Transport Delivery Committee Briefing: Freight and Logistics in the West Midlands

January 2021

Introduction

This briefing provides Transport Delivery Committee with an overview of key issues relating to freight & logistics in the West Midlands and an update on relevant TfWM activity to support improvements to the relationship between Public Sector Policy and the Freight & Logistics Sector.

The West Midlands Freight and Logistics Context

Freight and logistics movements are vital to the West Midlands economy and supply the goods and services used by people every day. Freight movements do not simply occur but rather they reflect our economic activity and provide the means to trade nationally and internationally.

Pre-pandemic, the West Midlands was the fastest growing region outside London, with GVA reaching a record high in 2017 and the region also experiencing record numbers of job creation.[1] The region is served by a complex network of freight and logistics movements, which impose a variety of demands on our transport networks.[2]

The West Midlands metropolitan area is located at the heart of the UK and is at the centre of the UK's motorway and railway networks. Our location gives us strong access to major domestic and international markets and provides the West Midlands with a strategic economic advantage.

As such we are within the so called 'golden triangle'; a concentration of haulage companies around Birmingham and Sandwell alongside the M5 and M6, and between Leicester and Nottingham alongside the M1. The 'golden triangle' sits within relatively close proximity to multiple distribution centers, East Midlands Airport, nationally important ports and a 4 hour drive from much of the country, reflecting the associated importance of national and international supply chains.[3]

The 'logistics and transport technologies' sector (which includes some non-freight transport related jobs) employed 108,145 people in the West Midlands (including non-constituent authorities) in 2017.[4] According to the Black Country Consortium jobs in this sector will increase by 16% by 2030, a figure that may change due to the ongoing Covid-19 events.

Freight and Logistics Key Trends

Road

Of the 189 billion tonne km of domestic freight moved in the UK in 2017, 78% was moved by road.[5] Road freight and logistics transport are strategically important for meeting organisational objectives around congestion, air quality and safety and carbon.[6]

Of all goods lifted domestically by GB HGVs in 2018, 43% remained in the same unitary authority. 23% moved to a different unitary authority, but remained within the same wider region (e.g. West Midlands). This helps to support the idea that the road haulage network consists of a mixture of long distance journeys to local distribution centres, followed by shorter journeys towards the goods' destination.[7]

Locally the West Midlands Key Route Network, comprising 605km (7%) of all the roads within the local authority road network, is crucial for the movement of national and regional road freight. The Black Country route and the Coventry to Birmingham route experience the highest rates of

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[1] https://www.wmca.org.uk/news/west-midlands-growth-outpaces-rest-of-the-uk-state-of-the-region-report-2019-reveals/
[2] https://www.tfwm.org.uk/media/1207/west-midlands-freight-strategy.pdf
[3] http://www.rcslogistics.co.uk/blog-and-news/golden-triangle/2935
[4] Black Country Consortium
[5] https://www.gov.uk/government/statistical-data-sets/tsgb04-freight#table-tsgb0401
[6] https://www.gov.uk/government/statistical-data-sets/tsgb04-freight
[7] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/815839/domestic-road-freight-statistics-2018.pdf

KRN HGV traffic (averages of 8% and 5% of all traffic respectively).[8]

National data suggests that HGV traffic has been gradually increasing since 2012 and in 2016 reached 27.1 billion vehicle kilometres. However, it has still not reached its pre-recession peak of 29.3 billion vehicle kilometres achieved in 2007. By comparison, LGV traffic has increased steadily from 60 billion vehicle-kilometres in 2004 to 79 billion vehicle kilometres in 2016, an increase of 31%.[9]

LGVs including vans are therefore becoming increasingly important to the freight and logistics industry. Crude PRISM analysis (based on DfT assumptions) shows that LGV trips are expected to increase by 47% in the West Midlands from 2016 to 2046, whereas HGV trips are expected to increase by 5%.[10]

Rail

Rail freight carries more than £30bn of goods each year and each freight train takes about 76 HGVs off the roads.[11] Nevertheless, compared to road freight rail freight moves a significantly smaller proportion of goods across the UK (9% in 2017).[12]

Around 92% of the national rail network is shared by freight and passenger trains which can lead to a lack of capacity for new rail freight services.[13] In the West Midlands rail freight competes with passenger rail in terms of timetabling, capacity and port access, although HS2 is set to release capacity to allow for more freight timetabling.

Air

East Midlands Airport is the largest freight handler outside of Heathrow.[14] Birmingham Airport on the other hand is more utilized for passenger transport, although the airport still accounted for 28,112 tons of freight handled (2016/17).[15]

Reliable surface access to both airports is critical for meeting 'just in time' supply chain needs and for ensuring that we remain connected to the national and international economy.

Urban Freight

Urban freight is primarily concerned with the so-called "last mile" delivery to businesses and consumers and as such van traffic makes up more than 80% of urban and city goods vehicle traffic.

Last-mile delivery is defined as the movement of goods from a transportation hub to the final delivery destination. The final delivery destination is typically a personal residence. Last-mile delivery is driving some of the growth in the freight transport industry in terms of the increasing number of LGV (light goods vehicles) on the UK's roads.

There has been a steady increase in the number of vans on the roads and is the only segment of traffic that is growing significantly. There was a 48% increase in the number of LGVs licensed between 2000 and 2015, and LGV traffic has increased steadily from 60 billion vehicle-kilometres in 2004 to 79 billion vehicle kilometres in 2016, an increase of 31%[16]. Van traffic grew by 2.0 per cent between 2018 and 2019 alone[17]. LGV traffic growth has been more rapid than for any other vehicle type both nationally and in London. LGV use is for more than freight.

It should also be noted that this growth has also been driven by that downsizing from lighter HGVs to LGVs which is occurring as a result of less stringent driver regulations associated with LGVs and with companies looking to deploy more agile

[8] https://www.tfwm.org.uk/strategy/network-resilience/congestion-management-plan/key-route-network/
[9] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/777781/fom_understanding_freight_transport_system.pdf
[10] https://www.tfwm.org.uk/media/47392/prism52_futureyearreport_v8_20190906.pdf
[11] https://www.networkrail.co.uk/industry-and-commercial/rail-freight/
[12] https://www.gov.uk/government/statistical-data-sets/tsgb04-freight#table-tsgb0401
[13] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/777781/fom_understanding_freight_transport_system.pdf
[14] https://www.midlandsengine.org/wp-content/uploads/Midlands-Connect-Update-EB6.19.2.2.pdf
[15] https://www.birminghamairport.co.uk/media/5540/birmingham-airport-surface-access-strategy-2018-2023.pdf & Motts Macdonald job density per KM mapping (procured)
[16] https://www.gov.uk/government/statistics/national-travel-survey-2018
[17] https://www.racfoundation.org/motoring-faqs/mobility#:~:text=Alongside%20the%20106%20per%20cent,cent%20between%202018%20and%202019

logistics solutions, particularly for deliveries into congested and restricted urban areas.

Strategic challenges for freight and logistics in the West Midlands

The freight and logistics industry operates almost entirely within the private sector, with little government intervention usually required beyond the provision of roads and rail infrastructure. Because of this, the public sector has historically found it difficult to overcome challenges in the industry both in terms of challenges to supporting sector growth, and in overcoming the negative consequences of the sector itself.

The sector faces a number of strategic challenges which not only impact the sector, but also have wider impacts on the region and the UK. If solved, the resultant benefits will not only help the West Midlands but the UK more widely build back better, stronger, and more sustainably. Protecting jobs, maintaining the industry base and levelling up the West Midlands alongside the need to address the impacts of freight on society and the environment are key areas for action

Brexit

The impacts of Brexit on the freight and logistics sector are difficult to accurately predict. Birmingham City University recently conducted a study on the impacts of Brexit on West Midlands supply chains, and argued that the West Midlands car industry in particular has vulnerabilities around Brexit, in part due to supply strong supply chain links with the rest of Europe.

As a result of Britain's exit from the EU, there will likely be increased friction at the ports as a result of tighter customs requirements and increased checks.[18] It is also expected that there will be additional duties imposed on shipments which will mean that some parts of the freight industry become financially and economically unsustainable. Additional to the technical barriers to trade, there may be potential reduction (at least in the short term) in investment into the sector. The combination of these factors will likely result in job losses and/or consolidation of the freight and logistics market in the UK.

The sector faces staffing shortages with an ever-shrinking pool of active jobseekers from which to recruit drivers. Longer-term there is a dearth of new people entering the profession. Required qualifications are a barrier, while the poor standard and condition of rest and overnight areas in the UK make the profession unattractive. The workforce is ageing, it has very little gender diversity, and with a disproportionately high percentage of EU nationals at risk of leaving the UK (Around 13% of HGV drivers are EU nationals).

The impacts of the Covid 19 Pandemic

The 2020 Covid-19 pandemic presents a break from the norm of freight and logistics operations. Some freight and logistics firms, particularly those involved in food distribution, have experienced increased demand whereas in other industries demand has stalled. Companies that are still moving goods have been affected by staff absences due to shielding, childcare or sickness, and with the average age of a HGV driver being, those that are working are at risk of infection.[19]

The pandemic has exacerbated the decline of high street retailing has declined due to the increasing consumer trend to buy good online. As a consequence, delivery of goods and services are increasingly happening at home or at places of work, which are likely to be distributed by vans. The Covid-19 pandemic has further exacerbated this trend and as a result the growth in van traffic has continued to increase.

Possible longer term impacts of Covid-19 on the freight and logistics industry include:

- Reduced demand for freight in logistics in some sectors if we enter into a post-Covid recession
- Increased resilience in supply chains as businesses are more wary of 'just in time'

[18] Logistics UK, *The Logistics Report 2019*
[19] http://blog.policy.manchester.ac.uk/posts/2020/04/transport-and-logistics-during-the-covid-19-pandemic/

approaches, and instead invest in stockpiling measures
- A long term trend away from deliveries to shops to deliveries to the home. TfWM survey data shows an increase in online shopping in the West Midlands

Overcoming supply constraints to meet changing demand patterns and maintain supply resilience

The reliance on freight and logistics is expected to grow significantly with the construction of new infrastructure and capital projects over the next decade to support wider economic growth, as the West Midlands hosts national flagship projects such as HS2, Midlands Metro extension, the strategic rail freight interchange, significant motorway works and the Midlands rail hub. This expected growth will push the current capacity of the existing infrastructure to support the freight and logistics industry to its limit. To give a sense of the order of magnitude of the challenge created by a proportionate growth in vehicle numbers, one construction site alone near Coventry will generate up to 4,000 Heavy Goods Vehicle (HGV) movements per day.

At the same time and as noted Covid-19 has dramatically accelerated underlying long-term challenges facing the sector's transition. E-commerce and pharmaceuticals are among the sectors which depend most on freight and logistics.

Whilst growth in e-commerce was a pre-existing trend prior to Covid-19, this is now becoming the new reality for all major retailers and logistics providers. Last mile logistics carriers have seen significant growth since the start of the pandemic, for example in the last 6 months Amazon opened 15,000 new full- and part-time positions and delivery driver opportunities across the UK in its fulfilment centres and logistics network.

However, courier logistics and the last mile delivery present challenges. ULEV zones, pedestrianisation, outdated operating hours limits and other urban initiatives make city access difficult. Unsuccessful deliveries (currently 10%) and returned goods (currently 25%)[20] push up the number of journeys, while high urban land prices push depots out-of-town, increasing journey distances and times. The large portion of building services, and growing demand for outsourced specialist services and rapid response add to this further.

Preventing productivity losses and maintaining competitiveness of UK plc

This increased demand on public infrastructure requires public investment to ensure the West Midlands and the UK can keep pace with the new world. The importance is not in meeting projected increase in demand, but also in needing to address the additions to urban congestion.

Not only is congestion bad for the environment, it has a detrimental impact on the UK's productivity and raises the cost of living. It costs HGV operators £1 for every minute stuck in congestion[21]. Variable congestion is even more problematic, with operators always planning and costing for worst case journey

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Engagement with industry representatives including the Freight Transport Association (FTA) and Road Haulage Association (RHA) suggest that variability on the road network can make journey

[20] Post & Parcel, *The True Cost Implications of Failed Deliveries,* https://postandparcel.info/93399/news/e-commerce/true-cost-implications-failed-deliveries/
[21] Logistics UK, *Fast Forwarding the Future of Freight*

times unpredictable and impact profit margins for the freight and logistics industry.

Addressing road safety, tackling air quality and supporting decarbonisation to meet the net zero target.

'Levelling up' public health and social outcomes in the region is also a key strategic challenge for the West Midlands. Road Safety continues to be a challenge with a need to further reduce the number of people injured in collisions involving HGVs and vans.

Between July 2018 and July 2019 West Midlands incidents classed as involving a goods vehicle included 11 fatalities, 80 serious incidents and 489 slight incidents.[22] Road safety in the industry is a key challenge for the West Midlands, and one that the West Midlands Regional Road Safety Strategy sets out to resolve.

Air pollution in the West Midlands affects some 2.8 million people, reducing average life expectancy by up to 6 months, and being responsible for direct and indirect economic costs of several hundred million pounds per year. The West Midlands urban area was predicted to have the fourth highest nitrogen dioxide levels by 2019 and the region's urban air quality has already been identified to be at above the legal limit in urban areas.

Per vehicle, HGVs and LGVs tend to be the greatest polluters of NOx, only mitigated by the smaller number of total miles that they travel compared with cars. Thus, whilst not the only road traffic polluter, LGVs and HGVs contribute significantly to poor air quality in the West Midlands.[23]

Measures in the West Midlands including Birmingham's Clean Air Zone are intended to help address some of the air quality, however, it is noted that further improvements are likely to be required as a result of the need to tackle particulates. It is noted that this creates conditions of uncertainty for the freight industry.

Freight transport currently represents one third of carbon emissions from all transport (which in turn represents one third of all carbon emissions), but represents only 18% of road mileage[24], i.e. has two times the carbon impact. To hit the West Midlands WM2041 target as well as the Government's 2050 net zero target, the freight and logistics sector will require considerable decarbonisation.

However, as of yet, freight and logistics is the hardest transport sector to decarbonise as long as diesel remains the only viable fuel. There is no Electric Vehicle (EV) solution for HGVs, and while there is an EV solution for Light Goods Vehicles (LGVs), the recharging infrastructure needed is missing.

Alternative forms of vehicle, such as delivery drones, are not yet proven nor will be sufficiently scalable in the timeframe. This requires intervention from a policy perspective to harmonise standards and create environment for industry to scale, as well as the funding for infrastructure (and signalling effect of government) to demonstrate commitment and achieve ambitions targets on decarbonisation.

According to a recent Midlands Connect study the two main barriers constraining the uptake of electric charging are a lack of access to suitable charging infrastructure for larger vehicles and a lack of information about the benefits and operational suitability of this technology. For gas and hydrogen vehicles there is uncertainty around which fuels will be widespread. Currently the cost of the industry adopting alternative fuel technology can be challenging, particularly for SMEs.25

Through the WMRE Rail Investment Strategy the West Midland's is seeking to develop options for overcoming (wider) regional capacity challenges around rail freight, such as through increased capacity via the Midlands Rail Hub and maximising shared benefits for passenger and freight services

[22] https://tableau.tfwm.org.uk/#/views/RoadSafetyDashboard-NewBirminghamWards/SeasonalVariation?:iid=1
[23] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/633270/air-quality-plan-detail.pdf
[24] Department for Transport, *Transport Statistics Great Britain 2018*
[25] Midlands Connect study – ULEV for Freight and Logistics

via a range of measures including the use of capacity released by HS2 and better integrated passenger and freight service timetable planning

Improving the relationship between Public Sector Policy and the Freight & Logistics Sector

It is clear that there is a need for more collaborative working between the public and private sectors to ensure that policy measures support a broad range of outcomes.

In the short term TfWM has continued to ensure that the West Midland network operates efficiently through the Regional Traffic Co-ordination Centre and the Transport Cell which was established at the start of the first national Lockdown.

To assist with impacts of the UK leaving the EU after 31st December, the Government have created an Inland Border Facility at Birmingham Airport from 1 January 2021 for 24 months.

The site will act as a location for starting and ending transit movements of goods from the UK with facilities to enable the checking of vehicles and goods entering and exiting the site. TfWM has been working with operators to ensure that they are resilient in terms of staffing and supply chain during this period. In addition WMCA is exploring opportunities to establish a West Midland's Freeport.

The next few years will see a number of events such as Coventry City of Culture and the Commonwealth Games which could add further pressure to the network. TfWM is working closely with businesses and stakeholders to seek to provide travel demand management support to help mitigate impact on business as usual operations. This is also important in terms of the array of significant infrastructure projects being undertaken in the West Midlands such as HS2 which will generate additional traffic whilst also affecting existing sections of the road and rail networks.

In the longer term Government and regional authorities have acknowledged a need to address their 'freight blindness'. There is currently a lack of data around freight and logistics, meaning that it is challenging for policymakers to fully understand the needs and impacts of the industry.

It is the TfWM view that a lack of data is often the key challenge that threads across all challenges regarding freight and logistics in the West Midlands.

To address the freight evidence gap TfWM are working with public and private sector partners to develop a consolidated freight evidence base. This includes working with Midlands Connect and the National Infrastructure Commission to share knowledge around freight and logistics. We are also working with academics and industry trade bodies such as the FTA to help us to reflect the anecdotal needs of the industry in our analysis.

A new West Midlands Local Transport Plan

In 2016 TfWM published the West Midlands Freight Strategy. This outlines a series of objectives and actions to ensure that efficient freight and logistics is promoted in the West Midlands, whilst lowering the sectors' impact on communities, the environment, and the transport infrastructure. However, there was not money or extensive resources available to support the delivery of the strategy, meaning that little progress has been made on meeting the strategic objectives.

Given the implications of the issues set out above and in particular, the climate emergency and the impact of the pandemic, TfWM is now reviewing the statutory Local Transport Plan (LTP), Movement for Growth, and have adopted 'Five Motives for Change' to help guide and shape the development of new objectives and priorities for transport policy and strategy development. These are set out below:

The new Local Transport Plan will be supported by a number of documents including an updated West Midlands Freight & Logistics strategy.

Improving freight & logistics is not solely a transport policy matter and also needs to be supported with action in a number of policy areas. Freight & logistics is a to most sectors of the economy as well as significant in its own right and forms a key element of the West Midlands Industrial Strategy

Urban planning is also key and often fails to accommodate for the movement of freight, causing pinch points and compromising safety26. Similarly the jobs and skills agenda is also key to ensure that the sector has a pool of adequately trained labour and improving the overall perception of the industry.

Figure 1, appended, sets out an emerging package of actions which TfWM and WMCA have started to develop in partnership with Industry that could help to address some of the challenges across a number of the key policy agendas. These will need further development and work to identify potential funding.

It will be also important to continue to work with Midlands Connect as many if the freight movements in our region start or end elsewhere or even pass right through and crossing central England on the Strategic Road Network.

In addition WMRE working in partnership are seeking to bring forward a number of improvements such as the Midlands Rail Hub scheme and timetabling improvements related to capacity released by HS2 to support the growth in rail freight in the region.

Nationally the recently published National Infrastructure Strategy indicates that the Government intends to publish a national Future of Freight strategy in 2021.

Further Information	
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[26] https://www.nic.org.uk/publications/better-delivery-the-challenge-for-freight/

Figure 1 – Developing a West Midlands Freight &Logistics Action Plan