England's Economic Heartland
Freight Action Plan

Revised Action Plan

Final Draft Report

27/02/25

Contents

EXECUTIVE SUMMARY

England's Economic Heartland (EEH) is the sub-national transport body for the region stretching from Swindon across to Cambridgeshire and from Northamptonshire down to Hertfordshire. The role of a sub-national transport body is to advise government on the transport infrastructure, services and policy framework which will realise the region's economic and growth potential.

Our economic success benefits not only the region's residents and businesses, but the UK more widely, with the Heartland being a net contributor to the Treasury. The region's strategic importance is, in part, due to the fact that most major freight corridors pass through the region, including road and rail routes.

To articulate the role EEH plays, the EEH Regional Transport Strategy[1], published in 2021, supports sustainable economic growth with an ambition to achieve net zero from transport by 2040, and it identifies freight as having a significant role to play. The Strategy recognises that actively planning for and meeting the freight and logistics needs of the business community are pre-requisites for economic and environmental success and identifies that supporting both rail (including Strategic Rail Freight Interchanges) and road freight are key objectives for the region.

This report updates the evidence from the EEH Freight Study (2019)[2], incorporating the findings from our connectivity studies and further research undertaken subsequent to the Freight Study and the Transport Strategy, to culminate in a Freight Action Plan. The Plan identifies actions that will support Local Authorities to best plan for the safe and efficient movement of freight and logistics; support the logistics industry to continue to meet business and consumer demand; and enable EEH to understand their role in raising the status of freight across the region, embedding a multi-modal approach to support a cleaner and more efficient freight system. This includes meeting decarbonisation ambitions; harnessing innovative solutions to support efficient supply chains from international gateways and national/regional distribution centres; through to last mile deliveries that utilise the right technologies, routes and modes.

The data presented here demonstrates that the freight and logistics industry is a key feature of the EEH economy. The industry is highly sensitive to the changes in demand that economic uncertainty creates. Stalling infrastructure investment at national, regional and local level, changing consumer demands and rising costs all present challenges to this low margin industry.

In recent years, the UK has experienced wide scale global supply chain disruptions which has impacted many areas of logistics, such as equipment sourcing, production delays, and fuel prices. Whilst this is something that cannot be addressed locally, there are opportunities to encourage economic growth by making supply chains more resilient, for example through local sourcing, circular economy, and supply chain collaboration.

[1] England's Economic Heartland (2021) *Regional Transport Strategy: Connecting People, Transforming Journeys*. Avaliable at: Transport Strategy - England's Economic Heartland
[2] England's Economic Heartland (2019) *Freight Study: Full Report.* Avaliable at: Freight_Study.pdf

A severe shortage of truck drivers persists and attracting and retaining skilled drivers remains a critical challenge, which is not helped when the facilities are either not provided or do not meet the needs of modern working conditions.

The industry recognises its contribution to the environmental challenges facing the UK, driven, in part, by aggressive decarbonisation targets. The pace of technological change to address some of the environmental impacts is fast, however, the physical challenges of implementing technological solutions at scale are high. The appropriateness of alternative fuels for heavy, long-distance vehicles or the tools to manage air quality impacts in densely populated areas is often difficult to address without a cross-sector approach. Managing potentially conflicting requirements makes implementation difficult and costly and there is a significant role for the public sector to help address this, for example in EV charging, parking facilities and a consideration of freight when making road improvement decisions i.e. junction improvement.

Addressing these challenges will enable the logistics sector to support economic growth whilst also offsetting its impact on the environment.

Within this context the Action Plan identifies strategic actions which contribute to addressing the challenges identified.

Freight Blindness	Future Infrastructure (Road and Rail)	Planning for Logistics	Net Zero/environment	Innovation
Engagement planning Freight Officer Forum EEH Freight Forum Freight information Public sector awareness training Public sector freight toolkit	Funding and investment planning HGV Rapid Charge point Roadside facilities New rail freight terminals	Freight Officer Group Use of Construction Logistics Plans and Delivery and Service Plans Logistics land	Freight decarb plan Real zero emission vehicles Site assessment Alternative fuel locations Decarbonisation Guide Review of non road freight movement in the region and options for modal shift Support for rail freight growth Support for freight on EWR	Innovation review

Many of the measures identified have responsibility for implementation allocated to stakeholders. Therefore, key to the success of the implementation of the Action Plan will be their buy in, particularly from Local Authorities and the Wider South East Freight Forum. Funding is a key enabler for the implementation of the Action Plan and therefore in EEH's facilitator role, identification of funding routes, both for EEH and Local Authorities, will be a key next step.

Once agreed, a detailed work plan would allow for developing an approach to implementing the Action Plan, outline the engagement requirements and scoping out the distinct roles and responsibilities. Whilst each action has been identified as a separate element of the Plan, many are interrelated – some are dependent on others, and some will happen concurrently.

1 INTRODUCTION

1.1 BACKGROUND

The EEH Freight Study was published in June 2019 and identified that there is a significant amount of freight traffic going to and through the Heartland region.

The freight and logistics sector operates nationally and therefore are likely to engage less at a local level. Therefore, EEH, alongside the wider sub-national transport body (STB) network that covers the whole of England, has a role to play in facilitating conversations with the sector, as well as helping provide the evidence to support Local Authority partners understand how and where they operate, and what their requirements are in the region. This will enable Local Authorities to identify and plan for the right infrastructure to support the sector in the right places and identify and/or safeguard land for logistics through their Local Plans.

Trade and professional representatives have welcomed the convening role and ability to engage at a regional level, for example EEH has strong relationships with the CILT, Logistics UK and the Road Haulage Association, as well as working with other STB partners through the Wider South-East Freight Partnership (WSEFP).

EEH also actively respond to consultations and calls for evidence that provide the evidence to Government on the needs of both public sector partners and the logistics industry to ensure they can plan for and deliver a transport network that supports decarbonisation, modal shift and the safe and efficient movement of goods.

The way to ensure that this activity is co-ordinated prioritised and focused locally and regionally is through the development of a Freight Action Plan and in due course the development of an Action Plan Matrix.

1.2 DEVELOPMENT OF THE ACTION PLAN

Polaris Consultancy Group was appointed by England's Economic Heartland (EEH) to assist with a revised Freight Action Plan to support the Regional Transport Strategy's aim of supporting sustainable economic growth with an ambition to achieve net zero from transport by 2040.

The preparation of this Freight Action Plan has been supported by the technical team at EEH. Table 1 below summarises the contributions from key stakeholders.

Organisation	Sector
EEH Freight Officer Forum	Public Sector
Wider South-East Freight Partnership (WSEFP)	Public and private sector
Wider South-East Rail Forum	Public and private sector
STB Freight Sub-Group	Public sector
East West Rail	Rail
Network Rail / GBR (Shadow)	Rail
Rail Freight Group	Rail
Chartered Institute of Logistics and Transport – Rail Freight Forum	Rail

Road Haulage Association	Road
Logistics UK	Logistics industry

Table 1 Summary of key partner and stakeholders

This Action Plan is informed by the information and data contained within the EEH Freight Study and the EEH regional evidence base, as well as more recent data mentioned in this report.

1.3 ENGLAND'S ECONOMIC HEARTLAND

EEH is the sub-national transport body for the region stretching from Swindon across to Cambridgeshire and from Northamptonshire down to Hertfordshire. The role of a sub-national transport body is to advise government on the transport infrastructure, services and policy framework which will realise the region's economic potential while supporting the journey to net zero.

1.4 SUB-NATIONAL TRANSPORT BODIES

Sub-national transport bodies (STBs) produce transport strategies for their regions and advise the government on investment priorities. There are seven sub-national transport bodies covering the entirety of England outside of London.

There is a strong culture of collaboration between STBs, including joint working on the big strategic issues facing the country. Freight and logistics is one of these key policy areas that requires pan regional work. In particular, EEH is working with Transport East (TE) and Transport for the South East (TfSE) on the Wider South East Freight Forum (WSEFF). The aims of the forum include:

- Promoting a better understanding and partnership working between freight and logistics operators, business representatives and public sector
- Sharing good practice, knowledge, expertise and advice between the members across the wider geographical area
- Facilitating collaborative working to resolve common issues and drive action towards shared goals.

The actions in this EEH plan include further collaboration with the six other STBs, including work to support the sector with ambitious decarbonisation ambitions, engagement with the industry and supporting mode shift to rail.

Figure 1: STB Areas

1.5 The Heartland Region

The Heartland is renowned for its world class strengths in digital technologies, life sciences, advanced manufacturing and green industries/ energy. The region is pivotal to the government's ambition for the UK to be the world's next Silicon Valley.

The region is of strategic importance to the whole of the UK since most major freight corridors pass through the region, including road and rail routes. This further underlines the need to collaborate with other STBs on strategic issues.

It is home to head offices for key logistics companies DHL, XPO and innovative support companies such as ABB automation at Milton Keynes, Head Offices for Mercedes, Scania trucks and Jungheinrich forklifts.

Warehousing employment is an important component of the area's economy. In 2020 warehouse specific employment accounted for around 49,000 jobs and 6% of all employment (and the actual number engaged in warehousing and logistics could be much higher). From 2015 to 2020 the total employment count in this sector increased by over 50% from 31,750 to 48,500. It is acknowledged that this presents both opportunities and challenges for the authorities in managing the growth of the sector.

The region's economic success benefits not only the region's residents and businesses, but the UK more widely, with the Heartland being a net contributor to the Treasury.

1.6 The Importance of Freight

Road Freight

Identified through the the evidence from the Freight Study (2019)[Error! Bookmark not defined.] and supported by updated data from the national freight model, the key Strategic Road Network (SRN) road freight corridors in the region are the M1, A1, the M25 and the M40 North of Oxford. There are also major port related flows of freight into the region on the A14 and A34 as shown in figure 2 below.

The dominance and high HGV flows on the SRN through the region masks the volumes of freight traffic on the Major Road Network (MRN) and local roads and hides the important role that the MRN plays in moving strategic freight traffic across the region. Therefore, figure 3 shows the same geography with the SRN removed. This shows significant traffic on alternative routes to the SRN including:

- A421 between A1 and A43;
- the A420, as highlighted in the EEH Swindon Didcot Oxford Connectivity Study, providing a shorter route between A34 and M4;
- the A418 connecting M40 and Aylesbury and on to the A41 connecting to the M1;
- the A415 as an alternative to the M25 connecting the M1 and A1M;
- the A505 connecting the M1 from Luton to A1M and on to M11;
- the A10 providing connections to Cambridge from south and north;
- A142 connecting Ely towards Peterborough as an alternative to the A14;
- and significant traffic on A15 through Peterborough itself.

While it is reassuring that the majority of HGV traffic is focused on the SRN, it is clear that local roads play a significant role in the movement of strategic freight traffic. Balancing the needs for local freight while minimising the impact of strategic freight is why a freight action plan is important for the EEH region.

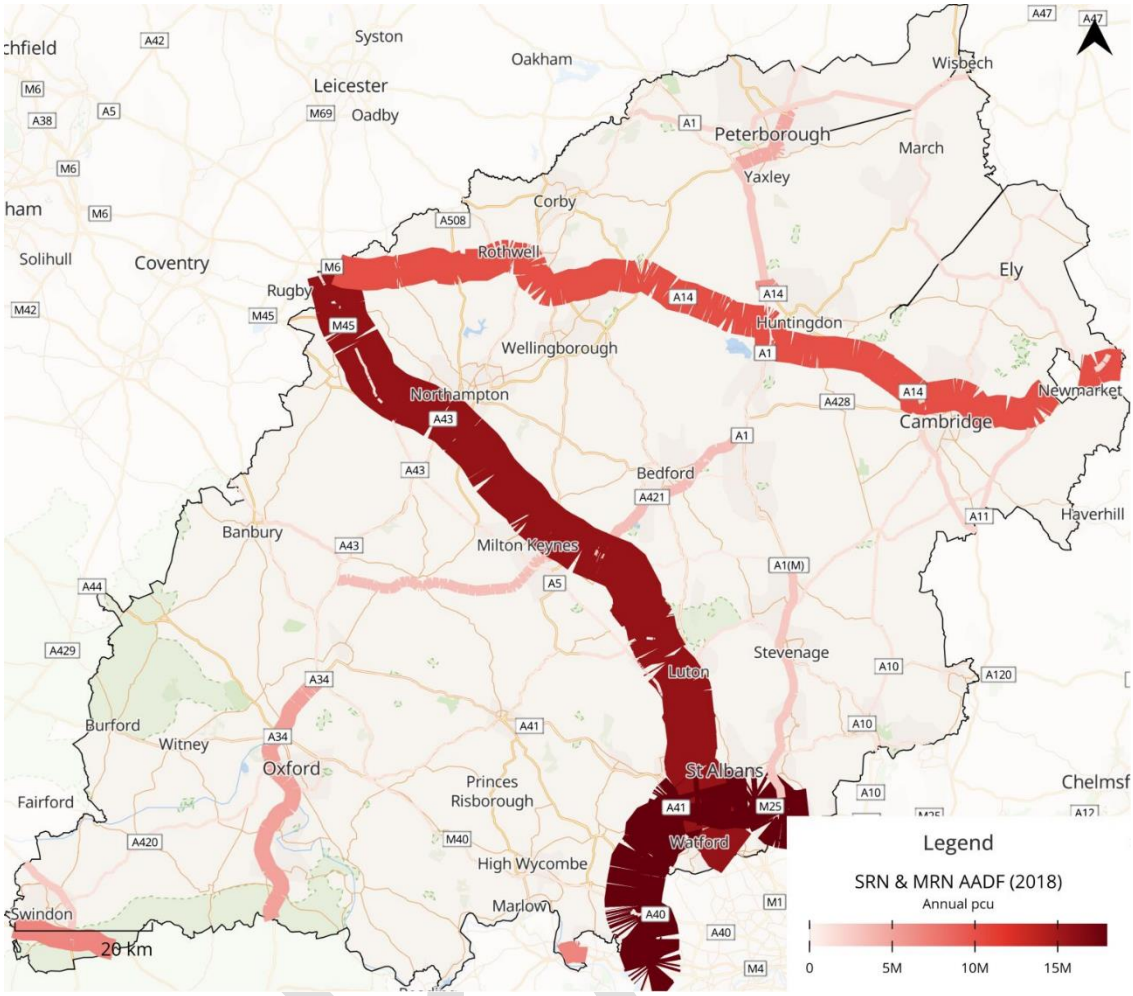

Figure 2 Average Annual Daily HGV Flows across the EEH Region SRN and MRN (Source: MDS and City Science, 2018)

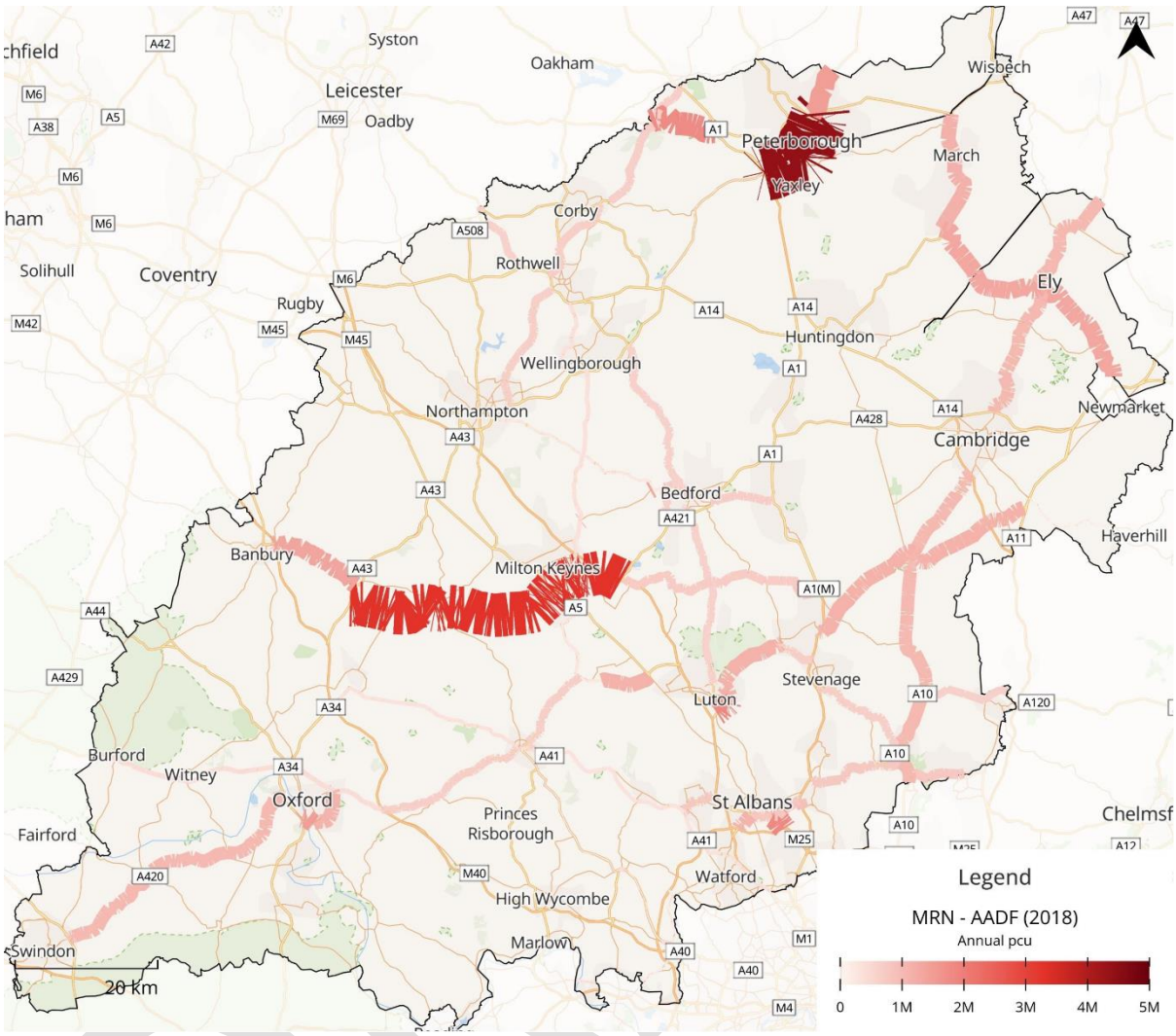

Figure 3 Average Annual Daily HGV Flows across the EEH Region excluding the SRN (Source: MDS and City Science, 2018)

Rail Freight

The prioritised rail freight corridors are:

- Felixstowe to Nuneaton,
- future East West Rail (which is yet to be fully delivered),
- Southampton to the West Midlands
- and the West Coast Main Line.

There are 23 active rail freight terminals in the EEH area including two Strategic Rail Freight Interchanges (SRFIs) at DIRFT in Daventry, Northamptonshire (which handle 57-60 container trains per week with 5 trains per night to Scotland) and is the largest SFRI in the UK and a new facility at Northampton. Other facilities are in the planning stages, notably the proposed SRFIs at Radlett in Hertfordshire, Ardley in Oxfordshire and Sundon in Central Bedfordshire.

Figure 2: Map of rail freight terminals (Source: EEH Freight Study, 2019)

Of the rail freight terminals identified in the area:

- 3 are Strategic Rail Freight Interchanges
- 16 are for aggregate / construction materials
- 2 are for domestic waste
- 2 are for metals
- 1 is for automotive products

The road and rail corridors mean that EEH is an important transit region for goods moving between other regions as well as serving businesses and communities within the area.

3Figure 4: Map of rail freight corridors All Trains Per Corridor 2013 (Source: EEH Rail Priorities Studyr)
Red= > 15 trains per day per direction, Orange= 5-15 trains per day per direction, yellow –1.25 - 5 trains per day per direction, Green = <1.25 trains per day per direction

While the area includes important regional cities such as Oxford, Milton Keynes, and Cambridge, much of the Heartland is rural and this Action Plan therefore aims to respond to the issues and opportunities relating to freight in strategic, urban and rural contexts.

1.7 Purpose

This Freight Action Plan identifies actions that will support Local Authorities to best plan for the safe and efficient movement of freight and logistics; support the logistics industry to continue to meet business and consumer demand; and enable EEH to understand its role in raising the status of freight across the region, embedding a multi-modal approach to support a cleaner and more efficient freight system. This includes meeting decarbonisation ambitions, harnessing innovative solutions to support efficient supply chains from international gateways and national/regional distribution centres, through to last mile deliveries that utilise the right technologies, routes and modes while minimising the impact of freight, especially HGVs, on communities.

This Plan also shares best practice from across the region and the wider UK to support partners across industry and the public sector to identify suitable solutions that help the sector and guide freight and logistics related transport to the right modes and routes in the region.

This Plan sets out actions that support the polices within Regional Transport Strategy**Error! Bookmark not defined.**, drawing on the evidence from the Freight Study (2019)[Error! Bookmark not defined.] with refreshed data. Connectivity studies and further research have also been undertaken since the publication of both the Freight Study**Error! Bookmark not defined.** and the Regional Transport Strategy**Error! Bookmark not defined.**.

It identifies the roles EEH, Local Authority partners, the industry and Central Government will need to play to deliver the actions within the plan to achieve net zero in freight transport by 2050 with delivery on the following key objectives:

- ensure the right infrastructure in the right places to support the industry to decarbonise their transport operations;
- industry demonstration of innovative technologies, many of which have been developed or trialled in the region - from safety systems, autonomous deliveries and other innovative last mile solutions; and
- support the freight and logistics industry, linking in with the region's global expertise to unlock new opportunities for residents and businesses, and benefit the UK as a whole.

These objectives, alongside bespoke studies focused on construction and rail freight, as well as engagement with Local Authority partners, the industry, and freight and logistics experts including trade representatives, inform the actions identified.

1.8 England's Economic Heartland Freight Study 2019 Error! Bookmark not defined.

This study provides a wealth of data and background information on the importance of freight in the region and identifies the key challenges and opportunities for the Heartland. It identified a number of actions that could be included in a freight strategy.

Rather than repeating information in the Freight Study, this action plan cross references where required. More recently MDS Transmodal were commissioned to provide new data on freight flows and forecasts and warehouse locations. This data has been mapped for EEH by City Science, with the maps being reproduced in this report.

2 FREIGHT CONTEXT

2.1 RECENT DEVELOPMENTS

The EEH Freight Study provides a summary of relevant national and regional policy as it was in 2019. The key development since that time has been the publication of the first national freight strategy – The Future of Freight – in 2022[3].Plans are also now developing s for a different railway operating model based around a new organisation called Great British Railways (GBR). GBR would oversee operation of the rail network and services across Great Britain, taking over responsibilities held by current organisations such as Network Rail, the ORR and passenger train operating companies .. For freight, it is expected that the services will continue to be operated by the private sector, but GBR will manage their access to the rail network. The previous Government set ambitious targets to grow rail freight, and it is expected that GBR will have similarly stretching targets given for rail freight growth as it is established.

2.2 STRATEGY AND POLICY

2.2.1 National

Freight and logistics is essential to the functioning of the economy and impacts residents, businesses, workers and visitors, either through the availability of goods and services, the employment the sector provides or through the impact of goods vehicles on the transport network or on the wider environment.

New and changing consumer preferences resulted from the covid-19 pandemic that are continuing to impact freight demand across the UK. The growth in online shopping for consumables and groceries rose sharply during 2020 and is continuing to grow. Increased demand for home deliveries has driven the need for capacious and resilient supply chains, including suitably located warehousing and storage facilities, driver welfare facilities, and vehicle depots.

THE IMPORTANCE OF EFFICIENT LOGISTICS IS RECOGNISED BY GOVERNMENT.

The Department for Transport (DfT)'s plan for *Decarbonising Transport – A better, greener Britain* (2021)[4] sets out the role of transport in contributing to greenhouse gas emissions, and for each mode (including delivering goods and services). It describes: the current position of the sector versus historical emissions; current government aims and targets; current policies to deliver the targets; and planned future work. This transport decarbonisation plan outlines a strategy to achieve net zero carbon emissions from all forms of transport by 2050 and identifies six strategic priorities to deliver a vision of a net zero transport system:

- Accelerating modal shift to public and active transport;
- Decarbonisation of road vehicles; and
- Decarbonising how goods are moved;

[3] Department for Transport (2022) *Future of Freight: a long-term plan.* Avaliable at: Future of Freight
[4] Department for Transport (2021) *Decarbonising Transport – A Better, Greener Britain.* Avaliable at: Decarbonising Transport – A Better, Greener Britain

- Place-based solutions;
- UK as a hub for green transport technology and innovation; and
- Reducing carbon in a global economy.

The Future of Freight Strategy (2022) sets out the government's long-term vision for the UK freight sector. It identifies the main challenges, objectives and actions that need to be taken in the following priority areas:

- National Freight Network (NFN)
- Enabling the transition to net zero
- Planning, people and skills
- Data and technology

The planning needs of freight and logistics are wide-ranging and complex, reflecting the intricacy and variation of the sector. It is unlikely that any single intervention will address all of the needs and challenges associated with delivering a better more efficient operational ecosystem.

The strategy sets out how important it is for freight and logistics to be considered within the planning system and how the planning system must facilitate freight-related development, such as new warehouses and distribution hubs being built across the country in response to rapid growth in home delivery.

GOVERNMENT HAS SET A GROWTH TARGET FOR RAIL FREIGHT

In December 2023 the previous Government set a target for rail freight to grow by 75% by 2050. This target is regarded as a minimum, and has not yet been broken down by corridor or sector. As many of the rail freight services serving EEH and passing through EEH can be regarded as high growth sectors (notably intermodal services and the West Coast Main Line), for key EEH corridors it is likely that rail freight could more than double by 2050 posing significant challenges for capacity, particularly when set alongside ambitions to grow passenger volumes.

A new strategic body 'Great British Railways' is now being progressed, with legislation due later in 2025. Although private companies will continue to operate freight trains, GBR will manage operations across the Rail Network and is expected to have a clear remit to promote freight.

The ORR has set a short-term target to grow rail freight by 7.5% during CP7 (2024-2029).

2.2.2 EEH Transport Strategy

The EEH Regional Transport Strategy, published in 2021, recognises that actively planning for and meeting the freight and logistics needs of the business community are pre-requisites for economic and environmental success.

The key freight elements of the strategy are:

SUPPORTING RAIL FREIGHT

EEH will work with Network Rail and all relevant Sub-national Transport Bodies to develop proposals that increase freight on the rail network with priority given to the following corridors:

- Felixstowe to Nuneaton
- East West Main Line

- Southampton to West Midlands
- West Coast Main Line

EEH will work with Network Rail and all relevant Sub-national Transport Bodies to maximise the conveyance of construction materials by rail with priority given to the following corridors:

- Midland Main Line – providing access into the region from aggregate sources in the Midlands.
- Great Western Main Line – providing access into the region from aggregate sources in western England and Wales.

This has further been articulated in the Rail Strategic Objectives published in 2023 which supports rail freight on each of the mainline rail routes. This is now complemented by the EEH Rail Main Line Priorities' Study, which although focuses on passenger service improvements identifies many interventions such as electrification and capacity improvements which would also benefit expansion of rail freight services.

STRATEGIC RAIL FREIGHT INTERCHANGES

EEH will support the development of Strategic Rail Freight Interchanges where they support the ambitions of this strategy and their impact on the transport network can be suitably managed.

SUPPORTING ROAD FREIGHT

EEH will support local partners to make full use of Government funding to support road freight firms seeking to upgrade their vehicles or explore innovative ideas for reducing road freight such as urban consolidation centres or alternative fuel refuelling hubs.

EEH will work with National Highways, local highway authorities, local planning authorities and the freight sector to ensure that strategic corridors for road freight and logistics are fit for purpose, with priority given to the following corridors:

- The M25/M1
- The A34 and M40 north of Oxford
- The A1 corridor
- The A14 and A428
- The A45 and A508 into Northampton.

EEH will work with National Highways, local highway authorities, local planning authorities and the freight sector to use improved planning and the application of innovative solutions to reduce the impact of freight on the environment, in terms of carbon emissions and its impact on communities living in and around freight corridors.

EEH will work with National Highways, local highway authorities, local planning authorities and the freight sector to address the need for secure overnight lorry parking and their associated facilities.

EEH will work with local transport authorities, local planning authorities and the freight and logistics sector to ensure the local servicing and support needs of the business community are met.

2.2.3 EEH Local Authorities

Local freight policy is set out in Local Transport Plans, and some Local Authorities have additional freight strategies. Freight is considered important by Local Authority partners and each Local Authority participates in an EEH led Freight Officer Group. However, there are concerns about the impact of freight on local communities and how best to manage this. Freight policies recognise the value in working together through Freight Forums or Local Logistics Partnerships. Some authorities have set these up, others are keen to be part of cross regional partnerships.

Generally, the policy emphasis in the local transport plans is on better management and routing of road goods vehicles, with some support for modal shift to rail. They also recognise that freight needs due consideration as part of development management process.

The more recent freight plans for authorities such as Oxfordshire County Council include policies to address freight needs and efficiency such as HGV parking, EV charging, and last mile deliveries.

Given many partners are updating their Local Plans and Local Transport Plans, there is opportunity for EEH to provide evidence, data and guidance that will support the development of freight policies that align across the region and guide the movement of goods and services to the right modes and right routes. This in turn can support the development of a national freight network that will support the efficient, sustainable movement of goods and services within the region, reducing negative impacts to communities.

EEH hosts a Freight Officer Group, where best practice is shared and priorities for support identified. The key priorities from members of this group were identified as:

- Mapping and Data Review
- Support the industry (Infrastructure)
- Engagement with government and industry
- Consolidation and last mile
- Mode shift to rail freight

2.3 Supply Chain Trends

Global trends have significantly impacted the UK logistics market, shaping its landscape and operations.

E-COMMERCE

One prominent trend is the increasing demand for e-commerce, driven by shifts in consumer behaviour towards online shopping. This surge in e-commerce activities has propelled the need for efficient last-mile delivery solutions and advanced warehouse management systems to manage the growing volume of parcels and ensure timely delivery.

SUSTAINABILITY AND DECARBONISATION

Another notable trend is the emphasis on sustainability and eco-friendly practices within the logistics sector. With growing environmental concerns, there is a rising pressure on logistics companies to reduce their carbon footprint by adopting electric and alternative fuel vehicles, optimizing routes to minimize emissions, and implementing green packaging solutions. This trend

not only aligns with regulatory requirements but also caters to the preferences of environmentally conscious consumers.

TECHNOLOGY

Advancements in technology, particularly in areas such as artificial intelligence, Internet of Things (IoT), and data analytics, are revolutionizing logistics operations. These technologies enable better inventory management, real-time tracking of shipments, predictive maintenance of vehicles, and overall optimization of supply chain processes. Companies that embrace these technological innovations gain a competitive edge by enhancing efficiency, reducing costs, and improving customer satisfaction.

BREXIT

Brexit has introduced complexities and uncertainties in the UK logistics market, particularly concerning customs procedures, border controls, and trade regulations. Logistics providers have had to adapt to new trade realities, navigate additional paperwork, and ensure compliance with evolving regulations to maintain seamless cross-border operations.

OUTCOMES

In response to these trends, logistics companies in the UK are increasingly investing in infrastructure development, digitalisation, and talent acquisition to stay ahead in the competitive market. Collaboration and partnerships between logistics providers, technology firms, and retailers are also on the rise, facilitating innovation and offering comprehensive logistics solutions to meet evolving customer needs.

An important outcome is an emerging change in the level and type of demand for logistics spaces. Delivery companies and retailers increasingly need space close to cities, suitable for despatching same day deliveries to customers. This has driven demand for large warehouses around the periphery of cities, close to trunk roads.

Closer to city centres, logistics companies need locations to transfer to last mile delivery vehicles, which increasingly include cargo bikes. These locations may also be used to store goods for "same hour" deliveries.

While this trend is clear around big cities, it does not seem to have resulted in any reduction in demand for national distribution hub space in the Midlands and can be seen around West and North Northamptonshire and the rise in distribution around Milton Keynes.

Overall, these trends underscore the dynamic nature of the logistics market in the UK, where adaptability, innovation, and sustainability are key drivers of success in an ever-changing landscape.

2.4 Freight In EEH

2.4.1 Key Freight Generators

The Freight Study identified the following key clusters in the EEH economy:

- High performance technology and engineering: Including clusters in Milton Keynes, Oxfordshire and West and North Northamptonshire
- Logistics: Including clusters in Northamptonshire, Central Bedfordshire, Bedford Borough and Milton Keynes
- Electronics and Telecommunications: With concentrations in Buckinghamshire
- Knowledge Economy: Clusters of scientific research and development, biotechnology, Computer programming, life science, pharmaceuticals and consultancy focused in Oxfordshire and Cambridgeshire.

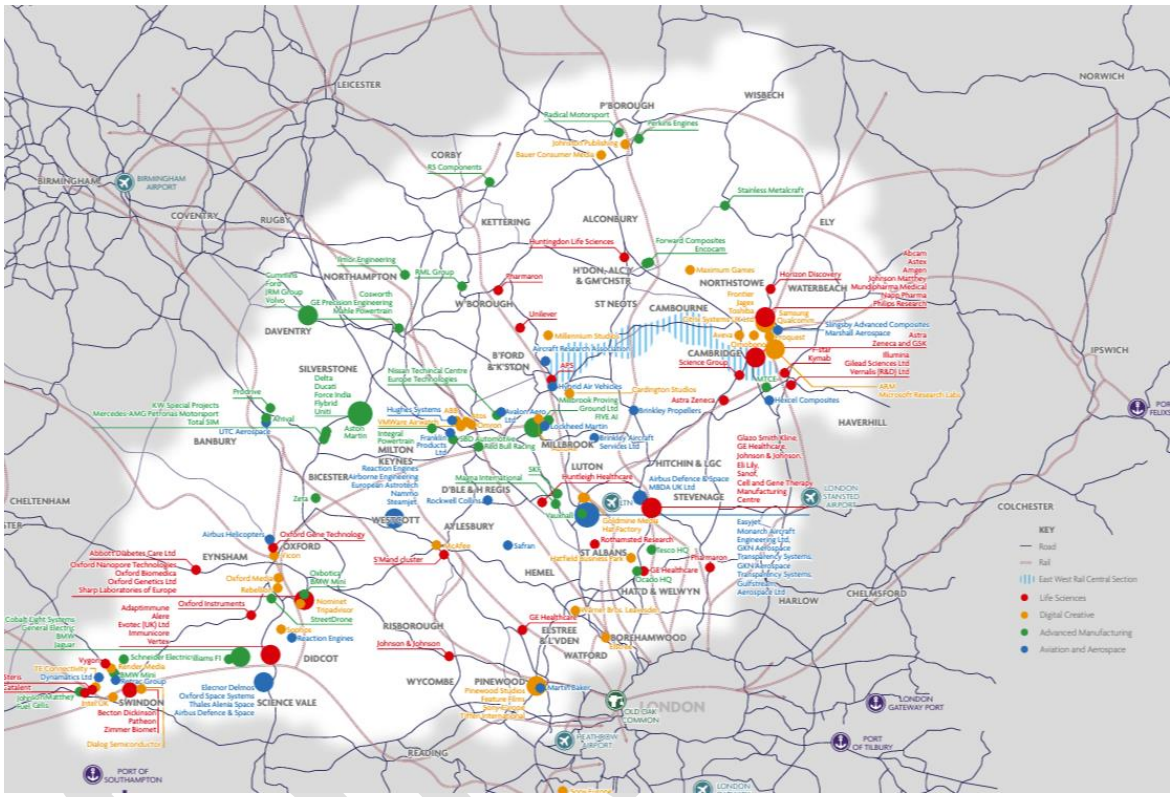

Figure 5: Map of key business clusters in the innovation ecosystem (Source: The Heartland in Context, 2020)

The Freight Study went on to provide data for the following sectors which generate significant volumes of freight:

- Strategic warehousing and freight hubs
- Aggregates / building materials
- Automotive
- Other manufacturing

Despite the influence of mega trends such as direct deliveries to consumers, the region continues to be an important focus for major distribution centres. The map below provides an updated assessment of where warehouses are located across the EEH area.

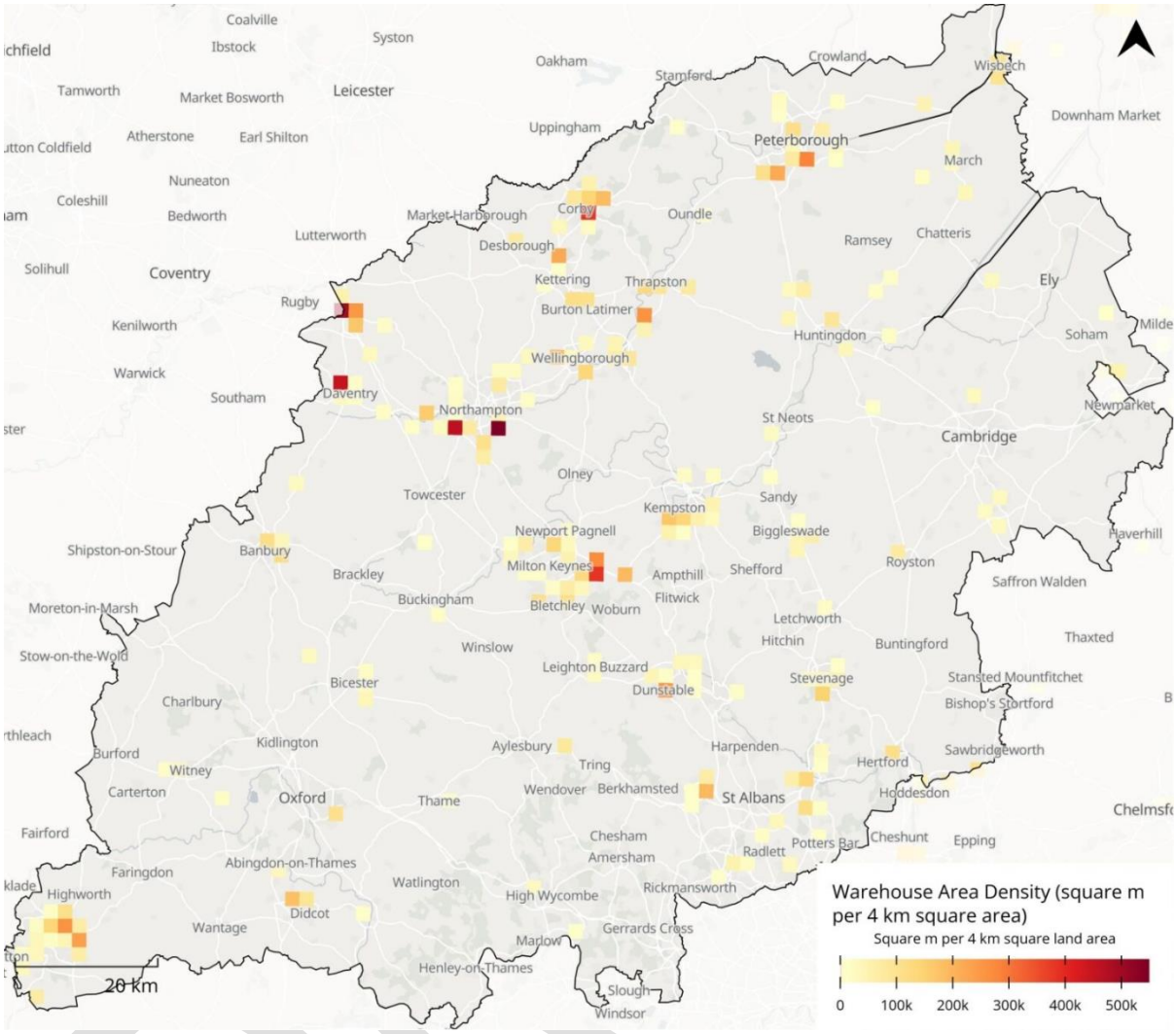

Figure 6: Map showing the key concentrations of warehouses in the area. (Source: MDS and CityScience)

The connectivity within the region and its central location have laid the foundations for a strong distribution sector (part of the 'golden triangle of logistics'). The map clearly shows the dominance of the Milton Keynes / Northampton / Rugby area which is the location for a number of large national distribution hubs and is considered to be part of the Golden Triangle for logistics property. The Golden Triangle offers a combination of access to the major ports within half a driving shift and continuous driving hours and good access to a large proportion of the UK population. The area is well served by motorways and trunk roads, with large rail-served freight distribution sites in Daventry (DIRFT) and Northampton.

It is also worth noting other concentrations of warehousing around Swindon and Peterborough.

2.4.2 Road Freight Patterns

The 2019 Freight Study analysed road freight movements to, from, within, and through EEH. More recently updated data has been analysed, including a forecast of freight volumes to 2050.

The following maps illustrate the major origins and destinations of HGVs as modelled by MDS.

Figure 7: 2018 HGV flows to and from regions – (Source: MDS modelling))

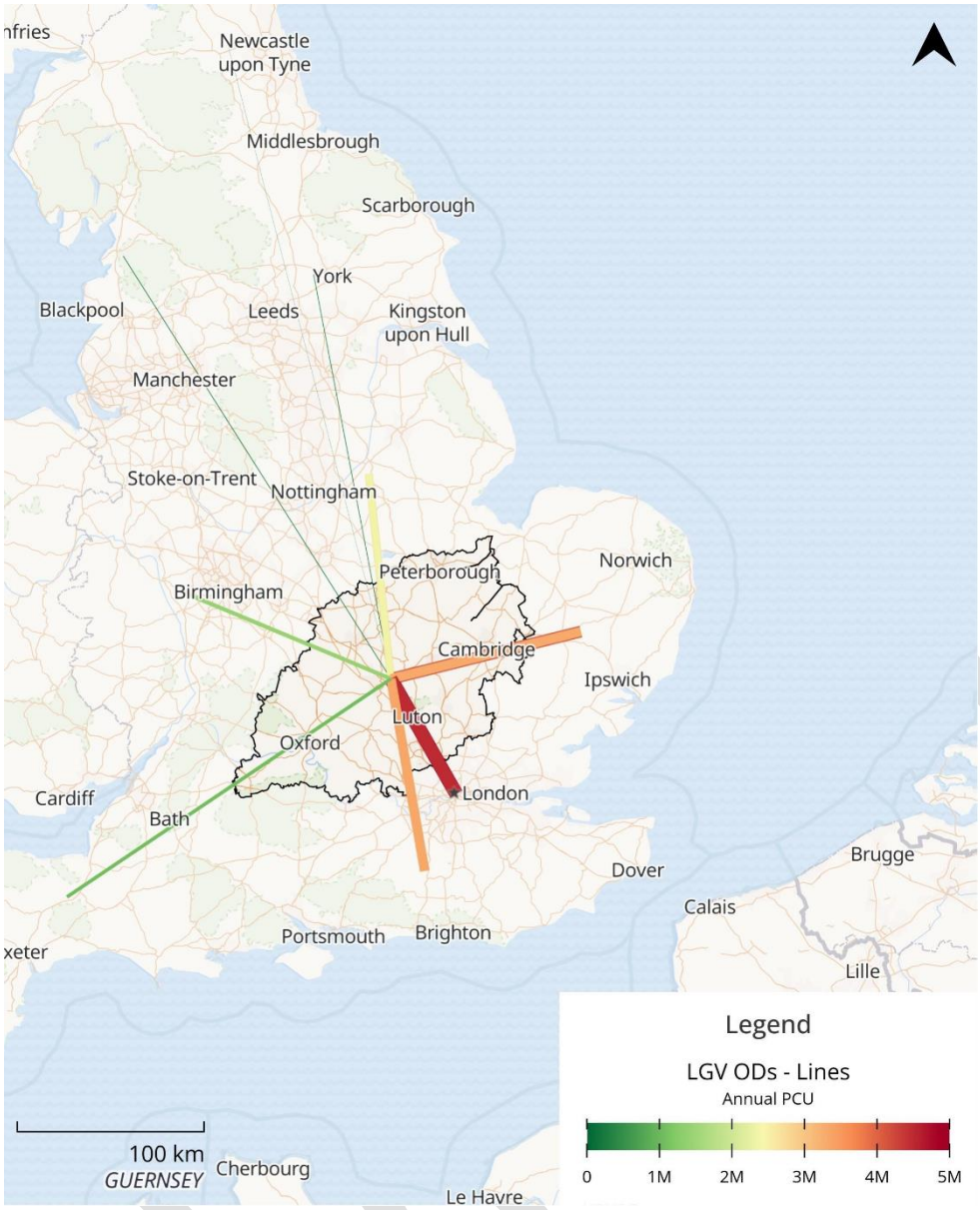

Figure 8: 2018 LGV flows to and from regions (Source: MDS modelling, year) Note that the map shows from nearest centroid but likely to link to Ports or major distribution hubs)

Figure 7 and Figure 8 highlight the general factor for all freight flows: that flows over shorter distances dominate in terms of trips. For EEH you can see the importance of exchange of goods with neighbouring regions for HGV traffic. The pattern for LGV traffic, not surprisingly, shows even greater dominance of shorter trips.

Movements entirely within the EEH area are significant, making up over a third of all trips, as shown in the following chart from the 2019 Freight Study. This excludes through traffic.

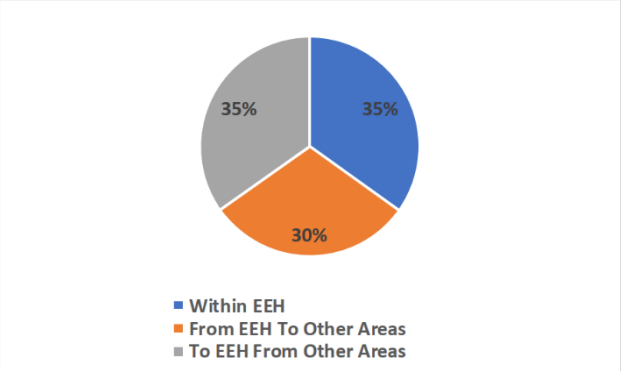

Figure 90: Road freight tonnes lifted (Source: EEH Freight Study, 2019)

The result of the significant flows to and from the East, South East, and other regions is that most HGV traffic is focussed on trunk roads and motorways, as illustrated in the following map.

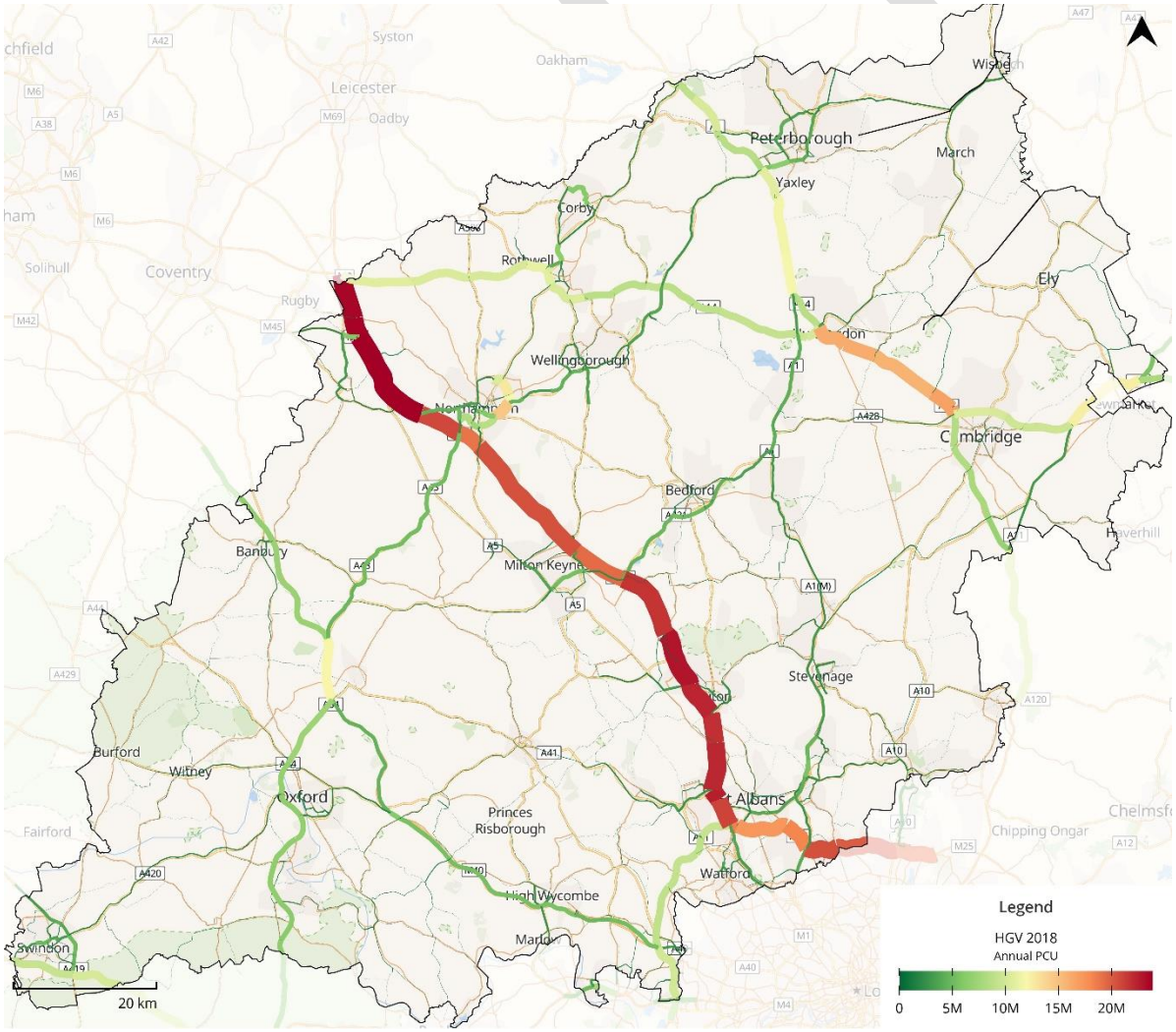

Figure 101: HGV Flows 2018.(Source: MDS modelling / CityScience)

2.4.3 Future Changes in Road Freight

National Road Traffic Forecasts produced in 2022 are that HGV traffic will grow by 13% between 2025 and 2060, with LGV traffic growing by 35% over the same period. This is in terms of vehicle kilometres so represents changes in vehicle numbers and trip length.

MDS Transmodal produced forecasts of HGV and LGV growth by road link between 2018 and 2050, illustrated in the following map. This shows significant growth on key corridors, with much lower or no HGV growth on minor roads.

Examples of the rate of growth include around 20% on the A14, A34, and A1; over 30% on the M1. The very high growth of traffic from a low base around Buckingham is likely to be a modelling anomaly.

The following maps show forecast flows of HGVs in 2050 and the percentage increase for each section between 2018 and 2050.

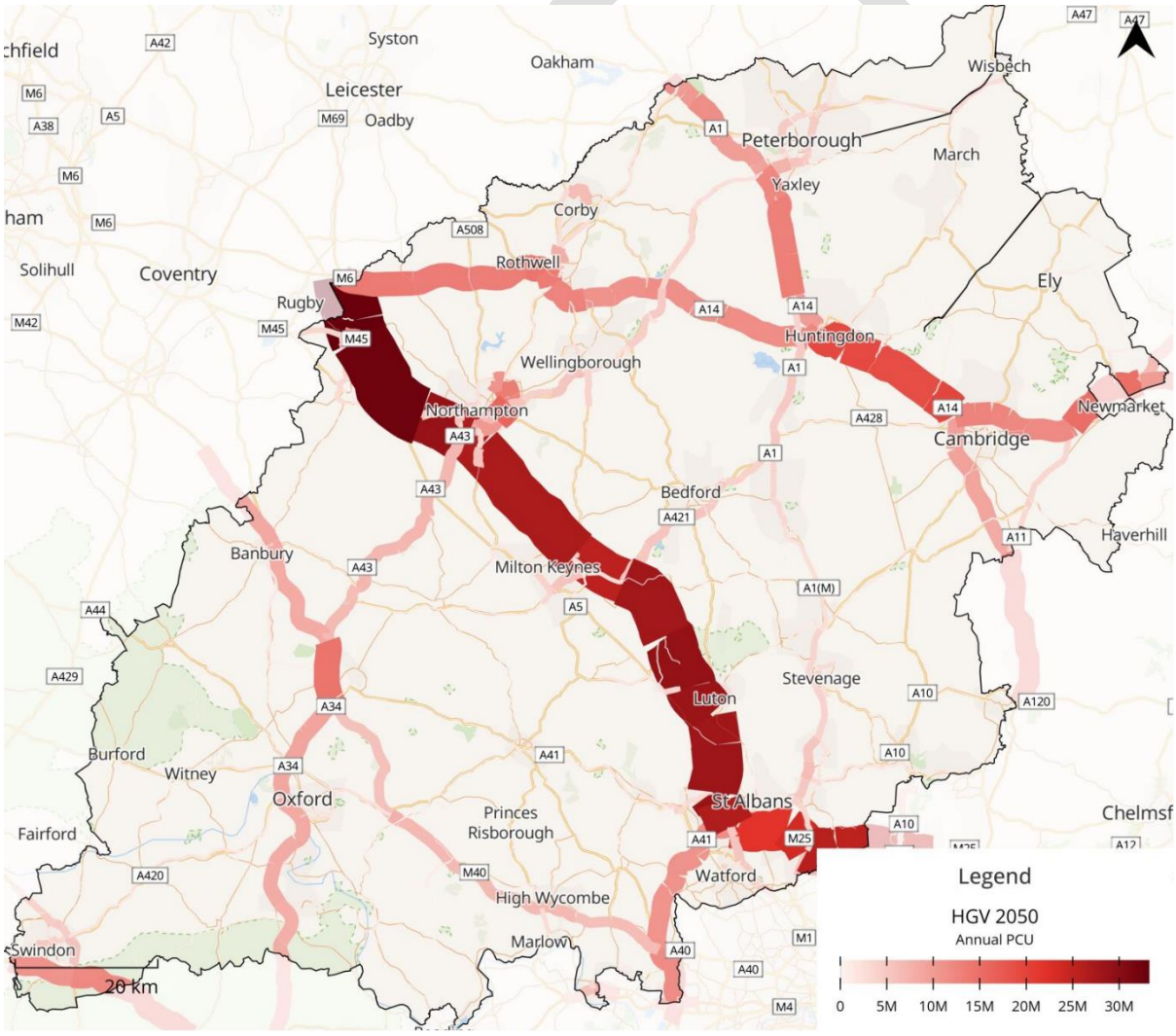

Figure 112: Forecast HGV Volumes - 2050 (Source: MDS modelling / CityScience)

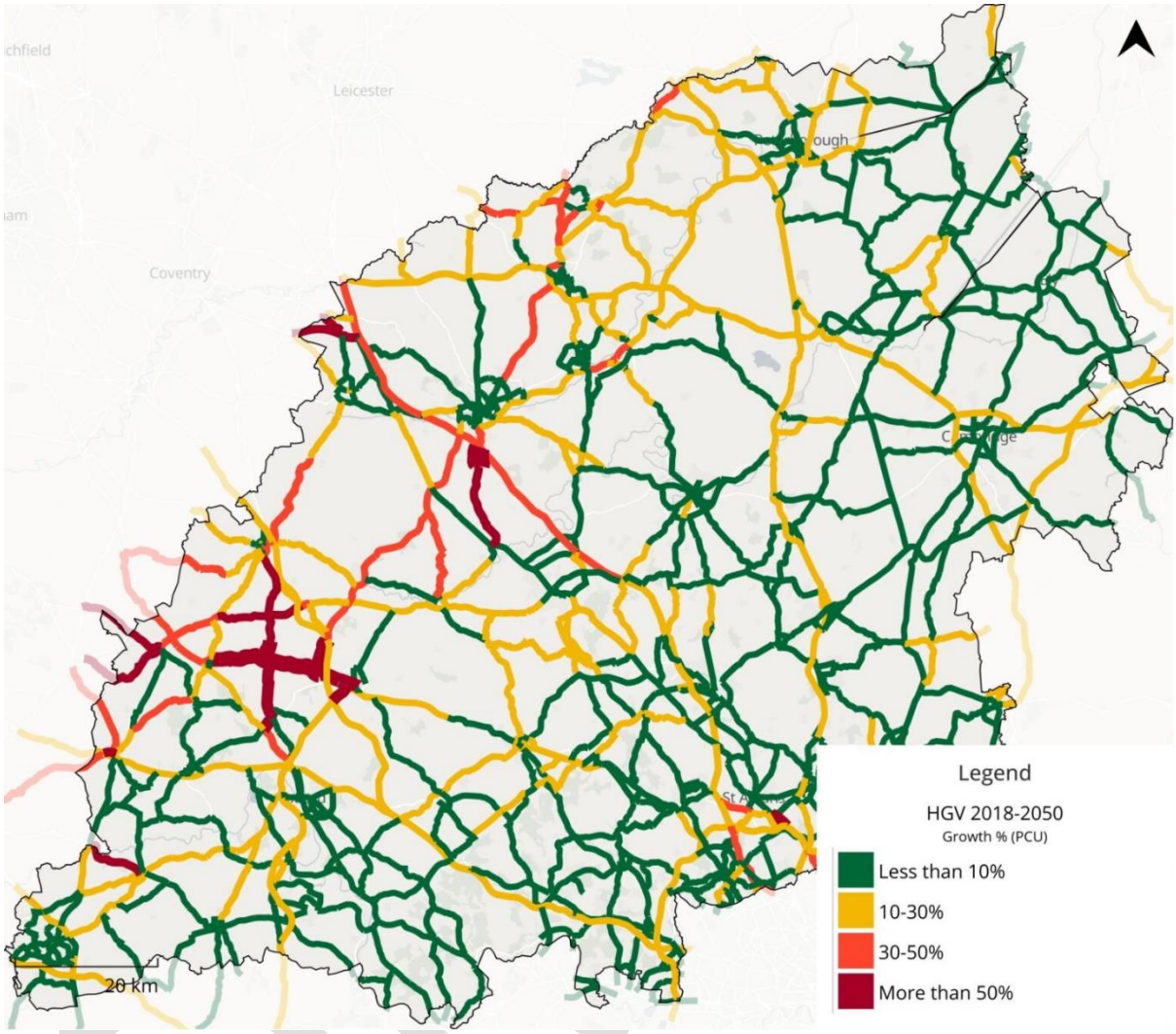

Figure 112: HGV volume growth 2018-2050. (Source: MDS / CityScience)

LGV growth is more dramatic, with up to 80% growth forecast on the M1 and A14. However, there is much greater uncertainty about the level and pattern of LGV growth due to poor quality data nationally and the variety of uses of LGVs (including, for example, servicing as well as carrying goods.)

2.4.4 HGV Parking Shortage

There is a national shortage of spaces for HGVs to park, particularly overnight. Drivers have to take mandated rest periods, and the limits on driving time mean that spaces must be near to their destination or along the line of their route. Lack of HGV parking capacity and welfare facilities leads to HGVs driving extra miles to park up, and parking in unsuitable locations. Lack of spaces means that drivers either drive around looking for somewhere to park, or they park in ad hoc laybys or on streets. Such ad hoc parking does not provide drivers with decent facilities for eating, sleeping, or showering, is a source of complaint for local communities, and is insecure leading to the risk of increased crime. The lack of decent facilities at parking sites is also a major deterrent to people seeking careers as truck drivers.

HGV parking is a significant issue across the Heartland, particularly around Northamptonshire and Milton Keynes and along the A34. Having better facilities encourages high standards in the industry and may encourage operators to the region. From the Lorry Parking Study undertaken by National Highways (2022) [5] poor quality facilities at parking locations, sub-standard security, and the cost of parking are all areas of great concern for the drivers. There are cost disparities, and currently it is the operator of the motorway service area (MSA) who sets this.

The Department for Transport (DfT) commissioned AECOM to undertake an audit of lorry parking in 2022. The study aims to help DfT, and other public bodies, understand user experience to inform and provide an evidence base for policy development on HGV parking and welfare needs of drivers. This work replicates and builds on previous DfT studies carried out in 2010 and 2017 and referenced in the Freight Study (2019)**Error! Bookmark not defined.**.

As in the previous 2010 and 2017 studies, AECOM undertook a national programme of night audits within five kilometres of the SRN at on-site and off-site parking locations.

On-site parking facilities:

- Independent truck stops
- Local Authority truck stops
- Motorway service areas (MSAs)
- Trunk road service areas (TRSAs)

Off-site parking locations:

- Industrial estates
- Laybys

A total of 4,396 on-site and off-site lorry parking locations were audited. The total included 328 on-site facilities, 827 industrial estates, and 3,241 laybys. Whilst on-site locations form only seven per cent of the total number of locations audited, they provide the on-site facilities that support essential driver welfare and ultimately safety.

To put the 2022 lorry parking situation into perspective, comparisons have been made with the 2017 data used in the EEH Freight Study (2019). The total number of on-site parking facilities has increased from 311 to 328. This represents an increase of five per cent from 2017. The net change is due to sites closing and others opening. The data also shows a five per cent decrease in the number of laybys (3,397 to 3,241) but a three per cent increase in industrial estates (801 to 827). Some of the existing sites have been repurposed because of changes to road infrastructure with new sites coming online with the increasing demand for warehousing.

There are a range of macro and micro factors that have affected the demand for HGV parking spaces and although the relative influence of these factors is uncertain, the overall net effect over the last five years is that the demand for parking spaces has grown faster than the supply of additional spaces. Work on optimising the existing HGV parking spaces at MSAs by using coach and car parking

[5] AECOM (2022) *National Survey of Lorry Parking 2022 – Part One.* Avaliable at: National survey of lorry parking 2022 – Part one, Final report for the March 2022 national overnight audit

areas during the evenings/nights could alleviate some of the immediate concerns relating to lorry parking capacity. Similarly, work in understanding the overnight parking needs of the non-UK and van driver population could provide an insight into how best to manage lorry parking capacity.

National Highways have been undertaking significant work in addressing the provision of EV charging facilities across their network and in combination with this have upgraded a significant number of HGV welfare facilities. Through continued working with National Highways and operators, there could be opportunities to review how the costs are calculated and ensure a consistent approach is taken to encourage drivers to remain on the most efficient route and using the most appropriate facilities.

Identifying and providing good quality facilities and parking for HGVs is a challenge across the EEH region as land values are high and Local Authorities are focused on meeting challenging housing need. However, there are example proposals coming forward that show that planning for HGV parking can also support decarbonisation. Whilst the proposals clearly need to be justified in terms of its location and wider planning considerations, it does demonstrate that proposals for HGV parking are being considered. An example of this is the proposed Swindon Services that would deliver 50 new EV charging spaces from day one, with the remaining spaces EV-ready, with infrastructure in place to expand provision as demand and grid capacity grows. The proposal includes 62 new HGV spaces, helping to address the local critical shortage and ensuring HGV drivers have somewhere safe and secure to park overnight and access to essential welfare facilities including toilets, showers and hot food. All of the HGV spaces will be designed to accommodate electric charging infrastructure if required.

2.4.5 Rail Freight

The 2019 study analysed rail freight data and terminals, but updated information has been assessed for this report. The most important changes since 2019 are:

- Construction of DIRFT III in Daventry, including a major national Royal Mail hub
- Construction of Northampton Gateway rail freight interchange
- Imminent completion of Connection Stage 1 of East West Rail, providing a new freight link from Southampton into the region.

EEH Rail Objectives report[6] (2023) identified objectives/ outcomes that for passenger and freight services across the EEH area.t

The maps below describe rail freight activity in terms of the routes utilised by freight trains on the national network. In each case, the maps record the average number of daily freight trains on a weekday in 2021 for each main line (sum of both directions). The thickness and colour of each line indicates the level of daily freight train activity, with thicker red lines representing the most intensively used routes.

[6] England's Economic Heartland (2023) *Rail Strategic Objectives.* Avaliable at: EEH_Rail_Strategic_Objectives.pdf

Figure 14:Loading Gauges

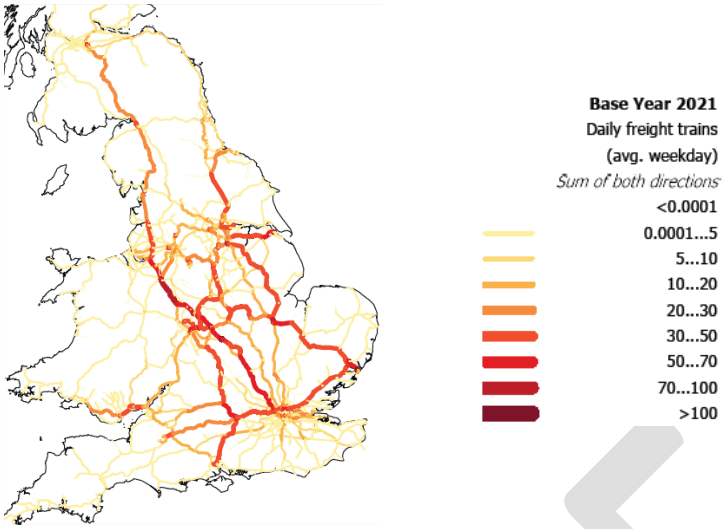

Figure 113: Daily Freight Trains by Route Nationally (2021)

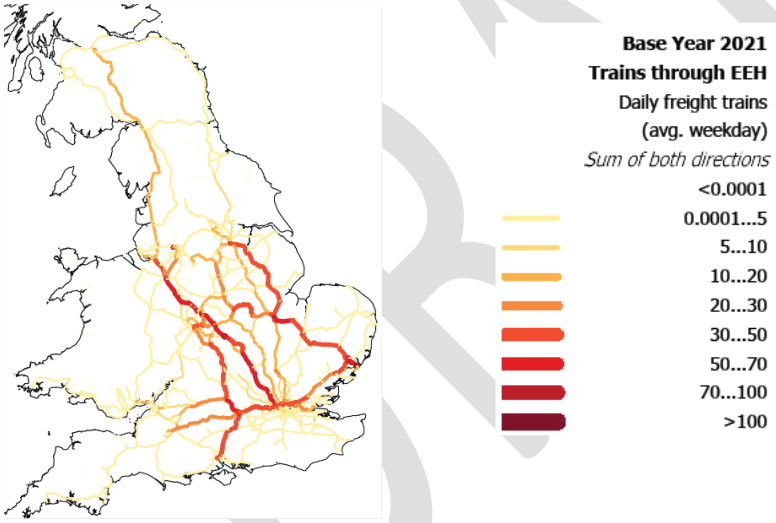

Figure 146: Daily Freight Trains Passing Through EEH Route (2021)

Figures 15 and 16 show that the most intensively utilised routes in the Heartland are all part of wider strategic freight routes across the country connecting to/from seaports. In our region, these include:

- Ely – Peterborough line (linking the East Coast Main Line to West Anglian Main Line – a key part of the Felixstowe to Midlands and the North route)
- West Coast Main Line (the line northwards from London Euston via Watford Junction, Bletchley, Milton Keynes and Northampton)
- Cherwell Valley line between Didcot and Banbury via Oxford (connecting the Great Western Main Line to the Chiltern Main Line)

- Great Western Main Line between Swindon and West London

The Rail Freight Demand Study (2022) identified that based on work undertaken for Network Rail in 2018 on potential growth unconstrained by network or terminal capacity:

Overall UK rail freight demand is forecast to grow to 36,061 million tonne km by 2043, up from 18,145 million tonne km in 2021 (a growth of 99%),

- 1,835 million tonne km is forecast to be moved **from** the EEH area, and
  3,847 million tonne km is forecast to be moved **to** the EEH by rail freight in 2043.

Out of the total volume of goods forecast to be moved in Great Britain by rail freight, 21,973 million tonne km is forecast to pass through the Heartland to/from other areas (up from 10,826 million tonne km in 2021, representing predicted growth of 103%). This equates to 61% of all goods moved by rail freight by 2043/4 (marginally ahead of the 2021 figure).

However, capacity constraints are likely to suppresses growth unless they are addressed. The main barriers to future growth in the rail freight sector have been identified as:

- Capacity constraints on the railway network and at key junctions
- Terminal capacity
- Lack of new rail served logistics facilities
- Operational efficiencies
- Flexibility and
- Marketing and user friendliness

The key implication of this suppression would be additional HGV traffic passing through the EEH area. If the goods are unable to move by rail freight, shippers will instead be forced to use road haulage. The demand for transport services is secondary to the demand for the goods themselves. There is a role for EEH to identify infrastructure barriers within the region, either on the network or through lack of rail linked logistics facilities and work with partners, Network Rail and DfT to support the case for investment.

EEH has a role to help identify further opportunities for rail freight infrastructure that will support mode shift and help reduce the impact of HGVs on the regions network, ensuring the wider impact on the transport network can be suitably managed.

For example, infrastructure interventions at Ely and along the line connecting Ipswich/ Felixstowe are identified as key enablers in maximising rail freight bound for the 'golden triangle' and forming the Eastern Section of the East West Main line. The new Strategic Rail Freight Interchanges within the region (such as DIRFT III, Northampton Gateway and Radlett) must connect into the rail network with available freight paths to support mode shift.

Within the region there are key multi-modal transport corridors. With the right infrastructure, such as multi-modal terminals: well-located warehousing linked to rail, the SRN and rail freight interchanges, there is significant potential to move more freight to rail.

FOCUS ON EAST WEST RAIL

East West Rail (EWR) will provide a direct rail route from Cambridge to Oxford (the East West Main Line). While mainly aimed at passenger services, it could potentially offer an attractive corridor for new and rerouted rail freight services.

Part of the EWR route already handle several rail freight trains per day, particularly between Bedford and Bletchley (Marston Vale Line) and around North Oxford / Bicester. These are a mix of aggregates, waste, and automotive services, plus services to and from the MOD site at Bicester.

As shown below, EWR could provide a more direct route from the key ports at Southampton and Felixstowe to the major rail terminals at DIRFT and Northampton. Currently the rail route from these ports to DIRFT involves passing through central London. The London corridor is congested and slow for rail freight. As a result, despite very large numbers of containers travelling by road from these ports to warehouses in the EEH area, less than one train per day moves from either port to DIRFT.

EWR also offers opportunities to reroute freight trains between the ports and the West Midlands which are currently routed via London (for Felixstowe) or Birmingham (Southampton). Rerouting potentially frees up space in London for other rail freight services, driving rail freight growth.

However, it should be noted that any use of East West Rail for freight should ensure that the impact of rail freight movements on local communities is minimised and should be prioritised, and assessed, managed or mitigated as appropriate.

This line could also be used to bring building materials to new and expanded communities in the corridor.

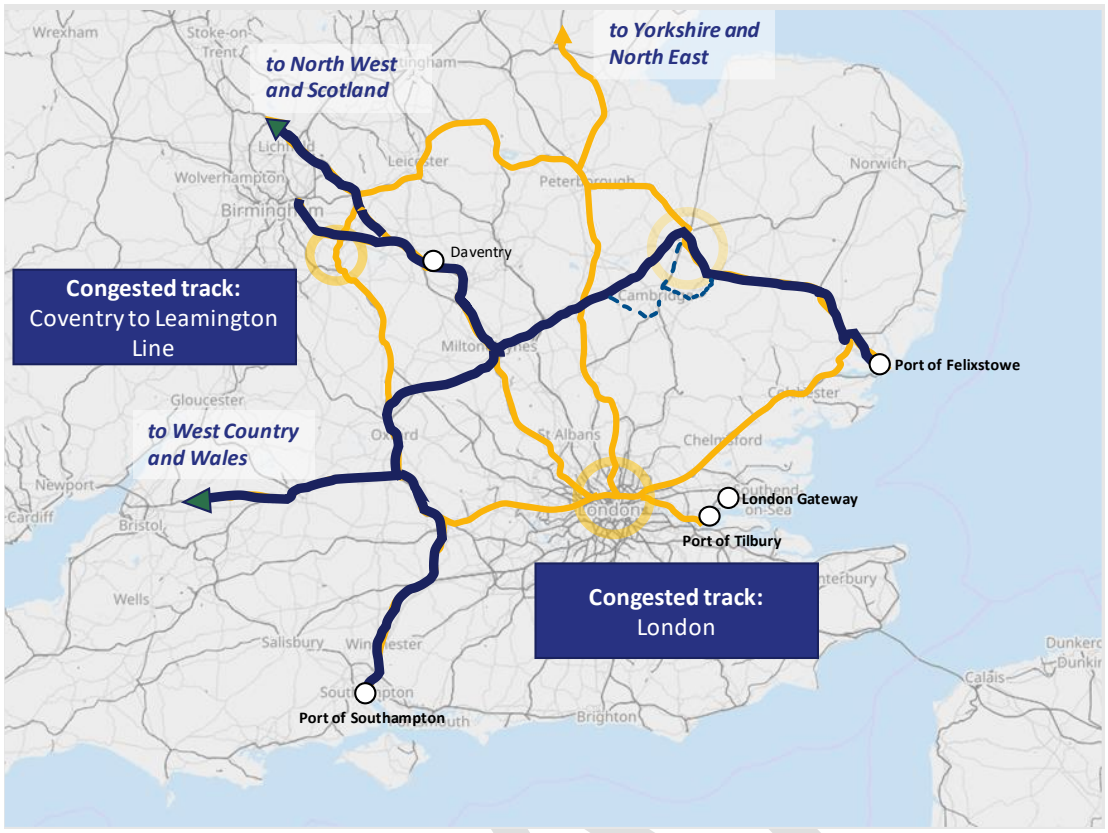

Figure 157: EWR enables direct routes to ports

The East West Main Line will open in phases. The section from Bletchley to Oxford is already physically complete, and will open for services in 2025. Bletchley to Bedford (Marston Vale Line) is already operational, but will be upgraded as part of the next phases of EWR. The section to Cambridge will be a new railway and is forecast to open during the 2030s.

As soon as the first section is operational, rail freight could potentially use the new direct route from Southampton to Northampton / DIRFT. Direct services from Felixstowe towards the Midlands via the West Coast Main Line would benefit from investment in a chord between the East West Main Line and West Coast Main Line (from the east) providing access directly via Milton Keynes.

EWR offers significant opportunity to shift freight travelling to or from warehouses in the local area from road to rail – with potential for several trains per day to take hundreds of trucks off roads in the region each day. For example, 5 trains per day in each direction between Southampton and the Heartland could remove 750 HGVs per day from the A34 / M40 / A43 corridor. A similar volume could be removed from the A14 with delivery of the chord at Milton Keynes as part of the route to Felixstowe.

The EWR non-statutory consultation undertaken in 2025 stated that in short-term allowance for Oxford to Milton Keynes would be two freight trains per day, increasing to up to 10 trains per day should additional infrastructure (mainly passing loops on the line) be delivered in the next stage of the project. Therefore, significantly increasing capacity for freight would require additional investment, as set out in the non-statutory consultation, as well as delivering the Bletchley chord for Felixstowe to the Midlands.

Focus on Solent to Midlands Multi Modal Freight Corridor

The Solent to the Midlands route is one of the most important freight corridors in the UK. It links the major port of Southampton with the numerous distribution centres and economic hubs in the Midlands, the North and Scotland. The Solent Ports, particularly Southampton, are in favourable locations for connections to the global freight and logistics market due to their proximity to the main shipping lanes. The Midlands is home to a high concentration of large distribution centres and warehouses – the so-called 'Golden Triangle' of freight distribution sits across both Midlands Connect and EEH STB regions.

The A34 and part of the M40, managed by National Highways, links the Solent Ports and the Midlands and is closely mirrored by the equivalent rail route, owned and operated by Network Rail. The parallel nature of the road and rail routes means that it was an ideal corridor to review and undertake cross-modal analysis and identify both the barriers and opportunities to re-mode.

Network Rail and National Highways undertook a joint study in 2021. Key findings from this include:

- Roads are critical to complete the door-to-door journeys for shorter distances, such as regional and local movements or the last mile from a rail freight interchange. Rail is most cost effective over longer distances and for higher loads.
- Rail and road both have similar reliability in terms of journey times – this is key for freight consumers where much freight is time dependent.
- Modal shift to rail provides an opportunity to free up road capacity on the Solent to Midlands corridor, especially for those journeys that are greater than 50 miles and greater than 100 miles for bulk and consumer goods respectively.

3 ISSUES AND OPPORTUNITIES

3.1 DECARBONISATION AND NET ZERO

EEH seeks to achieve net zero carbon no later than 2050, with an ambition to reach this by 2040. The Regional Transport Strategy**Error! Bookmark not defined.** committed to work with the region's business community to harness the Heartland's world-leading experience in clean, green, and smart technology to enable solutions that deliver the decarbonisation of the transport system.

Transport is the largest emitting sector of Green House Gas (GHG) emissions, producing 26% of the UK's total emissions in 2021. In 2021, HGVs made up a much smaller proportion of the vehicle miles than other users (6%), however their emissions were disproportionately greater (22%). This is mainly because smaller vehicles are more fuel efficient, and HGVs typically travel longer distances with greater loads.[7]

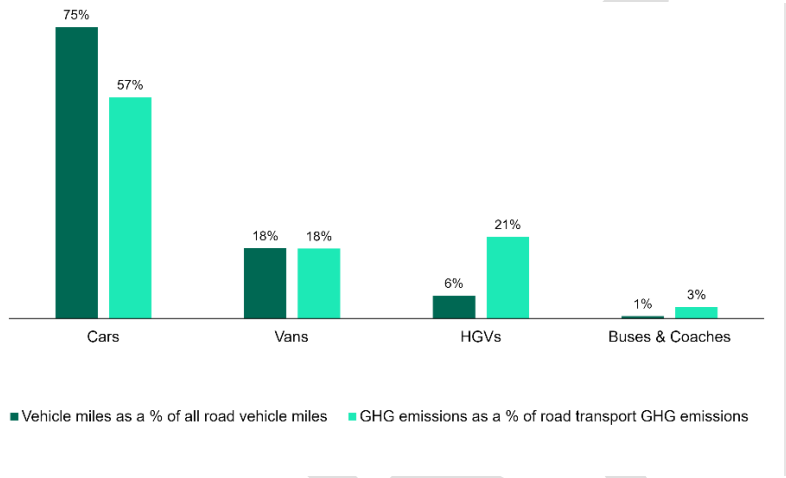

Figure 168 Proportions of road transport GHG emissions and mileage, 2021

Between 1990 and 2021, new vehicles have become more fuel efficient. As a result, emissions do not rise as fast as mileage increases. New van fuel efficiency has increased in recent years because of a legislative requirement since 2016 that all new vans must comply with Euro 6 standards. Despite this, the large increase in van usage since 1990 has meant a proportionate rise in emissions as a result, while cars and HGVs have reduced their emissions over the same period.

EEH can support the decarbonisation of freight by providing tools to identify locations for EV charging implementation, providing examples of best practice that encourage sustainable and low-emission transportation methods.

The Heartland is well placed to become a testbed for alternatively fuelled goods vehicles due to the cluster of high-tech automotive businesses and organisations in the region. Whilst fuel type is an

[7] Department for Transport (2021) *Transport and Environment Statistics 2021 Annual Report. Available* at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/984685/transport-and-environment-statistics-2021.pdf

important consideration, infrastructure developments can be future proofed now by incorporating the need for refuelling/recharging into new development plans.

While existing EV charging infrastructure for cars and vans is being rolled out across Local Authority areas, they do not necessarily appropriate for use by HGVs:

> **Charging power disparities:** The power required for charging HGVs vastly exceeds that of vans and cars due to their larger battery capacities and energy consumption. Electric HGVs need high-power chargers, rated at 50 kW and above to minimize downtime. Charging sites for smaller vehicles may lack the power supply or infrastructure to support the demands of HGVs.
>
> **Space constraints and accessibility:** HGVs are significantly larger than vans and cars, which poses challenges related to manoeuvring, parking, and accessing charging or refuelling equipment. Smaller charging sites may not offer the necessary space or layout for HGVs to navigate effectively and safely, disrupting traffic flow and creating potential safety hazards.
>
> **Extended charging durations:** HGVs take much longer to charge than vans and cars, with some requiring several hours for a full charge, depending on the available charging power. Charging sites designed for smaller vehicles may not have the capacity to accommodate HGVs for such extended periods, leading to congestion and reduced availability for all users.

While EV infrastructure designed for cars and small vans may not be generally appropriate for use by larger freight vehicles, in some contexts, the co-location or sharing of infrastructure may be appropriate or beneficial, such as a charging hub in a rural area. The requirements for HGV infrastructure needs to be considered on a site-by-site basis, minimising the trade-off between infrastructure types and customer requirements.

EV charging for HGVs may require more time to evolve in terms of the supporting infrastructure than for the car sector. As part of the transition phase, it may be that other lower emissions solutions such as hydrogen could be supported.

EEH, alongside neighbouring STBs, have completed a piece of work to understand alternative fuelling infrastructure for the freight and logistics sector. It provides an understanding of the potential regional and local impacts of the alternative fuelling of freight vehicles on carbon emissions – and consequently, the infrastructure requirements to deliver decarbonisation of freight and logistics.

Decarbonisation of the sector also requires consideration of other types of alternative fuels such as hydrogen, as well as considering modal shift, potentially before implementing alterative fuels. From an environmental perspective, reduction in road miles should be a priority, either through efficiency gains, through collaboration or process improvements, and then modal shift. Moving to rail, even if rail is not yet electrified, could represent carbon savings. It is important that the sector considers what it does and how it does it, rather than simply replicating doing what it does now, just using alternative fuels.

Decarbonisation should also be considered in last mile deliveries, through. looking at not only electric vans for final delivery, but alternatives such as bicycle deliveries, robots and drone technology.

3.2 Digital Infrastructure

Goods vehicle drivers have different information needs to other road users. Reliability, rather than speed, is one of the most important features for businesses. Freight vehicles faced with an unforeseen delay may miss delivery slots, the driver may run out of tightly controlled driving hours, or products on the vehicles may perish.

As set out in the previous Freight Study**Error! Bookmark not defined.**, roadworks, unplanned incidents and congestion on the highway networks cost businesses. This can be directly through rising fuel costs, driver costs and penalties for missed delivery slots, or indirectly by increasing mileage as a result of logistics hubs being in suboptimal locations (some business may choose logistics hubs locations that are further away from the customer but have better, more reliable infrastructure).

An additional issue is the suitability of alternative routes, which may pass through communities, using inappropriate roads or extend journeys significantly. As set out in the Freight Study in 2019**Error! Bookmark not defined.**, bridge strikes by HGVs are a frequent event, with wide network impacts given the amount of time it takes to clear incidents, although this is being addressed by National Highways and Network Rail. Whilst technology interventions have been introduced to improve driver information and support the timelier clearing of incidents, there is still more action that can be taken.

In December 2022, the Office of Rail and Road (ORR) undertook a safety performance review of the Strategic Road Network. ORR reported that National Highways is on course to achieve its overall safety target for the SRN in England. The company has also met its Stopped Vehicle Detection technology installation targets. Stopped Vehicle Detection (SVD) technology is radar-based technology that is on every all lane running (ALR) smart motorway where the hard shoulder has been permanently converted to a live traffic lane.

ORR reported that National Highways had SVD technology in place on every existing ALR smart motorway by the end of September 2022 – six months ahead of its original March 2023 milestone.

Although it is too early to see the full effects, this should be improving safety and reducing the risks associated with stopped vehicles on live lanes on ALR smart motorways. However, this increased pace of delivery, in response to the action plan target which aims to reduce the duration of live lane stops, has given the company limited opportunity to apply lessons learnt.

For the local authority managed network, at the most basic level, signage needs to provide clear directions to important goods delivery locations and to give good and accurate warning of weight, width, or height restrictions. Local authorities can also look to technology solutions that improve sharing routing data with drivers, for example digitising preferred routes, and ensure these align with neighbouring authorities.

EEH can help authorities by providing data and information that will support improved route planning and guide freight to the right routes and suitable alternative routes.

EEH have been looking at how the latest technologies and innovation can be used to extract maximum value from existing infrastructure and completed a study on smart junction technologies and looks to quantify the possible benefits of maximising the use of the existing highway network.

The work aims to provide EEH with an understanding of existing smart junctions, in order to assess the benefits and impacts for junctions in the region. It sets out a review of existing implementations, studies and experiences associated with smart junctions to understand their impacts, complemented by engagement with Local Authorities and technology vendors.

The conclusions of the study will provide the next step in an evidence base on which EEH can work with local authorities across the region to develop a proposition for a region-wide pilot of the latest smart junction technologies.

3.3 Freight in Rural Areas

Large areas of EEH are rural, with around 35% of the region's population living in small market towns and rural hinterlands, significantly above the national average. Villages and small towns are usually located away from the trunk road network and are often remote from major centres of employment and logistics hubs. While agriculture is the most obvious part of the rural economy and requires HGV access to support farming activities, other forms of local employment are also important. For example, companies located in small business parks in former farm buildings, former airfields or brownfield sites changed to industrial uses or industry servicing the tourist economy may also face challenges to HGV access due to use of roads that are not designed to accommodate HGV traffic.

HGVs have a significant impact on rural roads, whether from noise and emissions, congestion, or damage to roads and other infrastructure. Unsurprisingly, communities are concerned about large HGVs passing through their villages and residential areas, and much local policy is aimed at managing HGV movements and directing HGVs to appropriate routes, while still allowing access for vehicles that need to access these areas.

However, there are examples across the region where restriction in one Local Authority area has resulted in the problem being moved or exacerbated in another Local Authority area. Therefore, having a proper understanding of the consequences of decisions to "move the problem away" to another area needs to be taken into account.

Extensive consultation is required to ensure that restrictions don't deter growth of rural employment; add to costs for deliveries to homes and businesses in rural areas, thereby add driving rural inequality; or simply moving the problem to a different area. Whilst HGV route planning prioritises the use if trunk roads where available, there are parts of the region that are not well served by the SRN or MRN. Rural short cuts or a lack of awareness of road restrictions also negatively impact on rural areas.

There is also significant increase in LGV usage as a result of the increase in online shopping. New approaches to rural logistics, include restrictions that are monitored, developing hub and spoke systems; consolidations lockers for last mile deliveries; and working with businesses to encourage early take up of zero emission vehicles to help manage rural logistics.

3.4 Transport Infrastructure

Provision of new and improved transport infrastructure in the right places will support the freight onto the right modes and routes.

EEH has a role to support investment in infrastructure that reduces the impact of freight transport and vehicles on the network. Local Authorities, through the planning system, support logistics warehousing to meet demand and ensure the region stays attractive for this industry. EEH suggests that any new warehousing should have rail connections and/or close access to the SRN, in order to reduce impacts on local communities, encourage mode shift and enable other mitigations to minimise the impact on the SRN.

EEH have updated the regional investment prioritisation framework and the needs of the freight sector have been considered as part of this refresh. This work is supported by EEH's multimodal studies, which identify potential interventions to improve the transport system across strategic corridors, and each of these have identified key measures to support efficient freight:

- Oxford-Milton Keynes;
- Peterborough-Northampton-Oxford
- Swindon-Didcot-Oxford
- Thames Valley-Buckinghamshire-Milton Keynes-Northampton
- Southern east-west corridor' (covering Buckinghamshire, Bedfordshire and Hertfordshire)
- Luton-Bedford-North Northamptonshire,

East West Rail is the over-riding transformational opportunity for the region. As the Regional Transport Strategy states, it must be the catalyst for improving the transport system across the whole region. Creating more transport capacity and moving more people by rail, releases capacity for essential movements of goods on the network.

EEH is working with local partners, DfT, Network Rail and East West Railway Company to maximise the opportunities from investment in East West Rail to create a lasting legacy for residents and businesses. Opportunities will need to be reviewed for how this infrastructure, through creating additional paths, can support moving more freight to rail.

The EEH Regional Transport Strategy and Keeping Trade on Track[8] publication have identified that additional capacity at Ely Junction is crucial to enabling more freight to be carried by rail from Felixstowe to the Midlands and North. Upgrading Ely Junction is estimated to remove 98,000 lorry journeys off the road every year. It is important to continue to work with partners, including private sector logistics companies and infrastructure owners, to fund investment in the Ely Area Capacity Enhancement scheme.

EEH will support the development of Strategic Rail Freight Interchanges where they support the ambitions of the Regional Transport Strategy and their impact on the transport network can be suitably managed.

EEH can also help by working with Network Rail, Rail Freight Group and Freight Operating Companies to ensure that there is better consideration for terminals that can easily be accessed by rail, with sufficient capacity to support intermodal freight.

[8] England's Economic Heartland (2024) *Keeping Trade on Track – updated version*. Avaliable at: Keeping trade on track

Focus on Ely Junction

The Ely Area Capacity Enhancement scheme supports UK economic growth and levelling-up by increasing access to global markets to and from the Midlands and north, where 70% of containers from Felixstowe are destined.

According to Network Rail, 2,900 extra freight services would be able to operate to and from Felixstowe per annum, removing 98,000 HGV journeys off the road every year, reducing congestion by 5.6 million hours per annum and cutting carbon emissions by 1.7 million tonnes over 60 years. By enabling extra passenger services between Ipswich and Peterborough and London King's Cross-Ely-King's Lynn, the scheme would also stimulate 277,000 extra rail passenger journeys. The scheme has a very high benefit-cost ratio – returning over £4.89 of benefits to the UK for every £1 invested.

3.5 Supporting Active and Shared Transport Solutions

3.5.1 Reducing Road Danger

Reducing road danger is a priority. Road danger impacts the resilience of the network and travel choices people make. HGVs have the highest rates of fatality risk to other road users, and it is perhaps unsurprising that these larger vehicles are more likely to present fatality risks when colliding with smaller vehicles or vulnerable road users. Road danger impacts the resilience of the network and travel choices people make. .

Some Local Authorities are adopting Vision Zero for road danger, including a Safe System approach to support road safety. The key principle of this approach is that no one should be killed or seriously injured on the roads or transport system. The Safe System is an approach to road safety which puts the human being at its centre, and which stems from the belief that every road death or serious injury is preventable. It assumes people make mistakes and will make mistakes when on the roads, and recognises that people are vulnerable to being killed or seriously injured, if they are involved in a crash.

The Safe System seeks to design these assumptions out of the equation so that all elements of the road system - vehicles, infrastructure, speed limits, road users, and post-crash care - work together as one to minimise the chance of a crash, or, if a crash does take place, to prevent death or serious injury from occurring.

EEH support Local Authority partners in their response to managing road safety. This can be through schemes that reduce conflict and reduce speed, change the way people travel, switching to sustainable modes, or use procurement to ensure the safest vehicles and behaviours on the highway network. One of the schemes that has been developed in response to road safety that is supported both the industry and Local Authorities is the Fleet Operator Recognition Scheme (FORS).

FOCUS ON FORS – FLEET OPERATOR RECOGNITION SCHEME

The Fleet Operator Recognition Scheme (FORS) is a voluntary accreditation program designed for fleet operators. Its primary purpose is to raise the quality of fleet operations by promoting best practices in safety, efficiency, and environmental protection. It includes three levels of accreditation that aim to improve operations of vehicles with these three objectives in mind. It includes initiatives such as additional driver training on efficiency and safety of vehicles, as well as modifications such as additional cameras, mirrors and warning systems to make them safer for cyclists and pedestrians. This is especially relevant in urban areas. Transport for London strongly supports that vehicles that operate in London have FORS accreditation.

3.5.2 Last Mile Solutions

The rise of online shopping and next day delivery has seen a considerable rise in the number of LGV last mile deliveries. While some of this is considered more sustainable, such as grocery shopping where several shopping trips are consolidated into one vehicle, in other instances it has led to a significant increase in LGV deliveries. Last mile initiatives by Local Authorities working with the supply chain have identified solutions that reduce the impacts of freight in local areas. While local solutions may not be strategic/regionally significant, EEH has a role in sharing the best practice across the region, working with Local Authorities and industry to share data and evidence, as well as lessons learned, to scale up the benefits and impacts local interventions can have over a wider geography.

Low / Zero Carbon Last Mile Solutions

These solutions operate in areas of high density, such as cities; in areas of low or zero emission zones; or in areas where innovative solutions to high numbers of LGVs are required.

Cargo Bikes and e-bike last mile solutions, such as Pedal and Post in Oxford and a scheme linked to the University of Cambridge, show the challenges of operating these schemes commercially. While they support zero emission deliveries, they are difficult to operate on a commercial basis due to the demand for next day deliveries and parcel insurance challenges. These two examples provided consolidation to bike delivery to students at the universities/colleges. However, even with a captive market they have and are proving challenging to deliver successfully.

The converse of this is the success of cycle couriers such as Uber Eats and Deliveroo, but as they cater for smaller deliveries per journey, they are not replacing significant logistics hub deliveries. They tend to focus on food and important documents.

Parcel Lockers

Parcel lockers are growing in success and have been readily adopted, especially in urban areas. They contribute to more sustainable and efficient delivery systems through significantly reducing carbon emissions by consolidating deliveries. A single locker system can increase the number of parcels

delivered by one van from 60 to 600, reducing vehicle miles travelled and emissions. Parcel lockers help mitigate last-mile delivery challenges in congested urban areas by reducing out-of-vehicle delivery times and vehicle dwell times at the curb. In addition, they are often co-located where people already travel to, such as railway stations, near supermarkets and in town centres, which mean that trips to drop and collect parcels are often combined with journeys that would already have been made.

Micro Consolidation

Consolidation and Micro-Consolidation can reduce the volume of HGVs. Examples in the region includes the DPD electric fleet in Bicester. However, as with HGV parking, identification of land to create consolidation hubs to support this transition is an issue. Along with other challenges such as insurance and delivery terms, and that many logistics companies already have some degree of consolidation within their own supply chain, means that there is a reluctance within in the industry to adopt these.

Transport for London carried out case studies on consolidation models, and the benefits of these, which can be used to identify the best model in to support mode shift and cleaner, safer last-mile alternative solutions. However, it should be recognised that they are yet to demonstrate that they can be effectively delivered.

Parcel Collection Points

Parcel collection points located at local shops, post offices and dedicated stores can easily be accessed on foot, by cycle and public transport, close to home or as part of daily commutes. They

Focus on Starship

Since launching the emission-free autonomous delivery service in Milton Keynes in April 2018, Starship has calculated that 280,000 car journeys have been avoided, equating to over 500,000 miles. This in turn has seen 137 tons of CO2 and 22kg of NOx saved, with a reduction of 23kg of PM10 and 12kg of PM2.5 in the volume of micro-particles in the air. The latter, in particular, is known to have a significant impact on human health, including premature mortality and cardiovascular diseases.

Starship's delivery robots, which are powered by zero carbon electricity, are part of a significant intention in Milton Keynes to become a world-leading sustainable city. The Council has committed to becoming carbon neutral by 2030 and carbon negative by 2050, in order to tackle climate change.

The Council is also looking at how transport and mobility can reduce carbon emissions and is one of the leading places in the UK in moving forward with zero carbon transport. Deployments include e-scooters, electric buses, e-car share and e-cargo cycles.

The success of Starship robots has seen their operations extended to other parts of the region in Northampton and Cambridge which provide case studies for their application in a more traditional market town and city environment.

provide people with the option of picking up and returning their deliveries as part of their journey, rather than waiting at home for a delivery or making an additional trip due to a failed delivery attempt. For suppliers, it saves costs by consolidating the number of deliveries and collections into one rather than multiple locations and reduces costly missed deliveries.

3.6 Air Freight

Air freight is essential for the timely transportation of high-value and time-sensitive goods, including electronics, pharmaceuticals, fashion items, and perishable goods. These goods make up a substantial portion of the UK's international trade.

Air freight helps maintain the efficiency of global supply chains by reducing transit times and ensuring that goods reach their destinations quickly. This is critical for industries where just-in-time delivery systems are common. The air cargo industry creates jobs in various sectors within the region – particularly Luton, but also Heathrow, Stansted and East Midlands Airport in neighbouring regions, as well as warehousing and onward transportation employment.

The UK's multiple international airports serve as significant air cargo hubs, connecting the country to global markets. London Heathrow, for example, is one of the busiest cargo airports in Europe. The growth of e-commerce and the global movement of goods have led to increased demand for air freight services, which, in turn, has a positive impact on the economy.

Whilst EEH's remit is focused on surface access rather than air transport, the onward transportation and the land-based logistics serving the airports are not insignificant.

3.6.1 London Heathrow Airport

Heathrow handles 65% of the UK's air freight, with significant flows of this coming to and through the Heartland. HGV movements generated by the airport include:

Airline Servicing: this refers to vehicle trips related to inflight catering. Only 6 main operators undertake this, resulting in high load factors on this element of the supply chain. Airline servicing makes up around 15.7% of trips.

Airport Servicing: this refers to vehicle trips related to Heathrow's continuous construction, maintenance and improvement projects as well as fuel rigs and other miscellaneous trip categories not included elsewhere. This is taken to Colnbrook logistics centre and security screened and consolidated. High load factors on this element of the supply chain. This makes up around 7.8% of trips.

Retail: this refers to vehicle trips to and returns from the retail units located inside the passenger terminals. There is a retail consolidation centre just north of the M4 where these loads are security screened. This makes up around 1.8% of trips.

Waste: this refers to collections of waste generated by the airport. One operator does this. It is taken to Colnbrook logistics centre and split into recyclable and non-recyclable. This makes up around 0.7% of trips.

Cargo and Mail: this refers to vehicle trips associated with exports, imports and transhipments and is by far the largest generator of Heathrow related freight traffic. This

makes up around 74% of freight vehicle trips to and from the Heathrow. This is the least efficient in terms of vehicle trips.

Heathrow airport receives circa 11,000 goods vehicle trips per day, with air freight related movements accounting for 6% of these. The remainder would include vehicles servicing or taking provisions to aircraft or the airport terminals and construction traffic. The vast majority are short distance journeys, with further trips generated by associated warehouses, hubs, and businesses.

There are 4 million trips per year to and from the airport currently, without an expanded airport. With a new third runway, and without taking measures, the airport would expect to see 6.3 million trips per year.

Construction of the third runway and new terminals will generate huge volumes of construction traffic. During construction of Terminal 5 Heathrow used a successful construction consolidation centre at Colnbrook which included a rail freight connection.

3.6.2 London Luton Airport

Luton's Cargo Centre handles around 28,000 tonnes of cargo each year. DHL, MNG Airlines and British Airways all use LLA Cargo Centre for their dedicated freighter operations on a scheduled basis. El Al Israel Airlines, Blue Air and Tui carry commercial freight from Luton to numerous destinations.

The constraints of Luton's runway limit the size and capacity of aircraft and potential to expand air freight. Another constraint is land space, with some options for passenger expansion reducing land available for air freight.

While air freight through Luton is an important business, its impact and benefits are likely to be mainly local compared to the regional influence of Heathrow, Stansted, and EMA.

3.6.3 Drones

On a much smaller scale than traditional air freight, there is growing interest in the use of drones for innovative last-mile freight solutions. The Air Traffic Management and Unmanned Aircraft Act 2021 is likely to put additional requirements on Local Authorities in terms of the management of air space within their area.

There is already an innovate trial in the region between Oxford and Milton Keynes to create a Drone Superhighway in partnership with Cranfield University's Drone Innovation Hub and Satellite Applications Catapult at Westcott Drone Port. The trial is to test new drone-based services that work alongside current delivery services. The project is not just limited to supply chain but also includes smart traffic monitoring, secure parcel deliveries, remote building inspections and the transfer of vital medical supplies as part of an emergency response. Real-time information sharing through drone technologies will allow several services to work together and act faster when responding to incidents. Integrating ground and air-based services can also reduce carbon emissions.

3.7 Land for Freight and Logistics

Freight operators need land and capacity for logistics in locations close to where goods and services need to be provided. If the available capacity is all allocated to other uses, such as housing, then neighbourhoods will not receive goods and services in the most efficient way possible.

Not only will it be harder to supply goods and services to residents and businesses, but there will also be increased road danger, air pollution and congestion caused by the deployment of more vehicles. There is a need to balance the demand for housing with the need to ensure that there is adequate land to enable the region and the UK to be adequately served and thus ensure economic growth. The lack of available capacity for logistics in key locations is a major concern for the industry.

Competing demand for land continues to be a challenge in the region. Logistics providers need well connected land to the road and rail network, with enough space for efficient storage and distribution, to ensure they can respond to business and consumer demands.

Few items simply move directly from where they are produced to where they are delivered, therefore land and premises for logistics need to be as close to demand as possible to provide services, maintain flexibility, keep transport costs down, and reduce the number of vehicles on the road.

However, with high land values, and competing demands for housing and other higher value land uses is a challenge as land for logistics gets pushed further from where the market demands are. There are also challenges in rural areas as outlined earlier in the document. Retaining and, where possible, providing additional logistics land capacity in the right places is essential in supporting firms to operate safely, cleanly and more efficiently. This capacity is critical to the UK economy, to serve the needs of its growing population and contributing to employment opportunities. It is also important in terms of reducing vehicle kilometres, which in turn reduces carbon emissions, air pollution and road danger.

The growth of freight in the future is heavily attributed to the increasing number of national distribution centres (NDC) and regional distribution centres (RDC) in line with the growth in online retailing and the move towards next-day delivery of a wide variety of goods. By 2050, more NDCs are forecast within central England, and these will service regional centres across the whole of the country. This makes the EEH region an important base to serve the whole of the UK, however RDCs require good connectivity to both rail and the SRN to reduce negative impacts to the area and support mode shift to rail, reducing road freight mileage.

As Local Authority partners update their Local Plans and Local Transport Plans, there is an opportunity for EEH to provide evidence and data that will support identification of locations where land for logistics will support the industry and add value to the local and wider UK economy, support cleaner air and reduce road danger through supporting goods and servicing vehicles to use the right modes and routes.

4 The Action Plan Matrix

4.1 How this plan has been created

This action plan has been developed using evidence gathered using technical experts and engagement with key stakeholders based in the Heartland. The Plan reflects local needs, however, insight has been drawn from national and other regions experiences in delivering freight interventions. Freight and logistics operators do not operate in geographic isolation and, therefore, a number of the actions reflect the need to have a consistent approach across boundaries. This offers the opportunity to share the responsibility of delivering against an action plan across stakeholders.

The action plan identifies a series of measures and associated activities that are designed to address the strategic issues facing the Region outlined in this report. The measures are wide ranging and aim to address a number of the strategic issues facing the region and the freight and logistics sector.

4.2 Context

Reflecting on the issues presented in the report demonstrates that the freight and logistics industry is a key feature of the EEH economy. Much like other sectors, the freight and logistics sector has faced great economic uncertainty. The industry is highly sensitive to changes in demand that economic uncertainty creates. Stalling infrastructure investment at national, regional and local level, changing consumer demands and rising costs all present challenges to a low margin industry.

In recent years the UK have experienced wide scale global supply chain disruptions which has impacted many areas of logistics, such as equipment sourcing, production delays, and fuel prices. Whilst this is something that cannot be addressed locally, there are opportunities to encourage economic growth by making supply chains more resilient, through for example, local sourcing, circular economy and supply chain collaboration.

This has resulted in a desire for greater efficiency which is often thwarted by lack of appreciation by government on how their policies impact the sector, for example restrictive planning polices. The consequential inefficiency that this brings works against decarbonisation targets, safety and labour needs. As a result addressing freight blindness remains a key priority for the sector.

A severe shortage of truck drivers persists and attracting and retaining skilled drivers remains a critical challenge, which is not helped when facilities are not provided that meet the needs of modern working conditions.

The industry recognises its contribution to the environmental challenges facing the UK, driven, in part, by aggressive decarbonisation targets. The pace of technological change to address some of the environmental impacts is fast, however, the physical challenges of implementing technological solutions at scale are high. The appropriateness of alternative fuels for heavy, long distance vehicle or the tools to manage air quality impacts in densely populated areas is often difficult to address without a cross sector approach. Managing potentially conflicting requirements makes implementation difficult and costly and there is a significant role for the public sector to help address this, for example in EV charging, parking facilities and a consideration of freight when making road improvement decisions) ie junction improvement. This can only be done by an

awareness of the requirements of logistics, costs and opportunities which is achieved through having the right information.

Addressing these challenges will enable the logistics sector to support economic growth whilst also offsetting its impact on the environment.

4.3 The Action Matrix

As part of taking this Action Plan forward EEH are developing an Action Plan Matrix. The Action Plan Matrix links the strategic issues identified in this report, with measures and activities to be taken forward and who would be responsible for progressing these.

Five clusters of strategic issues have been identified as a result the key issues identified through stakeholder engagement. The Action Plan Matrix sets out measures that will address each strategic issue and a set of activities to deliver the measures. These activities could change over time as the measures evolve, develop and are implemented. The five key clusters are outlined in the table below and include:

- Freight Blindness/Awareness
- Future Infrastructure (road and rail)
- Planning for Logistics and Safety
- Net Zero and Environment
- Innovation

For the purposes of the Action Plan Matrix, strategic issues have been categorised as:

- Freight Blindness/Freight Awareness
- Economic Growth
- Safety and appropriate routing
- Efficiency
- Decarbonisation
- Air quality
- Upskilling/driver shortage
- Infrastructure
- HGV Parking
- Alternative Fuels /EV Charging
- Logistics Planning

4.3.1 Stakeholders

As part of the Action Plan Matrix a number of stakeholders have been identified and allocated as lead or supporting/enabling roles. These are outlined below:

-
- Trade Associations
- Chartered Institute of Logistics and Transport (CILT)
- Operators
- National Highways
- Wider South East Freight Forum (WSEFF)
- Network Rail/GBR
- Distribution network operator (DNO).
- Local Authorities

4.3.2 Timescales

Indicative timescales will be allocated to each measure, and these have been defined as:

- Short - Under 2 years
- Medium - 2-5 years

- Long term - 5 years plus

4.3.3 Costs

Indicative costs will also be calculated and allocated to each measure, and these have been defined as below but would need to be further explored as part of a detailed work plan.

- £ - low cost circa £50,0000 or less
- ££ - Medium cost circa £50,000 - £150,000
- £££ - High cost over £150,000

4.3.4 Summary of actions

The Action Plan Matrix is being developed with key stakeholders and will contain detailed actions focused on the key areas of focus. Examples are included in the figure below.

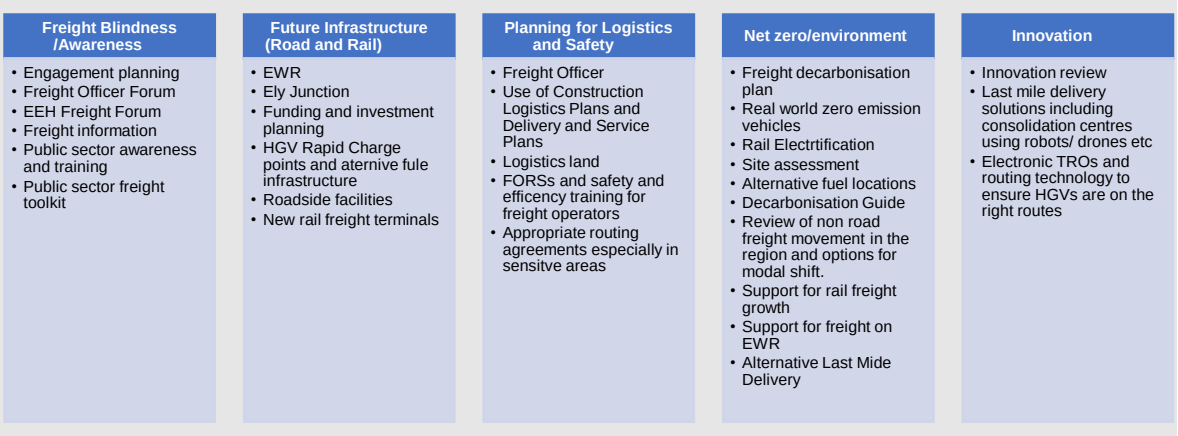

Figure 179 Summary of actions

4.4 Next Steps

The next steps are the development of an action based on the five clusters of key issues in line with the proposed approach as outlined below.

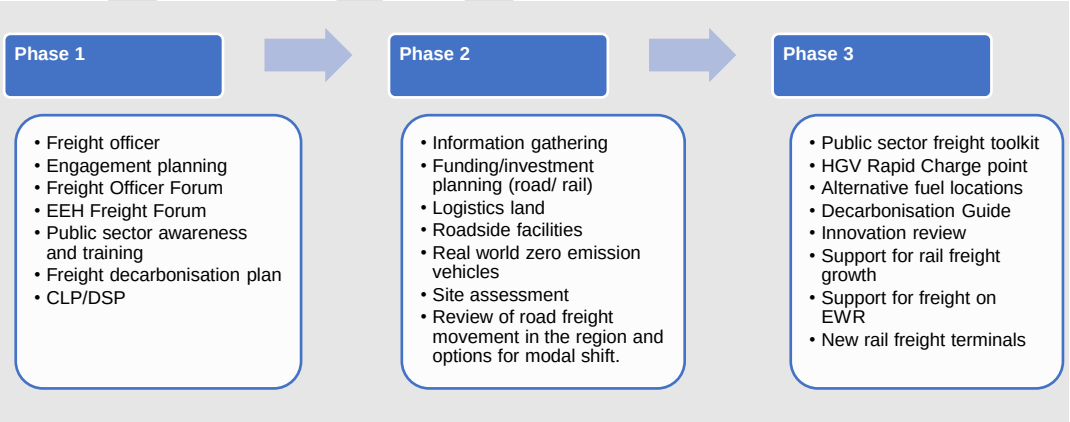

Figure 20 A phased approach

A detailed work plan would also include

- Measure of success for each action (KPI) based on benefits within the Action Plan Matrix

- Agreement on what success looks like
- A prioritise plan based on the phases suggested