in the West of England) and digital and physical healthcare technologies (in South East Dorset) to support care and independence of older people. There is a clear opportunity to align these capabilities with the needs of the older people living in the corridor.
- **Future of mobility:** the corridor is already a leader in Research and Development in future mobility, including trialling of connected and autonomous vehicles in the West of England, activity in Swindon and Wiltshire, and the planned implementation of innovative mobility solutions in South East Dorset.

The four Grand Challenges will play a key role in shaping the future economies in the corridor. The evidence indicates that there is potential for strong functional relationships between the clusters in AI and data across the corridor, with more focused roles in each area for the other three Grand Challenges. Effective connectivity will be critical in supporting the growth ambitions of the industries that will drive future growth in the corridor.

1.9. Connectivity plays a critical role

Transport connectivity plays a critical role in constraining the economic performance of the study area, through the mechanisms and Foundations described above. North-south connectivity is a critical issue for the study area.

Figures 5-8 draw on the evidence from this study to describe how transport connectivity in the north-south corridor enables or constrains the Foundations. These include:

- **Innovation and ideas:** transport connectivity and dissemination of innovation and more productive ways of working through the corridor;
- **People:** transport connectivity and the effective operation of labour markets to meet the needs of business;
- **Business environment:** transport connectivity and business activity, including connecting to markets and supply chains;
- **Place:** transport connectivity and sustainable growth, including housing to support growing labour markets and employment floorspace for growing businesses.

In each case, red/amber/green ratings have been used to assess the extent to which transport connectivity acts as a constraint.

Figure 5 – Transport connectivity and ideas

Area	Role of transport connectivity in enabling / constraining dissemination of ideas and innovation.
Bristol	The Bristol area is home to a dense innovation ecosystem but urban congestion will reduce future efficiency of dissemination of ideas.
Bath & NE Somerset	Congestion (in Bath and the A4 corridor) could reduce the effectiveness of future innovation linkages with Bristol.
Wiltshire	Congestion could reduce the effectiveness of innovation linkages in the A350 corridor and to Bristol and Bath.
Swindon	Good strategic connectivity by road and rail facilitating innovation linkages on E-W corridor with Bristol and Bath.
Dorset	Poor strategic connectivity is impeding access to innovation assets in other parts of the region and UK.
Poole	Poor strategic E/W and N/S connectivity is impeding access to innovation assets in other parts of the region and UK.
Bournemouth	Poor strategic N/S connectivity is impeding access to innovation assets in other parts of the region and UK.
South Hampshire	Good connectivity to London, M3 and Thames Valley innovation hubs. Poor linkages with Bristol and Bath hubs.
Southampton	Good connectivity to London, M3 and Thames Valley innovation hubs. Poor linkages with Bristol and Bath hubs.

Poor north-south strategic links are causing challenges for Dorset, Poole and Bournemouth in accessing innovation assets in other parts of the region and UK. In Bristol and Bath, the challenges are more focused on reducing the effects of congestion on the dense innovation clusters, and in Wiltshire the challenge is maximising linkages to Bristol, Bath and along the A350 corridor.

Figure 6 – Transport connectivity and people

Area	Role of transport connectivity in enabling / constraining the operation of the labour market.
Bristol	A large labour market with matching of labour supply and demand but there are significant problems caused by congestion.
Bath & NE Somerset	Labour market draws on West Wiltshire: significant congestion problems constrain the depth of the labour market.
Wiltshire	Different labour markets for West Wiltshire and Salisbury. Fragmentation is due in part to poor strategic connectivity.
Swindon	Deep labour market for Swindon, facilitated by good E/W strategic road and rail connectivity.
Dorset	Fragmented labour markets caused by poor N/S strategic connectivity and long journey times.
Poole	Constrained labour market caused by poor E/W and N/S connectivity and urban congestion.
Bournemouth	Labour market draws on good connections to the east, but is also impacted by constrained N/S connectivity and urban congestion.
South Hampshire	Relatively deep labour markets due to good strategic road/rail connectivity, but there are challenges with congestion on key routes.
Southampton	Relatively deep labour markets due to good strategic road/rail connectivity, but there are challenges with congestion on key routes.

Poor north-south strategic links are causing challenges for Dorset and Poole in constraining the depth of skilled labour markets to meet business needs. In Poole, these challenges are exacerbated by the effects of traffic congestion. Poor strategic connectivity also causes fragmentation of the labour markets in Wiltshire. In Bristol and Bath, the main challenge is congestion, both within the cities and in terms of connections from surrounding areas, including the towns in western Wiltshire.

Figure 7 – Transport connectivity and business environment

	Role of transport connectivity in enabling / constraining business activity.
Bristol	A deep business ecosystem, with strong connections to other cities. Congestion adds costs to businesses in the city region.
Bath & NE Somerset	Strong business connections in E-W corridor. Congestion in city and A4 increase costs to businesses.
Wiltshire	Concentration of businesses in A350 corridor. Congestion and long journeys increase costs to businesses in the corridor.
Swindon	Strong business connections in E-W (M4 and rail) corridor. Relatively low levels of congestion support competitiveness of businesses in the town.
Dorset	Dispersed business base, with poor connections to markets and urban areas, and long journey times on the N/S spine, which impact on competitiveness.
Poole	Strong business clustering in SE Dorset, but congestion and poor access to London and rest of UK impact on competitiveness.
Bournemouth	Strong business clustering in SE Dorset, but urban congestion and poor access to rest of the UK impacts on competitiveness.
South Hampshire	Congestion increases business costs but the area benefits from its role as a gateway with good access to London, South East and Midlands.
Southampton	Congestion increases business costs but the area benefits from its role as a gateway with good access to London, South East and Midlands.

Poor north-south strategic links are creating challenges for businesses across Dorset. The long journey times to other parts of the UK mean that businesses are relatively isolated from supply chains, collaborators and markets. This means that it is difficult to attract larger businesses, and the business base is likely to be focused more localised markets. This directly impacts on productivity and the economic performance of the area.

Wiltshire benefits from a stronger agglomeration of activity in the A350 corridor between Warminster and Chippenham, but the challenges of congestion and long journey times impact on the performance of businesses in the area. In the case of Bristol and Bath, businesses benefit from deep clusters and innovation ecosystems, which drive strong performance, although congestion is increasingly impacting on business costs and agglomeration.

Figure 8 – Transport connectivity and place

Area	Role of transport connectivity in enabling / constraining sustainable development
Bristol	Very strong growth potential. Congestion on strategic corridors will constrain development potential without new infrastructure.
Bath & NE Somerset	Strong employment growth potential but limited new housing in Bath. Congestion in the city will constrain its capacity for growth.
Wiltshire	Strong growth potential in A350 corridor. Congestion at key locations will constrain development potential without new infrastructure.
Swindon	Very strong growth potential. Congestion to the east, south and west of the town will constrain development potential without new infrastructure.
Dorset	Growth will be distributed between main towns. Congestion in towns will constrain development potential without new infrastructure.
Poole	Very strong growth potential. Congestion in the town and on key routes will constrain development potential without new infrastructure.
Bournemouth	Strong growth potential. Congestion in the urban area will constrain development potential without new infrastructure.
South Hampshire	Very strong growth potential. Congestion on strategic corridors will constrain development potential without new infrastructure.
Southampton	Very strong growth potential. Congestion on strategic corridors will constrain development potential without new infrastructure.

Figure 8 shows different dynamics to those for ideas, people and business environment. The most significant transport constraints are in the urban areas, which have strong growth potential but experience constraints to development caused by congestion on the road network.

Bristol and Bath have strong potential for growth, but there are congestion constraints on sub-regional corridors and in Bath itself. Interventions will need to focus on mode shift and tackling specific congestion hotspots. Poole and Bournemouth also have strong growth potential, but this will again be constrained by capacity in the transport network. Interventions will again need to focus on mode shift and new infrastructure to support the growth ambitions.

Wiltshire has a strong focus on growth in the A350 corridor, particularly in Chippenham and Trowbridge. This will require strategic interventions to provide capacity to support planned growth in these towns, together with further planned growth in Melksham and Westbury. In the case of Dorset, significant planned growth in both Shaftesbury and Blandford will increase congestion on the A350 on the edges of the towns, with investment required to mitigate the effects of congestion.

1.10. Objectives and impacts of improved north-south connectivity

The evidence in this report demonstrates that improved north-south connectivity would support sustainable economic growth in the corridor. The underlying conditions are in place, with a growing population and strong latent potential for growth in employment and GVA. The key challenge is to tackle the issues that are constraining competitiveness, productivity and growth, as described through the five Foundations.

Improved connectivity will support each of the Foundations in their own right, which in turn helps to shape potential **objectives** for the corridor:

- **Innovation and ideas:** significantly reduce journey times between the innovation clusters in the corridor, which will facilitate greater interaction and knowledge spillover, and this in turn will help to drive business efficiencies, reduce costs and increase productivity;

- **People:** increase the depth of the labour markets, to provide businesses with access to larger pools of skilled workers and support access to economic opportunities. This will be important given the constraints on the size of the working age population in the more rural areas;
- **Business environment:** improve access to markets and supply chains, which will help improve the competitiveness of existing businesses, encourage new business creation and support inward investment by larger businesses into the area;
- **Place:** provide increased transport capacity to accommodate the needs of a growing population and economy, to support the delivery of more housing and increased (and more diverse) employment floorspace.

Through these individual drivers, improved connectivity would also support the continued growth of key sectors and enable the area to respond effectively to the economic opportunities associated with the Grand Challenges.

These individual factors also have the potential to work together, through a virtuous circle, to support the economic transformation of the study area. The evidence indicates that these benefits would be greatest in Dorset, which currently experiences the most significant economic challenges, but benefits would also be experienced in Wiltshire and the West of England.

1.11. Recommendations

This study has shown that the corridor is very diverse, with different economic drivers in different areas. It demonstrates that it will be necessary to take a holistic approach to economic development in the corridor, based on the principles of supporting 'good growth' and addressing all of the productivity foundations.

This will include actions to enhance access to innovation assets, tackle challenges with education and training, improve performance amongst SMEs and businesses in certain sectors and proactively support growth.

Transport connectivity plays a critical role, in each area and in strongly influencing diffusion of innovation, sub-regional labour markets, business linkages and the ability to proactively respond to growth opportunities. Failure

to tackle the strategic transport challenges will constrain the ability to address the economic fundamentals in the corridor.

It is recommended that a strategic study is undertaken during the period covered by the second Road Investment Strategy (RIS2). This should include:

- More detailed analysis of the economic evidence, to quantify the scale of the productivity gap caused by skills, innovation, business practices and strategic connectivity;
- More detailed analysis of the transport issues, including travel demands, journey times, congestion and delays, both at present and in the future;
- Consideration of different future scenarios, taking account of different growth projections and testing the potential implications of different mobility futures;
- Identification of the critical transport challenges in the corridor, based on the above analyses, considering both symptoms and root causes of the challenges;
- Development of agreed objectives for improving connectivity, based on addressing the challenges, to help inform the identification of potential options for improving connectivity in the corridor;
- Identification, sifting and shortlisting of potential options, based on performance against a series of key metrics, which should include the environmental constraints in the corridor;
- Development and testing of more detailed options, including transport modelling, initial economic appraisal, costing and environmental appraisal; and
- Development of a recommended package, to demonstrate the strategic and economic case for investment in the corridor.

The strategic study should provide an evidence base to help the case for investment in the corridor, and support further development work, both by Highways England (in relation to the Strategic Road Network) and the local authorities, in developing their pipeline for the Major Road Network.

The evidence from this initial review strongly demonstrates that poor north-south connectivity is significantly constraining the economic performance of the South of England. This poor connectivity is compromising the ability of the area to support delivery of the UK Industrial Strategy. There is clear evidence that improved connectivity would support all five Foundations of the Industrial Strategy.

It is therefore recommended that a strategic study is undertaken as part of the second Road Investment Strategy. This will be a critical step in the development of the strategic investment case and prioritisation of resources across the area.

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Atkins Limited
The Hub
500 Park Avenue
Aztec West
Bristol
BS32 4RZ

Tel: +44 (0)1454 662000
Fax: +44 (0)1454 663333

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