Western Gateway

Review of Multi-modal Access to Ports and Airports

Western Gateway Sub-National Transport Body

May 2020

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Executive Summary

Introduction

Western Gateway Sub-National Transport Body (SNTB) is committed to maximising economic growth by improving transport links across the area from Gloucestershire in the north to Dorset and the South Coast. Ports and airports are valuable assets to the regional and UK economy, providing both national and international connections for businesses and passengers.

Ports and airports need to be considered within an international context driven by the demand for goods and personal travel. Western Gateway aims to make best use of these assets by ensuring that they are well-connected to national and international transport networks. This will help to ensure the gateways continue to play a key role in a changing economy by facilitating international trade whilst also acting as focal points for both economic development and technological innovation.

Western Gateway commissioned Atkins to undertake a study of the overall connectivity of ports and airports in the Western Gateway area detailed in Figure 1-1. Southampton port and airport have also been included due to their proximity and influence on the Western Gateway area. This study aims to explore the current and future transport deficits experienced by the ports and airports, as well as other future challenges which may affect the way they operate. The findings of the study aim to influence and inform the development of the Western Gateway forward programme and Strategic Transport Plan.
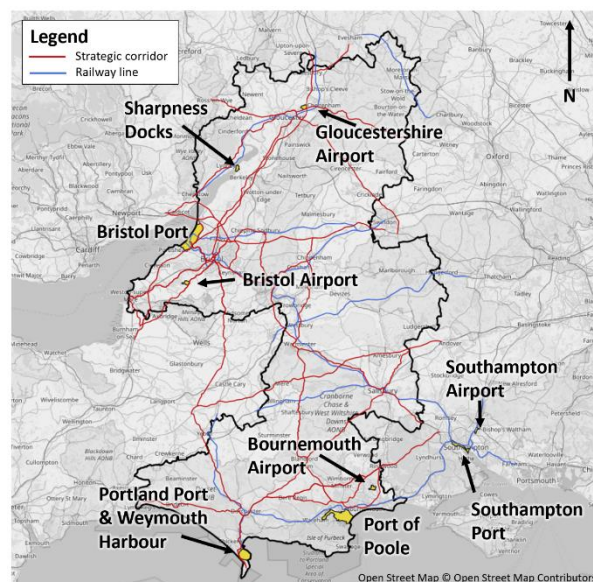
Figure 1-1 - Ports and strategic corridors in the Western Gateway area

Overview of study

In delivering the study, a series of work packages was established to help develop a detailed understanding of national, regional and local policy issues. In order to supplement this, comprehensive stakeholder engagement with ports, airports and Local Enterprise Partnerships (LEPs) was undertaken to ensure a better understanding of current and future opportunities, challenges and risks. The study process is summarised in Figure 1-2 below.

Work Package 1 Port Profiles	**Overview of ports** within study area to capture the size and scale of the gateways, ownership and history of development.
Work Package 2 Policy Review	**Review of national, regional and local policy** to establish the context for future development and strategic drivers for change.
Work Package 3 Future Aspirations	Stakeholder engagement with Local Enterprise Partnerships and Port Operators to **establish future plans and challenges**.
Work Package 4 Final Report	Identify the **key transport issues and challenges** which need to addressed through future strategy development.

Figure 1-2 - Overview of Study process

Transport challenges

Figure 1-3 - REB Transport Challenges

The transport challenges facing the Western Gateway ports can be summarised under the five challenges from the Regional Evidence Base (see Figure 1-3). Conversely a range of transport opportunities are also open to the Western Gateway as summarised in Figure 1-4 and detailed below.

Many ports have experienced bottlenecks and issues on the road network in the immediate areas surrounding the port and on wider strategic links across the area. Roads in Dorset, for example, can be unsuitable for HGVs with connectivity hindered by the lack of dual carriageways; this coupled with congestion in the BCP urban area results in delays to onward freight movements. The lack of north-south connectivity is also an issue for ports on the South Coast due to delays in accessing the Strategic Road Network and the constraints of the A350 corridor resulting in longer journey times for vehicles travelling north-south.
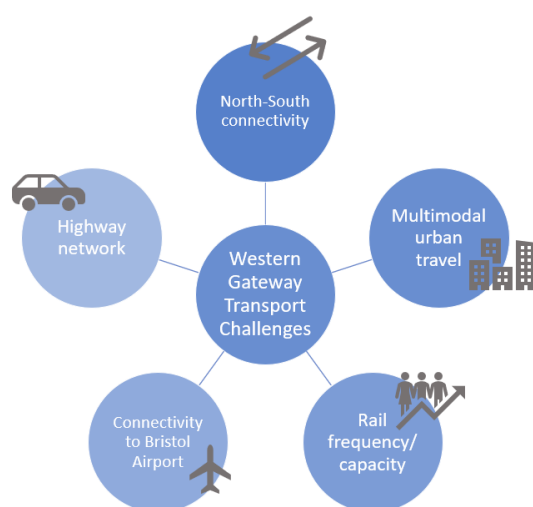
The need for mass transit solutions for the Western Gateway hubs has also been highlighted as a priority for several LEPs and port operators to support the productivity of the area. Specifically, connecting the major urban hubs and international gateways by public transport would expand the pool of potential employees at the ports and airports, improve access to the ports for people living in the area, and play a part in improving journey times and congestion through decreasing the mode share of private transport. The mass transit system could take the form of bus rapid transit or light rail networks. Linked to this, the ports and airports on the South Coast cited final mile congestion as a common source of disruption. Congestion reduction could facilitate the more efficient transfer of passengers and freight both into and out of the ports, making them more attractive to potential customers and improving other environmental issues such as air pollution.

North-South rail connectivity has also been highlighted as a current gap which results in the majority of journeys along this key axis being confined to the road; congestion and poor journey times are major issues on the A350 corridor in particular, improved rail connections could help alleviate some of these issues through a transfer of HGV traffic to rail freight and a reduction in car journeys through mode shift to passenger rail. However, any interventions to increase rail freight tonnage would need to resolve conflicts between increases in both freight and passenger rail. This is an issue that needs to be considered within any future freight and rail strategy. However, it is also noted that the viability of transferring freight from road to rail is dependent on the demand for longer range movements to locations such as Birmingham and beyond and is therefore not appropriate in all circumstances. Some of the ports expressed an interest in developing rail freight further by making better use of existing infrastructure. However, this needs to be balanced against the physical space to locate a freight terminal and the potential financial implications of lost revenue to other economic activity within the port's footprint. Optimising the economic footprint of the ports will continue to be a key theme as post-Brexit policy emerges including opportunities such as Port Economic Partnerships (PEPs) and possibly free ports.

Bristol Airport is a major economic asset to the Western Gateway area. The airport can only be accessed via the single-carriageway A38 with buses running from Bristol, Bath and Weston-Super-Mare. Poor multi-modal accessibility to the airport, as well as a lack of resilience and congestion issues on the M5, is currently causing leakage of demand to the London airports, which creates additional distance travelled. Independent forecasts indicate there is demand for significant growth over the next 30 years, therefore the current level of surface
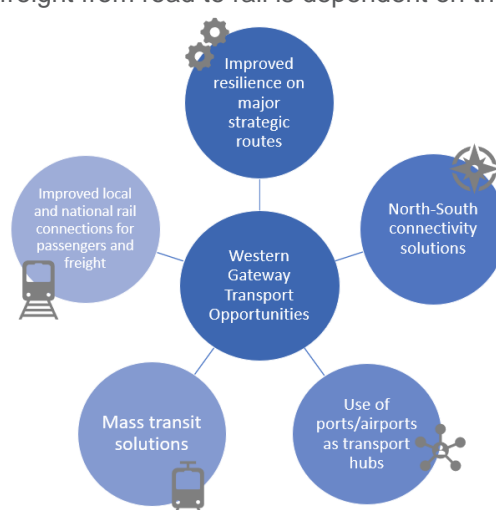
Figure 1-4 - Western Gateway Transport Opportunities

access will not be adequate to accommodate this growth. Bristol Airport therefore supports the principle of a mass transit system that would allow dedicated bus or light rail routes to bring passengers to the airport from corridors to Bristol and Weston-super-Mare.

Future challenges

A lack of transport solutions is not the only challenge affecting how ports and airports operate in the Western Gateway area. Stakeholder engagement highlighted a number of future potential challenges, which are summarised in Table 1-1.

Table 1-1 - Future challenges for ports and airports in the Western Gateway area

Challenges	Issues	Requirements
Brexit	• Uncertainty surrounding the UK's future relationship with the EU is an opportunity and a risk. • A decline in economic performance could affect demand for passenger ferries whilst additional demands could be placed on immigration requirements • The current balance of Non-EU and EU trade does not expose the Western Gateway ports to the same level of risk as EU dependent ports • However, additional Roll on-Roll off (Ro-Ro) demand for Western Gateway ports could be generated due to capacity constraints at Dover	• Further national guidance on post- Brexit trade, people movement and transport policy. • Businesses will need to adapt to the new economic climate and be responsive to the economic opportunities of initiatives such as Port Economic Partnerships. • Ports to evolve and ensure masterplans remain responsive to economic environment changes e.g. Freeports
Climate change	• Local authorities have declared a climate emergency • Potential for damage to property through rising sea levels and severe weather • General reliance on markets and legislation to direct climate action • Conflict between growth and expansion vs local authority climate agenda	• Clarity on attitudes to port expansion from local authorities and how to manage growth appropriately • Greater partnership working to ensure stakeholder objectives are balanced around port and airport expansion. • Maximise the economic opportunities to develop and enhance technological improvements to planes and boats and new operational technology e.g. AI. • Funding for infrastructure and repairs from weather damage • Position the West of England as a leading global centre for 'clean growth'
Planning permission	• Stakeholders view the planning system as slow and cumbersome. Decisions take a long time to be made which inhibits the delivery of growth plans.	• A 'golden thread' of planning policy running from the national to local level that supports and enables growth for ports and airports. • Develop new partnership approaches to gateway expansion which balances economic and environmental objectives e.g. Port Economic Partnerships.
Technology	• Aviation and maritime technology presents a significant opportunity for economic development, job creation and investment. • Research and adoption of technology is very varied. The development of smart ports is mostly focused on larger ports and is influenced by the commercial viability of developing and delivering new technologies. • Technology and sustainability go hand-in-hand, so ports with low capacity for adoption could fall behind.	• Target funding for research and development to promote the uptake of new technology (e.g. Autonomous vehicles, AI and shore to ship charging to reduce idling emissions). • Smaller ports to explore the opportunities associated with trialling new technology.

Next steps

The conclusions drawn in this report have highlighted the issues facing the ports and airports in the Western Gateway area. The outcomes of this report will feed into the new Strategic Transport Plan and help inform future work packages. Based on the findings of the study there are a range of options available to the Western Gateway for future work. The recommendations for future work are as follows:

- Utilise industry data, modelling tools and mobile phone data within the Highways England RIS 2 M4 to Dorset Coast study to better understand the movement of people and goods within and beyond the Western Gateway area. This could include a more detailed investigation of international gateways, including their importance to business-to-business connectivity and the UK's global economic reach;

- The Highways England RIS 2 M4 to Dorset Coast study could provide an opportunity to explore the feasibility of improved North-South rail connectivity for both freight and passengers, as part of research into the future demands of the A350 and A36 transport corridors. There are few existing rail links connecting the South Coast directly to the Midlands, and understanding the impacts of this transport gap could help reveal the benefits of improved rail connectivity in the corridor for the strategic road network;

- Development of a freight strategy to understand the challenges faced by hauliers and the capacity for changes in the way freight is moved around the UK and Western Gateway. This could include a wider analysis of trip patterns and movements to better understand the flow of traffic within and beyond the Western Gateway geography;

- Develop a greater understanding of the potential for maximising access to the leisure market (e.g. cruise, tourism, water sports) in the Western Gateway area, as well as continuing to increase its attractiveness to potential customers both domestic and international. The cruise and tourism industry in the area has experienced notable growth in recent years, and while this represents an economic opportunity for the Western Gateway ports and airports, it also creates unique challenges; a better understanding of the transport implications of this growth could help to provide a strategic perspective on connectivity requirements to support this industry for both travel into and around the Western Gateway area. By improving the strategic travel offering in the area, the economic potential of inbound visitors to the region could be maximised, as well as those resident there;

- Investigation of the economic contribution of ports and airports to the Western Gateway region, and development of a regional strategy to 'lock-in' and expand these benefits;

- Investigations of post-Brexit capacity issues at Dover and what this could mean for ports on the South Coast;

- Develop and evolve the role of the STB in providing better highway and rail integration for the ports within the study area – an integrated strategic approach to strategic rail and highway access could help to balance the demand for movement and assist the movement of goods from the ports and airports; and

- Integration of port and airport access within the Strategic Transport Plan. This includes the development of relationships with neighbouring STBs where access requirements and transport aspirations overlap to ensure strategic priorities across STB's are funded and prioritised.

1. Introduction

1.1. Western Gateway Sub-National Transport Body

The Western Gateway Sub-National Transport Body (SNTB) is an alliance of local authorities and associate members including the DfT, Highways England and Network Rail. Local authority membership includes:

- Bath and North East Somerset Council;
- BCP Council (Bournemouth, Christchurch & Poole);
- Bristol City Council;
- Dorset Council;
- Gloucestershire County Council;
- North Somerset Council;
- South Gloucestershire Council;
- Wiltshire Council; and
- West of England Combined Authority

The local authorities in the Western Gateway area have made a commitment to work together to drive innovation, maximise economic growth and improve industrial productivity by strengthening travel connections to local, national and international markets.

The Western Gateway area is home to 3 million people and due to its strategic location is likely to see significant population growth over the next few decades, bringing with it increased economic prosperity. One of the Gateway's most significant attributes is the length of coastline, both on the South Coast and the Bristol Channel. This area features some of the largest and most prolific ports in England, as well as several regional airports and major rail hubs.

1.2. Statement on COVID-19

This study was commissioned before the outbreak of COVID-19, and as such the political, social and transportation landscape is expected to change significantly as society begins to resume normal function. All but one of the stakeholders were interviewed before the outbreak, and therefore no consideration of such an event was made. The study presents a view on the existing transport and infrastructure links that serve ports and airports in the Western Gateway region at the time of writing, and does not take into account any changes that will occur as a result of the pandemic. The aviation industry has been particularly affected by measures to prevent the spread of the virus, and it is likely that this will have an effect on the operation of the airports considered by this study long after they re-open for business.

There are likely to be major changes in the ways that people choose to travel; what these changes are is as yet uncertain, however they may result in opportunities to encourage a mode shift to active transport particularly for local journeys, but a reduction in overall usage of mass public transport such as bus and rail. There may also be a move towards business support for employees who wish to work from home. More research will need to be undertaken on the different effects of the pandemic on people's use of transport once the virus has been sufficiently contained.

1.3. Purpose of this study

This study serves as a review of multi-modal access to the ports and airports in the Western Gateway area as detailed in Figure 1-1 below. In a post-Brexit economy international trade and the role of the Western Gateway's ports and airports will become ever more important as international gateways and commercial centres. This includes the possible introduction of 'freeport' areas which exist outside of normal customs regulations to boost the economy and encourage strong trade links with the rest of the world. In order to understand how best to utilise these opportunities, it is important to first build a picture of the ports in the Western Gateway area, and how they are connected to the rest of the UK.

This report provides a review of national and local policy to determine the challenges that currently face the UK's ports and airports, and local and national schemes to mitigate connectivity challenges. Stakeholder engagement has taken place with Local Enterprise Partnerships and operators of international gateways to better understand current and future issues. The report aims to capture the challenges and opportunities for the

Western Gateway to inform the production of the future Strategic Transport Plan for the region. Following this introductory chapter, the report is structured as follows:

- **Chapter 2 –** Sets the ports in both a global and national context to understand the opportunities and challenges facing the industry.
- **Chapter 3** – Port Profiles to provide an overview of the key international gateways in the Western Gateway area and Southampton.
- **Chapter 4** – Policy Review of national and local policy to help understand the key issues and challenges facing the international gateways of the Western Gateway area.
- **Chapter 5** – A summary of transport challenges facing the ports in the Western Gateway area based on the Regional Evidence Base.
- **Chapter 6** – A discussion of the other (non-transport related) challenges which face the ports.
- **Chapter 7 –** Key conclusions which draw on the policy review and stakeholder inputs to provide a framework for future policy and strategy development in the Western Gateway area.

**Figure 1-1 - Ports and strategic corridors in the Western Gateway area**
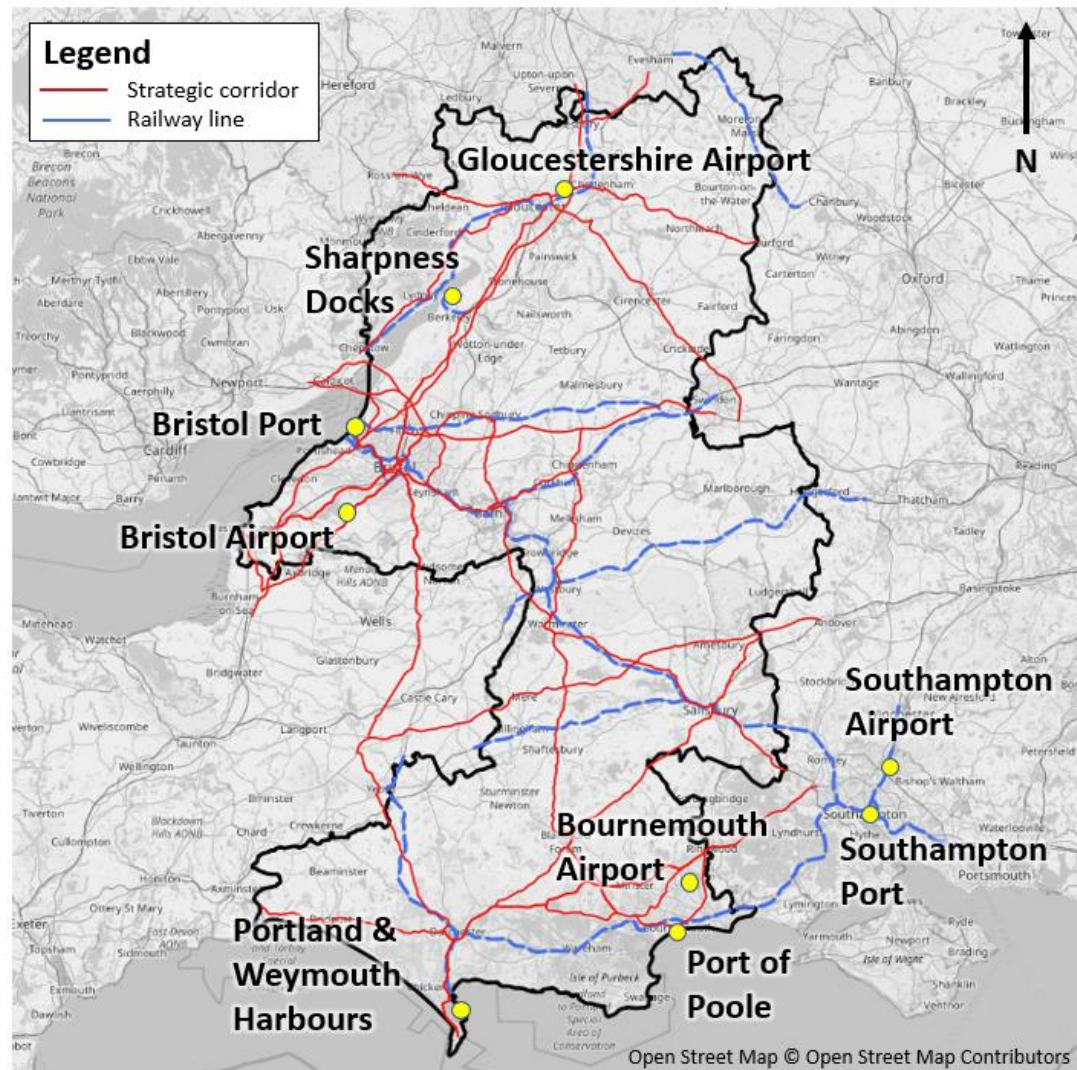
2.   The Global Context

2.1.   Ports and airports within the global economy

Ports and airports are major hubs within national and international transport systems and are intrinsically linked to the world economy[1], integrating people, goods and services with the means of moving them around. More than 90% of world trade is carried by sea[2], putting shipping at the heart of the global economy. The transport of raw materials, food and manufactured goods is vital for all countries, and the maritime industry is responsible for making it happen. In the UK alone, 95% of imports and exports are facilitated by ship.

The markets for the UK aviation and maritime industries are very different. Airports in the UK generally carry people for both business and leisure, while the majority of the UK's freight is brought in by sea; Figure 2-1 illustrates the modal split of the UK's goods trade. Across the world, passenger air travel in 2019 grew above the 5.5% average increase for the last decade[3]. Prior to the COVID-19 outbreak in the first quarter of 2020, the UK's own aviation industry was thriving, with the largest network in Europe, and third largest in the world. It is worth £22bn to the economy and supports over half a million jobs[4].

Figure 2-1 - UK trade by mode

UK trade by mode (1000 t cargo)

2,299 — 20,721 — 496,708

■ Maritime ■ Air ■ Rail
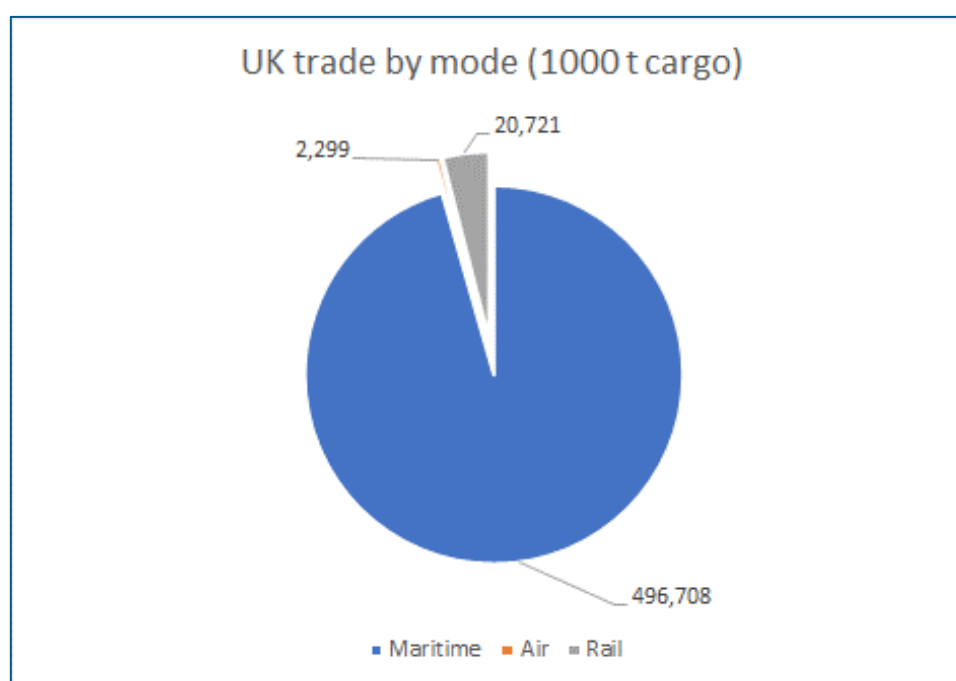
Source: DfT and CAA (2015)

The UK has historical pedigree in both the maritime and aviation industries; a combination of being an island nation and ambitious technological development and innovation has cemented its leadership position among other major global players. Figure 2-2 puts the UK's contribution to European maritime trade in context.

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[1] Dwarakish and Salim, 2015, 'Review on the Role of Ports in the Development of a Nation', *Aquatic Procedia*, Vol. 4, pp. 295-301

[2] International Maritime Organisation

[3] KPMG, The State of the Aviation Industry, https://home.kpmg/ie/en/home/insights/2019/01/aviation-industry-leaders-report-2019-state-of-aviation-industry.html

[4] Aviation 2050: The future of UK aviation (A consultation), DfT, 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/769695/aviation-2050-web.pdf

Figure 2-2 - Maritime Trade in Europe
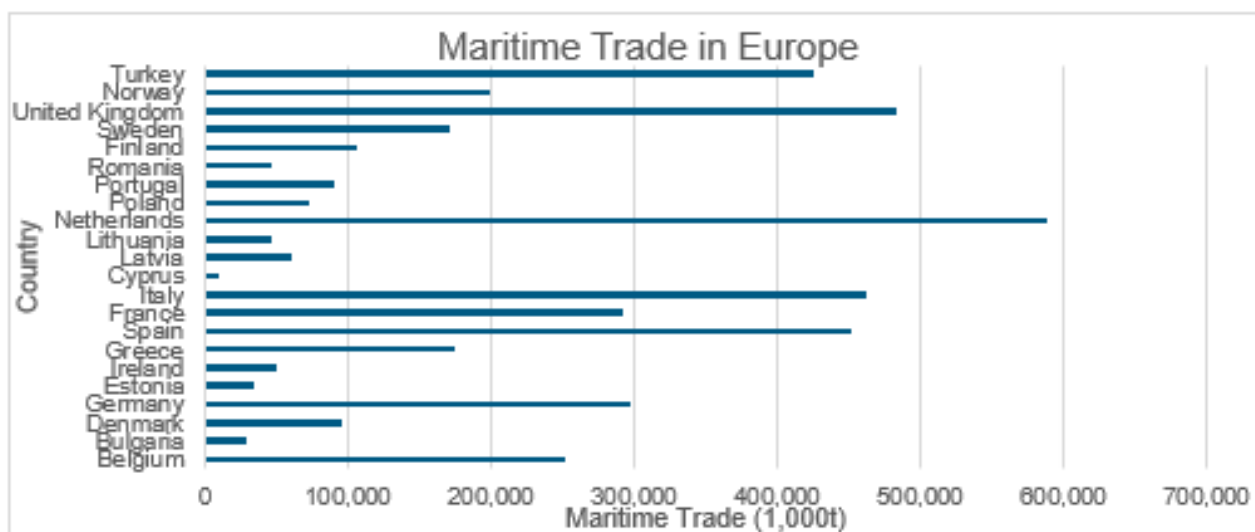
Examining ports within the UK, there is a further hierarchy in terms of the amount of cargo that each port handles. Ports and airports have their own geographical benefits and limitations; ports on the English Channel are just a few nautical miles from some of the major global shipping routes, while others such as Bristol benefit from easy access to the US and other countries to the west (Figure 2-4). Deviation away from these major shipping lanes leads to cost and time penalties for the shipping company which is a strategic benefit for the Western Gateway ports.

Figure 2-3 - UK Major Ports Tonnage by Cargo Type
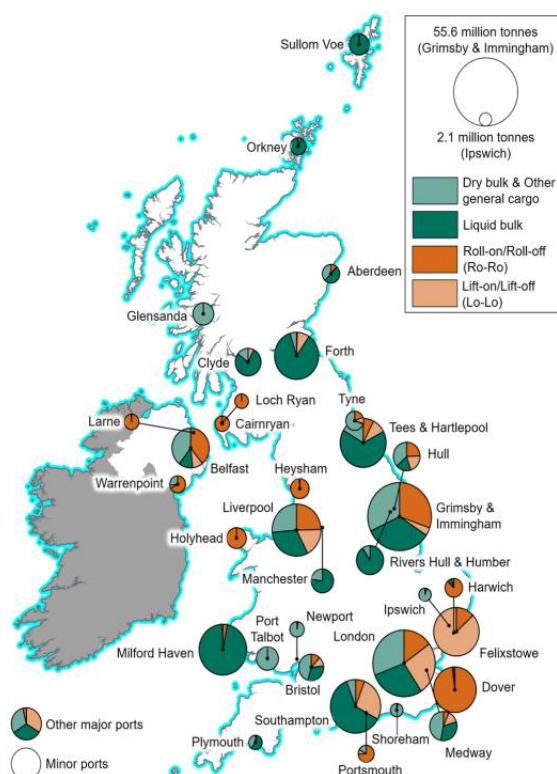
Source: DfT, Annual Port Freight Statistics, 2018

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Figure 2-4 - Major shipping lanes accessing ports in the South West

Source: www.shipmap.org

The actual percentages of goods imported to and exported from the UK are shown in Figure 2-5 and Figure 2-6. Deep sea imports are principally handled by Southampton, London Gateway and Felixstowe – circa 75% of volume. The UK's largest trading partner is currently the EU, with significant proportions of imports and exports also going to the USA. China is another key source of imports. Bristol and Southampton in particular are important gateways for non-EU trade, and the graphs below highlight the importance of this trade to the UK economy.

Figure 2-5 - UK maritime freight imports

UK imports of goods from top 5 countries, March 2018
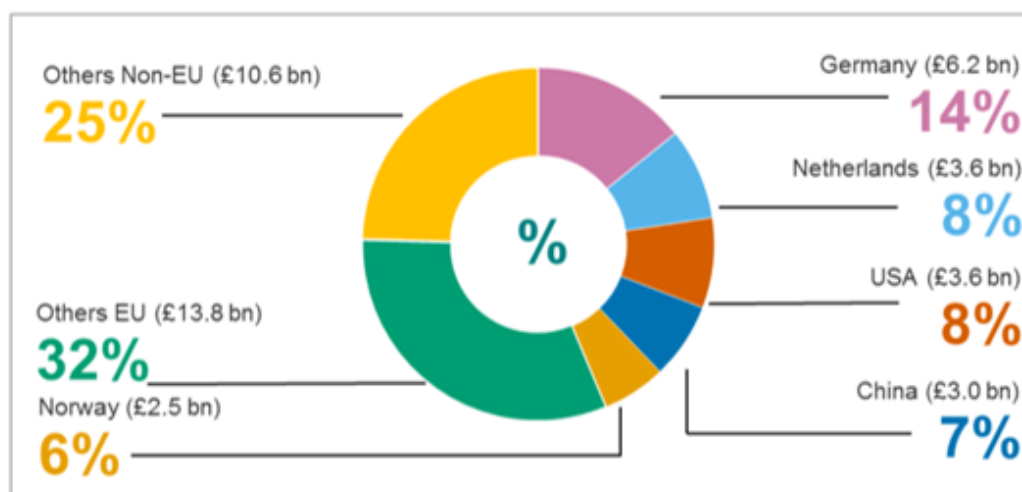
Others Non-EU (£10.6 bn) **25%**
Germany (£6.2 bn) **14%**
Netherlands (£3.6 bn) **8%**
USA (£3.6 bn) **8%**
China (£3.0 bn) **7%**
Others EU (£13.8 bn) **32%**
Norway (£2.5 bn) **6%**

Source: HM Revenue & Customs Overseas Trade in Goods Statistics
Note: 2018 data is provisional

Figure 2-6 - UK maritime freight exports

UK exports of goods from top 5 countries, March 2018

Source: HM Revenue & Customs Overseas Trade in Goods Statistics
Note: 2018 data is provisional
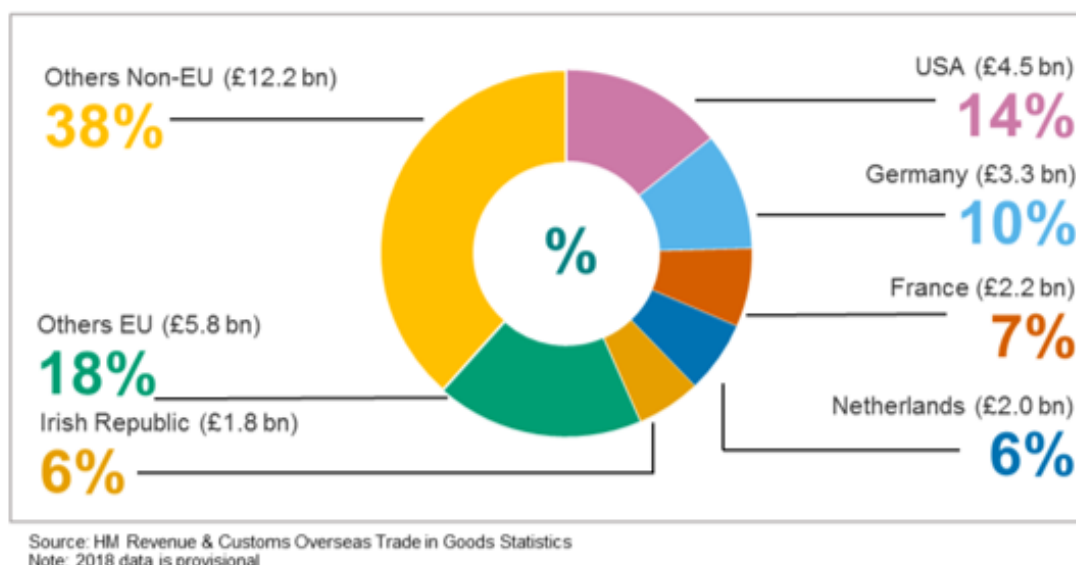
By contrast, Figure 2-7 gives a picture of the UK's aviation hubs at which most passengers are concentrated in the London airports and a handful of regional centres, putting into context the scale of the airport offering in the South West.

Figure 2-7 - UK airports by passenger numbers (CAA data)
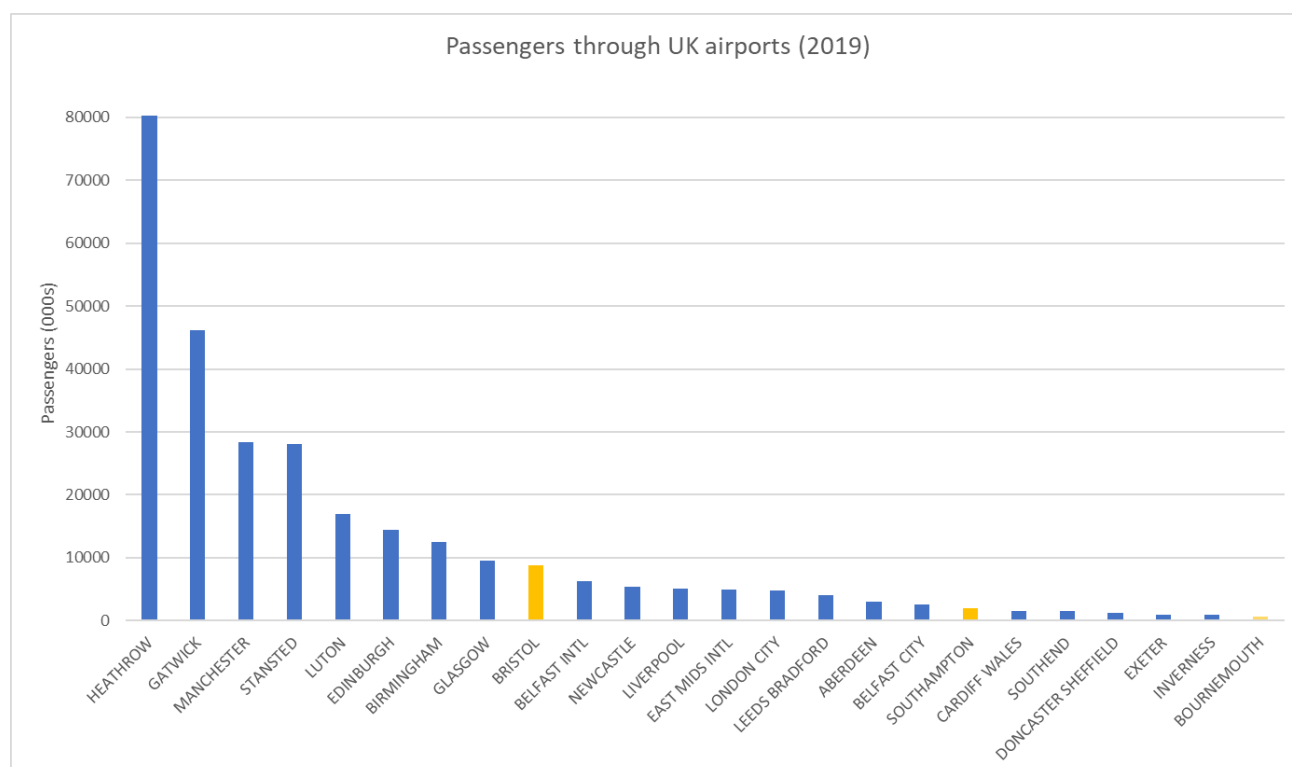
Source: Civil Aviation Authority statistics (Jan 2019)

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Figure 2-8 shows the increase in passenger numbers at various major UK airports over the last five years with a clear increase in demand across the board. Globally, the International Air Transport Association forecasts that overall passenger numbers will almost double by 2037, to 8.2 billion annually[5].

Figure 2-8 - Passenger numbers at UK airports - 5-year trend (CAA data)

Change in passenger numbers over time (2015-2019)
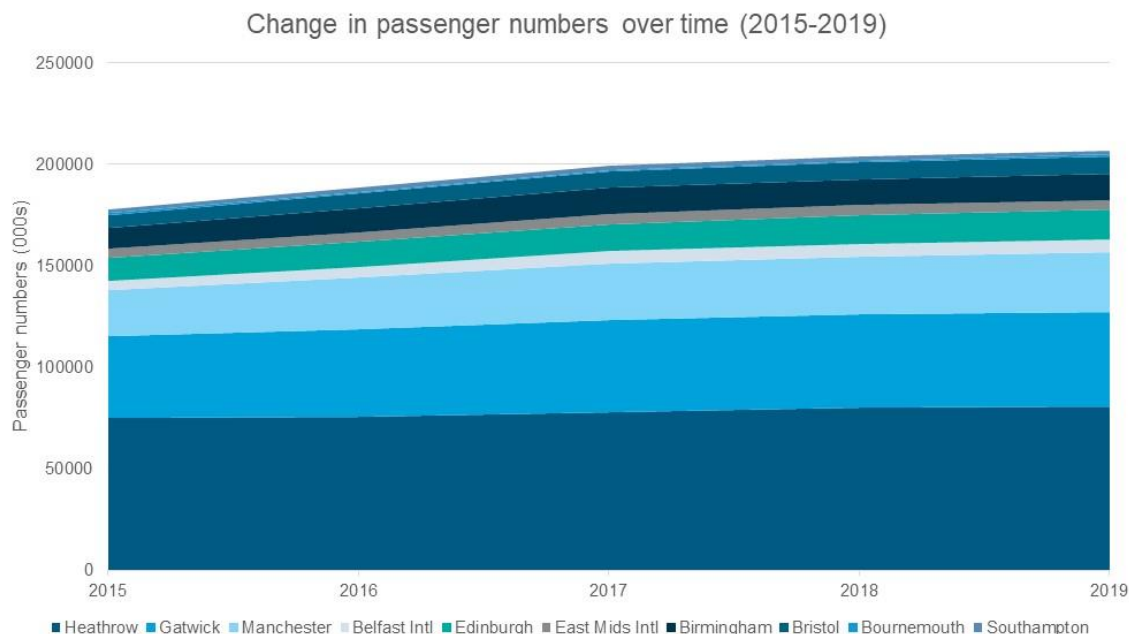
In the UK, the average percentage increase in passenger numbers across the airports described above was 20.2%, and the increase of passengers overall throughout the UK was 18.04%. Although Heathrow and Gatwick continue to attract the majority of passengers, the greatest growth over the five years to 2019 has been at regional airports. Bristol Airport, for example, experienced a 32.13% increase in passengers to 2019, the third largest including Heathrow and Gatwick. Bournemouth Airport saw a 13.85% increase in passengers; just less than the overall increase at Gatwick. Should this trend continue, regional airports will need to carefully plan development to allow for expansion in capacity over the next decade.

3.   Port Profiles

3.1.   Introduction

Western Gateway Sub-National Transport Body (SNTB) is committed to maximising economic growth by improving transport links across the area from Gloucestershire in the north to Dorset and the South Coast. Ports and airports are valuable assets to the regional and UK economy, providing both national and international connections for businesses and passengers. The Western Gateway region is uniquely situated in the UK, as it connects with four other STBs, as well as South Wales and links both the Bristol Channel and the South Coast. In 2017 the Western Gateway ports processed 10.5 million tonnes of goods; 2% of the total goods processed through UK ports.

While the ports and airports of the region have an obvious benefit to the UK economy and are an important tool for achieving the Government's aims of economic rebalancing, they are also vital to the economy of the Western Gateway region itself. They are hubs of employment and innovation and encourage further investment in the region. For example, the Bournemouth International Growth scheme has been an important source of improvements focused on the airport, improving journey times and unlocking employment land that will increase the productivity of the region. Similarly, the Port of Poole Programme has resulted in transport schemes which support development and regeneration in the area and aims to ultimately bring in £500 million of leveraged private investment to the area.

The following section gives a short introduction to each of the ports and airports in the Western Gateway area, giving operational detail as well as geographical context and highlighting some of the main schemes planned or recently completed in the area. The Strategic Corridors detailed are linked to the key corridors highlighted in the Western Gateway Regional Evidence Base and shown in Figure 3-1.

Figure 3-1 - Western Gateway Strategic Corridors
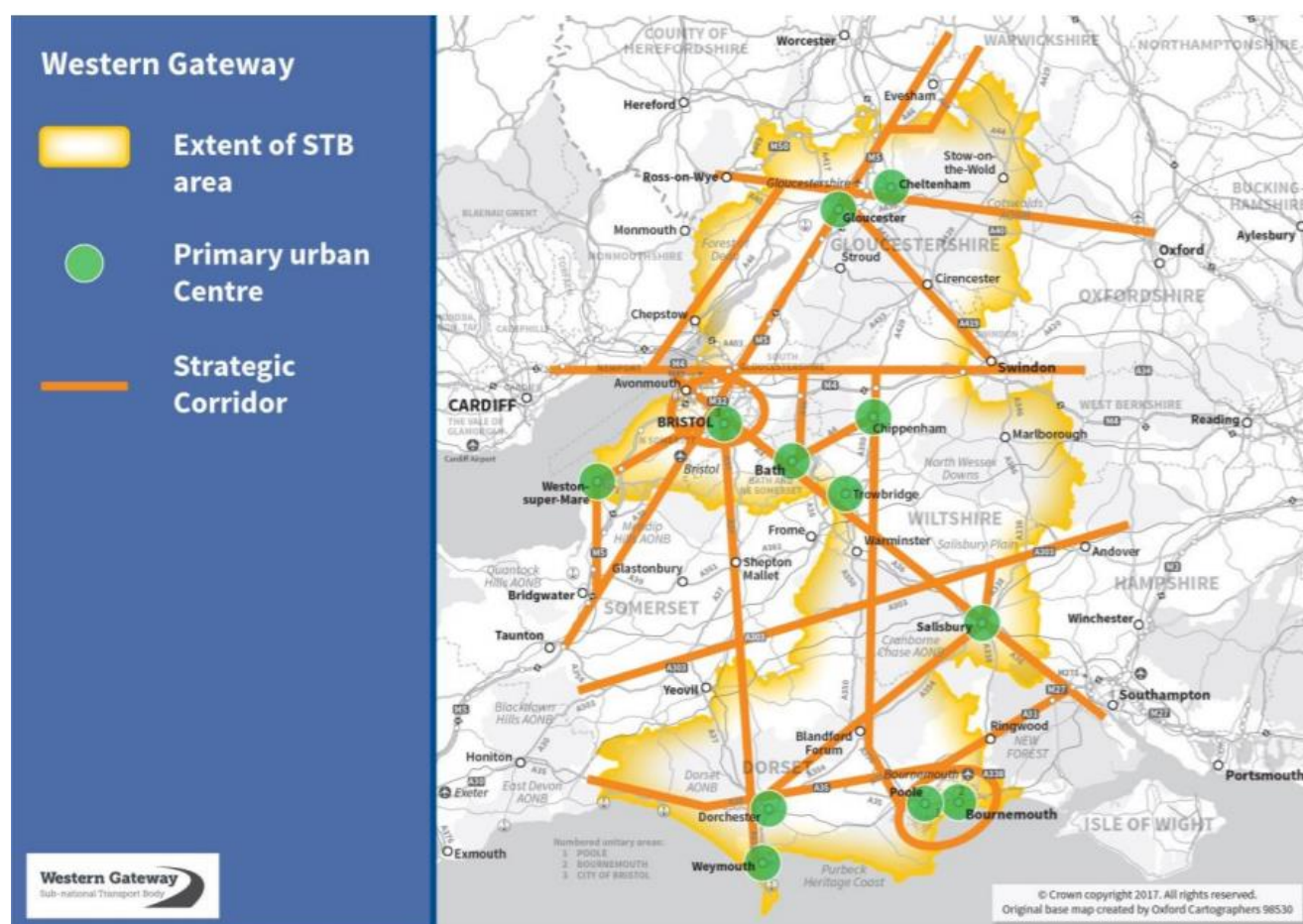
Source: Western Gateway Regional Evidence Base

Bristol Airport

Bristol Airport is a commercial airport in Lulsgate Bottom, North Somerset, and serves Bristol, the West of England, wider South West and South Wales. Airlines operate scheduled and chartered flights to 27 European countries, and six rest-of-the-world destinations. A £9.5 million multi-storey carpark opened in May. Passenger numbers have been growing since 2012, with destinations across the UK and Europe, as well as to the USA, Mexico and destinations in North Africa. Bristol Airport has also adopted a 'carbon roadmap' which sets out its plans to become a zero-carbon operation by 2050.

- **Size:** 8.9m passengers (in 2019)[6]
- **Majority shareholder:** Ontario Teachers' Pension Plan Board
- **Freight handling:** Average freight movements into the airport between 1974-83 were 526 tonnes/yr, dropping to 218.9 tonnes/yr between 1987-97. There has been a steady decline since 1997, and no freight movements were reported by the Civil Aviation Authority after 2008.
- **Relevant Western Gateway Strategic Corridors:** H and I (B, J and K considered within surface access).
- **Employment:** (Approx.) 400 directly employed by the airport and 3650 people including Border Force and commercial airlines.
- **Vehicle trips:** Approximately 1500 LGVs and HGVs use the airport main entrance daily.
- **Access**:
  - *Road*: The A38 is the main road route, linking to Bristol in the North and the M5 in the South.
  - *Rail*: There are no direct rail services to Bristol Airport; Bristol Temple Meads rail station is 8 miles from the airport and connected by regular bus services.
- **Planned access schemes:** Funding has been awarded to North Somerset Council to develop an outline business case for improving journey times and capacity on the A38, which is the main route to the airport. This is part of the DfT's Major Road Network (MRN) call for schemes.

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[6] Civil Aviation Authority, Passenger Data 2019, https://www.caa.co.uk/Data-and-analysis/UK-aviation-market/Airports/Datasets/UK-Airport-data/Airport-data-2019/

Bournemouth Airport
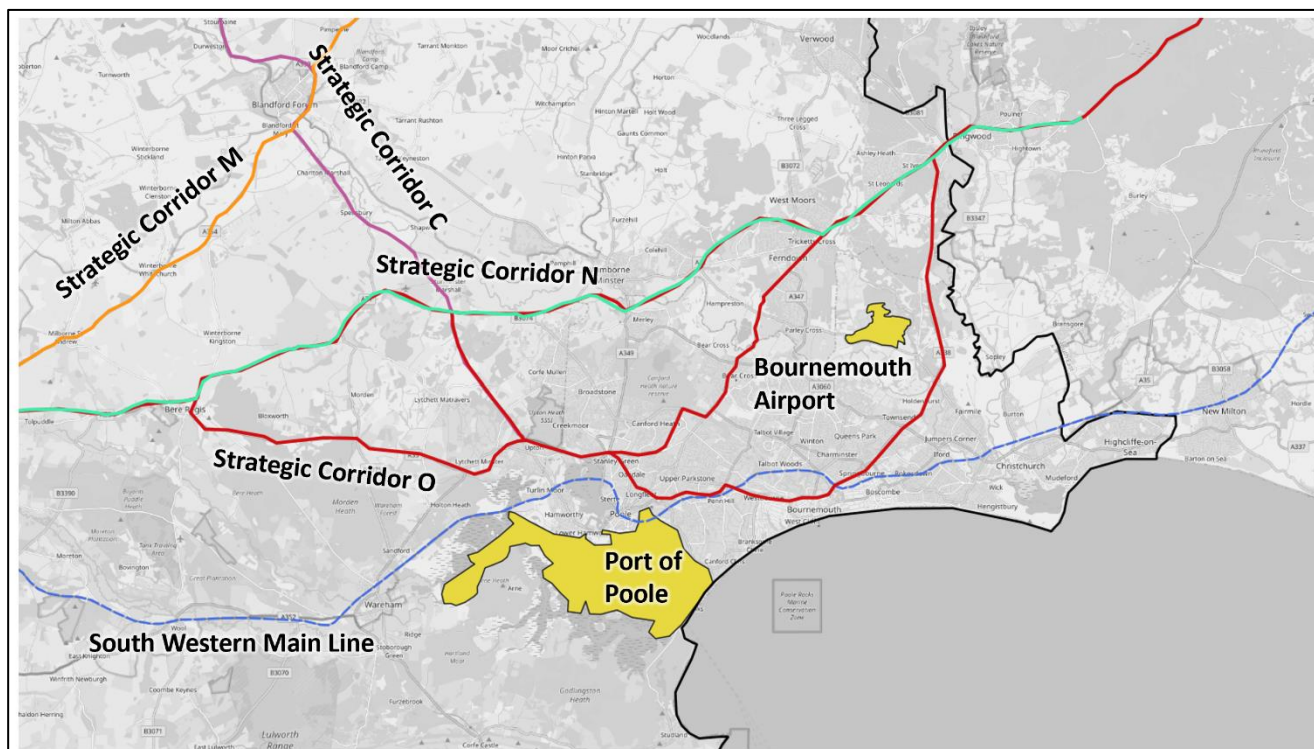
Opening for civilian use in 1944 following its construction in 1941 as a World War Two transport and fighter facility, for a short period Bournemouth Airport (Hurn) served as Britain's only international airport, until the opening of facilities at Heathrow. The airport is situated four miles north of Bournemouth, with regular commercial flights operating to 11 destinations including Cyprus, Greece, Italy, Spain, Portugal and Ireland, as well as additional seasonal flights. The airport saw major investment in 2008 which improved the terminal facilities and increased the number of aircraft stands to 11. The airport is also an important regional hub for General Aviation activity such as maintenance and repair.

- **Size:** 182 ha/700,000 passengers/yr
- **Ownership:** Rigby Group Plc
- **Freight handling:** An average of 5966 tonnes/yr was handled between 1990-2000, but this dropped severely in 2006. Freight carriage picked up again in 2012 and increased steadily to 2015 but there is no data beyond this point.
- **Relevant Western Gateway Strategic Corridors:** O, N and C.
- **Employment:** 2000 people on the airport site.
- **Access**:
  - *Road*: Bournemouth Airport can be accessed via the A338 and A31 from the M27/M3 to the East, and the A35 to the West. The 737 bus runs from Bournemouth to the Airport.
  - *Rail*: There are no direct rail services to Bournemouth Airport; Bournemouth rail station is 3.8 miles from the airport and connected by the 737 bus service.
- **Planned access schemes:** Funding for widening of the A31 at Ringwood to three lanes has been granted as part of RIS 2. This is part of the SRN and a major link between the M3/M27 and Poole.

  The Bournemouth International Growth Programme (BIG) focuses on the airport as a site of major economic growth. It aims to improve accessibility to the airport and to Wessex Fields, release up to 60ha of employment land at Aviation Business Park, provide up to 350 new homes and ultimately generate £500m of GVA into the area. The ongoing projects include improvements at Blackwater Junction and widening of the A338 as the closest major road to the airport.

Southampton Airport
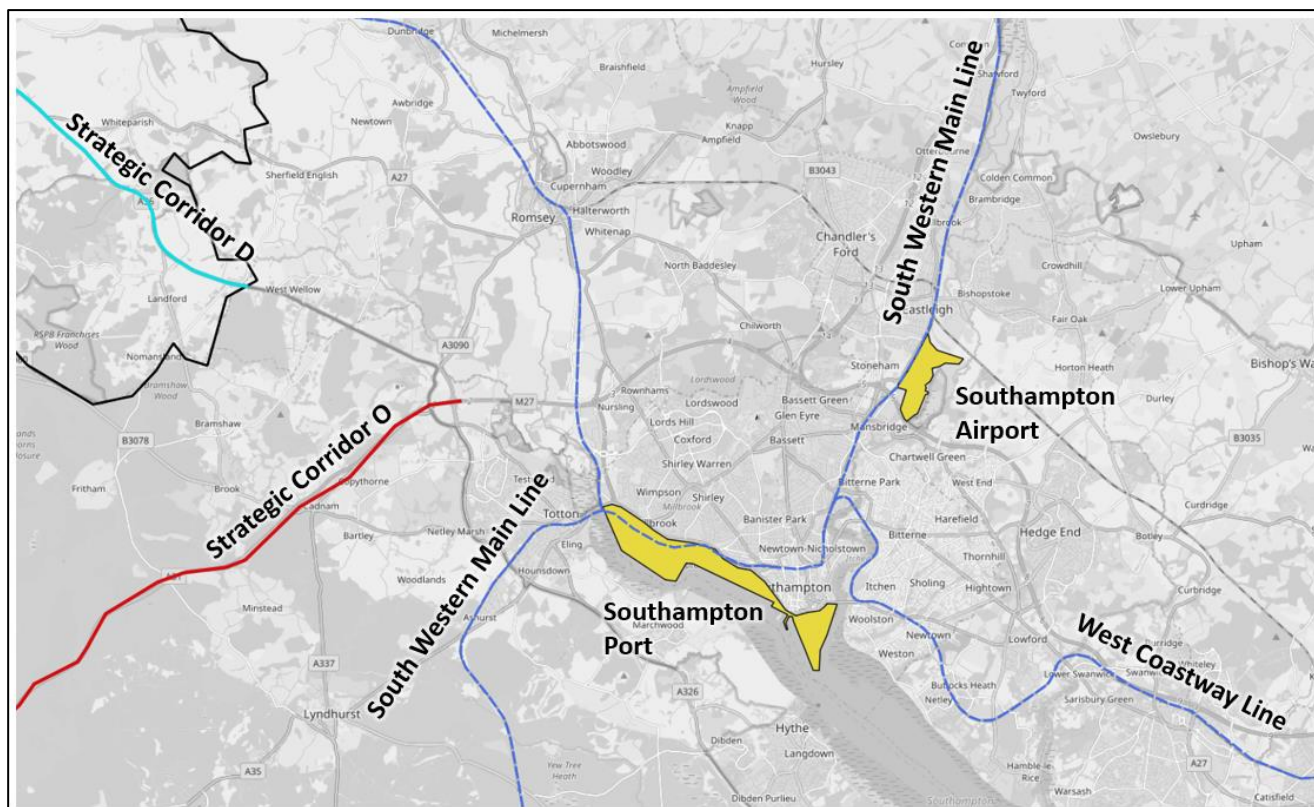
Southampton Airport is an international airport in the Borough of Eastleigh, four miles from the city of Southampton. It handles around 2 million passengers per year and is currently 3rd of 30 airports in the *Which?* customer satisfaction survey, mainly serving destinations across the UK as well as Geneva, Majorca and the Channel Islands. Southampton has a strong military history; it was the building and testing site of the Spitfire, and the airport was a base for the US Airforce during World War 2. Approximately 3.5 million people live within an hour's drive of the airport, making it a popular alternative to the busier London airports. It has plans to increase its passenger throughput to 5 million by 2037, with an additional four aircraft stands, further terminal capacity and a runway extension.

- **Size:** 2m passengers/yr
- **Ownership:** AGS Airports Ltd.
- **Freight handling:** There has been a steady decline in freight handling since 1990, to an average of 230 tonnes/yr.
- **Relevant Western Gateway Strategic Corridors:** D and O.
- **Employment:** 100 directly employed by the airport, but over 1200 on-site.
- **Vehicle trips:** 51.59% of all trips to the airport were made by car/private hire, and 23.81% were made by public transport, strongly influenced by the high-quality rail connections to the airport.
- **Access**:
  - *Road*: Southampton Airport can be reached from the A335 and the M3/M27. There are also local bus routes to the airport, and Megabus services for longer-distance journeys.
  - *Rail*: Southampton boasts one of the shortest rail-to-terminal interchange in Europe, with only 99 steps between Southampton Airport Parkway and Southampton Airport.
- **Planned access schemes**: The government has committed to the upgrade of the M3 to smart motorway, including Junction 14 for Southampton Airport. This will reduce congestion and journey times and allow for enhanced traffic management.

Gloucestershire Airport
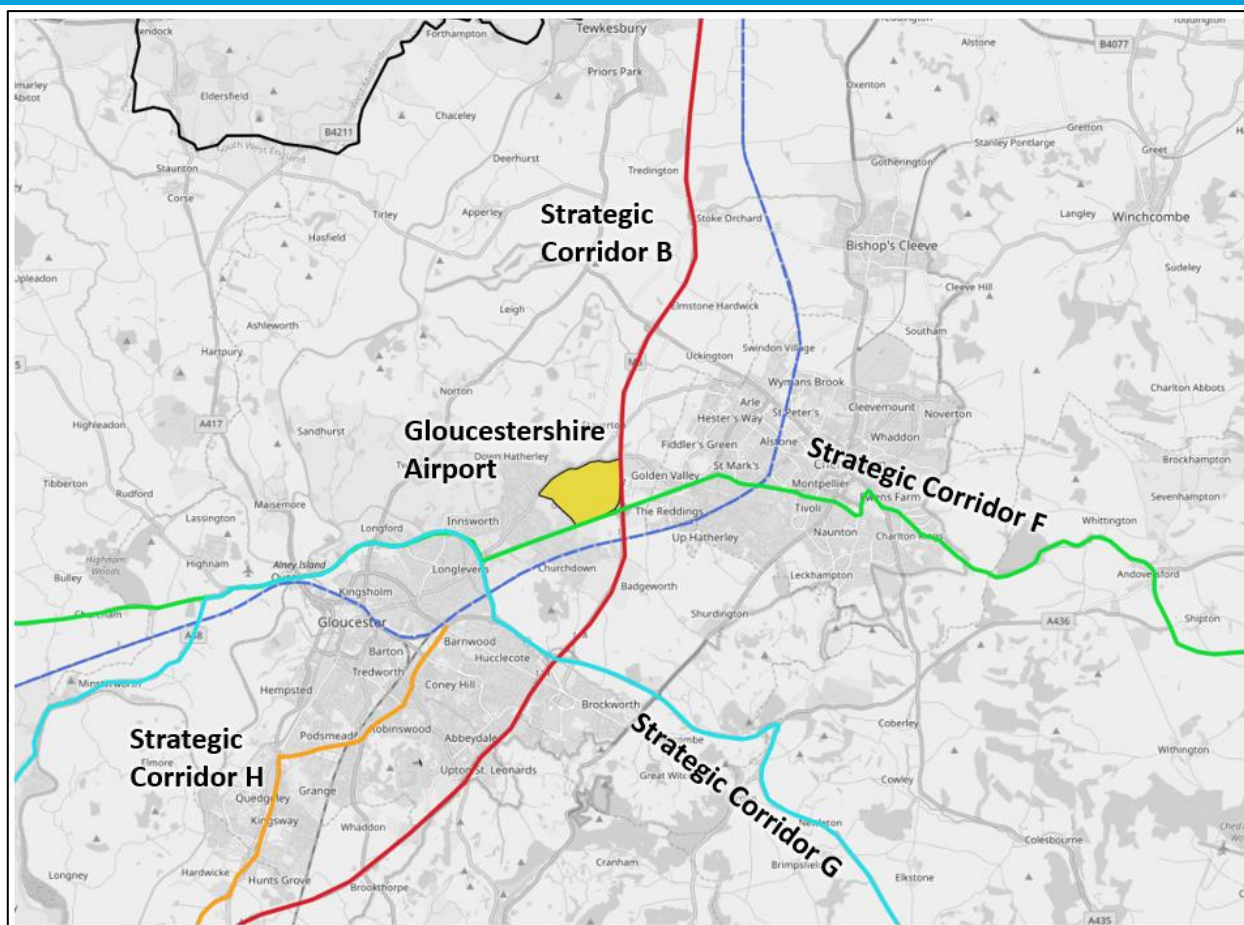
Gloucestershire Airport served as a training base for pilots during World War 2, when it was originally known as RAF Staverton. At its peak, around 20,500 passengers were being flown to other UK destinations, including the Isle of Man, by Citywing until the airline was liquidated in March 2017. The airfield is currently home to several flying schools and serves mainly private flights. OSET Holidays advertise package deals to Jersey and the Isle of Man leaving from Staverton.

- **Size:** 1500 passengers/yr (no commercial flights)

- **Ownership:** Gloucester City Council and Cheltenham Borough Council

- **Freight handling:** Almost no freight arrives into Staverton Airport – between 1990-2000 an average of 58 tonnes/yr, with nothing reported since.

- **Relevant Western Gateway Strategic Corridors:** B, F, G and H.

- **Employment:** 500 people work on the Staverton Airport site. The airport also owns the nearby Meteor Business Park, which employs a further 2000 people.

- **Access**:
  - *Road*: Staverton Airport can be reached via the M5/A40.
  - *Rail*: There is no rail access to Staverton Airport. The closest stations are Cheltenham Spa (3 miles) and Gloucester (4 miles). The 94 bus service runs between Gloucester and Cheltenham, and stops approx. 900m from the entrance to the airfield.

- **Planned access schemes:** There are planned upgrades to M5 J11 and the A40 eastbound towards Cheltenham as part of a £22m allocation from the government's Growth Deal 3 to release employment land for the Cheltenham Cyber Business Park. These upgrades to the southbound slips on the M5 and the A40 carriageway will also help connect the airport access roads to the M5 and improve the ability of business park users to access its services.

Bristol Port (Avonmouth & Royal Portbury)
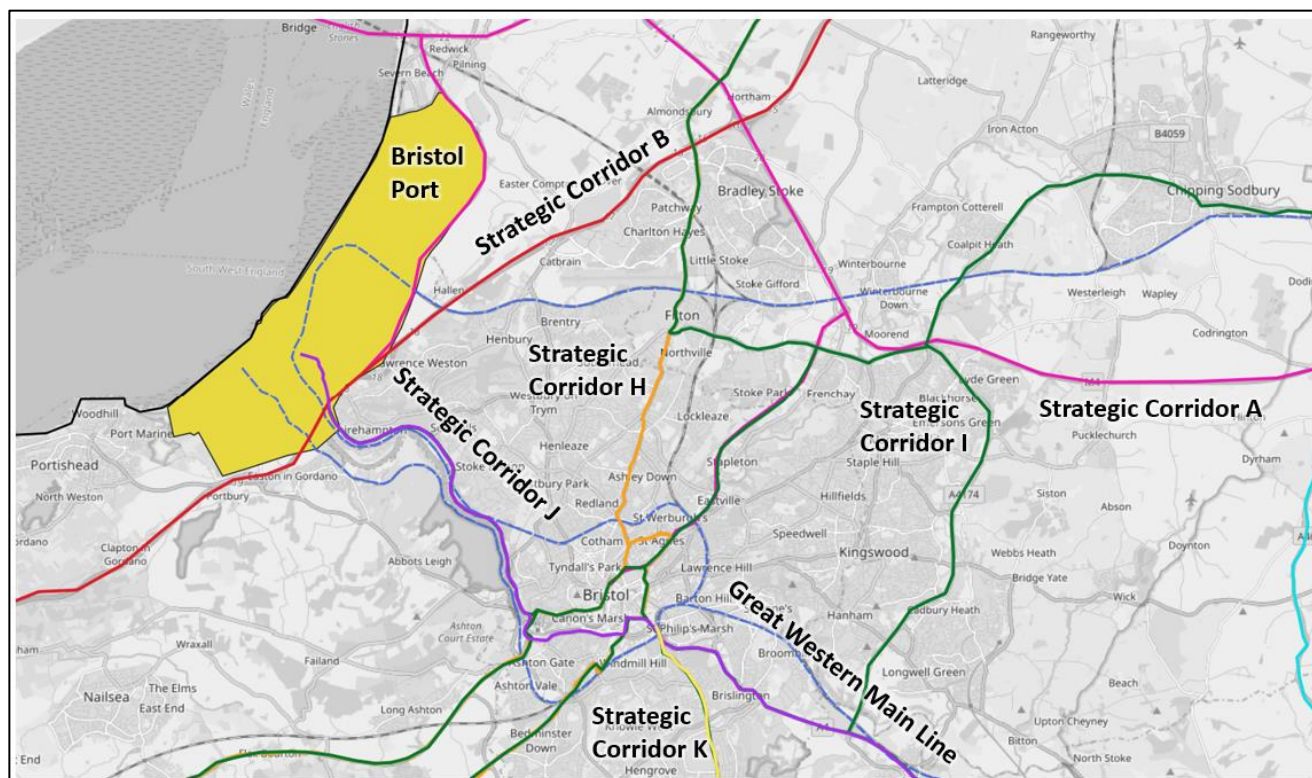
Bristol Port is made up of two enclosed dock systems, the Avonmouth and Royal Portbury Docks, on the Severn Estuary, west of Bristol. The docks are also a major importer of motor vehicles and aviation fuel, and there is a cruise terminal with embarkation points at both the Avonmouth and Royal Portbury Docks. The depth of the largest berths in the Royal Portbury Dock are 14.5m, and 7.9 – 11m in the Avonmouth Dock. A new deep-sea container terminal has been given consent and will be able to accommodate Ultra Large Container Ships, as well as contributing to the increased throughput of containers in the UK.

- **Land-based size:** 524.3 ha
- **Ownership:** The Bristol Port Company
- **Freight handling:** Bristol has historically been one of the busiest ports in the UK, handling 8.7m tonnes of cargo including 27% of all UK aviation fuel imports, 10% of UK coal imports and 750,000 motor vehicles. The smaller Avonmouth Docks handles petroleum, fresh produce, gas, cement and other building materials. Bristol Port is also a muster point for the EDF-NNB Hickley C project. Currently 66% of the market is non-EU, and Bristol Port is predominately an importing facility.
- **Relevant Western Gateway Strategic Corridors:** B, H, I, J and K.
- **Employment:** 575 people are directly employed by the docks, and 10,000 are employed on the dock estate. The Avonmouth and Severnside enterprise area will also unlock significant employment opportunities in logistics and manufacturing when fully developed.
- **Access**:
  - *Road*: Avonmouth is accessed via the M5 Junction 18, M49 and the A403. Royal Portbury Dock is accessed via M5 Junction 19.
  - *Rail*: Avonmouth is served a twin-tracked dedicated freight line from Parkway junction, and the Severn Beach line runs a passenger service from Temple Meads to Avonmouth and beyond. The docks are approx. 9 miles from Bristol Temple Meads. There is also a high capacity rail freight terminal in the Royal Portbury Docks.
- **Planned access schemes:** Funding from RIS1 was awarded for the construction of a new junction on the M49 to support economic growth and access to the Severnside Enterprise Area. As part of the Network

Rail Control Period 6, £120m is being spent upgrading the Bristol East junction which will support enhanced train services and improve capacity thorough the Greater Bristol area. There are also plans within the MetroWest programme to open up the Portishead Line to passengers, although the project is awaiting a decision to deliver as well as a full business case.

Port of Poole
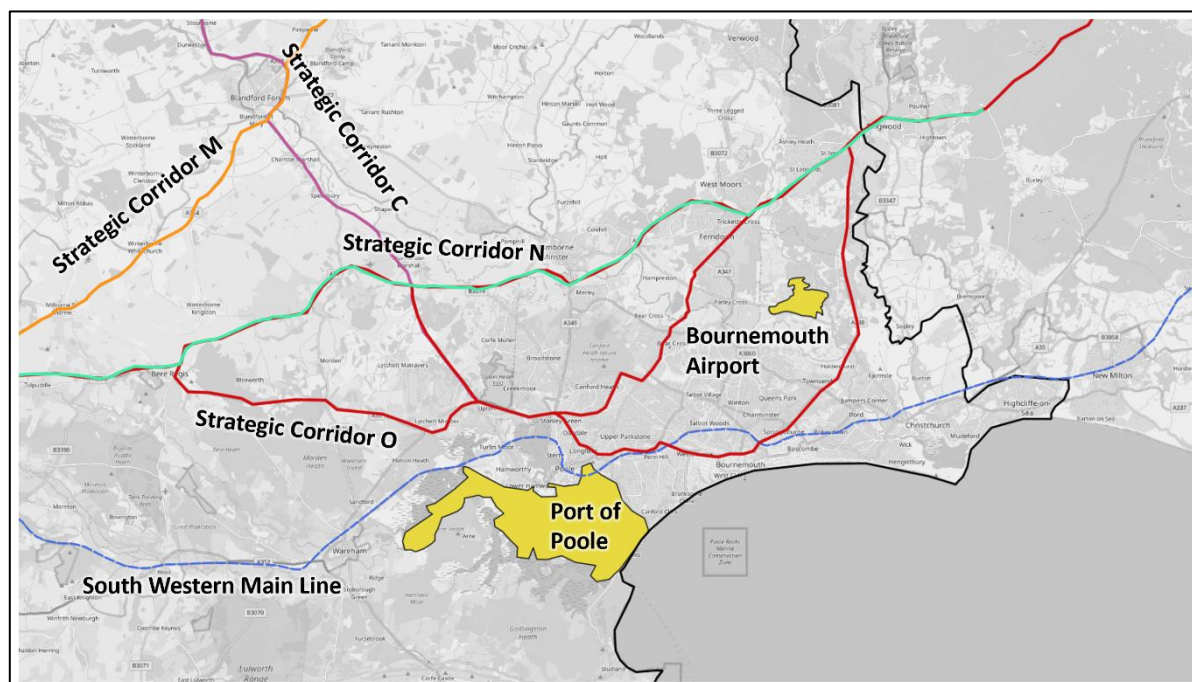
The Port of Poole is home to one of the largest natural harbours in the world, and a site of ecological importance. Its location at the centre of the South Coast of England results in competition for port business from Southampton, Portsmouth and Weymouth/Portland for leisure activities such as pleasure boating and water sports, and Portsmouth for Ro-Ro and cross-channel freight. Cargo including bulks, chemicals, building materials and petroleum products arrive through Poole, but it also remains a popular Port of Call for cruise ships; a new £10m berth opened to cargo ships in January 2018, and cruise ships in May 2018.

The Port of Poole has berths available for superyachts up to 75m and is a major player in the leisure sailing industry. Sunseeker International, a global icon in performance yachting, has its main headquarters and manufacturing facility within the Port's footprint, and exports its products from Poole. Poole Harbour is also a major tourist attraction, with watersports, fishing and pleasure boating as the main activities available.

- **Land-based size:** 28.15ha
- **Ownership:** Trust – Poole Harbour Commission
- **Freight handling:** Historically, the Port of Poole has handled timber, grain and coal – by 1964 there were 400,000 tonnes of cargo being unloaded, and 1500 ship visits to the port. Today, Poole services 193,000 passengers, and handles approximately 820,000 tonnes of Ro-Ro cargo and dry bulks annually, mostly to France and with aspirations to handle shortsea shipping operations from the Mediterranean.
- **Relevant Western Gateway Strategic Corridors:** O, N and C.
- **Employment:** 450 people directly
- **Access**:
  - *Road*: The Port of Poole can be accessed from the A350 and A35.
  - *Rail*: The South Western Railway line runs to Poole station, which is 1.5 miles from the harbour. There is also a rail link within the harbour for freight (the Hamworthy Freight Branch), although this does not have regular traffic.
- **Planned access schemes**: The Port of Poole Programme is funded by the Dorset LEP's Local Growth Fund and comprises six transport schemes designed to improve access into and around the port. Three schemes are still ongoing with an estimated completion date of 2021; Townside Access, which focuses on the town side of the Backwater Channel and new development sites, Cabot Lane/Broadstone Way improvements to ease congestion and increase road safety in the area, and a £100k junction improvement at Darby's Corner.

Sharpness Docks
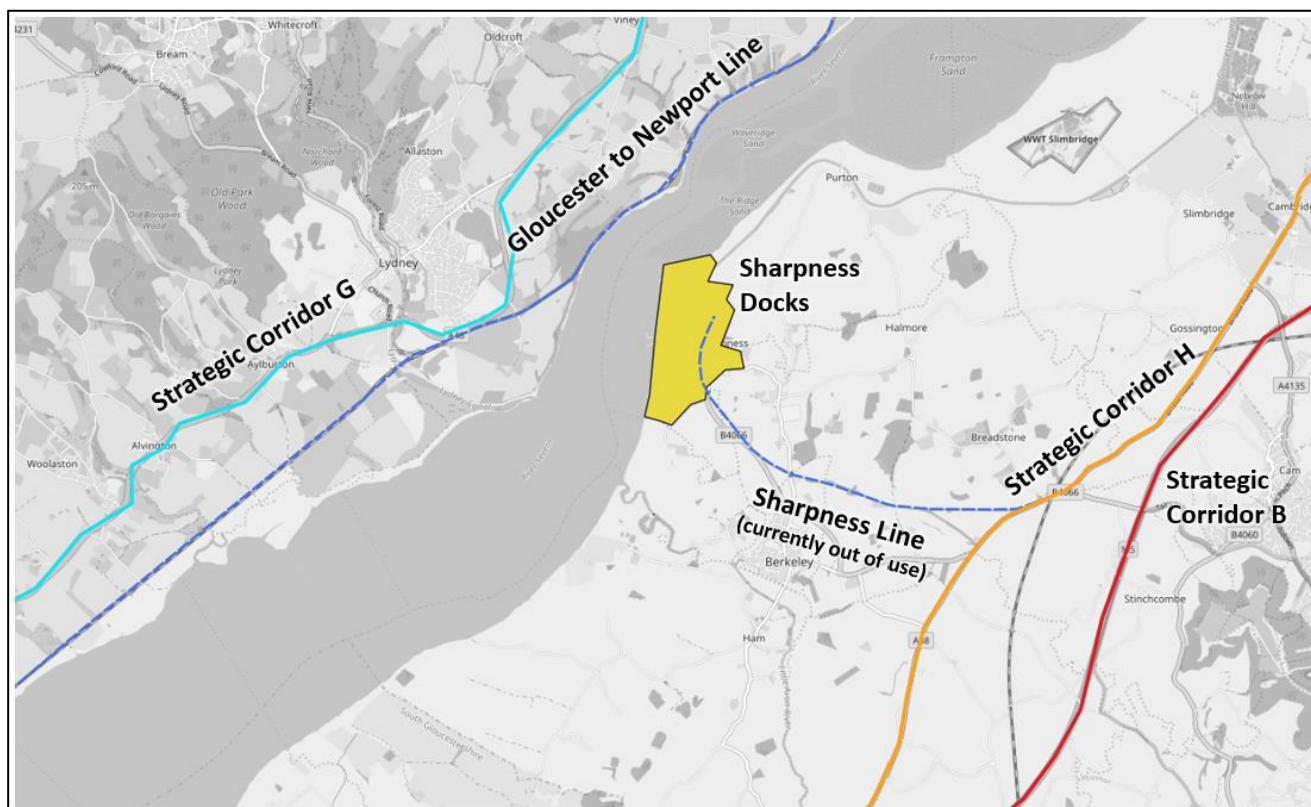
Sharpness is one of the most inland ports in Britain and is the eighth largest in the south west. It sits on the River Severn and has a small community of residents adjacent to the site. Until the original Old Dock was built ships would travel up the canal to Gloucester, but the increase in size of many of the vessels made this difficult. In 1874 a new, even larger dock opened south of the existing dock, which was abandoned. Although the rail lines still exist which had connected Sharpness to both the Midland Railway and the Great Western Railway, the links to these have since closed and all dock transport is now by road.

- **Land-based size:** 18.3 ha
- **Ownership:** The Canal and River Trust. Sharpness Dock Ltd operates within the dock footprint and is a trading company of the Victoria Group.
- **Freight handling:** Sharpness handles 500,000 tonnes of cargo annually, which is predominately dry bulk cargoes including, cement, fertilisers, scrap metal, minerals and feeds. The amount of freight brought through the docks varies depending on the requirement from the terminal operators.
- **Relevant Western Gateway Strategic Corridors:** H and B.
- **Access**:
  - *Road*: Road access is via the A38 and Junctions 13 and 14 on the M5.
  - *Rail*: The Sharpness branch line of the Gloucester-Bristol railway closed in 1964 and has since fallen into disrepair.
- **Planned access schemes:** Planning permission is being sought for an additional access point to the docks in order to split domestic and commercial traffic, however this has not yet been granted. There is also an allocation in the Stroud Local Plan for 7ha of expansion land in the Sharpness Docks South, as well as 300 new dwellings, B1, B2 and B8 sites, and other ancillary retail.

Portland Port & Weymouth Harbour
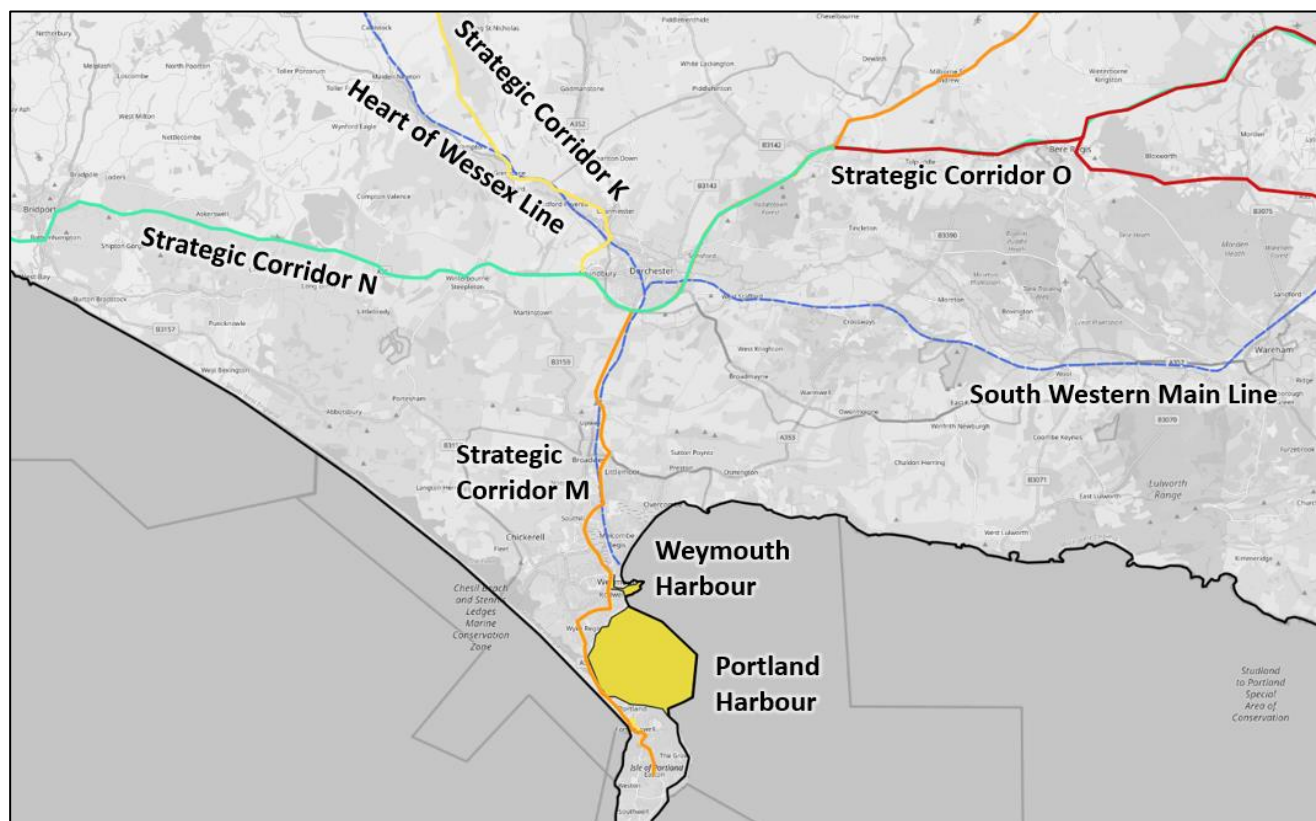
Portland and Weymouth are neighbouring harbours on the South Coast. Portland is the larger of the two, having originally been built as a facility for the Royal Navy and used as a naval base until 1995. Weymouth Harbour is much smaller, mostly accommodating cross-channel ferries and tourists involved in water sports and pleasure boating. In 2009 Portland's New Quay area was upgraded, allowing for an increase in cargo capacity. In 2017 it handled a record 500,000 tonnes of cargo, and the port authorities have ambitions for this to grow to over 1 million tonnes in the long term.

- **Land-based size:** 19.1 ha
- **Ownership:** Portland Port Ltd./Weymouth & Portland Borough Council
- **Freight handling:** Portland currently handles 60,000 passengers and 500,000 tonnes of freight annually. Expected growth to 73,000 passengers next year.
- **Relevant Western Gateway Strategic Corridors:** M, N and K.
- **Employment:** 600 (Portland) and 14 (Weymouth)
- **Access**:
  - *Road*: Both ports can be accessed by the A354 (from the A35 from the East and A37 from the West).
  - *Rail*: South Western Railway runs services to Weymouth station, which is 3.5 miles from Portland Harbour.
- **Planned access schemes:** As part of the Western Dorset Economic Growth Strategy there are plans to upgrade the A354 to Portland, which is the only route to the port. There is also consideration of the bus interchange at Weymouth, encouraging a mode shift to reduce congestion in the area. In the long term the congestion and poor journey times in the area may be addressed with a relief road running between Wyke Regis and Chickerell.

Southampton Port
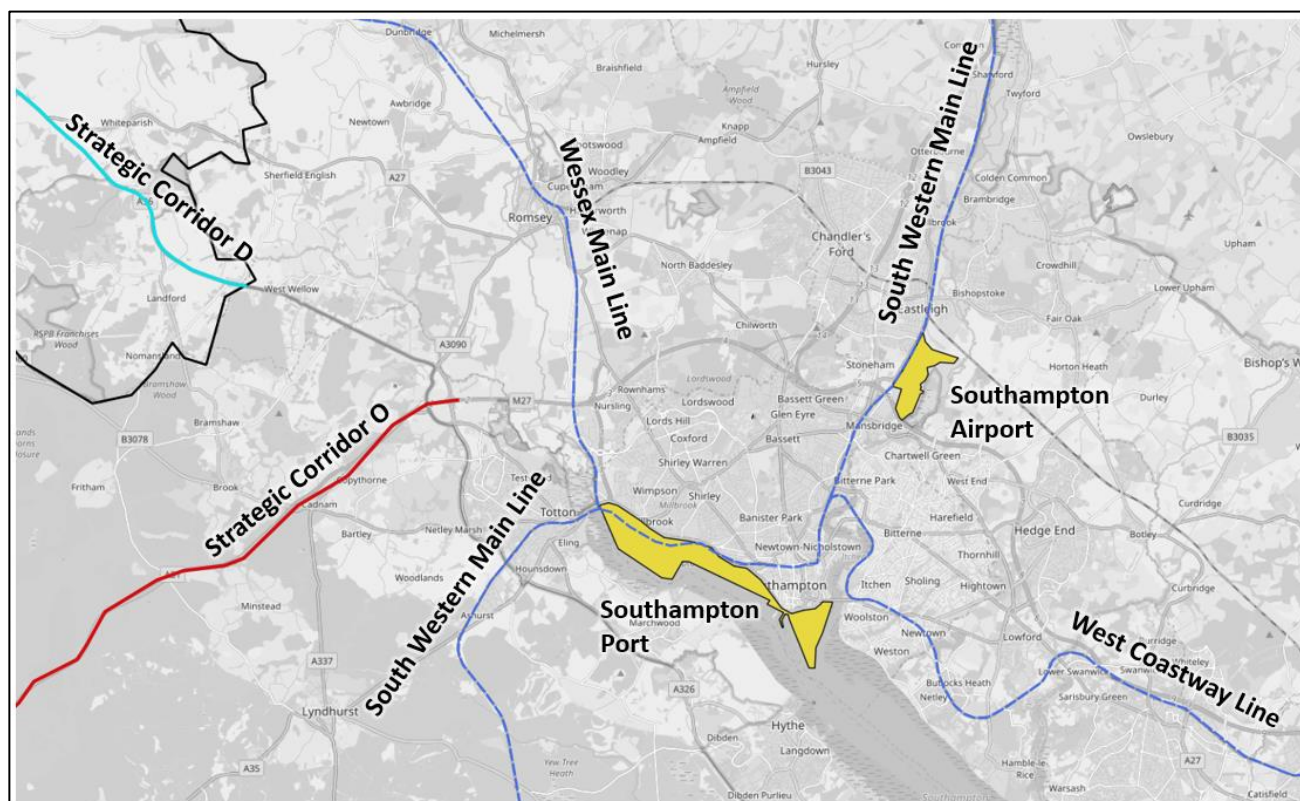
The Port of Southampton is one of the UK's major ports. The Port's location, close to the major shipping lanes of Northern Europe, combined with a deep-water access channel and no locks, mean it is ideally suited to handle all trading sectors and can handle the largest vessels afloat. The Port supports businesses right across the UK handling £71 billion of goods every year. Of this total, £40 billion is exported goods of which 90% are destined for markets outside the European Union.

It is home to the UK's second largest container terminal handling 2M TEU per annum; one of the country's primary vehicle handling ports and the leading turnaround cruise port in Europe handling over 2M passenger movements every year. The Port is also home to the UK's largest refinery at Fawley handling some 20% of UK refinery capacity. The bulks terminal handles around 1.5M tonnes per annum. ABP also owns the industrial estates at nearby Marchwood and Eling to provide additional capacity for port-related services.

The Port has four permanent cruise terminals and is home to the UK fleet of P&O Cruises and Cunard Line ships - there are around 500 cruise calls every year. 12 automotive shipping lines offer around 150 services every month connecting both large and small automotive manufacturers with the global market place.

The Solent region is also home to a sizeable yachting and leisure sector, meaning that Southampton is required to balance a great number of uses.

Demand for port services is expected to double over the long term which means that ABP is looking at infrastructure enhancements within the current port footprint as well as expansion opportunities at land within its ownership.

- **Land-based size:** 368.6 ha
- **Ownership:** Associated British Ports
- **Freight handling:** Historically Southampton has handled fresh produce from around the world, as well as being a major gateway for vehicle imports and exports, including 60% of JLR's vehicles. Southampton

remains one of the UK's major ports, and handles over 2 million TEU, 900,000 vehicles, 23 million tonnes of liquid bulk and 1.3 million tonnes of dry bulk. It also takes 100,000 pallets of fresh produce from the Canary Islands annually. In total it handles around 36 million tonnes of freight. In addition, around 1.4m cruise passengers pass through the port every year. Figure 3-2 shows that Southampton is the leading UK port for non-EU trade.

- **Relevant Western Gateway Strategic Corridors:** D and O.
- **Employment:** 5000 direct jobs. The national economic impact of the Port is £4.1 billion and supporting over 56,000 jobs.
- **Access**:
  - *Road*: The Port is 2 miles from the M27, via the A33.
  - *Rail*: Southampton Central is less than a mile from the port. There is also a rail feed service for freight trains at the port, which connects to railways across the UK.
- **Planned schemes:** Highways England is currently upgrading the A33/M271 Redbridge roundabout to improve access to the city centre and the docks from the M271. RIS2 funding for upgrades to the A31 at Ringwood and smart motorway upgrades for the M3 J9-14 (subject to stocktake) will also reduce congestion traveling south towards Southampton and improve access to the port. Network Rail's project to lengthen the sidings at the main container freight handling rail terminal adding approximately 1/3 extra to average length of train. An upgrade of the A326 in conjunction with Hampshire County Council is being explored.

Figure 3-2 - Market share of UK ports for non-EU trade

Market share of ports: non-EU trade

Source MDS Transmodal
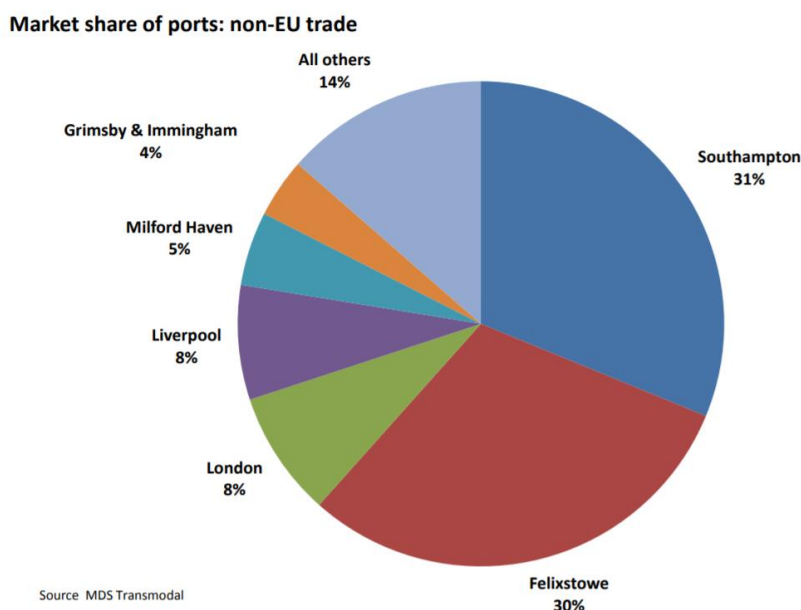
Summary

The port profiles are summarised in Table 3-1.

Table 3-1 - Summary of key port information

Port	Size	Strategic Corridors	Freight (per annum)
Bristol Airport	8.7m passengers/yr	H, I	N/A
Bournemouth Airport	690,000 passengers/yr	O, N, C	1,565 tonnes (2015 data)
Southampton Airport	2m passengers/yr	D, O	230 tonnes (average)
Gloucestershire Airport	1,500 passengers/yr	B, F, G, H	N/A
Bristol Port	524.3ha	B, H, I, J, K	8.7 million tonnes
Port of Poole	28.2ha	O, N, C	820,000 tonnes
Sharpness Docks	18.3ha	B, H	432,000 tonnes
Portland and Weymouth	19.1ha	M, N, K	500,000 tonnes
Southampton Port	368.6ha	D, O	36 million tonnes

Journey Times

Connectivity to international gateways is a key driver for the Western Gateway economy, but the full potential of the ports and airports in the region is currently underserved by slow average speeds, high journey times and low journey time reliability. Due to unreliability many hauliers plan their movements outside the AM peak – for example, in Southampton, the busy time for container terminal HGV movements is 0400 – 0630 followed by a second peak early afternoon. Cruise activity also occurs outside the main AM /PM peak thus weekend traffic movements are also relevant for this sector.

Analysis of journey times along the A46/A36 from Bath to Southampton have shown a variability of up to 15 minutes and overall average speeds of around 33 mph. Similarly, along the A350 corridor north of Chippenham to the A35 north of Poole journey times vary from 2-2 ½ hours, with average speeds below 30 mph. These times and speeds not only cause problems from a transport perspective, they also increase the cost of transporting goods and services, reduce business-to-business connectivity, reduce available employment pools and constrain economic growth across the area. An investigation of journey times for road and rail to the gateways has been undertaken considering weekday AM peak journey times from the ports/airports to their respective city centres, movements to other key cities in the region, as well as journey times between the urban hubs themselves. The results have been generated using Google Traffic Data and are presented in Appendix A.

Bristol Port (via Avonmouth Station) and Southampton Airport (via Southampton Airport Parkway) both have direct rail links into their respective city centres; 28 minutes and 11 minutes respectively; all other ports and airports are connected by road and the vast majority of journey times between urban centres in the Western Gateway region are over one hour. Accessibility and connectivity to and from Dorset is a particular challenge due to the absence of motorways in the county. In addition, movements along the coast and north from the BCP area can be subject to significant congestion in the peak periods. This not only affects commuters, but also HGVs transporting freight from the ports as highlighted by the stakeholder interviews in Chapter 5. Of concern for Bristol Airport are the resilience issues facing the M5, A370 and A38, which can have a major impact on journey times when incidents occur and other routes are affected.

Table 3-2 and Table 3-3 illustrate the differences in journey times between the AM peak and interpeak on the same day; equal or shorter journey times are seen in all but two cases in the Western Gateway region. The greatest time difference is 22 minutes (29%) between Gloucester and Bristol in the interpeak compared to the AM, and the overall average journey time difference between urban areas is 9 minutes. One of the aims of this study is to consider how congestion on the network during peak periods causes problems for port connectivity, as moving freight to and from the docks, as well as cruise passengers, can be badly affected. The resulting delays can also have a negative impact on the towns themselves, with congestion causing air quality and safety issues.

Table 3-2 - Journey time differences between weekday AM and IP for urban centres

Start	Finish	AM	IP	Time saving
Bristol	Bournemouth	02:30:00	02:25:00	00:05:00
Bournemouth	Bristol	02:35:00	02:25:00	00:10:00
Bristol	Southampton	02:15:00	02:05:00	00:10:00
Southampton	Bristol	02:10:00	02:00:00	00:10:00
Bournemouth	Southampton	01:05:00	00:55:00	00:10:00
Southampton	Bournemouth	00:50:00	00:50:00	00:00:00
Bristol	Gloucester	01:00:00	00:55:00	00:05:00
Gloucester	Bristol	01:15:00	00:52:30	00:22:30
Poole	Bristol	02:25:00	02:15:00	00:10:00
Bristol	Poole	02:30:00	02:15:00	00:15:00
Bristol	Dorchester	02:05:00	02:00:00	00:05:00
Dorchester	Bristol	02:05:00	01:55:00	00:10:00
Poole	Southampton	01:25:00	01:07:30	00:17:30
Southampton	Poole	01:17:30	01:05:00	00:12:30
Dorchester	Southampton	01:37:30	01:25:00	00:12:30
Southampton	Dorchester	01:30:00	01:25:00	00:05:00
Poole	Bournemouth	00:37:00	00:23:00	00:14:00
Bournemouth	Poole	00:23:00	00:23:00	00:00:00
Gloucester	Southampton	02:20:00	02:05:00	00:15:00
Southampton	Gloucester	02:10:00	02:00:00	00:10:00
Gloucester	Bournemouth	02:40:00	02:25:00	00:15:00
Bournemouth	Gloucester	02:35:00	02:25:00	00:10:00
Poole	Gloucester	02:50:00	02:40:00	00:10:00
Gloucester	Poole	02:55:00	02:40:00	00:15:00
Gloucester	Dorchester	02:35:00	02:25:00	00:10:00
Dorchester	Gloucester	02:35:00	02:35:00	00:00:00
Dorchester	Bournemouth	01:07:30	00:52:30	00:15:00
Bournemouth	Dorchester	01:05:00	00:55:00	00:10:00
Dorchester	Poole	00:37:30	00:37:30	00:00:00
Poole	Dorchester	00:40:00	00:37:30	00:02:30

Source: Google Traffic Data

Table 3-3 - Journey time differences between weekday AM and IP for ports and urban centres

Start	Finish	AM	IP	Time saving
Bristol Port	Bristol City Centre	00:37:00	00:31:00	00:06:00
Bristol Airport	Bristol City Centre	00:37:00	00:24:00	00:13:00
Southampton Port	Southampton City Centre	00:08:00	00:10:30	+00:02:30
Southampton Airport	Southampton City Centre	00:19:00	00:19:00	00:00:00
Bournemouth Airport	Bournemouth City Centre	00:14:00	00:17:00	+00:03:00
Port of Poole	Bournemouth City Centre	00:30:00	00:26:30	00:03:30
Weymouth	Dorchester Town Centre	00:28:30	00:24:00	00:04:30
Portland Port	Dorchester Town Centre	00:40:00	00:33:00	00:07:00
Sharpness Docks	Gloucester City Centre	00:42:30	00:40:00	00:02:30
Gloucestershire Airport	Gloucester City Centre	00:19:00	00:16:00	00:03:00

Source: Google Traffic Data

4. Policy and studies

This chapter provides a brief overview of the studies and policies of relevance to this study. The aim is to capture national, regional and local policies and strategies which will inform international gateway policy and the associated connectivity requirements to support changes and development over time.

4.1. National Policy

The National Policy section is focused on the transport strategies and plans developed by the Government to inform maritime and aviation policy in the short to long term.

### National Policy Statement for Ports (2012)

The National Policy Statement for Ports (NPSfP) sits under the Planning Act 2008 and provides a framework for decision-making with regards to port development. It puts in context the contribution of the UK's ports to the national economy and sets out the Government's ambitions for new port infrastructure that will be necessary to meet the needs of future development.

In order to meet the Government's ambitions of sustainable development as laid out in the National Planning Policy Framework[7], new port infrastructure should be 'functionally and sustainably designed' and should also meet a variety of requirements as described in the NPSfP[8] including:

- Contribute to local employment, regeneration and development;
- Ensure competition and security of supply;
- Preserve, protect and, where possible, improve marine and terrestrial biodiversity
- Be adapted to climate change impacts;
- Enhance access to ports and the jobs, services, and social networks they create, including for the most disadvantaged.

NPSfP key policy objectives:

- To **encourage sustainable port development to cater for long-term growth** in volumes of imports and exports by sea, with a competitive and efficient port industry capable of meeting the needs of importers and exporters cost effectively and in a timely manner, thus contributing to long-term economic growth and prosperity;

- To allow **judgements about when and where new development might be proposed to be made on the basis of commercial factors** by the port industry to port developers operating within a free market environment and;

- To ensure **all proposed developments satisfy the relevant legal, environmental and social constraints** and objectives, including those in the relevant European Directives and corresponding national regulations.
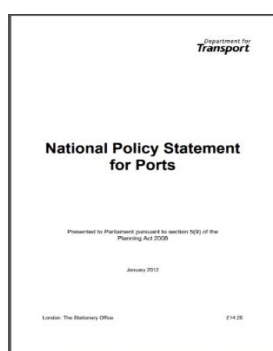
Overall the Government acknowledges that ports are responsible for their own commercial view and economic risks. Policies in the NPSfP stand in favour of port development schemes which promote wider economic development and work to provide clean, sustainable transport solutions for port access and freight movements with the aim of meeting future increases in demand. However, the Government's Marine Policy Statement[9] notes that although port development is a necessary and important aspect of the UK's future trading regime, "when decision makers are advising on or determining an application for an order granting development consent in relation to ports…they should take into account the contribution that the development would make to the national, regional or more local need for the infrastructure, against expected adverse effects." The cumulative impacts noted in relation to ports include the environmental effects of both development and increased competition, as well as reduced availability of sea space for the safe navigation of ships as the UK's shipping lanes (in particular the English Channel) become more crowded.

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[7] National Planning Policy Framework, Ministry of Housing, Communities and Local Government, 2019, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf
[8] National Policy Statement for Ports, DfT, 2012, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/3931/national-policy-statement-ports.pdf
[9] Marine Policy Statement, Department for Environment, Food and Rural Affairs, 2011, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69322/pb3654-marine-policy-statement-110316.pdf
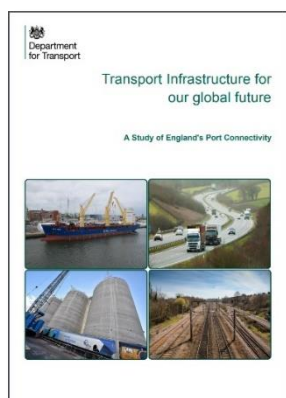
Transport infrastructure for our global future: A study of England's port connectivity (2018)

The Department for Transport (DfT) commissioned a study[10] into port connectivity in England – the ease of access to and from ports mainly using land-based transport networks. The purpose of the study was to identify physical pinch-points on the network and allow challenges facing port connectivity to be considered in both national and local decision-making.

Recommendations were made to safeguard future successes in the maritime industry considering the following aspects of ports and freight movements:

- Recognition of port and freight movements in cross-governmental processes and policy, and consideration of the barriers and opportunities that they face;

- Data-focused analysis of key economic corridors to ports, including modelling the way in which commodities move, their value to the economy and identifying the total of government spending on port-related projects;

- Consistent, regular and informed discussion between the DfT, Highways England, Network Rail and ports representatives to improve transparency and understanding in transport investment processes;

- A higher profile for collaborative working between ports using a defined communication strategy.

Regional case studies were also developed as part of this report, detailing headline investments and transport schemes that are being used to tackle the concerns highlighted by ports during the consultation. Of those within the scope of this study:

Solent

Headline investment:
- Southampton: £50m multi-storey car handling facility.

Access issues:
- Connectivity issues around the Solent focus on unsuitable roads which lack the capacity necessary for dealing with freight.
- Unreliable N-S connections to the SRN.

Transport schemes:
- A31 widening at Ringwood to improve capacity (RIS1 - planned)
- A34 junction improvements at Oxford to reduce pinch-points (ends November 2019)
- M3 J9 improvements and improved slip-roads at J10-11 and 12-14 (RIS1 - planned)
- M271/A35 Redbridge roundabout upgrade with dedicated left turn for port traffic (planned)
- Poole access improvements project (Growth Deal Funding – ends 2021)
- Southampton bridge repairs (Bridges to Prosperity – complete)

Bristol and the South West

Headline investment:
- Bristol: £20m in new car handling facilities and potential £800m new container terminal.

Access issues:
- Journey time and reliability issues.
- Lack of rail connections to ports.
- Resurfacing/rebuilding of roads necessary to sustain traffic load around Bristol.

Transport schemes:
- New M49 junction in the Avonmouth area (RIS1 - ends December 2019)
- Weymouth Western Relief Road (no planned scheme)
- Gauge clearance to W10 of Bristol to Birmingham rail line.

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[10] Transport Infrastructure for our global future: A study of England's Port Connectivity, DfT, 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/710030/transport-infrastructure-global-future-a-study-england-port-connectivity.pdf

Transport Investment Strategy (2017)

The Transport Investment Strategy[11] seeks to achieve four goals:

- Create a more reliable, less congested, and better-connected transport network that works for the users that rely on it;
- Build a stronger, more balanced economy by enhancing productivity and responding to local growth priorities;
- Enhance our global competitiveness by making Britain a more attractive place to trade and invest; and
- Support the creation of new housing.

The Strategy will ultimately focus on rebalancing the economy getting the best value out of the network. Improved transport links drive growth across the whole country, bringing together people and businesses. International gateways feature strongly as assets for a competitive, flourishing economy that is open to international markets. Although the majority of ports and airports are privately owned, "Government has a responsibility for ensuring that they are connected up to the existing national networks and that those networks are able to handle the road and rail traffic they generate."

The potential for the UK to remain active in global markets, especially after leaving the EU, relies on connections through ports and airports. Access to markets must be efficient and low-cost, including use of the domestic road and rail network to ensure that supply chains are complete. Reducing barriers to major hubs can affect the price of goods and improve the flow of trade, as well as preventing good business-to-business links.

Crucially for airports, the Transport Investment Strategy supports the need for an Airports National Policy Statement, which is currently under consultation.

Maritime 2050: Navigating the future (2019)

Maritime 2050[12] is the government's latest expression of its ambitions and vision for the maritime sector in the UK. It is built on seven themes which will be fundamentally important to the UK's maritime offering going forward, particularly in the face of a new political landscape and disruptive technologies that are changing the way that traditional markets are required to operate.

Much of the focus is on digitisation and technology, with industry involvement and competition within the smaller ports as a way to encourage innovation and adoption of these new forms of technology. Notably, the Government will work with the industry to develop a 'Maritime Innovation Hub' within a UK port to bring together expertise and drive technological improvements.

Port connectivity and supply chains feature under the 'Infrastructure' theme; use of real time data and connected infrastructure (Vehicle-to Vehicle (V2V) and Vehicle to Infrastructure (V2I) integrated systems) will provide for the transport needs of the future, as well as investment in transport infrastructure to enable a mode shift to rail and water-based modes of freight transport.

The government is keen to strengthen its direct links to ports with the creation of Port Economic Partnerships (PEPs), the first of which is Southampton. The aim of

Maritime 2050 strategic ambitions:

- Enhance the **UK competitive advantage** in maritime profession services;
- Lead the way in **clean maritime growth**;
- Strengthen our reputation for **innovation and technology**;
- Recognition as the standard of maritime **safety and security**;
- **Grow and diversify** the workforce;
- Promote a **liberalised trading regime**
- Support development in **maritime infrastructure**;
- Strengthen our reputation and presence in **international maritime fora**;
- Promote our **UK-wide maritime cluster** offer;
- **Showcase our maritime offering** to the world.

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[11] Transport Investment Strategy, DfT, 2017, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/624990/transport-investment-strategy-web.pdf
[12] Maritime 2050: navigating the future, DfT, 2019, https://www.gov.uk/government/publications/maritime-2050-navigating-the-future

the PEP scheme is to maximise benefit from public and private sector investment, while also improving collaboration at local, regional and national levels.

Recommendations are given for the short, medium and long term, including aspirations for devising a strategy for autonomous vessels regulation and the use of small ports as hubs of research and excellence.

A Licence to Operate: 'Enterprise, Development and Free Trade Zones' (2019)

The concept of freeports has become a major talking point in maritime strategy in the face of changes post-Brexit and its repercussions for the economy. A freeport is an area of the country (usually an airport or seaport) which, for customs purposes, is treated as an independent jurisdiction. The intention with introducing legislation of this nature is that it allows goods to be imported, have valued added within the freeport region, and then be exported again without incurring tariffs or customs duties. The all-parliamentary freeports group, along with Port Zones UK (a coalition of representatives from air and seaports across the UK), have laid out a series of recommendations for the adoption of ten freeport zones after Brexit, as a means by which to boost economic activity in these areas.

According to Port Zones UK, the introduction of freeport areas to a post-Brexit UK would:

- Reduce the costs of trade;
- Create a more attractive business investment environment;
- Shore-up manufacturing and processing facilities across a range of sectors;
- Improve employment and economic prospects in some of the most hard-to-reach areas of the UK;
- Lead to lower prices for UK consumers.

Three improvements to port strategy were suggested[13] in preparation for the inaugural freeport areas; these were recommendations that could be implemented immediately, without the need to pass new legislations. These were:

> The future trading relationship with the EU will define what is possible, as a customs-based EU-UK trade relationship would diminish the opportunities presented by freeports. If the UK achieves a free-trade agreement with the EU, they will be well-placed to encourage foreign investment through the use of freeport areas.

- Speed up the process of applying for and granting planning permission for port developments;
- Ensure better coordination of planning systems related to ports, and faster delivery of marine licences;
- Reduce delays from environmental legislation.

The government has already pledged to spend £30 million on ports in preparation for Brexit[14]; ports were asked to bid for a share of £10 million as part of the Port Infrastructure, Resilience and Connectivity competition to help increase capacity while maintaining fluidity in trading. Of all the ports that submitted a bid **Poole and Bristol** were successful within the Western Gateway area, as well as nearby Southampton.

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[13] A Licence to Operate: Enterprise, development and free trade zones, Port Zones UK, 2019, https://www.britishports.org.uk/system/files/circulars/a_licence_to_operate_port_zones_uk_september_2019.pdf
[14] https://www.gov.uk/government/news/government-pledges-30-million-to-bolster-ports-for-brexit

Aviation 2050: The future of UK aviation (Consultation document) (2018)

Aviation 2050[15] is in its most recent round of consultation before being published as the government's definitive policy on the future of the aviation industry in the UK. It will address seven strategic themes including changes in passenger behaviour, the impacts of climate change, shifting markets and disruptive technologies.

The strategy promotes airports as hubs for local economies and their benefits such as improving connectivity, providing employment and rebalancing the national economy. The consultation focuses on regional connectivity and transport hubs and supporting air freight at regional airports. There is also a commitment to seeking opportunities for automation, electrification and digitisation in the aviation industry, and understanding the barriers that currently prevent innovation and collaboration.

To maximise benefit to both airports and their surrounding communities, the government is keen to promote a modern, integrated, technology-led approach to surface access and freight movements at airports. Investment will be made into new technologies to allow this growth to happen sustainably and to maintain the UK's global leadership position in the aviation industry.

Aviation 2050: Making Best Use of Existing Runways (2018)

With demand for flights at London airports increasing, and the capacity being stretched beyond the forecast figures, the Airports Commission made a recommendation that the government should be supportive of all airports wishing to make best use of their existing runway capacity[16], subject to environmental issues being addressed. There are clear implications of encouraging aviation activity on the UK's carbon commitments, but the government believes these can be handled under two scenarios; a carbon cap, limiting aviation emissions to the Committee on Climate Change's planning assumption of 37.5Mt of CO_2 in 2050, or carbon trading, whereby the UK's aviation emissions could continue to grow provided that compensatory reductions were made elsewhere in the global economy.

As a result of further analysis to ensure that these carbon implications can be managed, the government believes there is a case for airports making best use of their existing runways; increases under 10mppa (million passengers per annum) will be dealt with through local planning authorities, as long as consideration is given to mitigation of local environmental issues by the airport. Local authorities are given the power to make decisions about the expansion of airports within their planning jurisdiction and allows them to assess applications according to the needs of the local community. Application to increase caps by 10mppa or more must be considered as a Nationally Significant Infrastructure Project, and would be considered on a case-by-case basis by the Secretary of State.

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[15] Aviation 2050: The future of UK aviation (A consultation), DfT, 2018,
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/769695/aviation-2050-web.pdf
[16] Aviation 2050: Making Best Use of Existing Runways, DfT, 2018,
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/714069/making-best-use-of-existing-runways.pdf

4.2. Regional Policy

The Regional Policy section is focused on the transport and economic plans from the relevant transport authority and Local Enterprise Partnerships. The regional plans from national agencies including Highways England and Network Rail have been captured in this section.

Western Gateway Regional Evidence Base (2019)

The Western Gateway established a Regional Evidence Base to accompany its submission to Government for Major Route Network (MRN) funding in July 2019. This Evidence Base helped to establish the economic growth narrative for the Western Gateway area and set out a series of key challenges which need to be addressed for the area to achieve its key objectives. This document is a key stepping stone in the establishment of a Western Gateway Strategic Transport Plan. The key challenges include:

- Improving Metro connectivity;
- Improving network resilience;
- Improving strategic connectivity;
- Improving access to Bristol Airport;
- Improving access to Bournemouth Airport and South Coast ports; and
- Improving digital technology and innovation.

Access to international gateways is therefore a key theme which has been identified by the Western Gateway and informed the approach to prioritising MRN schemes in the summer of 2019.

This resulted in a prioritised scheme being promoted for improving access to Bristol Airport. The scheme includes several junction improvements along the **A38 between Bristol and M5 Junction 22**. These improvements will improve access to the airport as well as enabling a number of strategic development sites to be delivered. Due to the regional significance of the airport this improvement scheme was also promoted by the Peninsula Transport STB. The scheme was approved by the Government for Outline Business Case development as part of the Chancellor's conference speech on 30th September 2019.

> **Western Gateway key objectives:**
>
> - Addressing the **poor connectivity of north-south links, particularly to and from the South Coast ports.**
> - Identify and address **transport-related barriers to the effective operation of labour markets.**
> - Supporting the development of **low carbon transport solutions.**
> - Establishing a **whole corridor approach to travel management** on strategic corridors.
> - Delivering transport infrastructure that enables **sustainable place-shaping.**

Highways England Route Strategies

The Solent to Midlands[17] and Birmingham to Exeter[18] Route strategies are two of 18 reports developed by Highways England which provides a view on the performance and pressures of strategically important corridors of the SRN. The Solent to Midlands route links the south of England to the Midlands and encompasses the ports of Southampton and Portsmouth. The Birmingham to Exeter route links the South West peninsula to the Midlands with a focus on the M5 corridor including Bristol Port and Airport.

Solent to Midlands

The Solent to Midlands route is an important focal point for future economic growth, with links to Southampton, the BCP area, Oxford Bicester and Warwickshire. It is already a congested part of the network, with further growth expected through the Harwell Science Park, Port of Southampton and Motorsport Valley at Silverstone. It is a key freight route, bringing cargo to and from the South Coast via the M27/A34.

Solent to Midlands Route Map
Source: Highways England

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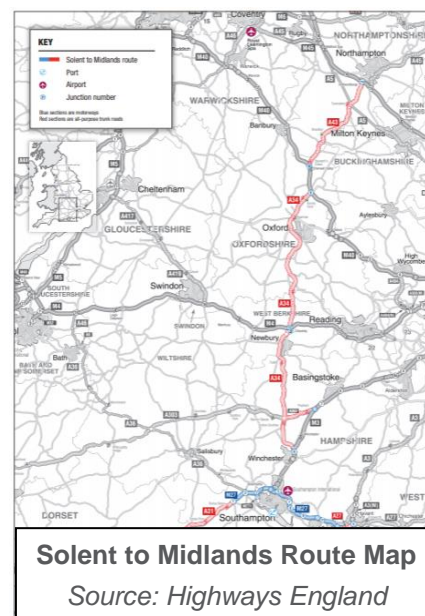
[17] Solent to Midlands Route Strategy, Highways England, 2015, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/600330/Solent_to_Midlands_Final.pdf
[18] Birmingham to Exeter Route Strategy, Highways England, 2015, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/416736/Birmingham_to_Exeter.pdf

The current capacity issues are concentrated on the M27, A34 to M40 Junction 9, and the A43 at the A5, M1 and M40 junctions; lack of junction capacity is a major issue on this route. The priority issues on this route are:

- Consideration of new routes or online capacity improvements west of Oxford;
- Addressing the poor network resilience, delays and lack of diversion routes; and
- Asset condition on the carriageways reaching a critical point in the near future.

Many of the planned upgrades have taken place, including A34 upgrades at Peartree and Botley in Oxford. Other upgrades are planned including A31 widening at Ringwood, improvement of M27 Southampton junctions particularly addressing safety issues at M27 Junction 8.

Birmingham to Exeter

The Birmingham to Exeter route is of national significance, connecting the UK's second city through to the south west peninsula, and intersecting with the M4 and M6 motorway links to London, Wales and the North. This route strategy highlights important issues about seasonal M5 traffic which creates a significant issue in the summer months, as well as year-round capacity issues around major urban centres such as Birmingham and Bristol.

Large housing and employment sites in the region will add additional pressure to the M5 and A46 routes to the Midlands and the South West. The opening of Worcester Parkway station may encourage a mode shift to rail which will remove some of the demand from the corridor, but as growth in the region continues, online solutions and demand management will need to meet the congestion issues as further widening of the corridor is unlikely due to its environmentally protected surroundings.

Network Rail Route Studies

The Network Rail Long Term Planning Process (LTPP) helps to inform passenger and freight rail strategy across the country. The Western Gateway area is influenced by both the Western[19] and Wessex[20] Route Studies and the associated Strategic Plan for each route area. The documents present a number of choices and potential investment priorities identified by the rail industry for the next Control Period (CP6, 2019 – 2024) and longer-term options for CP7 (2024-29). Investment priorities are influenced by a range of issues including current and future demand for both passenger and rail freight services. The investment priorities relevant to the Western Gateway area include:
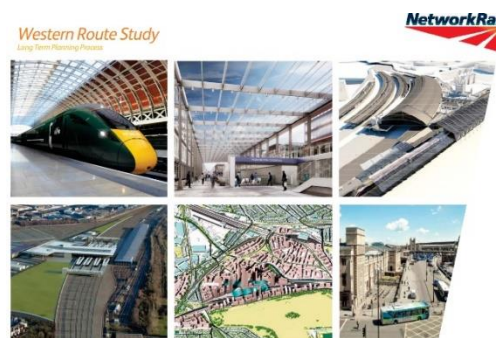
Western Route Study

- Bristol East Junction remodelling;
- Bristol West Junction remodelling;
- Bristol Temple Meads Masterplan; and
- Westbury and Gloucester area Re-signalling.

Wessex Route Study

- Additional paths on the Southampton – Winchester – Basingstoke – Reading route for regional passenger and freight traffic helping to serve the Port of Southampton;
- Weymouth Mainline HV switchgear renewals (Romsey Junction to Bournemouth);
- Weymouth Mainline signal renewals (Brockenhurst to Bournemouth); and
- Heart of Wessex Line track renewals.

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[19] Western Route Study https://cdn.networkrail.co.uk/wp-content/uploads/2016/11/Western-Route-Study-Final-1.pdf
[20] Wessex Route Study https://cdn.networkrail.co.uk/wp-content/uploads/2016/12/Wessex-Route-Study-Aug-2015.pdf

West of England Joint Transport Study (2017)

The West of England local authorities commissioned a study to develop a Transport Vision for the West of England that would act as a comprehensive study of all of the modes of travel and transport hubs in the region, as well as suggesting a 'programme of complementary schemes that are designed to achieve a significant mode shift from the car and ensure a more efficient, resilient transport network'[21].

Surface access to both Bristol Port and Bristol Airport are addressed in this document; Bristol Port is the only deep-sea port in the UK which has direct road and rail access from all directions, whereas Bristol Airport has relatively poor surface access, with limited public transport with no direct motorway or rail connections. One of the priorities within the Transport Vision is therefore to improve strategic connectivity to both the Port and the Airport through a variety of schemes which are summarised in Table 4-1.

Expansion of both the Port and the Airport are expected to have major impacts within the region in the future, with an increase in passenger numbers and freight leading the need for alternative access solutions. Bristol Port has identified that it is closer to a higher number of the UK's container markets than ports in the east and south of England and is therefore in a competitive position with respect to attracting new business, as overland transport is expensive and time-consuming. Combined with the development of a Deep-Sea Container Terminal, Bristol Port is set to become of the UK's most important maritime and industrial assets.
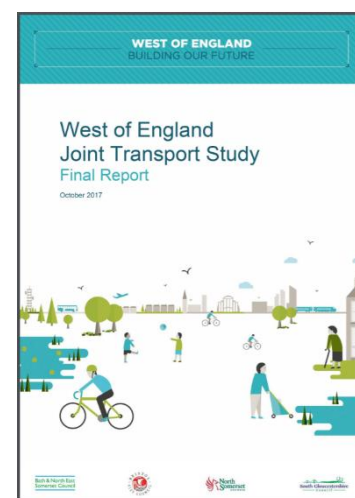
Table 4-1 - Surface access improvement schemes for Bristol Port and Airport

Scheme	Description
M5 Junction 21A to A38 Corridor	New multi-modal corridor, connecting new M5 J21A with the A38, and improvements on the A38 between Langford and South Bristol to improve airport access and network resilience.
Mass Transit to Bristol Airport	Fully segregated mass transit connecting Bristol Airport and South Bristol with the city centre.
M5 Junction 19 Improvements	Capacity improvements at M5 J19 to address problems of queuing traffic on the M5 southbound slip and delays joining the M5 northbound.

West of England Draft Joint Local Transport Plan 4: 2019 – 2036

The West of England Joint Local Transport Plan[22] highlights several major challenges in the West of England in delivering a modern, efficient and sustainable transport strategy. Two thirds of the population of the West of England commutes by car, the annual cost of congestion is around £300 million, and a 25% increase in the number of trips is forecast by 2036. Beyond the problems within the area, the West of England serves the rest of the UK, particularly the wider South West, South Wales and the Midlands, in order to meet its own growth and development targets. With major international gateways and freight hubs within the region the Local Transport Plan has two objectives concerning connectivity beyond the West of England:

B1: Enhance competitiveness of major gateways and improve connectivity to international markets.

B2: Improve strategic resilience of the network for all trips.

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[21] West of England Joint Transport Study, WECA, 2017, https://www.jointplanningwofe.org.uk/gf2.ti/-/757442/31727173.1/PDF/-/JTS_Final_Report.pdf

[22] West of England Draft Local Transport Plan 4, WECA, 2019, https://westofengland-ca.moderngov.co.uk/documents/s702/13b%20-%20Draft%20West%20of%20England%20Joint%20Local%20Transport%20Plan%20Nov%202018.pdf

Policy B1

Support Bristol Airport through the following schemes:

- Improve connectivity along the A38 corridor;

- Mass transit to Bristol City Centre;

- Unlock development in the Mendip Spring Area;

- Work with Bristol Airport to define a low-carbon, accessible, integrated and efficient transport network for passengers and staff;

- Support Bristol Airport's aim of carbon neutrality by 2030; and

- Support the inclusion of freight in the Bristol Airport Surface Access Strategy by identifying sensitive freight routing and delivery periods to minimise the impact if road freight is the only option.

Manage issues impacting efficiency at Bristol Port including:

- Journey time and reliability issues on the M5, especially in the PM peak and in the summer period;

- Resurfacing and rebuilding parts of the A403 to support increased trip rates;

- Lack of rail connectivity and conflicts with passenger rail services where these arise; and

- Onward journey travel options from Bristol Cruise Terminal
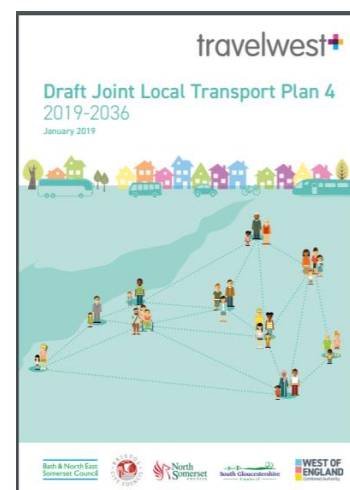
Policy B2

Issues for strategic resilience have been identified as follows:

- The SRN is limited in providing for longer distance north-south journeys passing through the region; and

- Poole Port completed its £10 million expansion programme in 2018 which will put increasing amount of freight and traffic onto the A350.

The main interventions that will improve resilience of the network across the region have been suggested:

- Maximising opportunities arising from improvements to the SRN and rail network;

- Managing cross-boundary freight movements and promoting efficiency through consolidation centres and use of low emissions vehicles;

- Promote coach use as a method of sustainable access to Bristol Airport; and

- Managing a shift of freight from road to rail or water, and designating preferred freight routes through a Strategic Freight Network in order to balance the requirement for distributing goods with mitigating the adverse impacts of vehicles.

West of England Local Industrial Strategy (2019)

The West of England Local Industrial Strategy (LIS)[23] has four key priorities at its heart:

- Cross-sectoral innovation;

- Inclusive growth;

- The productivity challenge; and

- Innovation in infrastructure delivery.

The West of England is home to seven Enterprise Areas, as well as four universities, and Bristol Port and Airport. The region has a strong reputation for advanced engineering, aerospace and digital industries, as well as the research and innovation-led strengths of its universities, which forms the basis for its productivity and growth solutions.

In conjunction with the Joint Local Transport Plan (JLTP), the aim is to unlock underperforming areas by improving connections with rural communities and between urban hubs using affordable, sustainable transport solutions. The ultimate goal is to maintain mobility while significantly reducing private car ownership. Building on the JLTP, a Living Lab concept has been developed, creating a space in which it will be possible to test

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[23] West of England Local Industrial Strategy, 2019, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/818989/1907_VERSION_West_of_England_Interactive_SINGLE_PAGES.pdf

future transport innovations as part of the successful Future Transport Zone bid, and put the region on the map with regards to the future mobility industry.

West of England Strategic Economic Plan 2015-2030

The West of England SEP focuses largely on economic growth by focusing on the region's strengths in aerospace, engineering and the knowledge economy, with international connectivity as a supplementary benefit which supports these economic objectives.

At the time of writing, the only transport scheme mentioned in relation to port and airport connectivity to Bristol is the addition of a new motorway junction on the M49. However, further schemes have been identified in the West of England joint strategies as detailed above. The purpose of the new M49 junction is to improve access to the Avonmouth-Severnside Enterprise Area and reduce the amount of HGV traffic on the local road network to improve resilience. The programme is currently underway and offline construction was completed in December 2019.

Bournemouth, Poole and Dorset Local Transport Plan 3: 2011 – 2026

The Bournemouth, Poole and Dorset Local Transport Plan[24] is the first joint plan across Dorset and is therefore in a unique position to tackle cross-boundary issues and make the most of opportunities that may arise from these areas working together. Dorset is an area with significant environmental assets which act both as a positive for the quality of life in the area, but also as a physical constraint to growth. It is generally a low wage area, with lower than average productivity, suffering from increasing congestion and connectivity issues.

In line with Dorset's Green Knowledge Economy, the LTP has a focus on sustainable development and car-free transport where possible, with plans to provide alternatives to the car by improving the public transport offering, making it more affordable, and providing users with the information to make more sustainable transport choices. There is also an emphasis on making the most of the existing network with efficiency improvements and maintenance.

This includes policies that directly impact the connectivity to the region's international gateways.

LTP3 Goals:

1. Support economic growth by improving the reliability, efficiency and connectivity of the network
2. Tackling climate change by reducing overall levels of emissions of carbon dioxide and other greenhouse gases from travel and transport
3. Equality of opportunity including access to services with the desired outcome of a fairer society
4. Better safety, security and health by reducing the risk of death, injury or illness arising from transport, and promoting active transport
5. Improved quality of life by enhancing the quality, local distinctiveness and diversity of Dorset's built and natural environment.

Policy LTP N1

Strategic transport delivery priorities are as follows:

- Ensuring that connections between Dorset and other parts of the UK are resilient to disruption;
- Ensuring high quality surface access to Bournemouth Airport to support its sustainable development and expansion; and
- Providing reliable access to the ports at Poole, Weymouth and Portland and support growth in passenger and freight services.

Policy LTP N2

Strategic network improvements will support efficient and reliable movement of freight within Dorset, which is seeking to improve the environmental performance of the industry as follows:

- Supporting the role of the ports for water-based freight. The development of 'hubs' in the distribution network will be sought to promote greater use of inland intermodal freight and to maintain efficient links with Europe; and

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[24] Bournemouth, Poole and Dorset Local Transport Plan 3, 2011, https://www.dorsetcouncil.gov.uk/roads-highways-maintenance/documents/improvements-and-transport-planning/ltp3-bournemouth-poole-dorset-strategy-document-final.pdf

- Maximising opportunities to enhance rail freight, including development and expansion of rail freight terminals, particularly at the Port of Poole.

Beyond these policies, plans for the Poole Bridges Regeneration Initiative have been successfully completed, with the completion of the Twin Sails Bridge allowing access to a large brownfield site for further development, as well as improving freight access to the port.

Dorset LEP Strategic Economic Plan

The Dorset LEP covers a key area of the South Coast including Bournemouth, Poole, Weymouth and Portland. The Strategic Economic Plan[25] has four key themes as shown on the right.

The LEP has ambitious plans for all of its gateways, including transformational change at Port of Poole, Bournemouth Airport to become the largest employment site in Dorset, and a signature transport and regeneration project which will link rail and sea travel with homes and economic growth.

At Bournemouth Airport there is a focus on the A338, A31 and other link and access roads which will be upgraded in order to provide better connectivity around the site and allow for the range of services provided at the airport to be expanded. The Bournemouth International Growth Programme is a package of schemes costing almost £60m which will reframe Bournemouth Airport as a nationally crucial, economically productive area. The upgrades are ongoing but include access improvements to the road network around the airport which aim to release employment land, as well as increased broadband capacity for the airport and wider catchment areas for passengers as a result of these improvements.

Competitive	Connected
Responsive	Talented

Dorset SEP themes

The Port of Poole will also benefit from improved local and regional road and rail networks to unlock the 'Poole Port Regeneration Site'; part of this work will include solutions to A31/A35 capacity issues and upgrades to support freight traffic, improvement of Poole Bridge traffic access and a planned Port Road Link to allow smoother transition from the sea to the SRN.

Dorset LEP has acknowledged that not all areas of Dorset have benefitted economically from growth in the area – they have committed to promoting 'Destination Portland' to increase tourist footfall and open up other opportunities for Weymouth and Portland. The SEP sets out the following requirements to tackle economic and social issues in the area:

- Development of port infrastructure at Portland to include a major new berth for larger cruise liners, container ships and tankers;
- Re-opening of the heavy rail link from the Network Rail lines at Weymouth;
- The 'Yeovil South Chord' railway link to connect the Exeter to London line with the Bristol/Dorchester/Weymouth lines, improving port connectivity; and
- The Western Relief Road – a bypass linking A354 Ferry Bridge and the B3157 Granby Way, providing relief for Wyke Regis.

The draft Dorset Local Industrial Strategy was submitted to Government in December 2019. This will build on the work of the SEP to establish a longer-term economic vision for the county including the need for an efficient, sustainable, technology driven transport system.

Dorset LEP Local Industrial Strategy

The Dorset LEP LIS takes a total place approach, targeting new opportunities for the region whilst building on existing social, economic and environmental foundations to strengthen the region's resilience and progression. The LIS is a collaborative approach between the LEP, BCP Council and the Dorset County Council, with the aim of bringing together all parts of the region to celebrate what Dorset has to offer and its future potential as a result. The Dorset economy is worth around £17bn, with a strong asset base including the ports and airports, research strengths in its local Higher Education Institutions, and sector strengths including advanced
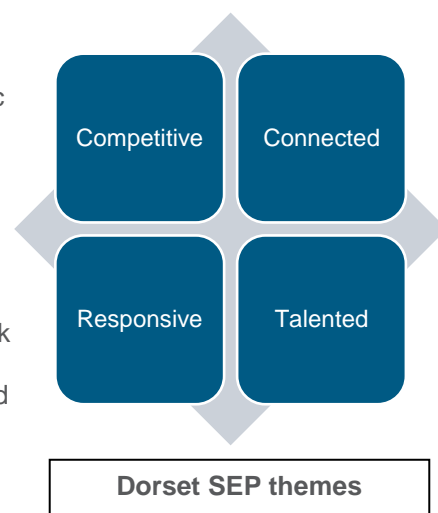
[25] Transforming Dorset: Strategic Economic Plan, Dorset LEP, https://www.dorsetlep.co.uk/userfiles/files/6342%20LEP%20Strategic%20Economic%20Plan%20v3%20LOW%20RES.pdf

manufacturing and engineering, financial and professional services, agri-tech and defence and technology. Although employment is high, there is a consistent £2.5bn output gap between Dorset at the UK average, and the LIS seeks to address this issue.

Ultimately, the ambition is that by 2030 Dorset will be:

- A UK lead in the One Health approach and Aquaculture capital of the UK;
- A key defence hub within the UK, and a leader in defence tech and commercialisation;
- Leading a digital and cultural transformation across all communities.

The region's ports and airport are particularly important for the defence hub aspect of this strategy, with specialist marine and aerospace facilities throughout the area acting as research stations and testing environments for new technologies

In the emerging Aquaculture industry, Portland Port has opened up a partnership with the Dorset Seaweed Company Limited in order to exploit opportunities that have arisen from interest in the culture of seaweeds for cosmetics, health foods, pharmaceuticals, biofuels and fertiliser. Portland Port is taking part in an initial project to grow seaweed and cultivate shellfish species, with the prospect of further expansion inside the Port.

Various transport challenges are mentioned in relation to unlocking the potential opportunities identified in the LIS. These include:

- Sub-standard inter-regional and intra-regional transport connectivity, particularly to London, Bristol and the Midlands/North and to/from the West and South Dorset;
- A lack of sustainable transport solutions;
- Pressure on existing transport infrastructure from population growth; and
- Inconsistent access to public transport across the region.

The Dorset LIS prioritises investment in a network of effective transport hubs alongside investment in unblocking major strategic road routes with historic congestion problems. On the rail side, there is a commitment to higher frequency and capacity of passenger services. Improved digital connectivity will also replace some of the need for frequent travel, especially for business purposes.

SWLEP Local Industrial Strategy

The Swindon and Wiltshire area has an economy worth over £18bn and an employment rate well over the national average at 80%. It is home to many historical and cultural articles of national significance, and in present times has become a strategic location for businesses to settle, with links to the M4 and the Great Western Main Line.

The SWLEP LIS[26] builds on these features with the intention of supporting inclusive development aspirations and boosting the local economy and productivity over the next decade.

The *Ideas* theme is an important one for the Swindon and Wiltshire region, with research and innovation capacity at research facilities such as the Science Museum at Wroughton and at Porton Down. Businesses including Dyson also speak to its capacity for high value manufacturing and engineering R&D in particular. These ambitions will be supported by a consortium of businesses forming a federation to tackle both the lack of STEM professionals in the area, and the lack of a major university campus to provide businesses with skilled graduates.

The *Places* theme, as for much of the West of England, is key; there is a focus on the value of the natural capital within Wiltshire and the need to manage growth of both urban areas and the tourism economy sustainably to protect these environmental assets. A multi-modal corridor called the Great West Way has been developed and is supported by Visit England, with the intention of reducing the barriers to tourism growth, improving productivity in this traditionally low-value sector, and enhancing the region's green credentials.

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[26] SWLEP Emerging Local Industrial Strategy, SWLEP, March 2020, https://swlep.co.uk/docs/default-source/strategy/industrial-strategy/emerging-lis-v0-1-master-31032020.pdf?sfvrsn=4fe0ce5e_10

## Gloucestershire Local Transport Plan (2015-2031)

The current Gloucestershire LTP is under review. The Draft LTP places a strong emphasis on the importance of modal shift and need to encourage and provide the necessary means for the residents and visitors of Gloucestershire to travel sustainably. It also references the importance of digital connectivity to reduce the need for travel where possible. This reduction in demand aims to help the county meet its carbon neutral ambitions and ensure Gloucestershire is actively doing its part to minimise the impacts of climate change. Within the current 2015-2031 strategy there is not a direct reference to Sharpness and Gloucestershire Airport the prioritised highway schemes at M5 Junction 10 as well as the A417 Missing Link will help to enhance access to the Airport and support Gloucestershire's growth ambitions.

Gloucestershire Local Industrial Strategy (2019)

GFirst LEP created its LIS[27] in line with the national industrial strategy, with the aim of framing Gloucestershire as a magnet county which is healthy and productive and retains its young people and highly skilled residents. Gloucestershire itself is a cyber-tech hub, and the LIS capitalises on this through its links with GCHQ and the universities. It also announces its ambitions to lead the way in the UK regarding 'the green imperative'; the challenges in facing the climate emergency and growing sustainably.

In line with this, Gloucestershire Airport 'has aspirations to be one of the greenest airports in the UK' – there is currently research into electric flight underway on the site along with other specialised businesses. It is the UK's busiest General Aviation airport and therefore a key economic asset to Gloucestershire.

One of the main transport needs within the county is a mass-transit transport solution to provide a reliable alternative to cars and reduce pressure on the system during peak times. This is also important for connecting the airport to Gloucester and Cheltenham. The LIS also identifies ongoing work with Western Gateway and Midlands Connect to develop the east-west and north-south connections from the county. This link to the Midlands is important in accessing the manufacturing and exporting strengths of the Midlands and demonstrates the importance of the Western Gateways ports in a national context.
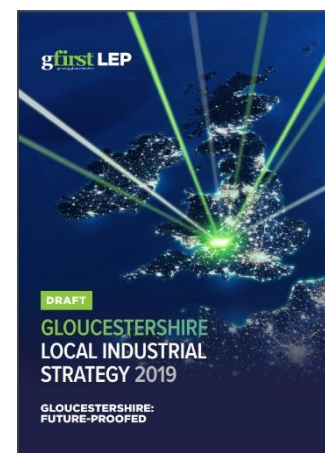
Transforming Solent: Solent Strategic Economic Plan

The Solent SEP places a strong emphasis on infrastructure as both an asset of the region and an impediment to growth[28]. The two motorways serving Southampton and Portsmouth are the M3 and M27, both of which operate at or near capacity at peak times, and struggle to sustain the increased HGV traffic as well as rising vehicle numbers in general. The Solent LEP includes two large cities in close proximity to each other (Portsmouth and Southampton) both of which have thriving ports, in addition to Southampton Airport, making it a major international gateway to the UK.

There is a lack of direct rail connection between Portsmouth and Southampton ports via the airport, leading to longer journey times between the coast and Southampton Airport. Major congestion on the roads between the two cities also increases business costs, impacts on productivity and constrains output in the region. Investment in the strategic highway network including the M27 Smart Motorway scheme is hoped to improve access to the international gateways from the east.

The LEP suggests a number of transport interventions to alleviate these issues:

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[27] Gloucestershire Local Industrial Strategy, 2019, https://www.gfirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf
[28] Transforming Solent: Solent Strategic Economic Plan 2014-20, https://solentlep.org.uk/media/1121/solent_strategic_economic_plan.pdf

Access to the International Gateway at the Port of Southampton and Southampton City Centre	Estimated Cost: £75m	A requirement for transport infrastructure to improve access to the International Gateway at the Port of Southampton and for development coming forward in Southampton City Centre (including Royal Pier and Itchen Riverside)*
Marchwood Military Port Access	Estimated Cost: £Unknown	Scheme to be developed following confirmation from MoD of the exact nature and timing of disposal and confirmation of end use.
Access to International Gateway at the Port of Portsmouth (Naval Dockyard and Commercial Port) and Portsmouth City Centre	Estimated Cost: £45m	A programme of interventions to include reconfiguration of the city centre road layout to improve network operation, an extension to Tipner Park & Ride, and Bus Rapid Transit, which will strengthen access to the Naval Base, Commercial Port and city centre. This will enable the local transport network to accommodate the demands imposed by the arrival of the two QE Class Aircraft Carriers from 2017.
Access to International Gateway at Southampton International Airport and adjacent strategic development opportunities at the former Ford site and Eastleigh Riverside South	Estimated Cost: £50m - £80m	Highway improvements from M27 Junction 5 to the former Ford manufacturing plant, Southampton International Airport and Eastleigh Riverside South growth hub, including new access roads to unlock new development.

Indicative pipeline of transport capital infrastructure projects to unlock future growth opportunities
Source: Solent LEP

4.3. Local Policy

The Local Policy section is focused on the planning authorities in close proximity to the international gateways of the area.

Bristol City Local Plan (Draft)

The Bristol Local Plan[29] is currently under consultation and remains in draft form.

The updated Bristol Local Plan focuses on accommodating growth sustainably and inclusively, with the aim to deliver 33,500 homes by 2036 and update the transport network. The plan identifies high-density, well-designed urban living as being key to the success of the city over the plan period. North Bristol is dominated by Bristol Port, and 640 hectares of land have been reserved for industry, warehousing, energy and port development in Avonmouth and within Bristol Port, covered in **Draft Policy E5.**

Most of the transport offering for the city is covered in the TravelWest JLTP4 in the previous section. However, there are plans for Temple Meads station to be upgraded to act as a regional transport hub.

North Somerset Core Strategy (2012)

The North Somerset Core Strategy was adopted as part of the Local Plan in 2012. A new local plan consultation period is due to begin in spring 2020.

The Core Strategy is underpinned by six priorities shared with the Sustainable Community Strategy:

- Tackling disadvantage and promoting equality of opportunity;
- Developing strong inclusive communities;
- Ensuring safer communities;
- Improving health and wellbeing;
- Developing a prosperous economy and enterprising community; and
- Living within environmental limits.

The Core Strategy visions themselves are spatial in nature and seek to provide for the local context of different areas, as well as outlining community needs and aspirations. The North Somerset Vision focuses on its coastal setting and links to the port, noting that development in this region will need to be responsive to the challenge of climate change and future planning of both the Royal Portbury Dock and Bristol Airport will be guided by the balance between the advantages of economic growth and the need to control impacts on communities and the environment. Throughout the plan there is a clear emphasis on the need to consider environmental impacts of growth, particularly from large institutions such as the Airport, the Port and new sustainable settlements.

Both the airport and the port are mentioned under the 'delivering a prosperous economy' theme, in policies **CS23** and **CS24**. The Strategy is clear in its need for satisfactory resolution of environmental issues before any further development is agreed. Surface access issues will also need to be addressed in the airport masterplan. The Royal Portbury Dock has land safeguarded at Court House Farm and Easton-in-Gordano/Portbury for uses that demonstrably cannot be accommodated elsewhere, but notably 'further expansion of the Port within North Somerset is not supported'.

The Core Strategy notes that the government has written policies in favour of regional port and airport expansion to minimise 'leakage' of customers to other regions but pitches this strongly against arguments for considered development in the face of climate change.

Bristol Airport Masterplan Consultation Stage II (2018)

Bristol Airport is currently going through the consultation stages for its new master plan[30]. The consultation document is underpinned by five pillars for future development:

- **Aviation**: The airport will work to maximise the benefits that arise from new aircraft technology, including an expansion of its route options and improved

[29] Bristol Local Plan Review: Draft Policies and Development Allocations, Bristol City Council, March 2019
https://www.bristol.gov.uk/documents/20182/34536/Local+Plan+Review+-+Draft+Policies+and+Development+Allocations+-+Web.pdf/2077eef6-c9ae-3582-e921-b5d846762645
[30] Bristol Airport Masterplan Consultation Stage II, Bristol Airport, 2018, https://www.bristolairport.co.uk/about-us/who-we-are/our-future/master-plan

environmental performance. It will seek to be an enticing and welcoming option for those visiting the South West and Wales.

- **Economic impact**: The airport aims to become a 'centre of aerospace excellence' with a masterplan, growth strategy and the ability to support long-term inward investment.
- **Green Belt**: The airport will work to release operational and related land from Green Belt designation through the local plan process. However, the importance of this environment to North Somerset is understood and green infrastructure proposals with be made in partnership with the planning authority and the community to protect and enhance the environment.
- **Sustainable growth**: Bristol Airport seeks to become carbon neutral by 2030, and a zero-carbon operation by 2050; it has published a Carbon Roadmap to outline how it intends to achieve these targets. As part of the sustainability charter is will also work to protect local biodiversity, address noise and air quality concerns and reduce waste.
- **Surface access**: This is a major point of concern for both the airport and its customers, especially considering forecasted passenger growth. A new Airport Surface Access Strategy is being developed, which aims to deal with off-site parking and capacity issues, facilitate further road improvements and mass transit options and targets a long-term modal shift in transport movements to the airport by the mid-2030s.

Bristol Airport will be taking a phased approach to development and aim to deliver the necessary infrastructure for expansion to 12 million passengers per year entirely within the existing footprint of the airport. There is also the expectation of some development to the south runway in the future, though most of the operational development will continue to the north of the site.

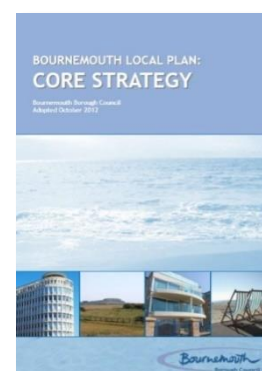## West Dorset, Weymouth and Portland Local Plan (2015)

The West Dorset, Weymouth and Portland Local Plan[31] identifies transport access as a key issue due to no motorways being present in the plan area and the lack of public transport provision. The effect of seasonal traffic is also a key issue in causing congestion although recent strategic highway investment of £100m has improved travel time within the A354 Dorchester to Weymouth corridor. The plan sets out the ambition to deliver significant investment and regeneration of key sites and infrastructure whilst protecting the spectacular landscapes in the area.

Weymouth Harbour needs to manage traffic flows and parking for different uses. It is a challenge managing access and parking for activities such as the ferry terminal, beach, and shopping to ensure that businesses can be sustained and developed. Portland Harbour is identified as an important regional facility providing a key source of employment with the potential to play a more significant role as identified in the Dorset SEP. Approximately 35 hectares of port land is consented for B1, B2 and B8 uses with an additional 17 hectares of seabed with consent for marine works including reclamation to create dockside operational land.

Bournemouth Local Plan (2012)

A new Local Plan for Bournemouth, Christchurch and Poole (BCP) is currently being developed following the recent local government restructuring. A BCP wide Local Plan will need to be adopted by 2024.

The current plan approved in 2012[32] highlights the importance of Bournemouth Airport to the local economy in providing jobs and access to international markets. Further employment opportunities at Bournemouth Airport, primarily at Aviation Park, are likely to come forward towards the latter part of the Plan period up to 2026 but are heavily dependent on a new link road from the A338 (Wessex Way) being delivered through the BIG programme to make it a more accessible location as a major employment site.

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[31] West Dorset, Weymouth and Portland Local Plan https://www.dorsetcouncil.gov.uk/planning-buildings-land/planning-policy/west-dorset-and-weymouth-portland/adopted-local-plan/pdfs/alp/west-dorset-weymouth-portland-local-plan-2015.pdf
[32] Bournemouth Local Plan https://www.bournemouth.gov.uk/planningbuilding/CoreStrategyDocuments/Core-Strategy-(1).pdf

Poole Local Plan (2018)

The Poole Local Plan[33] sets out the Council's strategy for the delivery of homes, jobs and infrastructure in Poole to 2033. A new Local Plan for Bournemouth, Christchurch and Poole (BCP) is currently being developed following the recent local government restructuring. A BCP-wide Local Plan will need to be adopted by 2024. Within the current adopted plan, managing transport congestion and the delivery of jobs and opportunities at the Port of Poole is a key policy as identified under **Policy PP19**.

The Plan identifies the masterplan developed by the port owner (Poole Harbour Commissioners) which details proposals for the port's development over the next 25-30 years with the aim of becoming a regionally significant feeder port. A crucial part of this strategy is already underway to create a new south-facing deep-water quay enabling larger cruise ships to visit the port enhancing local tourism. To remain a competitive and commercially viable operation, the masterplan also identifies the importance of diversifying into other commercial sectors such as marine-related industry and leisure uses (e.g. berths for leisure craft, marine visitor facilities and events).

Poole Harbour Masterplan (2019)

The Harbour Masterplan[34] aims to clarify the medium-long term strategic planning goals of the port, assist with local planning and transport bodies and inform stakeholders as to how the port is intended to develop over the coming years. The Plan highlights the need to diversify its market, which was once based largely on cross-channel ferry activity. The port handles small commercial vessels, however its physical restrictions, lack of connectivity in Dorset and lack of an industrial hinterland is cited as impacting the ability of the port to expand commercially.

The priorities for future expansion are focused on a Marine Centre and leisure facilities, which have proven very successful for the port in recent times. There are concerns about traffic, congestion and parking associated with these options and further car parking capacity is proposed to mitigate this. It is also proposed that, although the port rail link is currently out of operation, it will be safeguarded with the intention of making better use of this facility in the future, in response to the increasing congestion from HGVs around the port. The Commissioners of the port are currently engaged in marketing initiatives to attract short sea container shipping customers to the port to encourage a new stream of cargo handling, and a functioning rail link is likely to make an increased cargo throughput more viable. Overall, the aim of the Plan is to improve the economic output of Poole Harbour and maximise its opportunities as a major leisure port on the South Coast.

Southampton Core Strategy

Southampton's Amended Core Strategy[35] covers the period up to 2026 and seeks to consolidate the city as the South Hampshire region's primary economic driver while also focusing on tackling climate change and promoting sustainable development in line with the NPPF. The document has 20 strategic objectives focusing on prosperity, quality of life and sustainability.

Strategic objective S4 supports the operation of the Port of Southampton as an international gateway and as a port which makes a contribution to both the national and local economy. This is directly supported by policy CS9, which considers how the Council will facilitate growth directly relating to the Port. Two strategies are suggested:

- Refusing planning permission for non-port-related developments within the port confines, except which are integral to the operating of a cruise line terminal within the city centre and do not significantly increase the port footprint; and

- Supporting an increase in transhipments, rail freight to/from the port and appropriate road improvements leading to the port where these also serve the transport needs of the city centre.

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[33] Poole Local Plan https://www.poole.gov.uk/planning-and-building-control/planning-policy-and-guidance/poole-local-plan/
[34] Poole Harbour Masterplan, Poole Harbour Company, 2019, https://www.phc.co.uk/wp-content/uploads/2019/10/phc-masterplan.pdf
[35] Southampton Local Development Framework Core Strategy Development Plan, Southampton City Council, 2015, https://www.southampton.gov.uk/policies/amended-core-strategy-inc-cspr-final-13-03-2015_tcm63-371354.pdf

Eastleigh Borough Local Plan (Draft)

Southampton Airport sits within the Borough of Eastleigh, and is therefore covered by Eastleigh Borough Council's Local Plan. The three overarching priorities of the plan are:

- A green borough;
- A healthy community; and
- A prosperous place.

Policy E9[36] of the Local Plan states that the borough will support the airport's expansion and development provided that any proposals to this effect:

- Are necessary for economic growth within the borough, passenger safety and experience or necessary improvements for operational efficiency;
- Would not physically or visually diminish the countryside; and
- Are supported by transport assessments.

The Local Plan balances the need for economic growth and a desire to support the communities who work at the airport with a strong environmental message, stipulating that although expansion of the airport will not be impeded by surrounding development, any expansion that does happen must be within its environmental constraints.

Southampton Airport: A Vision for Sustainable Growth

The surface access strategy for the Southampton Airport masterplan[37] aims to reduce private vehicle access and focus on measures that encourage passengers to use public transport. The modal split targets are shown in

Table 4-2. Improved rail connections are seen as the main opportunity for growth, including rail links to Fareham and Portsmouth, and a new station on the Botley line with shuttle bus access to Southampton Airport terminal and Parkway station. Chapter 9 of the plan reiterates the commitment to transport improvements; '[Southampton Airport] …are committed to working with local authorities to reduce road congestion and push for improvements in rail and public transport links.

Table 4-2 - Surface access modal split targets (from Southampton Airport Masterplan)

Public Transport	2016 Actual	2018 Actual	2021 Target	2026 Target	2031 Target	2037 Target
Rail	17%	18%	19%	20%	21%	23%
Bus/Coach	7%	6%	8%	8%	9%	10%
Total	24%	24%	27%	28%	29%	33%
Other Transport						
Private & Hire car	52%	51%	49%	49%	47%	46%
Taxi	17%	20%	17%	16%	16%	15%
Other	7%	5%	7%	7%	7%	6%

Southampton Port Masterplan

The Port Masterplan 2016 – 2035[38] focuses on sustainable transport and increased use of existing transport links to improve port access. Southampton's Container Terminal has implemented a 'smart' vehicle booking system (VBS) to improve the efficiency of container transport by road. HGV movements must be booked before

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[36] Eastleigh Borough Local Plan: 2016 – 2036, Eastleigh Borough Council, 2019, https://www.eastleigh.gov.uk/media/5713/ed33-submitted-eblp-track-change-mods-agreed-delegated-signoff-version.pdf
[37] Southampton Airport: A Vision for Sustainable Growth, 2018, https://www.southamptonairport.com/media/5988/sou-a-vision-for-sustainable-growth.pdf
[38] Port of Southampton Port Master Plan 2016-2035, Associated British Ports, http://www.southamptonvts.co.uk/admin/content/files/New%20capital%20projects/Master%20Plan%202016/Master%20Plan%202016%20-%202035%20Consultation%20Document%20Oct%202016.pdf

arrival at the terminal to allow for improvements in the speed and flow of containers in peak hours. It has reduced congestion around the city of Southampton and improved overall emissions.

The Masterplan identifies an area of 325 hectares at Dibden Bay which has been held as a strategic land reserve for future port expansion. A lack of available space is one of the major challenges faced by the Port, even resulting in instances where trade has been turned away. The Masterplan advises that planning for the expansion of the Port in the future is necessary to avoid a limit on growth and the support that the Port can provide to the local, regional and national economy. A 20-year forecast shows an overall expected increase in trade and freight movements for cruise, containers, automotive/Ro-Ro, bulks and general cargo. Southampton has been identified as a possible location for a deep-water aggregate hub facility due to its marine access advantages and landside transport connections; this is currently under investigation, but would result in greater trading capacity in the future.

Stroud Local Plan

Sharpness Docks is an important site within the Stroud District, and this is reflected in the Local Plan[39] with aims to regenerate the area to provide new opportunities and an economic stimulus. Sharpness Docks has suffered as a result of the lack of connectivity, and employment allocations in the last Local Plan have not been taken up as intended.

Strategic Objective 6 in the new Local Plan aims to capture the district's 'distinctive qualities' including the docklands and create a sustainable tourism destination which focuses on the heritage of the area and preserves the natural environment of the canal and the marina. The guiding principle is regeneration, and the Local Plan has an allocation of 300 homes, vehicular access and associated leisure opportunities on the north docks site to meet this need. The south docks will be home to intensified and upgraded employment facilities. There are, however, heavy environmental constraints due to the nature of the site.

Policies EI14 and 15 relate to economy and infrastructure, and the protection of rail and freight facilities at Sharpness Docks. The Council will support the re-opening of passenger stations and rail freight facilities in order to improve access across the area. Proposals to improve the viability of the docks for handling freight and shipping repairs will also generally be supported, with Sharpness having potential for development as an integrated distribution hub with rail links to take freight off the roads.
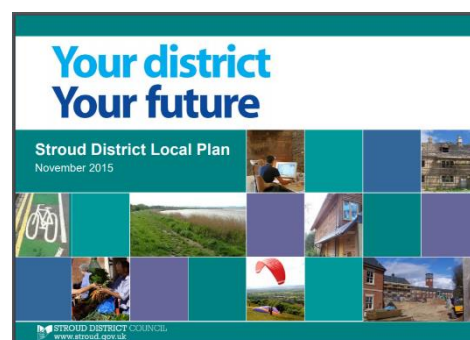
4.4.   Summary

The gateways within the Western Gateway area are subject to a variety of policies at a national and local level. There are gaps which need to be filled in order to ensure policy alignment. One of the main disjoints exists between local level sustainability policies versus the expansion and development aims of the national policies. Although all development policy must uphold the principles of 'sustainable development' as discussed in the NPPF, local policy exhibits more of a direct commitment to reducing the impacts of climate change and environmental degradation on smaller communities by focusing on net zero emissions targets, and a desire to prevent unnecessary expansion of port footprints. Local authorities are increasingly looking to balance growth and innovation with substantial, resource-heavy development such as those required for international gateways with improvements to residential environments for constituents. Freeports, and to a lesser extent Port Economic Partnerships, are tools which are beginning to feature in the political landscape and being considered as a way of shoring up the future of the UK's maritime industry, however their rollout has so far been limited to Southampton Port.

Government policy is also keen to adopt small ports as centres of innovation, and maritime and aviation research. According to the Maritime 2050 strategy report, small ports will be important hubs for joining with local councils and research institutions to lay out the technological and digital capabilities necessary to deliver the government's commitment to smart ports, for example through the SPEED programme at Poole and Portland.

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[39] Stroud District Local Plan, Stroud District Council, 2015, https://www.stroud.gov.uk/media/1455/stroud-district-local-plan_november-2015_low-res_for-web.pdf

In line with aspirations for sustainable development, it would be expected that strategies for increasing the capacity of ports to handle and move freight would rely on rail rather than HGV movements. This does not feature strongly in any of the policy documents reviewed for this study. As a result, very few rail schemes have been planned but are likely to become more important as the pressure to reduce greenhouse gas emissions becomes more urgent and the need to transport goods between the ports and the rest of the country continues.

5.   Western Gateway Transport Challenges

In order to better understand how individual gateways perceive the challenges of the future, the ports and airports referenced in this study were contacted and interviews took place with members of the port/airport communities and local LEPs to cover the following issues:

- Understanding how use of the ports may change over the next 20 years;
- Understanding how climate change will impact operations;
- Identifying risks and challenges to commercial success;
- Identifying risks and opportunities presented by Brexit and policy tools such as the role of freeports, PEPs etc;
- Assessing if transport is recognised as an operational constraint; and
- Identifying any future transport needs required to maintain long-term viability.

All of the ports and LEPs in the Western Gateway area were contacted, and Table 5-1 shows the level of engagement achieved.

Table 5-1 - Engagement with ports and LEPs

Organisation	Engagement
WECA	Telephone interview
Dorset LEP	Telephone interview
GFirst LEP	Telephone interview
Solent LEP	Telephone interview
SWLEP	Telephone interview
Weymouth Harbour	Telephone interview
Port of Poole	Telephone interview
Port of Southampton	Telephone interview
Port of Bristol	Written response
Sharpness Docks (Canal & River Trust)	Telephone interview
Portland Port	Telephone interview
Gloucestershire Airport	Telephone interview
Southampton Airport	None
Bristol Airport	Telephone interview
Bournemouth Airport (Rigby Group)	Telephone interview

The Western Gateway Regional Evidence Base[40] outlines a series of transport challenges faced by the region which are summarised as follows:

North-South connectivity

Highway network

Western Gateway Transport Challenges

Multimodal urban travel

Connectivity to Bristol Airport

Rail frequency/ capacity
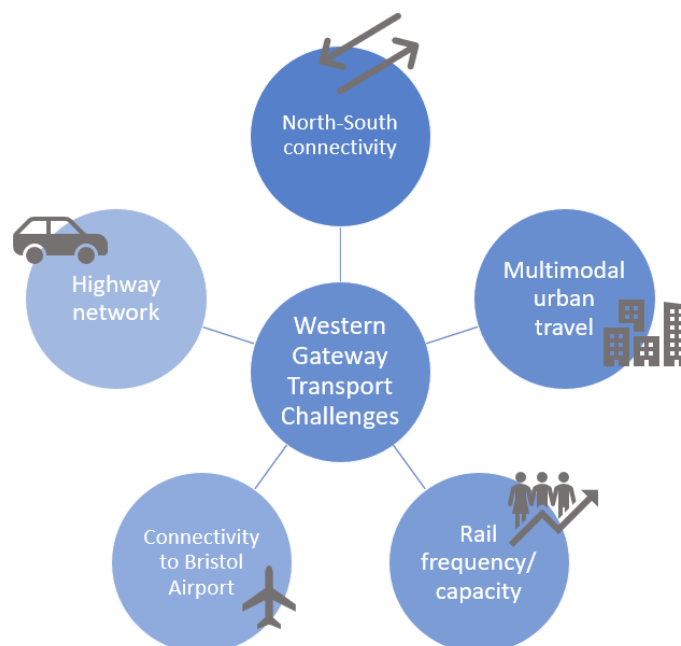
The matrix in Table 5-2 shows the relationship between these challenges and the ports and airports in the Western Gateway and wider study area; resilience of the highway network, urban travel movements and rail capacity were some of the most frequently cited issues during the interviews with stakeholders.

Table 5-2 - Western Gateway challenges matrix

Challenges / Ports	Highway network resilience	N-S connectivity	Managing urban travel movements	Improving passenger rail capacity and frequency	Improving freight rail capacity and frequency	Connectivity to Bristol Airport
Bristol Docks	●				●	
Sharpness Docks	●					
Port of Southampton	●	●	●		●	
Portland Port	●	●	●	●		
Weymouth Harbour	●	●	●	●		
Port of Poole	●	●	●	●	●	
Gloucestershire Airport	●		●			
Bournemouth Airport	●	●	●	●		
Southampton Airport	●	●		●	●	
Bristol Airport	●		●	●		●

5.1.   Gateway Connectivity and Challenge Themes

Many of the comments made by the port/airport officials and LEPs regarding challenges they face concerning surface access and connectivity can be linked to the Western Gateway transport challenge themes as shown above. The nature of these concerns is discussed in more detail below.

5.1.1.   Resilience on the highway network

Several of the interviewees commented on the condition of the local roads, issues such as bottlenecks and the lack of highway capacity for freight transport. Dorset LEP noted that there are no motorways in the county and just 5% of the roads are dual carriageways, which makes HGV traffic an issue for Weymouth, Portland and the Bournemouth Christchurch Poole (BCP) area including the Port of Poole and Bournemouth Airport.

"Bristol Port has the ongoing challenge of interplay between general traffic and port traffic at peak times."

West of England Combined Authority

This will have major consequences for the growth potential of the ports in this area of the South Coast, both in terms of their viability for freight transport, and their desirability for leisure and cruise passengers which currently make up a significant proportion of the ports' usage. The Port of Poole has ambitions to become a short-sea container port as well as expanding its leisure facilities by building another marina, which both require ease of access into the port.

Bristol Airport is currently the ninth busiest airport in the UK but has no mass public transport service and is served solely by the single carriageway A38, which experiences significant congestion throughout the day. As the airport plans for its future growth a resilient highway network is a vital component in allowing people to access the airport whether in private vehicles or with an improved public transport offer.

5.1.2.   North-South Connectivity

The Regional Evidence Base has highlighted that north-south inter-urban connectivity across the area is poor which inhibits agglomeration between the urban areas of the West of England and South East Dorset.

This lack of strategic North-South connectivity has been highlighted through stakeholder interviews as an issue which is impacting the ports on the South Coast. Poor North-South connectivity not only results in a physical barrier which makes freight transport difficult, Swindon and Wiltshire LEP (SWLEP) representatives also noted that it dampens productivity and prevents the southern coastal areas accessing the highly productive Swindon/M4 corridor region, which currently accounts for 55% of the SWLEP GVA.

The lack of a high-quality route from the South Coast to the M4 adds a significant amount of time onto journeys for haulage companies transporting goods to the Midlands and further afield. Jim Stewart (CEO, Poole Harbour Company) explained that hauliers often take routes east via the A31, M27 and the M3 to link to the M4 and the Midlands from the Port of Poole. This exacerbates the congestion on these strategic corridors as highlighted in the Highways England Midlands to Solent Route Strategy (2017).

The publication of RIS2 in March 2020 has recognised the importance of investigating this further through a M4 to Dorset Coast Strategic Study. This represents an opportunity to explore and understand current and future trip patterns as well as strategic alternatives (such as rail) to establish an agreed strategy for the long term.

5.1.3.   Managing urban travel movements and providing multi-modal travel options

An improved Western Gateway-wide multi-modal transport offering was by far one of the most popular transport needs to be highlighted across all of the LEPs and port/airport operators. It was generally accepted that while connectivity to London, the South East and the Midlands is well-catered for in the urban hubs, getting around the Western Gateway area itself remains difficult by any means other than the car, and the quality of the roads can make even these journeys susceptible to congestion and unpredictable journey times.

Rapid transit is a key focus for improving mobility within the city region areas of the Western Gateway. The West of England Joint Transport Study and JLTP4 explicitly mentions mass transit as part of its vision, with the aim of providing an integrated, connected service across key corridors in the plan area. Bristol Airport expressed an interest in forming a modern, efficient transport hub on its site in addition to acting as a local bus interchange hub for local, regional and airport express services, which would allow people to interchange smoothly between different modes of transport.

The Gloucestershire Local Industrial Strategy and Local Transport Plan has also highlighted the ambition for mass transit in the Gloucester-Cheltenham area, with the purpose of better connecting the two urban areas to

create a stronger, more productive city region. Gloucestershire Airport has also expressed an interest in forming a new transport hub; it is located midway between Gloucester and Cheltenham and could play a key role in future.

The Dorset LEP also highlighted the need for improved rapid transit-based solutions in Bournemouth Christchurch Poole (BCP) to improve east-west urban connectivity, help reduce the reliance on private vehicles and free-up capacity for freight to leave the Port of Poole. Solent LEP highlighted the challenges facing passengers currently using public transport who have to make several different connections between modes in order to reach their final destination.

5.1.4.   Improving rail frequency and capacity

Improving rail frequencies across the Western Gateway has the potential to integrate with emerging proposals for mass transit in the city regions, which will help to reduce car dependency across the region. Improved capacity for rail freight also has the potential to reduce HGV traffic to and from the ports, depending on the freight markets that are served.

Southampton Port has lengthened the rail sidings in the port to accommodate extra trains – particularly to the Midlands and beyond. This route is significant to the automotive industry with high flows between Halewood / Castle Bromwich / Morris Cowley and Southampton Eastern Docks. However, stakeholder interviews have confirmed that a determining factor in the viability of new rail freight projects, especially for more space-constrained ports, is the distance that goods are being moved once leaving the port and the price of fuel. Containers being moved longer distances are most viable by rail. This dynamic therefore influences the viability and support of significant rail freight investment from the ports.

"For every 1% of freight to rail, there are 20,000 fewer HGVs on the road"

Port of Southampton

Passenger rail demand in the UK has been steadily increasing over the last twenty years according to Office of Road and Rail statistics[41]. This has begun to present a conflict between rail freight and passenger services, particularly in areas around the ports where there is a concentration of freight traffic. Bristol Port specifically highlighted this as a specific concern for the future of the port. Increased track capacity will help alleviate the problem and encourage a general reduction in private car and HGV usage, simultaneously supporting the South West's environmental and congestion agendas.

The Port of Poole is safeguarding its existing rail connections in anticipation of a shift to short-sea container traffic which could make the use of rail freight more of an attractive proposition in the future and help to support the local transport strategy. As highlighted in the Bournemouth, Poole and Dorset LTP3, freight to rail is a major opportunity; it will help support future net zero emissions targets, as well as addressing issues around congestion, resilience and road capacity.

Movement of people and goods by rail within the Western Gateway region is slow and inefficient according to many of the LEPs, despite there being good connections to London and further afield. Dorset LEP noted that 89% of the people who live in Dorset also work within the county, and a lack of rail connectivity limits the travel horizons of residents as well as having a negative effect on productivity due to inefficient connectivity. The SWLEP Rail Strategy[42] demonstrates the strength of connections from London to Swindon, Chippenham and Bristol along the Great Western Mainline, but compares this to the paucity of links and slow journey times to other local destinations and regional and national centres as shown in Figure 5-1 and Figure 5-2. Investing in rail improvements such as an extension to East-West Rail, improved links to Birmingham and the West Midlands along the TransWilts Corridor and local station upgrades to tackle these issues will bring businesses in the SWLEP area, and wider Western Gateway region, effectively closer and will have a positive effect on productivity in the Western Gateway area.

[41] Rail Factsheet, Department for Transport, December 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/761352/rail-factsheet-2018.pdf
[42] SWLEP Rail Strategy Report, SWLEP, July 2019, https://swlep.co.uk/docs/default-source/strategy/rail-strategy/swlep-rail-strategy-final-09-05-2019.pdf?sfvrsn=9e3ac01c_10

Figure 5-1 - Average speeds to strategic locations (mph)

	CHIPPENHAM	SALISBURY	SWINDON	WESTBURY	TROWBRIDGE
LONDON	75	56	77	71	54
BIRMINGHAM	36	47	40	48	49
READING	75	45	81	80	47
PLYMOUTH	48	42	47	56	47
MANCHESTER	58	50	44	52	52
LEEDS	50	51	49	45	46
NOTTINGHAM	41	41	40	37	42
NEWCASTLE	62	62	58	56	54
CAMBRIDGE	48	48	51	45	43

Figure 5-2 - Average speed on regional links (mph)

	BRISTOL	CARDIFF	GLOUCESTER	OXFORD	SALISBURY	SOUTHAMPTON
AVONCLIFF	32	32	36	40	27	33
BEDWYN	26	31	33	42	27	26
B'FORD-ON-AVON	39	41	36	35	41	44
CHIPPENHAM	50	37	34	43	27	34
DEAN	32	32	29	36	42	37
MELKSHAM	24	29	28	39	26	32
PEWSEY	34	40	29	48	35	34
SALISBURY	45	43	30	42		42
SWINDON	56	47	42	45	34	53
TISBURY	35	36	29	38	52	35
TROWBRIDGE	39	40	36	34	44	43
WARMINSTER	39	30	28	33	55	50
WESTBURY	38	42	36	40	48	47

Improvements identified by Network Rail for the Bristol area during CP6 will help to address some of the connectivity issues within the West of England. However, there remains scope for improved north-south rail connectivity within the Western Gateway which could support greater agglomeration between urban centres as well as relieving congestion on the road network. The Highways England M4 to Dorset Coast Strategic Study will present the opportunity to explore this further.

5.1.5. Connectivity to Bristol Airport

Bristol Airport is a major asset to the Western Gateway region, with plans to more than double its capacity over the next 30 years. Surface access is a major issue; passengers rely heavily on the use of private cars due to a lack of regular, mass public transport and rail connections. This, in turn, results in unofficial airport car parks and vehicles waiting on local roads, causing problems for other road users. The single carriageway A38 is also prone to regular congestion (even during conventional inert peak periods due to flight schedules and shift changes mid-afternoon) which hinders the attractiveness of the airport to business and leisure passengers.

The Airport considers that surface access is a major constraint to sustainable growth and the development of new markets. Improved public transport connections with the Bristol urban area, such as new Metrobus or light rail services, could play a key role as part of a seamless travel solution for the whole region. Other transport solutions that could assist surface access connectivity in the short, medium and long term are shown in Table 5-3.

Table 5-3 - Bristol Airport connectivity improvement schemes

Timescale	Solution	Details
Long-term	Mass transit	A mass transit system linking Bristol Airport to the city, other parts of the West of England and wider region.
	Multi-modal A38 corridor solutions and full dualling.	Upgrading the quality of the A38 will allow a higher volume of traffic to use the road and prevent queuing. It will also accommodate goods traffic and provide strategic resilience to the M5.
	M5 Junction 21A	New junction between M5 J21 and J22 to serve Weston-super-Mare, Bristol Airport and an associated link road to the A38.
Medium term	Banwell Bypass	HIF bid for new junction west of Banwell in anticipation of a new development that will allow traffic to leave the M5 for Bristol Airport via the A371, A568 and A38.
	MRN bid - A38 (Bristol Airport Access Improvements)	North Somerset Council has proposed a £21m package of improvements for improved access to Bristol Airport, including safety, road widening, and junction improvements.
Short term	Access from Bristol Temple Meads	Bristol Airport aims to find a solution to improve the stopping location for the buses at Bristol Temple Meads, as well as a waiting area or shelter and wayfinding at the station to enhance passenger experience.

5.2.   Interventions to improve gateway connectivity

Table 5-4 summarises schemes to support gateway connectivity, which are currently in development or captured via the policy review and stakeholder consultation. An indicative short, medium- and long-term timeframe has been allocated to each scheme to help inform the Western Gateway strategy development process and engagement with delivery bodies.

Table 5-4 - Summary of strategic corridors and transport improvements

Port	Strategic Corridor	Strategic highway corridor	Rail corridor	Proposed/planned schemes	Timescale
Bristol Airport	H/I	A38		Major Road Network (MRN) A38 Upgrade (Access to Bristol Airport Improvements) Banwell bypass (HIF) M5 J21A junction upgrade M5 J22 junction upgrade (part of Bristol South West Economic Link) Mass Transit connectivity to Bristol Airport	Short Medium Long Medium Long
Port of Poole/ Bournemouth Airport	O/N	A35/A350/ A338/A31	South Western Mainline	A31 Ringwood widening (RIS2) Port of Poole access - A349 and A31 capacity improvements (Growth Deal funding) Bournemouth International Growth programme – measures to improve access around Bournemouth Airport and the business park Major Road Network (MRN) A338 Wessex Fields upgrade	Medium Short Short/ Medium Medium
Southampton Port/ Southampton Airport	-	M27/ M3/A33	South Western and West Coastway Line	M271 and A35 Redbridge roundabout upgrades (RIS1) M27 Southampton junctions (RIS1) M27 J4-11 smart motorway (RIS1) M3 J9 improvements/slip road improvements, J10-11 and 12-14 (RIS2) Maintenance work to key bridges in Southampton and access to the Western Docks (CP6) Further freight capacity improvements between Southampton and the Midlands (CP6)	Short Short Short Medium Short Medium
Gloucestershire Airport	F/B	A40/M5		M5 J11/A40 Cyber Park access – Cheltenham Mass Transit connectivity serving Cheltenham and Gloucester via Airport	Medium Long
Bristol Port	B/J/A	M5/A4/ M49/M4	Severn Beach Line	M49 Avonmouth junction (RIS1) Resurfacing and rebuilding of the A403 near Bristol port Gauge clearance to W10 on Bristol to Birmingham rail line to support freight trains (CP6)	Complete Complete Short
Sharpness Docks	H	A38	Sharpness Branch Line	New railway station at Sharpness with connections to Cam and Gloucester Highway and public transport improvements associated with new development	Long Long
Portland Port & Weymouth	M/N/K	A354/A35/ A37	South Western	Weymouth Western Relief Road from Wyke Regis to Chickerell	Long

6.   Other challenges

6.1.   Brexit

Brexit is generally perceived as both an opportunity and a challenge for most businesses due to the lack of certainty about the UK's future trading relationships with the EU; currently the country's most significant trading partner. In contrast, the ports in the Western Gateway area generally do not see Brexit as a threat to business due to the current balance of non-EU and EU trade links resulting in a non-dependence of traffic from the EU.

Capacity constraints at Dover were highlighted as a potential opportunity for the Western Gateway ports with possible growth in Roll on-Roll off (Ro-Ro) traffic as a result of goods being transferred away from Dover in the event of delays at the border and a lack of capacity in the port. One potential issue was flagged by the Port of Poole which runs ferry services to Europe, who expressed some concern that changes in immigration rules and any contraction of the economy could cause these routes to suffer. However, Poole is also a border inspection post, so this may provide further opportunity for the port to broaden its portfolio in a post-Brexit environment.

Further national guidance on post- Brexit trade, people movement and transport policy will emerge over time. Business will need to adapt to the new economic climate and be responsive to the economic opportunities of initiatives such as Port Economic Partnerships. Ports will also need to evolve and ensure masterplans remain responsive as the economic environment changes through initiatives such as Freeports, but overall the post-Brexit environment is perceived by the ports as an opportunity for the Western Gateway area.

6.2.   Climate change

Stakeholder engagement in the Western Gateway area has highlighted the area's consciousness of environmental issues and it is well placed to lead the way in driving down carbon emissions and focusing on a sustainable future. Ports have traditionally been perceived to have a negative impact on the environment and a cause of environmental degradation both directly through the activities on site and indirectly through the transport of goods across the country, often by road. However, working alongside the ports in the Western Gateway area will be a crucial driver for success in climate change action and mitigation, including addressing threats to property from rising sea levels and severe weather events. There is the potential for an interplay between climate-focused policy and innovative technological solutions which will allow this to happen e.g. a greater transition to electric propulsion for maritime vessels, and a move towards shore-to-ship power to vessels at berth.

There were mixed views from the port and airport community about how much can be done to tackle climate change on their part. Many focused on the changes that had been made to improve efficiency and minimise resource use on land, such as the Port of Southampton's work with Southampton City Council on air quality improvements. At this stage, it was felt that their ability to influence associated industries (e.g. freight hauliers) was largely beyond their control. Others however, were fully embracing the challenge, including Bristol Airport's commitment to offset all emissions from surface access journeys from the start of 2020 as well as being carbon neutral by 2025 and a zero-carbon operation by 2050 as outlined in their 2019 Carbon Roadmap. There is also the potential for these international gateways to encourage sustainable transport within the region through the development of local, multi-modal transport hubs and for the region to emphasise 'clean aviation growth'.

The politics of climate change is evolving, and there is a clear need to view the development of international gateways holistically in order to balance the desire for economic growth with the wider environmental impact. This includes striking a balance between the local environmental impact of port/airport expansion vs the economic and environmental impact of people and goods travelling further afield to ports and airports in London and the Midlands to meet the demand for travel.

6.3.   Planning permission

Gaining planning permission for expansion and change of use is almost universally seen to be a problem and a future cause for concern among the ports in the region, despite stakeholders stating that they have productive, positive relationships with their local authorities. Although there is some conflict between the needs of local communities and the economic ambitions of the region and its businesses, it is the planning process that is largely seen as the greatest issue. It is regarded to be slow and cumbersome, taking too long to reach a conclusion. Smaller ports and airports, such as Portland and Gloucestershire Airport, appreciated the need for sensitive applications but felt that the lack of expediency had an impact on the resources they have available.

After two years pending, the planning application for the expansion of Bristol airport to 12 million passengers annually has been rejected by North Somerset Council. The main objection came in light of the climate emergency and the expansion being deemed inappropriate with regards to the council's ambitions for carbon neutrality by 2030, although it had been recommended for approval from planning officers. The Canal and River Trust has experienced similar issues with regards to applications for planning permission at Sharpness for an additional access point to the site, and the lapsed time is beginning to affect plans for investment in infrastructure as well as commercial operations. There is a need for a 'golden thread' of policy from national to local level that connects the government's national aspirations with local authorities' aims for their areas, so that ports are supported when it comes to seeking planning permission for both commercial and connectivity improvements at a local level. The development of new partnership approaches to gateway expansion to balance economic and environmental objectives (e.g. Port Economic Partnerships) is a potential policy tool to help this ambition become a reality.

6.4.   Technology

There is a wide variety of approaches to technology within the ports; some such as Southampton and the Ports of Poole and Portland have embraced the advent of new technologies while others are balancing the risk associated with investment within a competitive marketplace. Airports, particularly Bristol Airport, have been much quicker to embrace these changes and adapt them for their own purposes; the case studies below provide more detail.

Technological adaptations often go hand in hand with issues of climate change and sustainability and are aligned with the Industrial Strategy 'Grand Challenges'. Autonomous vehicles feature regularly in plans for future mobility, with some larger ports considering them for use in moving containers or providing links to terminals. Poole Harbour Company is involved with SPEED, a European Interreg project that aims to build an ecosystem for smart port app development using stakeholder knowledge as well as data science and the Internet of Things market.

Smart ports have also been noted as a tool of the future but with differing levels of commitment from the ports in the Western Gateway area. Large international gateways such as Rotterdam have invested heavily in AI and digital technology in order to monitor port operations and predict vessel arrivals to streamline the entire process, and while there has been some uptake of digital technology for operational purposes in the UK, it remains a largely traditional process. Stakeholders such as Weymouth Harbour said they would not benefit from preparing to become a smart port as their operations were too small to justify the investment. Others, such as Poole and Portland, are keen to be on the cutting edge of technology and data-driven development.

Moving forward, LEPs are keen to target funding for research and development to promote the uptake of new technology (e.g. autonomous vehicles, AI and shore to ship charging to reduce idling emissions). National policy through the Government's Marine Innovation Hub strategy has also identified smaller ports as potential test beds to help explore the opportunities associated with trialling new technology before scaling up to larger operations.

Future mobility solutions – Bristol Airport

- Bristol Airport is part of the Interest Group for the Capri Project, looking at where Connected and Autonomous Vehicles (CAVs) could be deployed in real-world scenarios.
- Capri is an Innovate UK Government-funded project, piloting designs, development and testing of new autonomous pods which will culminate in on-road public trials in London and the South West.
- Bristol Airport is preparing an outline business case to explore the potential for CAVs being integrated into the Airport's transport system, for example through use as a connecting service from carpark to terminal.

- Bristol Airport has also supported WECA's successful Future Transport Zone bid, which proposes to create a Future Mobility Living Lab, working with various stakeholders to overcome mobility challenges.
- Bristol Airport is keen to explore the Mobility as a Service platform, and the demand responsive service solutions.
- Both of these will be featured as future measures in the emerging Airport Surface Access Strategy.

Ports of Poole and Portland – SPEED

- The Ports of Poole and Portland are two of several British ports and institutions taking part in the Small Ports Entrepreneurial Ecosystem Development (SPEED) project, led by the Antwerp Management School in Belgium and funded by the European Regional Development Fund.
- North Western ports are in a race to become more efficient and connected to avoid their maritime routes being usurped by faster, cheaper overland routes.
- The project has three main aims: 1) to set up a cross-border network of experts in all fields to establish port logistic priorities; 2) to bridge the gap between data science and port logistics; 3) to develop a smart port 'toolkit for success'
- BCP council and Bournemouth University are working closely with the ports to supply specialist knowledge and funding for the project.
- Poole Harbour Company's role in the project is to facilitate the exchange of ideas between stakeholders and act as a hub for trialling and testing new technology.
- Similarly, Portland will act as a base for testing smart port apps and developing the entrepreneurial roads to growth that will allow 2 Seas Ports to become a global maritime leader in smart port innovation.

7.   Conclusions

The Government has made clear its position on the importance of the UK's ports to the economy; the recent £10m Port Infrastructure Resilience and Connectivity Fund, as well as funding for specific projects, speaks to the necessity of preserving their function after Brexit, and the economic opportunities that exist within Britain's maritime and aviation industries. The Western Gateway STB is in a unique position, with several of England's busiest ports within its area, connected by the strategic corridors in the Regional Evidence Base. Although the challenges facing these ports vary with size and location, several conclusions can be drawn from the policies that govern their use and future prospects.

A range of next steps have been identified through the policy review and stakeholder engagement to help the Western Gateway target their approach to strategy development and help influence infrastructure funders going forward.

7.1.   Digitisation and technological connectivity

One of the common themes throughout the national policies, as well as many of the local, port-specific policies, is the need for innovation and technological change in the aviation and maritime industries. As autonomous vehicles are set to make a major impact on the automotive industry, the same technology will be introduced to improve the efficiency of ports by using Vehicle to Vehicle (V2V) and Vehicle to Infrastructure (V2I) communication. Access to real time data will become a significant asset for transporting goods and keeping up with demand; how ports react to this need will be indicative of their future success. Alongside the larger ports, smaller ports also have the potential to become centres for research and innovation, as the Government's Marine Innovation Hub strategy suggests.

7.2.   Sustainability and mode shift

Sustainability and the environment are rising to the forefront of the political agenda, and the need to make strides towards 'greener, cleaner' port operation will dictate many of the strategic decisions made over the coming years. As the industry is some distance away from running electric aeroplanes and ships, the major focus is encouraging a modal shift for passengers and staff, to encourage them to use sustainable methods of transport to access ports rather than private vehicles. This includes WECA's investigation of a mass transit scheme to connect Bristol Airport with the City Centre. The analysis of journey times has highlighted the current constraints in access particularly during peak periods. Upgrading the railway to allow for increasing freight capacity will also becoming increasingly important in encouraging mode shift from HGVs and in tackling congestion on access routes to ports. However, this will need to be balanced with demand for space and land within the footprint of the ports.

The sustainability agenda can sometimes appear to conflict with the desire for expansion and increased activity at ports. The expansion of Port Economic Partnerships has the potential to bring multiple parties together in order to integrate planning processes. There is potential to broaden their emerging role to enable the economic, regeneration and environmental considerations of the ports to be aligned and to support the sustainability of the sites.

7.3.   Infrastructure renewal

The stakeholder engagement and surface access strategies and transport plans highlight the issue of congestion, lack of capacity and roads being unfit for use as part of a strategic freight network for international gateway traffic. The increase in HGV traffic and little change in freight moved by rail has placed pressure on many of the major roads leading out of the Western Gateway's ports. The growth of the cruise and leisure markets within the Western Gateway area is also placing additional demand on local and strategic networks through increases in passenger demand, leisure traffic and associated industries.

Airports are generally moving away from significant freight movements, resulting in most international freight arriving by ship. Some ports such as Southampton are using digital solutions such as a smart booking system for HGVs to reduce congestion and waiting times but delays on the wider network are costly and will worsen as the overall volume of traffic increases. Several of the local authorities and ports have suggested upgrades to road infrastructure alongside improvements in rail and rapid transit connectivity.

A potential programme of short, medium- and long-term investment has been presented in Table 5-4 in Chapter 5. These improvements will be necessary to deal with a future rise in demand for goods handled and support

the onward journey of goods leaving the ports either through tackling congestion on the local network or enabling greater use of rail freight. North-South connectivity has been highlighted by the Western Gateway community as a key issue. The RIS 2 M4 to Dorset Coast strategic study to be commissioned by Highways England will play a key role in developing the long-term plan for this important axis going forward.

7.4.   Freeports as a political tool

The introduction of freeports to a post-Brexit Britain has been divisive, with the government arguing that they will bring prosperity and opportunity to the UK by encouraging trade through the reduction of tariffs and taxes. Critics suggest, however, that these policies can only be successful when the economy is strong, which they feel is unlikely to be the case after the UK leaves the EU. This debate is likely to continue into the future. The availability of land to incorporate the production of goods within a freeport could act as a constraint on the optimisation of this policy. For the Western Gateway, prioritising schemes for port connectivity in the future could be heavily dependent on the outcome of any bids for freeport status as future investment will need to support these ports and airports in order to maximise the economic benefit they provide. It is therefore essential that the Western Gateway remains engaged within this evolving policy to help shape and inform the transport requirements for this key element of the Western Gateway economy.

Smaller ports have concerns about government intervention in the form of freeports and Port Economic Partnerships (PEPs) upsetting the natural balance of competition between ports as larger ports are given opportunities to grow even further. However, it was noted that PEPs are broader than just the ports themselves; the Port of Poole and Bournemouth Airport have worked together to make the most of the large employment site at the airport and are well placed to benefit from any freeport or PEP designations, despite being individually relatively small ports in comparison to Southampton and Bristol. The strategic role of the Western Gateway will help to ensure the development and prioritisation of those transport investments which will help enhance strategic connectivity to these economic assets.

7.5.   Regeneration and change of use for small ports

Small ports in the Western Gateway area such as Weymouth and Sharpness are likely to focus more on regeneration and attracting tourists and potential residents to the area for the harbour environment rather than trade. Sharpness has been earmarked by Stroud District Council for investment to build houses and leisure facilities. These smaller gateways have different connectivity requirements from larger gateways focused on trade but their potential to provide an attractive location for economic activity and investment should not be lost.

It was made clear by many of the LEPs that all ports have their part to play as drivers of regeneration, as they all have their own geographical and environmental strengths. Solent LEP outlined plans to work with the Southampton Port, South Downs National Park and the City Council, as well as various industrial contacts, to successfully redevelop the site of Fawley Power Station into a major new urban centre that makes the most of sustainable technology and public transport infrastructure. These models for development look set to continue; it is therefore important that the role of the Western Gateway in supporting strategic connectivity is established to help support the wider strategic case for investment and growth.

7.6.   Next steps

The conclusions drawn in this report have highlighted the issues facing the ports and airports in the Western Gateway area. The outcomes of this report will feed into the new Strategic Transport Plan and help inform future work packages. Based on the findings of the study there are a range of options available to the Western Gateway for future work. The recommendations for future work are as follows:

- Utilise industry data, modelling tools and mobile phone data within the Highwasy England RIS 2 M4 to Dorset Coast study to better understand the movement of people and goods within and beyond the Western Gateway area. This could include a more detailed investigation of international gateways, including their importance to business-to-business connectivity and the UK's global economic reach;

- The Highways England RIS 2 M4 to Dorset Coast study could provide an opportunity to explore the feasibility of improved North-South rail connectivity for both freight and passengers, as part of research into the future demands of the A350 and A36 transport corridors. There are few existing rail links connecting the South Coast directly to the Midlands, and understanding the impacts of this transport gap could help reveal the benefits of improved rail connectivity in the corridor for the strategic road network;

- Development of a freight strategy to understand the challenges faced by hauliers and the capacity for changes in the way freight is moved around the UK and Western Gateway. This could include a wider analysis of trip patterns and movements to better understand the flow of traffic within and beyond the Western Gateway geography;

- Develop a greater understanding of the potential for maximising access to the leisure market (e.g. cruise, tourism, water sports) in the Western Gateway area, as well as continuing to increase its attractiveness to potential customers both domestic and international. The cruise and tourism industry in the area has experienced notable growth in recent years, and while this represents an economic opportunity for the Western Gateway ports and airports, it also creates unique challenges; a better understanding of the transport implications of this growth could help to provide a strategic perspective on connectivity requirements to support this industry for both travel into and around the Western Gateway area. By improving the strategic travel offering in the area, the economic potential of inbound visitors to the region could be maximised, as well as those resident there;

- Investigation of the economic contribution of ports and airports to the Western Gateway region, and development of a regional strategy to 'lock-in' and expand these benefits;

- Investigations of post-Brexit capacity issues at Dover and what this could mean for ports on the South Coast;

- Develop and evolve the role of the STB in providing better highway and rail integration for the ports within the study area – an integrated strategic approach to strategic rail and highway access could help to balance the demand for movement and assist the movement of goods from the ports and airports; and

- Integration of port and airport access within the Strategic Transport Plan. This includes the development of relationships with neighbouring STBs where access requirements and transport aspirations overlap to ensure strategic priorities across STB's are funded and prioritised.

Appendix A. Journey time data

Car journey time ranges between ports and urban centres (weekday AM peak)

	Bristol	Southampton	Bournemouth	Dorchester	Gloucester
Bristol Port	0h 24m – 0h 50m				
Bristol Airport	0h 24m – 0h 50m				
Southampton Port		0h 07m – 0h 9m			
Southampton Airport		0h 12m – 0h 26m			
Bournemouth Airport			0h 12m – 0h 16m		
Port of Poole			0h 20m – 0h 40m		
Weymouth Harbour				0h 22m – 0h 35m	
Portland Port				0h 30m – 0h 55m	
Sharpness Docks					0h 30m – 0h 55m
Gloucestershire Airport					0h 14m – 0h 24m

Source: Google Traffic Data

Car journey time ranges between ports and urban centres (weekday interpeak)

	Bristol	Southampton	Bournemouth	Dorchester	Gloucestershire
Bristol Port	0h 22m – 0h 40m				
Bristol Airport	0h 18m – 0h 30m				
Southampton Port		0h 7m – 0h 14m			
Southampton Airport		0h 12m – 0h 26m			
Bournemouth Airport			0h 14m – 0h 20m		
Port of Poole			0h 18m – 0h 35m		
Weymouth Harbour				0h 20m – 0h 28m	
Portland Port				0h 26m – 0h 40m	
Sharpness Docks					0h 30m – 0h 50m
Gloucestershire Airport					0h 12m – 0h 20m

Source: Traffic Data

Car journey time ranges between urban centres (weekday AM peak)

	Bristol	Southampton	Bournemouth	Poole	Dorchester	Gloucester
Bristol		1h 50m – 2h 40m	2h 10m – 2h 50m	1h 50m – 3h 10m	1h 40m – 2h 30m	0h 45m – 1h 15m
Southampton	1h 40m – 2h 40m		0h 40m – 1h 00m	0h 55m – 1h 40m	1h 10m – 1h 50m	1h 40m - 2h 40m
Bournemouth	2h 00m – 3h 10m	0h 45m – 01h 25m		0h 18m – 0h 28m	0h 45m – 1h 25m	2h 10m – 3h 00m
Poole	1h 50m – 3h 00m	1h 00m – 1h 50m	0h 24m – 0h 50m		0h 30m – 0h 50m	2h 20m – 3h 20m
Dorchester	1h 40m – 2h 30m	1h 15m – 2h 00m	0h 50m – 1h 25m	0h 30m – 0h 45m		2h 10m – 3h 00m
Gloucester	0h 50m – 1h 40m	1h 50m - 2h 50m	2h 10m – 3h 10m	2h 20m – 3h 00m	2h 10m – 3h 00m	

Source: Google Traffic Data

Car journey time ranges between urban centres (weekday interpeak)

	Bristol	Southampton	Bournemouth	Poole	Dorchester	Gloucester
Bristol		1h 40m – 2h 30m	2h 00m – 2h 50m	1h 50m - 2h 40m	1h 40m - 2h 20m	0h 45m – 1h 05m
Southampton	1h 40m – 2h 20m		0h 40m – 1h 00m	0h 50m - 1h 20m	1h 10m – 1h 40m	1h 40m - 2h 20m
Bournemouth	2h 00m – 2h 50m	0h 45m – 1h 05m		0h 16m – 0h 30m	0h 45m – 1h 05m	2h 00m – 2h 50m
Poole	1h 50m - 2h 40m	0h 50m - 1h 25m	0h 16m – 0h 30m		0h 30m – 0h 45m	2h 10m – 3h 10m
Dorchester	1h 30m - 2h 20m	1h 10m – 1h 40m	0h 40m – 1h 05m	0h 30m – 0h 45m		2h 10m – 3h 00m
Gloucester	0h 40m – 1h 05m	1h 40m - 2h 30m	2h 00m – 2h 50m	2h 10m – 3h 10m	2h 00m – 2h 50m	

Source: Google Traffic Data

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