

# Our Freight Routemap for the Midlands

Issue 1 Summary



**Midlands Connect**  
Transport | Investment | Growth

# Foreword



This document is about freight. How it moves through the Midlands and what we need to do to improve its journey. We often talk about how freight is important to the UK economy – and it is, the logistics sector alone contributes £127 billion Gross Value Added (GVA) to the UK economy<sup>1</sup> – but more importantly it is vital to our everyday lives.

When freight ‘works’ we don’t notice it. Our online deliveries arrive on our doorsteps, food is plentiful in the supermarkets, petrol forecourts are open and vital supplies for industry and healthcare arrive in time. The sector delivers jobs both for those moving the goods around and the businesses and industries they are supporting. A growing economy which is supported by the freight and the logistics sector has the ability to help us level up the Midlands and support those communities and areas that are falling behind.

There is much about this sector that is working well, and it has worked harder than ever for us over the last two years to cope with changes from both Covid-19 and our exit from the EU.

But the sector has key challenges from a transport infrastructure perspective.

Changes in consumer behaviour mean that the levels of goods which are moving around the region and our towns and cities is increasing, with no sign that this will decrease, impacting on already congested road and rail routes. We must ensure that goods are being moved around our region by the most effective means possible. *What can we do to make our road networks more resilient? How do we move goods away from the roads and make better use of freight trains?*

The freight sector is hugely reliant on diesel, but there is an expectation that any HGVs sold after 2040 will be zero emission. Transport accounts for over a quarter of carbon emissions and longer journeys by HGVs on the region’s strategic roads are a key contributor to these emissions. Freight is also often viewed in very separate transport silos, but to really advance decarbonisation we must have an integrated system. *How do we help the sector transition their fleets to alternative modes and build a new recharging and refuelling infrastructure?*

The freight and logistics sector already supports employment and growth throughout our region with the logistics ‘Golden Triangle’ and the many industries that are already based here, but we must also ensure that we continue to grow our freight industry and attract the best opportunities for the sector. The announcement of the East Midlands and Humber freeports is a big boost for the region and we need to make sure that we take full advantage of these sites as soon as they are open for business. We know that there are more opportunities to grow our region, our current work along the Midlands Strategic Corridors, the emerging freeports and on supporting the sector to its transition to alternative fuels are a prime example, and to do this we need an intermodal freight network that allows for growth and provides confidence for industry *How can we ensure that a growing freight industry benefits our people in the Midlands and contributes to the levelling up agenda?*

These are just some of the questions we ask ourselves regularly about freight in the Midlands.

Nationally, the position of the Midlands means that most locations are a four-hour drive away, ensuring swift deliveries from distribution centres

based within the ‘Golden Triangle’ for our online deliveries. Key road and rail routes go through the Midlands providing through routes for goods arriving from ports in the south. Within the Midlands, these networks allow the sector to service key manufacturing bases such as Alstom, JCB, Nestle and Rolls Royce along the A50/500 corridor, tech companies along the A46, or ensuring timely deliveries from the Lincolnshire Food Valley. Rail networks allow construction materials, food, mail and other goods to be delivered effectively.

We sometimes say “*fix the middle to fix the nation*”, exactly because the journeys for so many goods begin, end or go through the Midlands. If our piece of the network isn’t right, then everyone is affected.

The Freight Routemap will do exactly that. This first issue of the Routemap sets out our current understanding of the challenges for freight and the work that is being undertaken to begin to deliver solutions. One of the key projects this year is building an updated evidence base to firstly understand the goods that are moving through the region, and then to understand how we best move them regionally and nationally.

We also know that our plans must be realistic. The economy is recovering from the shocks of the last two years and rising costs mean infrastructure projects will become more costly. Our plans must invest wisely in the long-term development of infrastructure but also identify quick wins which can be delivered in the short-term with tangible impacts. We are already beginning to work with DfT, whose recent Future of Freight plan<sup>2</sup> sets out many of the same priorities and challenges. We look forward to working with the DfT to bring our work together.

There is much to be done and I am looking forward to exploring this area and developing plans with the Midlands Connect partnership that make our region Fairer, Greener and Stronger.

**Maria Machancoses**  
CEO of Midlands Connect



<sup>1</sup> <https://logistics.org.uk/CMSPages/GetFile.aspx?guid=68631c02-c41f-40e8-99b3-fa9b60832742&lang=en-GB>

<sup>2</sup> <https://www.gov.uk/government/publications/future-of-freight-plan>

# 1

## OUR FREIGHT ROUTEMAP FOR THE MIDLANDS



# Our Freight Routemap for the Midlands

This is the first issue of our Freight Routemap for the Midlands. Here, we bring together the information that we have about freight in our region as well as setting out our vision and objectives for the future of freight and some introductory high-level interventions. We have opted to release our Routemap on an issue-by-issue basis to enable our partners to be more involved in the process and therefore start mobilising collectively as a region to support the freight sector in its decarbonisation journey whilst continuing to support national growth and global competitiveness.

In 2022 we launch our Strategic Transport Plan for the region. The various strands of work that went into developing the Plan over the previous two years consistently highlighted the importance of freight to the region now and in the future, including during the Covid-19 pandemic and as we adapt to a future outside the EU. It was obvious that Midlands Connect needed a strong and clear focus on freight at a strategic level and an approach that encompassed all of our different strands of work: so the Midlands Connect Freight Routemap was born.

Although Issue 1 has helped us better understand freight in the Midlands, it has also underlined the importance of further work, particularly the strengthening of our freight evidence to help us make more robust decisions. Future issues will dig deeper into what is being moved and where to, how it is being moved and why, and who is and will be influencing our freight industry. Once we get to know our industry better, we will then refine and focus our interventions, allocating more specific and targeted actions.

Our exploration of freight to date has highlighted similar issues and challenges to those set out in the Government's recent Future of Freight plan 3, from the need for better evidence about freight movements in order to understand the freight network, to the need for a mode agnostic system that understands the best and most effective way to move goods around, as well as the alternative fuelling infrastructure that will support our transition to net zero. We already have established workstreams exploring these areas and we look forward to working with the DfT to bring our work together.

<sup>3</sup> <https://www.gov.uk/government/publications/future-of-freight-plan>



**Maximising the opportunities of freeports**

As proposals for the East Midlands and Humber freeports develop, we will work with partners to understand and champion each, including supporting the sites from a strategic transport connectivity perspective and facilitating the Midlands' transition to alternative fuels - thus maximising the global outreach and economic opportunity for the region.

## Midlands Connect

Midlands Connect is a voluntary partnership and the Sub-national Transport Body (STB) for the Midlands. We plan for the strategic connectivity needs of people living in, working in, and visiting the Midlands. We do this by providing a clear set of strategic transport improvement priorities for the region, as well as by supporting national and regional collaboration and innovation to develop solutions to the challenges we face.

Founded in 2014, we are an organisation run for our partners. Our partnership comprises the 22 local transport authorities in the East and West Midlands, business and stakeholder groups via local

enterprise partnerships, chambers of commerce, National Highways, HS2 Ltd, Network Rail and the government.

We have the freedom to look beyond political and spending review cycles, providing a long-term plan for the Midlands' strategic transport needs. This means we can think about longer-term investment needs and whether new funding approaches are needed to achieve the catalytic change we believe is possible within the Midlands. By continuing to support collaboration across the Midlands, we can give our region the best possible chance of a fairer, greener and more resilient economy.

Midlands Connect & Midlands Engine	Airports	Shire & Unitary Authorities	West Midlands Combined Authority (WMCA) Councils	Non WMCA City Councils	Chambers of Commerce	Local Enterprise Partnerships	Government Agencies	Government Departments
Midlands Connect	Birmingham Airport	Derbyshire	Birmingham	Derby	Black Country	Black Country	Great British Railways	Department for Transport
Midlands Engine	East Midlands Airport	Herefordshire	City of Wolverhampton	Leicester	Coventry & Warwickshire	Coventry & Warwickshire	National Highways	Department for Business, Energy and Industrial Strategy
		Leicestershire	Coventry	Nottingham	East Midlands	Derby, Derbyshire, Nottingham, Nottinghamshire (D2N2)	HS2	Department for Levelling Up, Housing and Communities
		Lincolnshire	Dudley	Stoke-on-Trent	Greater Birmingham	Greater Birmingham & Solihull	Network Rail	
		Nottinghamshire	Sandwell		Herefordshire & Worcestershire	Greater Lincolnshire		
		Rutland	Solihull		Lincolnshire	Leicester & Leicestershire		
		Shropshire	Walsall		Shropshire	The Marches		
		Staffordshire	West Midlands Combined Authority		Stoke & Staffordshire	Stoke & Staffordshire		
		Telford & Wrekin				Worcestershire		
		Warwickshire						
		Worcestershire						

Figure 1: The Partners that we work with

## A fairer, greener and stronger Midlands

Our Strategic Transport Plan<sup>4</sup>, released earlier in 2022, strives for our region to be Fairer (equitable access for all), Greener (driving towards net zero and minimising impact of infrastructure development on the local environment) and Stronger (growing the economy).

The Strategic Transport Plan is first and foremost a refresh of our 2017 strategy. It builds on our original strategy<sup>5</sup> and doesn't replace it. Our priority areas were clear in our original strategy, and we have since explored them in enough detail to thoroughly understand their costs and benefits. Our evidence base is much stronger, our understanding of our needs is deeper, and our short-term priorities are much clearer. Having completed this research, this plan now sets out a clear set of strategic transport infrastructure priorities for the region.

But the world is dynamic and rapidly changing. Our short-term priorities represent the infrastructure enhancements we believe will be required, even accounting for current uncertainties around travel demands and economic growth. Beyond these priorities, we recognise our longer-term needs will need to be regularly reviewed, and the exact nature of what is needed could well change.

Our Strategic Transport Plan aims to strengthen the pan-regional strategic transport network and provide a consistent strategic framework within which our partners can plan their own investments on local transport networks. This will ensure that connectivity at all levels is seamless and that sustainable choices are easier to make for end-to-end journeys.

## Why have we developed a Freight Routemap for the Midlands?

As the STB for the Midlands, we are well placed to deliver a long-term Freight Routemap that brings together the freight challenges and opportunities for the entire region.

We will work with partners in the region to understand how we best support the sector to overcome the challenges we face and take advantage of our unique position as the STB for the region and develop a regional plan that supports it to become as sustainable, efficient and safe as possible.

Improving freight in the region will contribute to the following policy areas:

- Economy, by facilitating efficient movement of goods to/from/around the region;
- Environment, by supporting the industry to meet its carbon targets and ambitions; and
- People, by providing us with the goods and materials that we all need as well as improving air quality, reducing noise and improving local road safety

A dedicated Freight Routemap is required for the Midlands to fully realise these benefits to our economy, environment and people. In light of the current Covid-19 pandemic, the UK leaving the EU and increased pressure to deliver a greener transport system, it is more crucial than ever that we deliver a robust routemap to overcome these challenges and make the most of any opportunities that arise.



<sup>4</sup> [www.midlandsconnect.uk/strategy](http://www.midlandsconnect.uk/strategy)

<sup>5</sup> Midlands Connect Strategy, Powering the Midlands Engine, 2017

# 2

## OUR VISION FOR FREIGHT



# Our vision for freight

To ensure that freight and logistics continue to serve the needs of the people and businesses of the region and the UK, supporting and growing the regional and UK economy whilst creating a safe, efficient and sustainable freight sector in the Midlands that also acts as an enabler for freight for the whole of the UK.

To help us achieve our vision, we have set out 5 key objectives, which in turn support the overarching objectives of our Strategic Transport Plan and the goal of becoming greener, fairer and stronger.

**Objective 1 “Economy”:** Exploit the natural advantages of the region’s location and ensure freight is able to support and grow the Midlands and wider economy

**Objective 2 “Rail Capacity”:** Ensure rail capacity, particularly by HS2, benefits rail freight so that the network is able to accommodate a growth in freight moved by rail

**Objective 3 “Mode Shift”:** Where practicable, encourage modal shift to more sustainable modes

**Objective 4 “Decarbonisation”:** Decarbonise freight movements with a particular focus on road freight, contributing to the ‘Net Zero’ Carbon Target

**Objective 5 “Integration”:** Enhance integration between freight modes to provide a more resilient and effective supply chain

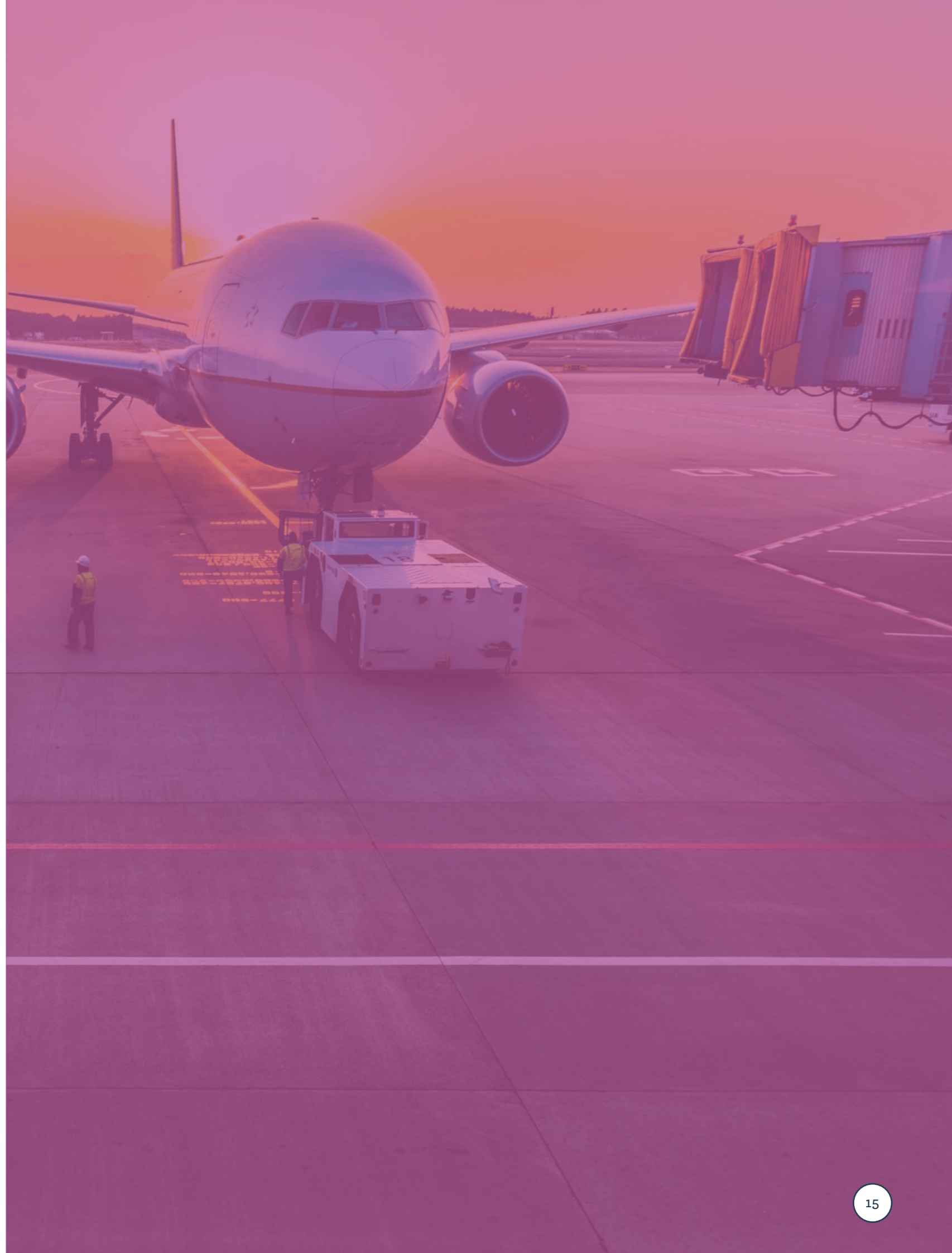
Over and above our Freight Routemap, in our Strategic Transport Plan, we have committed to:

- Continue to develop and publish our **Freight Routemap and Improvement Plan to support strategic freight movements in the region.** Issue 2 will be published in 2023 reflecting up to date modelling
- **Incorporate rail freight needs** into all passenger rail projects, supporting the transportation of more goods by rail. This will include supporting the development of a network of strategic rail freight interchanges across the region and the United Kingdom. It will also include linking the two freeport proposals located within the Midlands and working with partners to tackle pinch points outside the Midlands that have a direct impact on the ability of the region to switch goods from road to rail



# 3

## THE IMPORTANCE OF FREIGHT IN THE MIDLANDS





# The importance of freight in the Midlands

The Midlands enjoys key competitive advantages in relation to freight. These advantages include its central location and existing infrastructure, albeit that (apart from the small ports of Boston and Sutton Bridge) it has no ports. Goods consolidated in the Midlands can be within 125 miles of a port of entry and within four hours of most destinations within the UK mainland. The region is well served by major motorways for regional freight and mainline railways to carry longer haul traffics to and from deep-water ports.

The 'golden triangle' for logistics describes an area where national freight activity is concentrated in the Midlands. Whilst there is no formally defined geography, it is typically said to contain much of the West Midlands City Region, Leicestershire, Northamptonshire and Warwickshire, plus parts of Staffordshire and Derbyshire. The golden triangle is attractive to freight operators for several reasons:

- Much of the area is accessible from the Strategic Road Network and as such, there is scope for limiting road freight movements on the local highway network
- The proximity of the M1 and M6 motorways provide direct routes to key markets to the North and Scotland, as well as London to the South, whilst the Birmingham Box network of motorways provides access to the M5 and destinations in the South West
- The A14 provides a direct link to Felixstowe, whilst Southampton is accessed from the M40 and A34

Crucially, the golden triangle is approximately four hours' drive time from much of the UK, enabling deliveries to reach over 90% of UK destinations within four hours. This aligns with drivers' hours regulations which require a 45-minute break after 4 and a half hours driving for HGV drivers. A vehicle and driver can therefore undertake the return journey back to depot in a single driving day, making vehicle scheduling and operation much easier from the Midlands.

The area is also well served by rail freight, with six of the 11 strategic rail freight routes identified by Network Rail passing through the Midlands Connect geography and East Midlands Airport. This infrastructure provides multi-modal freight transfer opportunities.

Due to the Midlands' economic geography, it has a comparative advantage in terms of accommodating land hungry, large-format distribution centres with specific locational requirements: ideally large sites near to motorway junctions. Logistics is a key 'enabler' that allows other strongly performing sectors in the Midlands, such as the automotive industry and e-commerce, to thrive. As such, many freight operators have depots in the region, from large national organisations to smaller hauliers. This ensures that the Midlands has more warehousing than any other part of the country, with the East Midlands providing the most warehousing space of any region in the UK. A further advantage is lower land-values than much of the south of England which makes locating new (and often very large) warehousing more cost-effective. The East Midlands alone accounted for 31% of all new warehousing space taken up in 2018 for dedicated e-fulfilment facilities.<sup>6</sup>

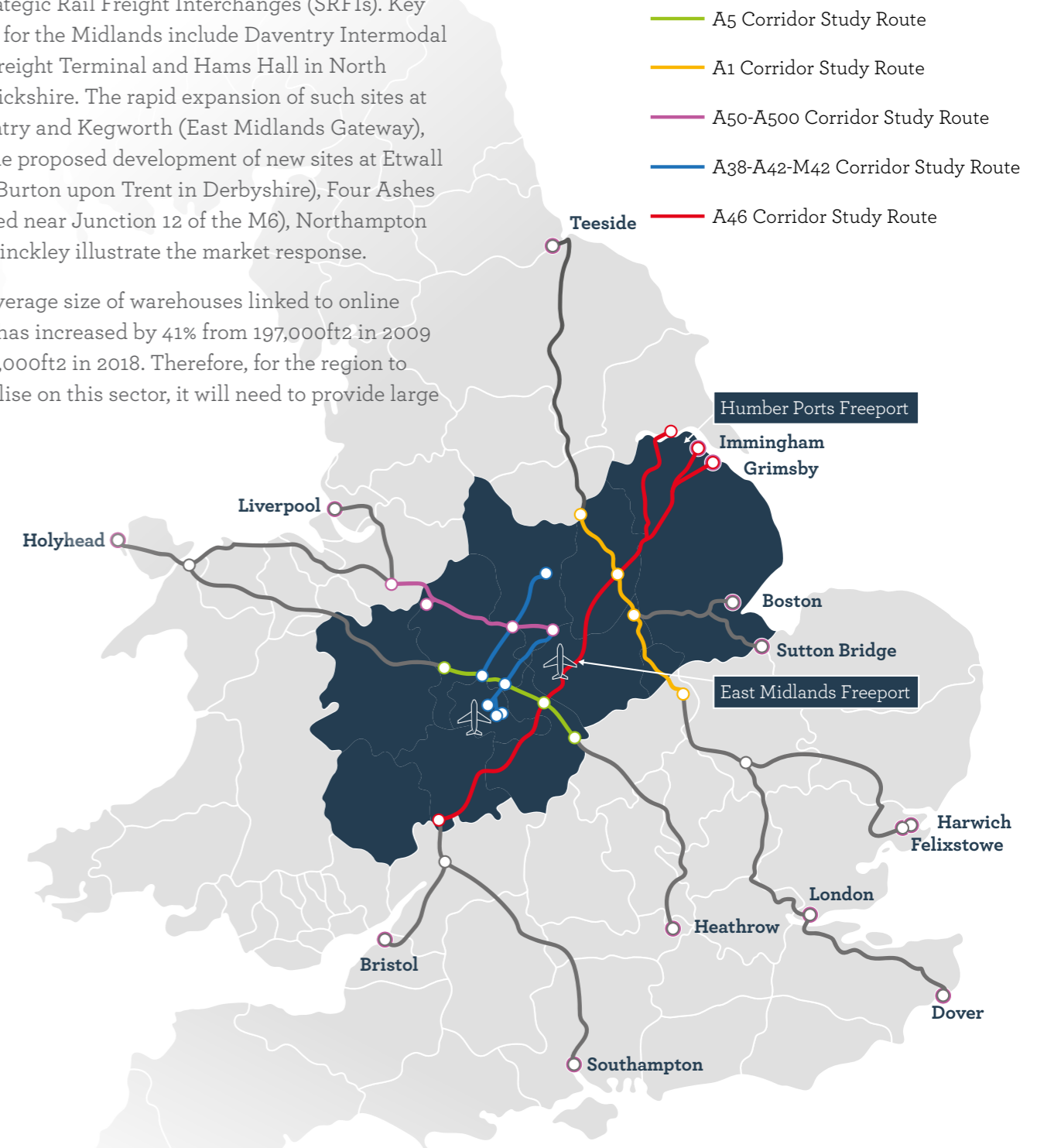
Many warehouses are located together on large industrial estates of national significance. These include facilities such as Magna Park, located adjacent to the A5 and close to the M1. Magna Park has occupiers from national grocers such as ASDA and Lidl, automotive giants such as Nissan and Toyota and logistics firms such as Eddie Stobart and Great Bear.

Warehousing is growing rapidly at present, due to the recent economic disruptions caused by the pandemic and a wish by cargo owners to hold more inventory. This includes rail-linked distribution sites, or Strategic Rail Freight Interchanges (SRFIs). Key SRFIs for the Midlands include Daventry Intermodal Rail Freight Terminal and Hams Hall in North Warwickshire. The rapid expansion of such sites at Daventry and Kegworth (East Midlands Gateway), and the proposed development of new sites at Etwell (near Burton upon Trent in Derbyshire), Four Ashes (located near Junction 12 of the M6), Northampton and Hinckley illustrate the market response.

The average size of warehouses linked to online retail has increased by 41% from 197,000ft<sup>2</sup> in 2009 to 276,000ft<sup>2</sup> in 2018. Therefore, for the region to capitalise on this sector, it will need to provide large

strategic employment sites. Whilst there are some sizeable sites available across the region, they are being developed out quickly due to large unit sizes, so further locations may need to be identified if we are to keep up with the potential demand.

In September 2020 156,000 people were employed in the transportation and storage sectors in the East Midlands<sup>7</sup> and 180,000 in the West Midlands (6.5% and 6.1% of total employment respectively, compared to a UK average of 5.1%)<sup>8</sup>. The Midlands accounts for approximately 20% of UK logistics jobs and GVA.<sup>9</sup>



- A5 Corridor Study Route
- A1 Corridor Study Route
- A50-A500 Corridor Study Route
- A38-A42-M42 Corridor Study Route
- A46 Corridor Study Route

# 4

## KEY ISSUES FOR FREIGHT



# Key issues for freight

Stakeholders have told us they feel freight is not being supported by policy makers and that further support is needed to address issues such as future land-use, alternative fuels, fuel tax policies, vehicle certification and regulation. Key areas where we can support partners in ensuring strong, sustainable growth in the freight and logistics sector include:

- Leading on the regional thinking in locating key freight and logistics sites;
- Identifying and developing important road and rail network interventions; and
- Helping to facilitate the transition away from a heavy reliance on diesel to sustainable alternative fuels for both road and rail freight

## Issue: A changing freight sector

The freight sector has undergone significant changes in recent years (including changing methods of production, technological change, consumer trends, shopping patterns and customer expectations). These all influence how goods are transported, with the freight sector needing to respond to a desire for both 'just-in-time' and 'just-in-case' delivery modes. 'Just-in-time' delivery has for a long-time been expected for more valuable and/or perishable commodities and parcels. Covid-19 has accelerated this expectation with increasing demand for next day delivery of many commodities. Covid-19 has also seen an increase in demand from some businesses (for example supermarkets) for 'just in case' heavy-haul type models with a need to maintain larger inventories of stock to reduce the risk of supply issues.

Continued pressure to reduce carbon, alongside e-commerce and consumer expectation of 24-hour delivery, as well as issues associated with supply chain resilience, will put conflicting pressure on existing logistics models. This could potentially see a rise of hub and spoke models, with higher and more dispersed inventories enabling faster order fulfilment. These are challenges that the freight sector, across all modes, needs to continue to rise to.

Whilst infrastructure such as canals are well established from a freight perspective and now play a minor role in the movement of goods, initiatives to explore how to re-use them may require innovative approaches, such as management of capacity, new types of barge and connections with customers.

Growth projections for the Midlands are likely to see an increase in the volume of freight moved in and through the region. However we need to understand both the current movement of goods and how this will change in the future, in order to work with the wide range of stakeholders, from SMEs and micro-business through to global players to encourage change.

## Issue: Covid-19 and freight

Covid-19 has reminded us of the importance our freight and logistics industry. Our freight operators have kept food on the shelves, allowed our manufacturers to keep making things and delivered medicine and supplies to care homes and hospitals.

During the early stages of the Covid-19 pandemic, road freight traffic reduced but then bounced back and the quieter roads resulted in more efficient and quicker freight movements. The pandemic has changed consumer behaviour, accelerating home shopping trends. This has increased the number of deliveries, increasing van activity for 'last mile' delivery. Rail freight benefited in the short-term from reductions in passenger train movements, with more paths available, fewer delays, shorter journey times and longer, heavier trains. This increased capacity has shown the positive impact that enhanced flexibility can offer the sector and increased its competitiveness against road.

## Issue: Road freight: journey time reliability and congestion

Road is the primary means of moving freight in the Midlands. Roads are involved in at least one leg of almost every consignment of freight's journey. On the Strategic Road Network (SRN) in the Midlands,

approximately 16% of vehicles are HGVs<sup>10</sup>. Road freight volumes are also expected to grow to 2030<sup>11</sup>, placing more pressure on the SRN.

Figure 2 shows the annual number of the largest HGVs (44 tonne gross vehicle weight) on much of the core of British highway networks and shows the extent to which there are significant HGV flows to, from and through the Midlands. The main flows are concentrated on the SRN and on the north-south axis, with other important flows to and from major ports.

Some of these are the busiest highway freight routes in the region and where journey time reliability is poor, adding costs and delays to the wider supply chain. Poor east-west connectivity is also an issue and HGV delays cost operators £1 per minute<sup>12</sup>. The most frequently congested routes to ports are:

- The Midlands motorway box (all ports)
- The M1 around Nottingham (to the Channel Tunnel and Felixstowe)
- The A50 between the M1 and M6 (Liverpool)
- The A46 in the Midlands (Humber/Immingham)

Towards the south-east, Felixstowe, London and Dover/Channel Tunnel, both the M6 and M42 are major constraints to future capacity. The M6 from Junctions 3 to 6 is under significant strain with sections on the approach to and from M6/M6 toll/M42 interchange at Junction 4 over 100% capacity at peak times. Towards Liverpool, the M6 from the West Midlands to Stoke operates close to maximum practical capacity (85%).

M1 Junction 21 is a major pinch point with traffic between M1 Junctions 21 and 23 approaching 85% of the capacity. Between Nottingham and Derby, Junctions 24 to 25 on the M1 traffic exceed 100% of the available capacity and the A52 from Junction 25 towards Nottingham in places exceeds capacity. Southbound on the M1, there are issues south of Junction 18 and the A46 Hobby-horse junction in north Leicestershire is also a major pinch point.

The large increase in vans, driven in part by changing consumer trends following the Covid-19 pandemic, has also increased freight traffic in urban areas.

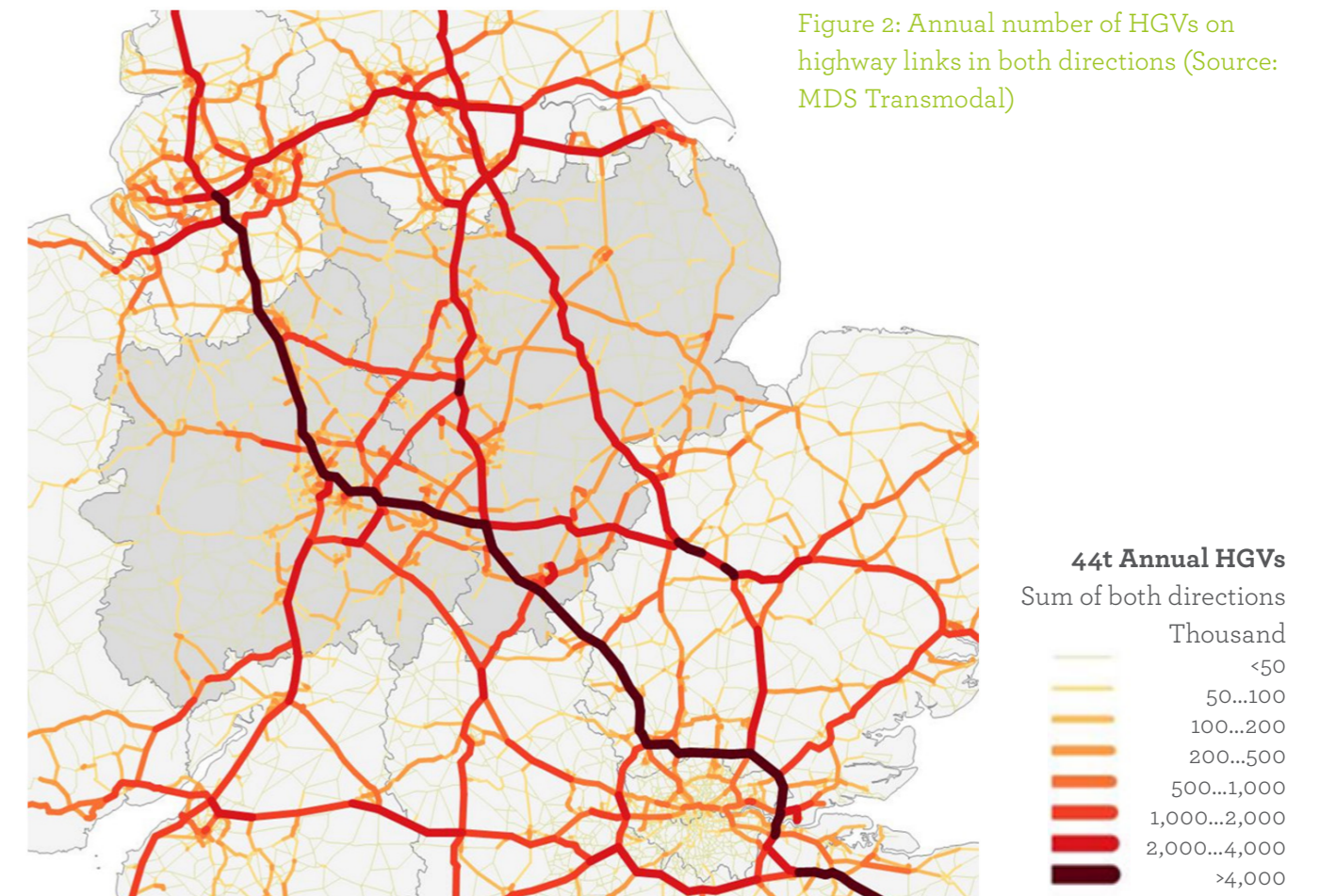


Figure 2: Annual number of HGVs on highway links in both directions (Source: MDS Transmodal)

<sup>10</sup> WebTRIS, National Highways platform for traffic data from SRN sensors, National Highways

<sup>11</sup> MDS Transmodal Great Britain Freight Model

<sup>12</sup> Prioritise logistics or risk supply chain chaos, Logistics UK, 21 February 2020

### Issue: Rail freight: capacity and capability

Network Rail's Control Period 4 (2009-2014) marked a period of new investment being committed to schemes to improve the Strategic Freight Network, and the freight industry was tasked with finding ways to maximise the use of network capacity. Although heavy-haul coal freight has been tasked following the closure of a number of coal power stations, overall freight volumes have increased since 2011, particularly for intermodal and aggregate freight<sup>13</sup>.

Freight capacity and capability remain the dominant constraints across the rail network. The main rail bottlenecks for freight in our region are at Water Orton (just outside Birmingham) and Leicester. Some of our aggregates routes (from Derbyshire and Leicestershire quarries) are also constrained by capacity and line speed.

However, in response to market changes (as described above), rail freight now needs to consider how it can meet the demands of 'just-in-time delivery', as well as the more traditional 'just-in-case' heavy-haul. The solutions are no longer about pure network capacity, but about rail freight's ability to respond dynamically and flexibly and penetrate new locations and new markets.

The 'just in case' model of delivery means maintaining larger inventories of stock to reduce the risk of supply and demand issues, with Covid-19 increasing the focus on such models, which requires greater warehousing space. However, much of the new warehousing is now being developed by companies such as Amazon, whose commercial model to the end user is 'just-in-time delivery'. In addition, changes in the location of warehouses are making rail more attractive to retailers, with major supermarkets quickly becoming some of the largest users of domestic rail freight, driving a new blend of 'just in case' and 'just in time' commercial freight models. This may be accelerated with the advent of freeport and port-based logistics, especially where there is an established rail freight corridor. SRFIs can be a key part of this and the Midlands is well served. However, there is a need to find ways to attract more customers in this new market and this is likely to require a rethink of the commercial models used by Network Rail and freight operators to sell their capacity.

The urban freight market is another opportunity for rail freight, with rolling stock companies such as Orion and Eversholt Rail now refitting old passenger trains to be able to transport high value, low density freight (e.g. parcel deliveries) into more central urban locations where more sustainable first mile/last mile modes can connect into.

### Issue: The impact of freight

Freight is obviously not without its impacts. In addition to the congestion freight traffic can cause, on the Midlands' motorways, freight vehicles are involved in 35% of incidents<sup>14</sup> and 21% of carbon emissions from transport in the Midlands are from HGVs, a figure higher than the national average.

### Issue: Skills and working conditions in the freight sector

Access to skilled labour in the freight sector is considered to be a weakness as there is an ageing workforce and changes to working arrangements following Brexit are making it more difficult to recruit from Europe. Driver shortages are now particularly pronounced with longstanding issues associated with attracting young people. A lack of safe parking and suitable welfare conditions result in a poor perception of this type of work and acts as a barrier to those considering training as HGV drivers, particularly women. This emphasises the importance of planning for the provision of freight facilities as part of improvement plans on strategic road corridors, rather than as an after thought. Automation will also impact on skills and labour requirements in the sector, with some roles being phased out and greater demand for skills in IT and advanced manufacturing.



<sup>14</sup> Road Safety Data, Department for Transport

# 5

## KEY OPPORTUNITIES FOR FREIGHT



# Key opportunities for freight

## Improving international connectivity



Whilst there are few ports in the region, routes to major international gateways such as Dover, Felixstowe, Southampton, London Gateway and Immingham are key to ensuring that goods can reach their end markets. This also includes East Midlands Airport (EMA) in the heart of the region, which is one of the busiest freight airports in Europe. Therefore, investment that improves the reliability and enhances the resilience of the network is a priority. This includes both road and rail links to key ports outside of the region and key gateways within it, such as EMA and Birmingham Airport.

Maritime is the most carbon efficient mode of moving freight, followed by rail. The trend to larger ferries to carry unitised cargo has the potential to remove HGVs from the road (and rail). The expansion of operations at ports such as the Port of Boston could help decarbonise the movements of food goods. We would like to work with industry to understand the benefits of increasing the amount of freight moved by sea routes.



## Accelerating the use of alternative fuels

Efforts to encourage modal shift of freight from road to more environmentally-friendly alternatives, such as rail, cargo bikes and inland waterways are vital and mirror government aspirations in their Net Zero Strategy<sup>15</sup>. However, road freight will always play a significant role in the movement of goods, given its flexibility and ability to provide an end-to-end solution to any location. Therefore, it is vital that the sector is supported in transitioning away from carbon-based fuels to more sustainable alternatives such as hydrogen and battery power. Investment to increase the number, spread and quality of alternative refuelling and recharging stations is therefore vital. At present there is also uncertainty about which technology (hydrogen, battery electric, Electric Road System) is the most appropriate for different types of freight movement.

## Investing in rail improvements



Research and feedback from stakeholders have shown that to encourage modal shift, further investment in the wider rail network is required. This includes additional and longer passing loops, electrification, gauge enhancements, new chords or track and terminals to serve key markets. Ensuring that rail is a competitive and viable alternative to road is essential to achieving the objectives of our freight improvement plan.

HS2 brings the benefit of releasing capacity on some existing lines that could be utilised by rail freight. However, there is high competition with passenger services for the use of this capacity. This could be exploited and enhanced by further investment in the rail network. It should be noted, however, that the Integrated Rail Plan proposals have HS2 trains using the conventional network in many places, which may impact on capacity for rail freight.

## Planning access to Strategic Rail Freight Interchanges (SRFIs)



One of the most powerful policies we can support in encouraging the decarbonisation of freight lies in planning effective access to SRFIs and associated warehouse clustering, as this can expand the proportion of total warehousing and industrial development with direct access to rail and high-capacity road for regional distribution. This is because rail can offer economies over road where at least one end of a journey is on a rail-connected site and distances exceed around 125 miles. This opportunity will attract warehousing and industry because the site occupiers will enjoy the benefits of these reduced costs.

There continues to be considerable interest from the market in the development of new SRFIs, including sites at Four Ashes, Hinckley, Northampton and Etwell. The integration of Kegworth and Etwell with the air freight hub at East Midlands Airport into a freeport could make an important further contribution to the regional economy. We will take an advisory role to support our partners, for example in helping them to understand the benefits and constraints of sites as they come forward and ensure sufficient capacity on the rail network.



## Facilitating urban deliveries

The Midlands is home to several major population centres, which are significant generators of freight movements. Changing consumer trends, accelerated by restrictions associated with the Covid-19 pandemic, have had a major impact on how goods reach the consumer and have increased the number of freight vehicles on our roads. Investment in infrastructure to facilitate safer and low-carbon urban deliveries is therefore a priority for our freight improvement plan, including exploring the role of non-road modes.

We are particularly keen to explore the possibility of more use of the railway network to deliver freight into city centres. This is a potentially significant opportunity for rail, in part driven by the increased numbers of parcels and home deliveries following the pandemic. With companies such as Orion and Eversholt now developing suitable rolling stock, we want to further explore the opportunity in city centres across the Midlands. In parallel, Network Rail is also assessing the ability of key hub stations to become distribution centres. The last-mile part of the journey could then be undertaken by, for example, e-cargo bikes or other equally low-carbon modes.

## Maximising the opportunities of freeports



As proposals for two freeport sites in the Midlands develop, we will work with partners to understand and champion what each site will need from a strategic transport connectivity perspective to maximise the economic opportunity for the region.



## Supporting rural freight movements

We recognise the challenges posed by moving freight through, to and from rural areas. Our priority is to ensure that these are facilitated in a safe, effective and efficient way and do not impact those who live and work on busy freight routes.

# 6

## TAKING FORWARD THE FREIGHT ROUTEMAP



# Taking forward the freight routemap

The Freight Routemap will be a long-term plan for the sector in the Midlands, taking account of a range of factors from the changing movement of goods, regional developments and growth, and the steps which need to be taken to decarbonise the sector. The Routemap will be a 'live' document updated regularly as key information and changes come through. The next update (Issue 2) will be in about 18 months' time, once the current modelling and evidence base is completed and begins to inform some of the key strategic questions for the sector.

In the meantime, there are a variety of workstreams both Midlands Connect and partners are engaging in, which respond to the priority areas and begin to provide potential solutions for Issue 2 of the Routemap.

## Road corridors

Our Strategic Transport Plan identifies the key strategic road corridor schemes being developed by Midlands Connect. All these corridors support the nationally important freight movements through and in the region. In particular, the A50/500 and the A1 are nationally significant freight arteries supporting logistics and manufacturing businesses with high

numbers of freight movements. The A46 also plays a crucial role in transporting freight, particularly towards the Humber Ports and Immingham. We will:

- Continue to take a cross-boundary approach to deciding where key freight and logistics sites should go, and in particular their relationship to the freeports within and just outside the region
- Continue to identify, through our SRN and MRN programme, the road enhancements which can improve safety and congestion and the multi-modal opportunities with rail freight in particular
- Work with other Sub-national Transport Bodies to identify and improve capacity pinch-points throughout the UK and understand how improvements to the strategic transport networks in other parts of the country can affect freight movements through the Midlands
- Include the movement of freight into our scheme appraisals and business case development process and work with local planning authorities to ensure road freight is considered in the development process (construction and post-opening)



## Midlands Engine Rail

Our Midlands Engine Rail (MER) programme is not just focused on transforming passenger rail and regional and national rail freight. We have described how the main rail bottlenecks for freight in the region are at Water Orton and at Leicester, aligning closely with improvements required to enable our ambitions for enhanced passenger services. Through this programme we will:

- Identify opportunities for modal shift between road and rail
- Include the movement of freight into our scheme appraisals and business case development process
- Work with our Partners to fully exploit opportunities provided by HS2 to help facilitate rail freight movements
- Deliver projects such as Water Orton Junction, Leicester Rail Station capacity improvement, and capacity for forecasted freight on WCML north of Crewe
- Work collaboratively with national partners and neighbouring Sub-national Transport Bodies on nationally significant rail freight schemes, including:
  - Freight capacity improvements on the Felixstowe to Midlands and North route, in particular the key pinch point near Ely
  - Freight capacity improvements on the Solent to the Midlands route, which includes our MER Birmingham Airport Connectivity project
  - Infill electrification of rail freight routes. This involves linking routes which are already electrified to provide rail freight operators more confidence in procuring electric rolling stock
  - The London Rail Freight Strategy, which has implications on freight routing from London and the South East to the Midlands
  - Freight capacity improvements on Trans-Pennine routes and links to the Integrated Rail Plan

## Strengthening our evidence and understanding

At the moment the data we have access to does not allow us to answer the key questions. Firstly, because much of it is out of date. We need a better understanding post Covid and Brexit so that our plans are based on the latest information and thinking. Secondly, because data is not sufficiently disaggregated. This means we do not have a clear picture of how national level data flows down to the regional level (for our pan-regional planning) and also to a local level (to support the wider partnership and development of local travel plans).

Midlands Connect is undertaking an extensive data and modelling exercise during 2022/23 that will allow us to re-examine freight flows around the country and region and understand issues such as volumes and criticality of flows. This area of work will overlap with the direction of the DfT's Future of Freight plan which emphasises the importance of developing the evidence and understanding of freight to build the case for investment in the sector.

This work will lead to Issue 2 of the Freight Routemap. We expect to be able to share early outcomes from this next year.

The outcomes from the data and modelling exercise will be used to answer a wide range of questions about the sector, but ultimately enable us to:

- Understand the opportunities for an intermodal freight network (supporting the DfT concept of a National Freight Network) and therefore the strategic locations for infrastructure placement such as SRIs and superhubs for refuelling
- Update our corridor strategies to reflect the latest position and advocate for the pan-regional changes which will support these

In addition, whilst the modelling exercise is being undertaken, stakeholder engagement will continue to build understanding of the barriers to modal shift and map out the actions we can take to support this.



## Decarbonising the sector

Reducing carbon emissions and moving transport in the Midlands to a net zero pathway is one of the key commitments that has been set out in our Strategic Transport Plan.

Nationally, transport accounts for approximately a quarter of carbon emissions. HGV and vans account for 35% of this, and both road and rail freight are still heavily reliant on diesel.

We know a significant amount about carbon emissions in the region through our carbon baseline tool, which estimates that HGVs account for 21% of the regions carbon emissions<sup>16</sup>. The results reflect the routes of the SRN and MRN with HGV carbon emissions being particularly high in more rural areas such as Rutland (31% of total emissions), which has the A1 running through it, and Warwickshire (28%) which has the A46, M40 and M6 running through the county.

There two key options for decarbonising freight journeys:

The first is modal shift. We know that rail freight offers a significant opportunity for decarbonisation, with rail freight delivering 76% fewer CO<sub>2</sub> emissions compared to road even whilst still predominantly being diesel powered. It is also important to note that inland waterways also offer an alternative modal shift to rail to be considered.

The second is electrification and alternative fuels. Page 22 sets out in detail the options for rail freight but in summary, electrification is probably the most reliable option at the moment. However, whilst electrification of the Midlands mainline is underway, wide-scale electrification of the network remains some way off.

Midlands Connect is responding to the decarbonisation challenge by:

### Modal shift

In addition to addressing the capacity constraints which have already been identified on our rail freight corridors, we will work with the partnership and stakeholders in the sector to begin to understand whether there are barriers to modal shift which we can help to address.

### Alternative fuels

Midlands Connect is the lead STB for alternative fuels and developing a model for a recharging and refuelling network for the region. This will take into account fuel options, clusters of activity, freight corridors and how these can work more effectively (based on refreshed evidence base) and inter modal needs. Again, this work has significant overlap with priorities set out in the Future of Freight plan and is likely to feed into the work of the proposed Freight Energy Forum<sup>17</sup>.

In addition, we are working as part of the H2GV Mids consortium which aims to bring a 40 tonne hydrogen truck to market.

We are also working with other STBs to initiate their work on alternative fuels infrastructure so we can work towards building a national picture of requirements and promote a 'whole route' approach to freight.

## Stakeholder views

Midlands Connect engaged with a range of partners across the region from the industry and local authorities in order to develop the Freight Routemap. Whilst stakeholders appreciate that the position of the Midlands delivers significant strengths, they see a range of challenges going forward:

**Support for the sector:** Stakeholders feel that they are not supported by policy makers and this will be required to facilitate the transition to alternative fuels, for both road and rail freight. Whilst some of the bigger players in the sector such as supermarkets and large courier firms are successfully making the transition in both road and rail, a significant part of the sector is SMEs who will require support.

**Skills shortages:** Driver shortages are now particularly pronounced, with longstanding issues in attracting young people (which is vital due to the ageing workforce) into these roles exacerbated by predominantly Eastern European drivers returning home following Brexit and the Covid-19 pandemic.

**Facilities:** A lack of safe parking and suitable welfare conditions contributes to negative perceptions about working in this sector.

**Regional connectivity:** East-west connectivity in the region is highlighted as an issue, as well as the resilience and journey time reliability of the wider transport network. Alongside this a lack of road infrastructure investment is an issue, for example lack of investment in road bridges and weak bridges having weight restrictions on the SRN.

Further details of feedback and respondents is provided in Appendix B of the full Freight Routemap.

We have begun to respond to these challenges by undertaking a HGV Driver and Parking Facilities study to understand the opportunities that exist in the region to improve the driving conditions in the sector. We are also in the process of establishing a freight forum which will bring together key stakeholders across the sector and allow us to work in partnership on key projects as required.

In addition to the areas set out above the wider Midlands Connect partnership is engaging in a wide range of projects – the full list can be found in the detailed Technical Routemap.

There are further areas we want to consider how we can address such as:

- Use of waterways and determining who the likely users are, which operators could support an increase in inland water freight and where efforts should be targeted.
- Opportunities for innovation and technology and the extent to which they can respond to challenges and encourage innovation in the sector.
- Regional and local distribution hubs and how these may develop, and their interaction with Local Transport Plans.



## Where next?

### 1.

#### Building a stronger evidence base

Using the Great British Freight Model, we will create a much better picture of how freight moves into, through and around our region, including what goods are being carried and where. We have already begun scoping this work and will use our updated, robust evidence to shape future rail, road, technology and alternative fuels work which will be represented in future issues of our Freight Routemap.

### 2.

#### Setting up a Freight Forum for the Midlands

Engaging and supporting our partners and our freight industry is key to delivering our future work. To help grow and strengthen our relationships we will create and launch the Midlands Connect Freight Forum later this year. We will use this Forum to facilitate two-way communication to ensure that we keep up-to-date with the industry, enabling us to knowledge share and invest our resources wisely when identifying and co-developing solutions aimed at tackling critical short and long-term freight challenges.

### 3.

#### Continue working with DfT

As the STB for the Midlands, we will continue to work with DfT, ensuring our Midlands' freight knowledge and expertise help shape and deliver proposals set out in Government's Transport Decarbonisation Plan (TDP), the Union Connectivity Review and the recently published "Future of Freight" Plan.

### 4.

#### Continue supporting our Partners

Midlands Connect is currently developing and sharing a range of tools and some really interesting work with partners across the Midlands Engine aimed at helping local policy and projects meet the needs of local people whilst facilitating a more strategic approach to for instance, integrating the needs of freight and logistics with the planning system.

### 5.

#### Continue and expand our project work

In addition to the above, we are committed to delivering other specific projects that support the freight industry. Current examples of these are our HGV Parking and Driver Facilities study and our Creating a National Picture for Alternative Fuels project. We will continue to explore and investigate various workstreams that can help us achieve our overall vision for freight in the Midlands including the preparation of detailed assessments of the infrastructure required to enable the uptake of battery electric or hydrogen HGVs or the refuelling requirements at depots on major freight routes.





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