

Transport for the South East (TfSE)

FREIGHT, LOGISTICS AND GATEWAYS STRATEGY:

Work Package 5 – Operational & Planning Considerations



wsp

Transport for the South East (TfSE)

FREIGHT, LOGISTICS AND GATEWAYS STRATEGY:

Work Package 5 – Operational & Planning Considerations

Technical Report

PUBLIC

PROJECT NO. 70079897 OUR REF. NO. 70079897

DATE: JANUARY 2022

WSP

London Square Cross Lanes Guilford GU1 1UN Phone: +44 1483 528400 Fax: Fax WSP.com

QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3	Revision 4	
Remarks						
Date	17/08/2021	18/08/2021	11/10/2021	03/11/2021	04/01/2022	
Prepared by	Sandy Moller	Sandy Moller	Sandy Moller	Sandy Moller	Sandy Moller	
Checked by	Mark Cavers	Rohan McGinn	Chris Douglas	Chris Douglas	Chris Douglas	

CONTENTS

115

1	REPORT INTRODUCTION	1
1.1	INTRODUCTION	1
1.2	REPORT CONTENT	1
1.3	KEY ACTORS AND THEIR ROLES INTRODUCTION	1
1.4	THE FREIGHT INDUSTRY	2
1.5	PUBLIC AUTHORITIES	3
1.6	OTHER STAKEHOLDERS	4
1.7	RATIONALE FOR ACTION	5
2	THE ROLE OF INDUSTRY	6
2.1	THE CURRENT CONTEXT	6
2.2	TRIGGERS	9
2.3	A NEW APPROACH	17
2.4	THE INTERVENTIONS	18
3	THE ROLE OF PUBLIC AUTHORITIES	35
3.1	THE CURRENT CONTEXT	35
3.2	A NEW APPROACH	36
3.3	THE INTERVENTIONS	47
4	ROLE OF TFSE	58
4.1	ACKNOWLEDGING THE CHALLENGE	58
4.2	AWARENESS BUILDING	58
4.3	UPSKILLING	61
4.4	INDUSTRY INITIATIVES	63
5	CONCLUSIONS	67

TABLES

Table 2-1 - Telematics (Rerouting)	22
Table 2-2 - Load Sharing (Reducing)	23
Table 2-3 - Quiet Deliveries (Re-timing)	24
Table 2-4 - Port Side Booking System	25
Table 2-5 - Cargo Handling Equipment	26
Table 2-6 - Greener Fleets	27
Table 2-7 - Shared Assets	28
Table 2-8 - Driver Training	29
Table 2-9 - Accreditation & Recognition Schemes	30
Table 2-10 - Alternative Modes (Re-moding) – Waterbourne Transport	31
Table 2-11 - Alternative Modes (Re-moding) – Freight on Public Transport	32
Table 2-12 - Alternative Modes (Re-moding) – E Cargo Bikes	33
Table 3-1 - Freight Quality Partnerships	49
Table 3-2 - Waste Management Partnerships	50
Table 3-3 – Low Emission Zones	51
Table 3-4 - Delivery & Servicing Plans	52
Table 3-5 - Construction Logistics Plans	53
Table 3-6 - Building Regulations	54
Table 3-7 - Urban Consolidation	55
Table 3-8 - Sustainable Procurement	56
Table 3-9 - Greener Fleets	57

wsp

FIGURES

Figure 2-1 - UK FORS Members (FORS, 2021)

ACRONYMS

This report uses the following acronyms:

Transport for the South East (TfSE)

3PL – Third Party Logistics HGV – Heavy Goods Vehicle ABP – Associated British Ports **ICE** – Internal Combustion Engine **AQMA** – Air Quality Management Area LEP – Local Enterprise Partnership **BID** – Business Improvement District **LGV** – Light Goods Vehicle **CIL** – Community Infrastructure Levy Lo-Lo – Load on Load Off CILT - Chartered Institute of Logistics & LPA – Local Planning Authority Transport LTA – Local Transport Authority **CLES** – Centre for Local Economic Strategies MaaS – Mobility as a Service **CLOCS** - Construction Logistics and **ODs** – Origin - Destinations **Community Safety ORR** – Office of Rail & Road CoT – Chamber of Trade **PCL** – Port Centric Logistics **CRP** – Community Rail Partnership Ro-Ro – Roll on Roll Off **CSRGT** - Continuing Survey of Road Goods Transport RSSB – Rail Safety & Standards Board **DfT** – Department for Transport SLR – Strategic Land Reserve **EST** – Energy Saving Trust **SME** – Small Medium Enterprises **FDM** – Freight Demand Management **SRN** – Strategic Road Network FOCs - Freight Operating Companies STBs – Sub National Transport Bodies **TAP** – Traffic Assessment Project FQP – Freight Quality Partnership **TOCs** – Train Operating Companies **FTZ** – Future Transport Zone **PCV** – Passenger Carrying Vehicle JIT – Just in Time **GHG** – Green House Gases **GVA** – Gross Value Added

vsp

1 **REPORT INTRODUCTION**

1.1 INTRODUCTION

- 1.1.1. The sustainable, safe and efficient movement of goods requires the freight industry to continually improve and optimise its operational practices. Additionally, public authorities must provide the conditions for the industry to thrive. An effective relationship between the two is critical for the development and longer-term commitment to sustainable freight planning and strategy.
- 1.1.2. This report reflects on the opportunities available to the freight industry (referred to as 'industry' throughout) to deliver cost effective services and to satisfy demand. The roles and responsibilities of public authorities in creating a supportive regulatory and investment environment is also considered. This operating environment must also balance the needs of society whilst protecting the environment and supporting economic prosperity.

1.2 REPORT CONTENT

- 1.2.1. This report aims to present a compelling narrative for guiding future operational and planning considerations, by named actors, to satisfy the needs of the freight industry and the broader objectives of public authorities, including Transport for the South East (TfSE). The report is structured follows:
- 1.2.2. Current Challenges: providing a snapshot of current challenges facing the freight industry and discussing the historic lack of awareness of freight as an industry sector;
- 1.2.3. The Role of Industry: establishing the rationale for freight companies, mainly road haulage operators, to adopt new practices, including a series of dashboards to inform operational changes;
- 1.2.4. The Role of Public Authorities: identifying the need to apply a freight lens to internal practices, upskilling local authority officers and presenting a series of dashboards on future planning considerations;
- 1.2.5. The Role of TfSE: reflecting on the key takeaway themes and developing a course of action for TfSE to help embed best practice approaches across its geography.
- 1.2.6. Conclusions: a summary of the main conclusions that have been drawn throughout the report.

1.3 KEY ACTORS AND THEIR ROLES INTRODUCTION

1.3.1. The responsibility for sustainable freight planning, strategy and delivery must be shared between public authorities and the freight industry. Creating the appropriate conditions for safe, sustainable and efficient freight movements will require several different actors to proactively take on responsibilities for change in order to achieve the TfSE vision outlined below:

TfSE Vision Statement (extract)

The South East is crucial to the UK economy and is the nation's major international gateway for people and businesses. We will grow the South East's economy by facilitating the development of a reliable, high quality, sustainable, integrated transport system that makes the region more productive and competitive, improves access to opportunities for all and protects the environment" – TfSE Transport Strategy (2020).

- 1.3.2. Freight has historically been siloed and poorly integrated within the broader discourse around transport, travel and place. This contrasts to the focus of attention and investment in passenger and active travel due to their political capital and the fact that freight has traditionally been the preserve of market forces rather than shaped by long term strategic planning.
- 1.3.3. The sector is equally susceptible to the changing trends and priorities affecting the wider transport system. These range from climate change and the decarbonisation agenda through to the rise in e-commerce, new employment structures and fluctuating market conditions. The scale of interdependencies and the pace of change require sound partnerships and relationships to be forged between the freight industry and public authorities to ensure that the optimal conditions for efficient freight operations are delivered and maintained. There are other stakeholders, such as trade bodies, acting as a conduit between the two and providing invaluable input to each respective actor.

1.4 THE FREIGHT INDUSTRY

- 1.4.1. The freight industry is defined as the organisations involved in the carriage of goods between an origin and a destination for processing, sorting or consumption. Logistics is a broader concept that encompasses other components of a supply chain including the production and management of goods, as well as their distribution.
- 1.4.2. The focus of attention, in terms of the future of freight, is on the need to optimise road freight haulage, the most dominant means of moving goods across the UK. More specifically, efforts are underway to reduce the societal and environmental impact of the movement of goods while recognising its role in local and national economies.
- 1.4.3. The stakeholders directly and indirectly involved in Freight, Logistics and International Gateways in the South East are many and varied. The groupings below present a selection of the key actors in the freight system and their objectives, which need to be considered when developing strategies, policies and planning.
 - Freight Trip Generators those procuring goods and services and those fulfilling demand, covering both business-to-business (B2B) and business-to-customer (B2C), e.g. residents/individual consumers at the local, regional, national and international levels, shippers (consignors) or receivers (consignees)
 - Freight and Logistics Operators and Service Providers (across all modes; road, rail, air, sea and pipeline) those who provide logistics services (transport, storage, distribution and other supporting functions, to meet the demand for movement created by the Freight Trip Generators above:
 - Carriers (moving goods for others)
 - Own account operators (carrying their own goods)
 - Infrastructure Owners & Authorities Organisations, whether pan national bodies, such as National Highways, port authorities (which could be owned and managed by local authorities as in the case of Portsmouth International Ports or by private commercial operators such as ABP); airport operators and the rail network (Network Rail - soon to be absorbed by Great British Railways).
- 1.4.4. The triggers for the freight industry to optimise journeys, reduce road-based mileage and raise driving standards are discussed further in Section 2. These will require collaborative working with Freight



Operating Companies (FOCs) across all modes of freight transport within a local, regional and subnational context to continue supporting the industry.

1.4.5. There are a number of key freight industry facts of note in the box below¹²³⁴

Key Freight Industry Facts

- Over 79% of domestic UK freight is moved by road (152 billion tonne kilometres per year) alongside 5.6 billion tonne kilometres moved internationally by UK registered vehicles (TCfGB, 2020);
- In total, over 1.56 million people are employed in transport (including storage), with the freight industry contributing £12bn to the UK economy (GOfS, 2019);
- More specifically, the transport and logistics sector across the South East of England generates GVA of over £8 billion per annum (Steer, <u>2018</u>); and
- The South East is a crucial economic driver; with forecast employment growth of 500,000 and an additional £130 billion being added to the economy over the next 30 years (WSP, 2019).

1.5 PUBLIC AUTHORITIES

- 1.5.1. There is critical role for public authorities working in partnership with the freight industry.to facilitate the operation of an effective and efficient freight network. Public authorities range in size and scale with varying levels of power to influence and shape policy, planning and strategy. TfSE can act as a unifying voice to lobby for change by collating together the aspirations of local authorities and the freight industry, escalating demands to DfT for shaping national policy and helping to apply a freight lens to internal processes and decision making.
- 1.5.2. Public authorities, for the purposes of this study, include but are not limited to:
 - Local Transport Authorities (LTAs): officers working across transport, land use and urban design departments (and elsewhere) helping to shape or influence site-based plans, policy and strategy. There are 16 LTAs in total across the TFSE area;
 - Local Planning Authorities (LPAs): decision makers within development control and involved in the formation of local plans and the exercising of urban planning functions across a particular area, including interaction with members and councillors;

¹

¹ TCfGB (2020) Annual Report to the Secretary of State 2019-20, <u>Annual Report to the Secretary of State 2019-</u> <u>20 - GOV.UK (www.gov.uk)</u>

²Government Office for Science (2019) Understanding the UK Freight Transport System, <u>Future of Mobility:</u> <u>understanding the UK Freight Transport System (publishing.service.gov.uk)</u>

³ Steer (2018) Economic Connectivity Review, <u>FINAL-Economic-Connectivity-Review.pdf</u> (transportforthesoutheast.org.uk)

⁴ WSP (2019) Freight, Logistics & Gateway Review



- Local Economic Partnerships (LEPs); helping to source investment and deliver business-led strategic growth including skills development and infrastructure. These are multi-stakeholder groups, and there are five in total across the TfSE area; and
- Department for Transport (DfT); The national government body setting trends, forecasting future scenarios and conveying policy and data for transport at a strategic level across industry sectors.
- Policy development is also being undertaken by national network operators whose investment priorities are set by DfT. This covers network operations, maintenance and renewal and includes National Highways, which prioritises investment on the SRN in the South East; and
- Network Rail, which prioritises investment on the rail network in the South East.

1.6 OTHER STAKEHOLDERS

- 1.6.1. There are a number of other stakeholders that play a role in shaping the narrative around freight and logistics. Trade body associations often represent a particular sector (e.g. aviation, road haulage etc) of the freight and logistics industry and typically provide support, advice and tailored content to their membership while lobbying public authorities, developing policy statements and informing strategy. Their remit extends to promoting best practice and improving industry standards; recognising the challenges and issues faced by FOCs and the aspirations and demands of public authorities and the public at large.
- 1.6.2. Logistics UK and the Chartered Institute of Transport and Logistics (CILT) provide a holistic perspective on freight and logistics across their membership, content and policy direction and are actively engaged on a national, sub national and local scale, while the following notable trade bodies (not an exhaustive list) have a more specialist membership and associated policy positions:
 - Road: Road Haulage Association (RHA);
 - Warehousing: UK Warehousing Association (UKWA);
 - Ports: British Ports Association (BPA), British International Freight Association (BIFA) and the UK Major Ports Group (UKMPG);
 - Aviation: International Air Transport Association (IATA);
 - Rail: Rail Delivery Group (RDG), Rail Freight Group (RFG);
 - Businesses: Federation of Small Businesses (FSB) or the Confederation of British Industry (CBI); and
 - Traffic Commissioners (the industry regulators).
- 1.6.3. There are other industry bodies that have an interest in the freight and logistics sector. Manufacturing associations, representing freight generators, can help convey 'real life' consequences of inefficient freight movements alongside supply chain insights and rationale. Higher education, such as Universities, can contribute towards research and development in the field of future mobility. Fuel and energy network providers are increasingly engaged to accelerate the shift towards zero emissions fuels in order to decarbonise the freight industry.
- 1.6.4. The freight industry and public authorities rely on a range of service providers offering solutions that can improve the efficiency, safety and sustainability of freight movements. This ranges from improving data collection through to improving backloading (the means of collating loads to reduce empty running, often via load sharing platforms). Equally, public authorities across the UK have consulted organisations such as the Centre for Local Economic Strategies (CLES) to change procurement practices and the Energy Saving Trust to move towards greener fleet policies.



1.7 RATIONALE FOR ACTION

- 1.7.1. Freight, until relatively recently, has been the silent network operating outside of the public consciousness and with little fanfare; holding limited weight in political discourse and investment programmes compared to the movement of people. Traditionally, the freight sector has been heavily market-led with minimal state investment or direction despite the impact it has, both positively and negatively, on people's quality of life.
- 1.7.2. Underpinning this is a lack of awareness of freight as part of the transport mix (discussed in Work Package 2 [WP2]) and subsequent lack of resources and attention dedicated to the sector historically. Only now, as the decarbonisation agenda comes to the fore and goods movements start to have a visible impact on urban streets, is the call for action being raised. The repercussions from leaving the European Union and the impact of the Covid 19 pandemic, have also highlighted the role of the freight and logistics sector to sustaining standards of living and the need for greater supply chain resilience.
- 1.7.3. On this basis, key aims of this report are:
 - To understand the challenges faced by the freight industry to help inform future operational interventions; and
 - The need for public authorities, including TfSE to insist on greater integration between transport and land use development planning; and
 - The need for public authorities to engender a 'think freight' approach throughout their decisionmaking processes.
- 1.7.4. The benefits of a prominent stance on freight range from the design of new streetscapes that put safety, accessibility and attractiveness at its heart, through to supporting the role of the sector and its contribution to employment growth targets at a strategic level. A positive and proactive approach to freight and logistics can bring very real impacts on profit margins and standards of living.
- 1.7.5. The following sections distinguish between the role of the freight industry and public authorities, and their collective and individual responsibilities for delivering optimal freight operating conditions. They also consider the potential role(s) for TfSE going forward. A set of dashboards detailing recommended interventions are also presented.

2 THE ROLE OF INDUSTRY

2.1 THE CURRENT CONTEXT

- 2.1.1. First and foremost, businesses working within the freight sector are seeking to improve their operational performance to save time, minimise operating costs and reduce overheads whilst trying to enter new markets and build their reputations. Freight transport is always seeking to optimise journeys with hauliers, couriers and shippers constantly competing for custom and seeking new revenue streams and where they can, consolidate loads to reduce trips, maximise payloads and increase profit margins.
- 2.1.2. Revenue is the biggest driver for shaping operational practices, which are influenced by external factors determined by activities and functions of public authorities or are natural consequences of market demand. There are other triggers on a local (even 'hyperlocal') or global scale that influence decision making which can stimulate a shift in operational practices and influence travel behaviour change.
- 2.1.3. Partnership working between the freight industry and public authorities is important to help foster a step change in the adoption of new practices and to respond to changes in legislation. This includes the transition towards cleaner fuels as part of the decarbonisation agenda and more specifically the changes to tax on fuel duty (i.e. red diesel) that will directly impact operational costs.
- 2.1.4. There are a number of key facts relating to the Freight, Logistics & Gateway Review as bulleted in the box below⁵.

Key Facts (Freight Logistics & Gateway Review, WSP, 2019)

- Around 12% of all UK HGV operators are based in the TfSE area from a total figure exceeding 82,000 based on 2019 figures.
- The majority of operators have fleets of less than 10 vehicles; indicating the scale of engagement required for adoption of new practices by companies likely to have smaller operational margins.
- There is a higher density of HGVs per km², in the TfSE area with 19 compared to an average of 10 per km in other UK regions. This indicates the relative scale of vehicle ownership/leasing over smaller geographical footprint.

INDUSTRY DRIVERS

2.1.5. There are a number of key drivers for FOCs to adopt new practices and behaviours which are generally replicable across all modes of freight transport (road, rail, air and maritime). These drivers can also be useful Key Performance Indicators (KPIs) that can help industry assess performance and operational efficiency.

⁵ WSP (2019) Freight, Logistics & Gateway Review

vsp

- Reducing trips; reducing the number of journeys (and/or distance travelled) by a particular mode or as a proportion of all trips made by a single mode to fulfil service requirements with minimal business overheads;
- Vehicle optimisation; carrying the maximum distance/weight tonnage across vehicle deck lengths (e.g. HGVs, sea faring vessels, rail rolling stock, aircraft);
- Minimising empty running; reducing 'stem mileage', the distance travelled without a load between the source of activity and where vehicles are stored or based;
- Driver and vehicle efficiency; enhancing fuel efficiency, slowing vehicle depreciation (and maintenance requirements) and alleviating road related incidents, accidents or collisions;
- Time utilisation; 'sweating' existing assets (e.g. vehicle fleets) alongside workforce availability over a whole working day (the best purpose vehicle on the best fit route with best trained resource); and
- Deviation from Schedule; the responsiveness to changes in internal factors (e.g. driver illness or vehicle breakdown) and external conditions (traffic congestion and limited infrastructure).
- 2.1.6. A business-as-usual approach towards operational practices has direct implications on revenues and costs for companies working within the haulage and road freight sector who are more vulnerable to occurrence of internal and external factors. On average, there are 150 million avoidable lorry miles each year⁶ resulting from poor route selection.
- 2.1.7. The, the costs of congestion to businesses along major corridors through the TfSE area amounted to £389 million in 2019 and is predicted to rise to £1.1 billion by 2041 without mitigation. The cost of congestion for HGVs is double that of LGVs⁷.
- 2.1.8. Alongside the need to generate revenue, FOCs must also be legally complaint and, in the case of road freight, are held accountable by the Traffic Commissioner who has responsibility for the licensing and regulation of HGV and PCV operators and operation. Legal compliance can take priority over environmental performance, especially amongst smaller hauliers. This presents a major challenge to improving all-round efficiency and decarbonisation.
- 2.1.9. One of the reasons for suppliers to outsource haulage requirements to third parties is to take advantage of economies of scale and the offering of higher quality service. In this context, the road freight industry is able to adopt new ideas and working practices; overcoming management inertia and restrictive work practices that inhibit in-house efficiencies. Road hauliers can also offer flexibility or specialisation of services and can be more receptive to the collation of loads.
- 2.1.10. The opportunity presented by load sharing networks are presented in the box below whilst detailed overview of differing operating licences, and their significance, is provided in the following box⁸⁹.

⁶ Oldman (2016) UK Freight In for the long haul?, <u>https://www.imeche.org/docs/default-source/1-oscar/reports-policy-statements-and-documents/uk-freight---in-for-the-long-haul.pdf?sfvrsn=38dfc012_2</u> ⁷ Steer (2018) Economic Connectivity Review,

https://transportforthesoutheast.org.uk/app/uploads/2020/10/FINAL-Economic-Connectivity-Review.pdf

⁸ TCfGB (2020) Annual Report to the Secretary of State 2019-20, <u>Annual Report to the Secretary of State 2019-20 - GOV.UK (www.gov.uk)</u>

⁹ Texaco (2016) Overview of the UK Commercial Vehicle Industry, https://motortransport.co.uk/wpcontent/uploads/2018/04/Texaco-Report-2016-1-3.pdf

wsp

Load Sharing Networks

Palletline and Pallex are networks that help to offer low-cost express deliveries nationwide, based on a hub and spoke model; with consignments smaller than a truckload sent to hubs for onward connections. These are ideal access points for SMEs and road hauliers looking to secure steady revenue streams, optimise payloads and to reduce empty running. This network relies on 'hub' locations being established and an understanding of strategic freight flow.

3PLs, who oversee much of the supply chain management and perform an array of added value services, tend to optimise deliveries and consignments on behalf of suppliers and customers across multiple sectors from larger fulfilment and warehousing centres across the country.

wsp

Standard v Restricted Operating Licences

The licensing terms applicable to the carriage of goods by hauliers can be a barrier to the adoption of best practice and efforts to boost industry standards. Standard Operating Licences (SOLs), which enable FOCs to transport goods for payment (Hire and Reward), require licenced drivers to hold a Certificate of Professional Competence (CPC) and a higher vehicle deposit/insurance threshold to cover maintenance and vehicle repairs or damage. These can be held as national or international licences (the latter particularly relevant for freight forwarders and hauliers based out of the south east).

In contrast, Restricted Operating Licences (ROLs) confine FOCs to moving their own goods alone without the need to carry a CPC and a sizeable capital deposit; with the aim of removing barriers to entry and protecting smaller businesses with a freight requirement but small capital reserves. However, this situation potentially leads to more freight vehicles taking to the roads with minimum driving standards in place.

Out of the 473,900 registered commercial vehicles in the UK (2014-2015 figures), around 52% are driven under a Restricted Licence. A licence authorises you to use a maximum number of motor vehicles and, if applicable, trailers. The average number of vehicles specified to a restricted licence is was around 2.4 in 2013/2014 compared to the number specified to a standard licence which was 6.1-6.3 in the same year.

Restricted licences only allow the operator to carry "own account" (i.e. not third party) goods. A Standard licence is needed to carry third party goods (or to "apply for hire and reward"). A snapshot of licences continued and in use during 2014-2015 indicates almost double the number of Restricted licences compared with Standard ones. There are now 8,185 O licences issued across the South Eastern and Metropolitan Traffic Area [comparison of numbers by Traffic Area isn't needed – it's partly down to the number and spread of operating centres and partly the size of the different Traffic Areas] covering 42,486 vehicles (TCfGB, <u>2020</u>).

However, the HGV licencing structure:

- Severely limits backloading and reducing empty running by Restricted licence holders;
- Effectively incentivises the purchase, use and retention of older and more polluting vehicles; the average age of a HGV in the UK is now 7.5 years with vehicles having lengthening lifecycles (Texaco, <u>2016</u>); and
- Fails to recognise or reward industry standards and professionalisation in the sector, which can lead to a proliferation of smaller, unqualified and less efficient vehicle fleet operators.

2.2 TRIGGERS

2.2.1. The freight industry, and particularly road haulage, is under increased pressure to minimise its environmental impacts through vehicle fleet decarbonisation, whilst simultaneously trying to minimise operational overheads and generating additional income streams. This scenario impacts on the receiver of goods and the supply chain as well as on their relative competitiveness and longer-term

financial sustainability. Future operational changes led by industry are being triggered by a number of key triggers set out below.

DECARBONISATION & AIR POLLUTION

- 2.2.2. Transport is gradually becoming cleaner with reduced greenhouse gas emissions as a transition takes place from combustion engines to electrified vehicle powertrains, including battery electric and hydrogen fuel cell across all modes of transport. The need to shift to zero emission vehicles has been accelerated by changes in government policy, with the publication of its Transport Decarbonisation Plan in July 2021¹⁰. This will include future bans on the sale of new petrol and diesel-engine cars and vans by 2030 and diesel HGVs by 2040 and ensuring all road vehicles are net zero emission by 2050.
- 2.2.3. Decarbonisation is taking place at varying rates across the road freight industry. There are marked differences in the availability of capital investment, incentives and availability of new technologies to support LGVs undertaking short, local trips, compared with the requirements of Heavy Goods Vehicles (HGVs) on longer distance journeys (particularly along the SRN) that demand greater capacity requirements. In 2016, HGV and LGV tailpipe emissions together accounted for 11% of PM₁₀ and 17% of PM_{2.5} pollution from road transport¹¹ The DfT's Road to Zero¹²strategy aims to foster a 15% reduction in GHG emissions from road freight by 2025 working with industry to support the transition.
- 2.2.4. The decarbonisation agenda makes the case for a transition towards cleaner fuel technologies and efficient driving practices. This is with the aim of reducing GHG emissions, particulate matter and fuel consumption. and ultimately improving air quality and addressing climate change.
- 2.2.5. The need to decarbonise and reduce emissions is increasingly relevant as new legislation is also brought forward. This includes the introduction of clean air zones and increases in fuel duty to nudge users towards cleaner alternatives. However, around 98% of the road haulage sector in the UK is still powered by diesel traction and almost half of HGV fleets across the UK are 10 years or older. This presents itself as both an opportunity and a challenge to transition to cleaner transport or risk 'locking in' diesel fleets for the foreseeable future.
- 2.2.6. This is a perennial issue facing the haulage industry, particularly due to the pace of decarbonisation that is being sought. The age of vehicle fleets is increasing; with the average age of licensed LGVs now being 8.3 years, compared to 7.4 years for HGVs¹³. There were 3,625 Ultra Low Emission Vehicles (ULEVs) LGV registered in 2019; a 126% increase on the previous year but only 19

¹⁰ DfT (2021) Decarbonising Transport, A Better Greener Britain,

¹¹ WSP (2019) Freight Logistics & Gateway Review

¹³ DfT (2020) Vehicle Licensing Statistics: Annual 2020,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/985555/vehic le-licensing-statistics-2020.pdf

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1009448/dec arbonising-transport-a-better-greener-britain.pdf

¹² DfT (2018) The Road to Zero,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/739460/roadto-zero.pdf

registered HGVs in this category across the UK). Used van prices have increased by record amounts (50%) over an 18-month period during 2020/2021¹⁴ (due to the combined demand for servicing (trades), e-commerce and the overall strong business case and flexibility offered by the van. This has implications on air quality from higher emitting, older vehicles.

- 2.2.7. Without financial incentives, the transition will be difficult for the smaller, licenced fleet operators who constitute the vast majority of national hauliers. The transition will have a disproportionate impact on SMEs due to the initial capital outlay required for new vehicles or in-cab technologies and the current absence of a reliable refuelling or charging infrastructure network for alternatively fuelled vehicles.
- 2.2.8. Many hauliers, or businesses operating a fleet, may not even meet Euro 6 diesel engine standards which were introduced in 2015 and remains the latest standard for emissions reduction including for air polluting nitrogen oxides (NOx) and particulate matter (PM), The standards are upheld and used to charge vehicles entering CAZs.
- 2.2.9. Hauliers will subsequently need to look for cost effective alternatives. Fleet operators could consider higher capacity vehicles using European Modular Systems (EMS) that offer a substantial payload advantage, with a corresponding reduction in fuel consumption per tonne-km of approximately 20% compared with conventional tractor-semitrailer vehicles¹⁵.
- 2.2.10. Decarbonisation is not confined to road freight transport with waterborne transport, commercial ports and Rail Freight Operators (RFOs) also moving away from the use of red diesel in response to tax changes on fuel duty. Industry can take advantage of cost effective alternatives, ranging from shoreside power systems and LNG bunkering facilities to serve newer vessels (as in the case of Southampton) or Hydrotreated Vegetable Oil (HVO) by DB Schenker across existing locomotive fleets as solutions towards decarbonisation. 'Hub' ports, such as Southampton, has the greatest potential to boost rail freight traffic and mode shift away from a dependency on long distance road haulage.
- 2.2.11. From a shipping perspective; the scale and pace of decarbonisation remains modest. Whilst the Sulphur Emissions Control Area (SECA, in place since 2015) has restricted the use of heavy fuel oil as a bunker fuel, vessels are still inclined to use diesel whilst berthing, in the absence of the necessary bunkering and alternative shoreside power generation. Ports, including Southampton, have invested in LNG facilities and are introducing plug-in power with the financial backing of the Solent LEP to reduce GHG emissions.
- 2.2.12. However, there are barriers to decarbonisation; notably both capital and operating costs, for transitioning effectively. There are also numerous parties involved in this process; for example, the use and potential of shoreside power, provided by port authorities, is dependent on the vessel power specification (and therefore the vessel operator) as well as the availability of power often via a third power source (e.g. the national grid). There has to be cross party alignment and 'buy in'.
- 2

¹⁵ Oldman (2016) UK Freight In for the long haul?, <u>https://www.imeche.org/docs/default-source/1-oscar/reports-policy-statements-and-documents/uk-freight---in-for-the-long-haul.pdf?sfvrsn=38dfc012_2</u> Steer (2018) Economic Connectivity Review,

¹⁴ Commercial Fleet (2021) Used van values up 50% in 18 months despite mileage and age increasing, <u>https://www.commercialfleet.org/news/van-news/2021/07/05/used-van-values-up-50-in-18-months-despite-mileage-and-age-increasing</u>

NEW TECHNOLOGIES

- 2.2.13. New technologies and innovations, particularly those aimed at improving freight efficiency, were popular with stakeholders representing industry, public authorities and other local stakeholders across the TfSE region¹⁶. The adoption of new technologies is driven by new consumer expectations, internal strategy/competition, regulation/compliance and wider supply chain benefits.
- 2.2.14. The emergence of new technologies (see Work Package 4 for further information) offers individual FOCs the opportunity to reduce operational overheads, maximise load capacities and reduce barriers to new markets; with the ultimate aim of maximising profit margins. across the UK, HGVs are operating empty 28-30% of the time¹⁷ with limited improvement made over the past two decades. Greater supply chain visibility and the rise of brokerage and sharing platforms, such as Freight Exchange, provide hauliers with the opportunity to optimise spare vehicle capacity and reduce empty running.
- 2.2.15. Vehicle optimisation is relevant for both domestic and international hauliers travelling through the TfSE area and is especially pertinent given rising operational costs brought on by customs checks and the increased wage demands brought on by the HGV driver shortage. There is also potential for further improvement, with HGV 'load factors' stabilising at around 61%, implying that vehicles have over a third capacity spare for hauling additional loads¹⁸.
- 2.2.16. The shortage of warehousing capacity, particularly across the South East, could also be addressed through sharing assets This would seek to combine technology with innovative software solutions and automated inventory management systems to optimise the use of existing floorspace.
- 2.2.17. The optimal use of assets applies, to a lesser extent, to vehicle fleets and alternative business models that offer more demand responsive services. New, disruptive technology platforms, such as Uber Freight have the potential to revolutionise the industry by quickly matching carriers and shippers through technological platforms.
- 2.2.18. The use of in-cab technologies and the adoption of standardised GPS devices to aid route optimisation has the potential to grow exponentially across the road freight industry. This relatively cost-effective intervention, accessible to the road haulage sector, would allow vehicles to 'talk' with on-road smart infrastructure. The use of this technology could be supported and reinforced by trade bodies with mass adoption across the sector leading to reduced freight costs from better routing, fuel efficiency and vehicle maintenance.

CHANGING EXPECTATIONS/DEMANDS

2.2.19. There is a concerted drive to reduce the prominence of long distance road haulage and to shift loads over to more cost effective, environmentally friendly means of travel, such as rail and coastal shipping, particularly for strategic journeys.

¹⁶ AECOM (2019) Freight Scoping Study

¹⁷ RAC (2021) Motoring FAQs, <u>https://www.racfoundation.org/motoring-faqs/mobility#a42</u>

¹⁸ NIC (2019) Better Delivery: The Challenge for Freight, <u>https://nic.org.uk/app/uploads/Better-Delivery-April-</u> 2019.pdf

- 2.2.20. Road haulage is likely to remain the dominant means of moving goods inland across the TfSE area in the future. but this will be set against a backdrop of changing expectations around emissions reduction (and the pace of transition) and placemaking alongside commitments to Corporate Social Responsibility (CSR) and ISO accreditation.
- 2.2.21. Almost 20% of all UK retail sales now take place online¹⁹ with shifting expectations for next day delivery, shorter lead times and supply chain transparency. Consumers are increasingly conscious of the impacts of their purchasing decisions, including how deliveries are conducted. A recent study indicated that consumers would pay a premium for better 'traceability²⁰ and that 'sustainability' is a key consideration for a variety of consumer segments when making purchasing decisions²¹.
- 2.2.22. While individual operators, notably larger hauliers, have likely explored eco driving techniques or upgraded to in-cab telematics systems, additional promotion and targeted marketing campaigns or incentives would likely be required to nudge smaller companies towards greater uptake. There are also expectations to consider around satisfying industry standards and demonstrating best practice to help secure future contracts and comply with planning conditions (such as during development construction).
- 2.2.23. The changing market demand for commodities is also having a catalytic effect on waterborne and rail requirements, particularly the former with many of the UK ports privately owned. Containerisation has provoked growth in tonnage moved and has increased loading/unloading speeds but requires investment in handling equipment and storage yards for Load on Load off (Lo-Lo) traffic. The interest expressed by industry for mode shift to rail through the identification, designation and operation of Strategic Rail Freight Interchanges (SRFIs) will need to be unlocked by public authorities (through capital investment and land designation) to minimise risk to private sector industry.
- 2.2.24. There are challenges that will inform commercial decisions. There are some commodities that move exclusively by road for domestic freight journeys, such as fertilisers, chemicals and machinery as well as foodstuffs and animal fodder. Rail plays a more prominent role at present in transporting metal products, crude and manufactured goods. Rail has raised its mode share by 3% nationally in 2018/2019 (on the previous year) and has seen freight volumes grow by 60% over the last twenty years²². However, Freight distribution by rail depends upon a range of factors such as end destination, path availability, journey time, rail terminal availability as well as fuel costs, HGV driver availability, and the nature of commodities being moved.

content/uploads/2017/11/The Implications of Internet Shopping Growth on the Van Fleet and Traffic Activity Braithwaite May 17.pdf

https://www2.deloitte.com/ch/en/pages/consumer-business/articles/shifting-sands-sustainable-consumer.html ²² DfT (2019) Transport Statistics Great Britain 2019,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/870647/tsgb-2019.pdf

¹⁹ RAC (2017) The Implications of Internet Shopping Growth on the Van Fleet and Traffic Activity, <u>https://www.racfoundation.org/wp-</u>

 ²⁰ IBM (2020) Meet the 2020 consumers driving change, <u>https://www.ibm.com/downloads/cas/EXK4XKX8</u>
 ²¹ Deloitte (2020) Shifting sands: How consumer behaviour is embracing sustainability,

- 2.2.25. The need for manufacturing firms and 3PLs to deliver on a Just in Time (JIT) basis means aviation can deliver high value items on time-critical services, though at a higher cost to the consumer, so is unlikely to play as substantial a role across the TfSE area comparatively.
- 2.2.26. There are a number of key facts relating to the Driver Shortage are discussed below²³.

Driver Shortage

In total, over 79,000 EU registered citizens left the UK in 2020, leaving a skills and driver shortage across the industry. The number of EU HGV drivers fell by 14,275 (36.3%) over Q2 2020 whilst there was a parallel drop of 4,000 (1.5%) in UK nationals who were registered as HGV drivers (Logistics UK, <u>2020</u>). Indeed, there was a notable reduction in HGV practical and theory tests undertaken (and passed) between 2019-2020 (Q2) (Logistics UK, <u>2020</u>).

This situation has led to staff retention issues; with drivers hopping between businesses offering higher wage opportunities (often at the detriment of smaller hauliers with smaller margins). However, the cost of recruitment and training are also high; £7,000 per HGV driver for gaining a full qualification with annual driver salaries or gross hourly pay for the South East lagging behind other parts of the country (e.g. Midlands). The fact remains that even despite leaving the European Union, the Migration Advisory Committee (MAC) has not accepted the case for adding the role of HGV driver to the Shortage Occupation List (SOL) and therefore the ability for the sector to access skilled worker visa routes to address driver shortages is limited.

SKILLS & SECTOR PROFESSIONALISATION

Industry Image

2.2.27. Alongside the challenge to address the nationwide HGV driver shortage, there is a broader concern about the recognition of the freight and logistics sector as a vital industry and to address its poor public image. Staff recruitment and retention are high on the agenda to counteract the skewed demographic profile of drivers; who are stereotypically male, white and over 50 years of age²⁴). There is also a perception that driving is also an unskilled job and a belief that future employment within freight and logistics is confined to informal, monotonous consignments in cab or a warehousing facility. These are just a few of the portrayals of the industry that erodes interest in the profession.

Employment Opportunities

2.2.28. The greatest proportion of employment opportunities across the freight and logistics sector are low to middle skilled (41.7%), followed by low skilled (26.6%) compared to 9.2% and 31.4% respectively for all jobs in the UK economy. However, delving deeper, the industry does have a high concentration of low level occupational roles (machine operatives and elementary roles account for 49% of the workforce) and poorly qualified workforce (41% unqualified or qualified below level 2). This situation

²³ Logistics UK (2020) Skills and Employment Report 2020,

https://logistics.org.uk/CMSPages/GetFile.aspx?guid=86764e99-6b36-4517-a93d-f567ebfa0ada&lang=en-GB ²⁴ Logistics UK (2020) Skills and Employment Report 2020, https://logistics.org.uk/CMSPages/GetFile.aspx?guid=86764e99-6b36-4517-a93d-f567ebfa0ada&lang=en-GB

could impact the scale and growth of the industry, which may also change in response to automating menial roles and upskilling staff. Upskilling of course is dependent on successful staff retention, often related to providing attractive working conditions.

- 2.2.29. The industry will also need to accept that the introduction of new technologies and practices will require staff training and upskilling. The Employer Skills Survey (ESS) reported that employers are struggling to fill vacancies due to lack of skills, qualifications and experience, especially for higher skilled roles that require specialist qualifications. The job market trends towards higher skilled professions in freight and logistics roles, suggesting increasing professionalisation of the sector and the future automation of jobs. There was a 103% increase in the number of Purchase Managers and Directors employed between 2009-2019 and a 20% increase in transport/distribution managers, compared to the increase in forklift trucks drivers (21.4%) and elementary storage occupations (22.4%) over the same period²⁵.
- 2.2.30. The British Chambers of Commerce (BCC)²⁶ noted the scale of the skills gap; highlighting that within the transport and distribution sector, 27% of businesses attempted to recruit and 59% reported problems in finding the right people; with management, leadership and digital skills most difficult to find. Some operators and companies have taken the initiative and have developed their own programmes, but most have requested instead for a standard to be developed for vocational training and experience that can be universally applied.

Next Generation

- 2.2.31. There are examples of collaboration between larger industry partners, DfT and other government departments to create national training academies specialising in a broad range of logistics and freight skills development. Apprenticeships are another option based on the availability of the Apprenticeship Levy and desire for greater vocational training and hands-on experience. In reality, only 15% of apprenticeship levy paying employer accounts in 2019/2020 across the UK²⁷fully utilised the funds available to them, with year-on-year apprenticeships in logistics falling by the same percentage annually from 2012-20. When it comes to hiring apprentices, only 46% of transport and logistics companies would explore the opportunity; lower than all but one sector.
- 2.2.32. Streamlining and incentivising the uptake on apprenticeships, which come with fundable courses and the opportunity to attain certain registered standards (such as warehousing), could aid industry and boost the appeal to new audiences. This includes the lack of women represented across the industry (which currently stands at 12% compared to 20% target).

Best Practice Standards

2.2.33. The need to ensure high standards across domestic and international vehicle traffic is also key; both in terms of maintaining safety standards (i.e. vehicle condition) and to ensure fair market conditions

https://www.britishchambers.org.uk/media/get/BCC%20QRO%20Q2%202020%5b1%5d%2011.pdf ²⁷ Logistics UK (2020) Skills and Employment Report 2020,

²⁵ Logistics UK (2020) Skills and Employment Report 2020,

https://logistics.org.uk/CMSPages/GetFile.aspx?guid=86764e99-6b36-4517-a93d-f567ebfa0ada&lang=en-GB ²⁶ British Chamber of Commerce (2020) Quarterly Recruitment Outlook,

https://logistics.org.uk/CMSPages/GetFile.aspx?guid=86764e99-6b36-4517-a93d-f567ebfa0ada&lang=en-GB



are upheld. Lorry traffic had the highest proportion of foreign registered vehicles at 3.9%, a decrease of 0.6 percentage points compared to 2017 with the South East having the highest registration in the UK²⁸Only approximately 15% of Roll on – Roll off (Ro-Ro) movements, where vehicles board and depart vessels, carrying international freight are undertaken by UK-registered vehicles²⁹ hinting at the crucial contribution that foreign-registered freight forwarders and hauliers make to UK supply chains.

- 2.2.34. Raising standards can bring many benefits to individual businesses and the road freight industry generally. Voluntary accreditation and recognition schemes, most notably the Fleet Operator Recognition Scheme (FORS) and the Construction Logistics & Community Safety (CLOCS), are pan national schemes with varying levels of award for adopting best practice.
- 2.2.35. Members can gain access to toolkits, attend workshops and 'instil a mindset of continual improvement' covering subjects from efficient tyre management through to enhanced fleet management, ensuring vehicle compliance and delivering training that boosts driver morale and motivation. Ultimately FORS training and accreditation can lead to delivering a better, cost effective service (as an operator) and help to protect the environment and reduce congestion (local authorities).
- 2.2.36. Membership can entice FOCs with discounts and offers with the main advantages for industry³⁰including:
 - £2.2 million in insurance premiums saved by FORS members;
 - £1.94 million in manager training benefits provided;
 - £7.24 billion of contracts specifying FORS;
 - 14% reduction in reported fleet GHG emissions;
 - 12% improvement in reported fleet MPG;
 - 32% reduction in reported road incidents; and
 - 49% reduction in PCNs.

 ²⁸ DfT (2020) Road Traffic Estimates: Great Britain 2019, <u>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/916749/road-traffic-estimates-in-great-britain-2019.pdf</u>
 ²⁹ TfSE (2021) Topic Paper
 ³⁰ FORS (2021) Your route to best practice, <u>https://www.fors-online.org.uk/cms/champions/</u>

2.2.37. Other recognition schemes, such as ECO Stars, operate nationally but have limited presence in the south east (with the exception of FOCs based in Swale), which was launched in 2015 as part of an Air Quality Action Plan (AQAP) to address air pollution across Sittingbourne, Isle of Sheppey, Sheerness and Faversham.

FORS Accreditation

*As at 2021, there were*8,687 FORS accredited companies operating within the freight and logistics sector across the UK and 3,964 accreditations, across all industries and sectors based in the south east of the UK, including London. A disproportionate number are based in the capital compared to the spread of coverage elsewhere across the TfSE area (with peaks associated with major freight generators and logistics hub locations).



Figure 2-1 - UK FORS Members (FORS, 2021)

2.3 A NEW APPROACH

2.3.1. The tendency, at least historically, is for private industry to be left to their own devices and to adopt new practices in response to favourable market conditions. Industry interest will naturally spur on the adoption of new practices and behaviours; whether these are driven by:



- Internal Factors: namely the profit motive but with a broader recognition of social responsibility and environmental commitments that are within the power of the company to define; based on values and reputation; and
- External Factors; those outside of a business's control, such as consumer preferences, which influence how a business conducts its activity or runs its service.
- 2.3.2. A Freight Demand Management (FDM) approach can help frame the approach that could be taken by industry to deliver a more safe, sustainable and efficient freight network through which individual business objectives can be satisfied. Abiding by the '4Rs' can be a useful way to shape the interventions. Crucially, public authorities can also tailor future planning considerations around this type of demand management approach for consistency and alignment. The 4Rs, first used for the management of freight and logistics for the 2012 London Olympics, covers:
 - **Remode:** to change how goods are moved from A to B; associated with reducing the most polluting and inefficient forms of road transport;
 - **Reduce:** to lower the number and length of trips that are made and ultimately help to reduce travel demand;
 - Reroute: to recalibrate the way in which items are delivered and to plan and optimise journeys to avoid sensitive areas or navigate busier travel corridors; and
 - **Retime**: to change the point in time when goods are being delivered; with the primary aim of travelling outside of peak periods.
- 2.3.3. There is a 5th 'R' which is equally, if not more crucial to delivering a freight strategy. The need to 'Reflect' on freight movements and more specifically the monitoring and evaluation of interventions, will help businesses to assess the impact of adopting new practices; with data collection and analysis forming a key component of this process over time (see WP2 for data collection issues and opportunities).

2.4 THE INTERVENTIONS

- 2.4.1. A set of dashboards has been developed to help illustrate the range of interventions available to the freight industry to address the key (intrinsic) drivers and responding to (external) triggers for the adoption of new operational practices. Every dashboard covers several subject areas and uses a similar format to that used to describe potential technological innovations in WP4 Decarbonisation and Technology. There are also parallels with (and therefore some replication of) interventions across these two work packages. Here the focus is on road freight transport as the recipient of future efforts due in part to the following:
 - The urgency to decarbonise the sector because of its disproportionate role in contributing almost a quarter (23%) of all road-based transport emissions across the UK³¹;

³¹ DfT (2021) Transport and Environment Statistics 2021 Annual report,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/984685/trans_port-and-environment-statistics-2021.pdf



- The prominence of road freight for domestic freight movements relative to rail (9%), coastal shipping (1%) and aviation (<1%)³². This is combined with the lack of data across other modes; and
- The opportunities being presented to deliver innovative freight solutions by industry under the influence of public authorities who are responsible for managing and developing the road network.
- 2.4.2. The interventions selected, featuring a combination of vehicle, place and people based approaches, are informed by the recommendations within the TfSE Logistics & Gateway Review (including stakeholder suggestions captured through the AECOM Scoping Report) alongside cross referencing the range of interventions indicated within the Freight Carbon Review³³The dashboards are self-explanatory but cover the following subject areas:
 - Mode Relevance: The applicability to different types of freight transport;
 - Freight Sector: predominantly 'road' focused but covering all modes of freight;
 - Actors: key stakeholders involved in application/formation of intervention;
 - **Technical Maturity**: How progressed the intervention is as a workable deliverable ready to deploy
 - **Commercial Maturity**: The extent to which the intervention is operational and available to market
 - **Geographical Applicability**: where the intervention could be pursued across the TfSE area.

Use Cases

2.4.3. Similar to WP4, use cases have been developed to provide inspiration for industry across the TfSE area; with any proposed application being referenced under 'opportunities', 'barriers' and the 'local relevance section.

Freight Objectives

2.4.4. A TfSE Freight Strategy must be led by a set of objectives which lay out plans for the future of freight within the wider transport network to manage current and future economic, environmental and social challenges. The same objectives which were applied to other work packages (as below) are cross referenced and scored, by impact, for each of the interventions that could be adopted by industry.

Dashboards

- 2.4.5. The following interventions have presented in dashboard format:
 - Telematics (Re-routing);
 - Load Sharing (Reducing);
 - Quiet Deliveries (Re-timing);
 - Port Booking System;

³² DfT (2019) Transport Statistics Great Britain 2019,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/870647/tsgb-2019.pdf

³³ DfT (2017) Freight Carbon Review 2017,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/590922/freigh_t-carbon-review-2017.pdf

- Cargo Handling Equipment;
- Greener Fleets;
- Shared Assets;
- Driver Training;
- Accreditation & Recognition Schemes;
- Alternative Modes (Re-moding):
 - Waterborne Transport;
 - Freight on Public Transport; and
 - E Cargo Bikes.

Dashboard Summary

- 2.4.6. A number of observations can be made as to the value of each intervention (and dashboard) individually and how they can collectively inform the development and delivery of a freight strategy. These have been summarised below:
 - All the interventions will need to get buy in from industry. Ultimately operators and companies will be chiefly responsible for expending time and resources so consensus is required to drive forward with prioritised interventions that can satisfy a wide range of aims and objectives. Most of the interventions suggested are low risk (they are commercially mature) to incentivise take up.
 - The vast majority of the interventions are focusing on addressing the challenges and unlocking opportunities for the road haulage and freight forwarding sector which contributions the most towards overall carbon emissions whilst transporting the highest volume of goods across the region. It is also the sector that generates the most externalities.
 - Most of the interventions score highly when it comes to meeting economic sub objectives of the freight strategy and often have a dual focus on reducing environmental externalities. The impact on meeting social objectives is less pronounced but engagement on this front is better represented through the actions of public authorities (see chapter three).
 - E-Cargo bikes can have the biggest, positive impact on fulfilling the objectives and subobjectives of the freight strategy and should be a prioritised intervention for deploying in an urban, peri-urban location across various conurbations where there are preferred conditions for roll out.
 - There needs to be a package of interventions that combines 'soft' behavioural and operational changes short term, namely driver training and quiet deliveries, with longer term capital intensive investment in physical assets. The former is well established and can be more easily leveraged whilst physical, capital intensive interventions and those with limited technical maturity can be considered at a later date.
 - Tried and tested interventions with clear delivery roadmaps would be ideally placed to start the transition towards net zero and decarbonisation namely fostering industries move towards green fleets and accreditation and recognition schemes. These have technical and commercial maturity but would benefit from greater awareness, profiling and promotion.
 - Most interventions should be executed as part of a package of interventions and delivered in a timely manner with changes in regulations or optimal conditions for adopting new practices (e.g. fuel shortage and lack of lorry drivers). This applies, for example, to load sharing which should be pursued more vigorously with the backing of trade bodies if licencing arrangements change.

vsp

- There are interventions that would need to be explored at a more granular scale to determine feasibility (namely cargo handling equipment and shared assets) which would need a strong buy in and possible partnership in place to steer the process from concept to implementation.
- Public authorities themselves can be a trailblazer in some instances, such as investing in greener fleets and driver training and can help set the tone for industry to follow suit. Public authorities should also be putting pressure on setting higher standards across the industry and can pull levers in the procurement phase for ensuring suppliers are accredited to a scheme.
- The development and delivery of all interventions will also be determined by funding availability. For this reason, a broad mix of interventions has been selected to futureproof against changes in the availability of funding. Whilst they are likely to have different cost profiles, they all share the same aim of maximising the impact of meeting the freight objectives and sub objectives.

\\SD

Table 2-1 - Telematics (Rerouting)

TELEMATICS	Mode Relevance	All freight modes	Freight Sector		Road (Haulage/Courier)	4 Rs	Re-route, Re-time	Techn Matur	nical 'ity	Mature technical operation	Commercial Maturity:	Mature commerco	cial	
Definition: [Trajectory]	Fleet management predictive analytics	tools can provide real-time v and accurate reporting. It al	visibility into fleet Iso helps fleet ma	operatio nagers e	ons while increasing driver satisfaction ensure that their operations are adhe	n and decreasing ring to the compl	fuel usage through ex regulations governing the		0	Category	Data and (Connectivity		
	driver training (sep	and returns. Solutions includ arate dashboard)	de hazard alert se	rvices, d	delivery tracking, and dynamic routing	g. Telematics con	plements the delivery of	G						
Best Practice						Use	Cases				1			
	GeoTab Gnewt [London, UK]	Gnewt as the UK's larges deliveries in London – gro there are charging limitation future innovation, Gnewt r	t fully electric com owing from just a h ons with only a fir needed a telemati	mercial andful c ite amou cs soluti	I vehicle fleet. Delivering zero-emission of vans into the UK's largest all-electro ount of power coming into its charging tion that could transform how it views	on final mile logis ic fleet. Gnewt no depot. Only 35 v and models its fl	tics for retailers and third-part eeded to optimise its operatio ehicles a day could be fully c eet's charging operations – o	y logistics ns in orde harged at ne that co	s compan er to comp t first. To puld direct	ies, Gnewt's fleet of doul bete with ICE delivery co combat these constraints tly feed in vital intelligenc	ble payload modified vans have mpanies which were often c , drive greater scalability, ar e on vehicle state of charge	as transformed gree neaper. To add to th nd provide a platforn	en his, n for	
	OptimoRoute [Software]	OptimoRoute enables use loading ramp/refrigeration signatures and sending m	ers to optimise for n). Last minute orc nessages to custo	the best ers can mers info	t routes & schedules while respecting be integrated into route plans and au forming them when the driver is sche	g all order and tag utomatically recal duled to arrive.	sk criteria: priority, time windo culated to reflect manual cha	ows, day o nges. It a	of week, c Ilso integr	late range, reverse logist ates with delivery system	ics orders, variable job dura is to provide proof of deliver	ions vehicle matchi /, capturing digital	ing (e.g.	
	E-cargo bikes Zedify built their own robust, efficient technology platform that addresses the specific demands of providing predominantly cargo bike-based city logistics. Routes are optimised daily meaning deliveries are made as quickly and efficiently as possible. Barcode scanning enables consistency with other systems in the supply chain. Digital proof of delivery capture provides end-to-end tracking; and client login means deliveries can be booked and tracked and reports accessed directly.													
Major Market Failures	General Route planning and optimisation is currently executed in isolation by individual fleet operators. There is a risk that if multiple fleet operators optimise their routing strategies in response to the same stimuli (e.g. diverting freight traffic onto a lower capacity road to avoid congestion), this could create new problems elsewhere. To counter this, more data sharing between major hauliers should be encouraged. Simulations have shown that if we were all willing to take a wider variety of coordinated routes that may not be optimised on an individual level, it would yield an overall reduction in congestion.													
Opportunities	Vehicle emissions minimise vehicle de	savings due to route optimis epreciation/maintenance req	ation, reducing th uirements and be	e amour tter gau	nt of stem mileage and empty running ge tyre pressures for smooth rolling;	g. Better co-ordin for larger fleet op	ation of assets resulting in rec erators and SMEs.	duced wa	aiting time:	s and delivery windows.	Telematics can also aid with	improving fuel effici	iency,	
Barriers	Costs may be proh	ibitive to deployment (for SM	/IEs; although not	relativel	ly to new vehicle purchases for impro	ving vehicle effic	iency). Selecting appropriate	system w	vill also re	quire thorough research.				
Local Relevance	Larger fleet operate term win for helping and reduce the ext international gatew	ors can pave the way for the g the road sector, particularly ernalities from road freight m ays.	uptake in telema y HGVs, decarbor novements (all lec	ics and lise in th by indu	in-cab technologies as they are more ne event of a slower transition to alter ustry). Telematics can also pave the v	e likely to have ad native fuels., Telo vay for greater su	ccess to capital for upgrades a ematics investment is a cost-o upply chain visibility, a key em	and asso effective v erging tre	ciated driv way to im end, and v	ver training requirements prove driver efficiency (a would help to response to	. The use and application of nd to sweat existing assets), o congestion on the SRN, es	telematics can be a to improve road sa pecially in and arou	a short- ifety ind	
					Impact	t on Freight Obj	ectives							
		Economy				Environment					Society			
Freight efficience	су			Max	Air quality			Max	Safety				Min	
Improved journey supply chain con	y times, optimised us nectivity to save time	e of fleets, delay mitigation a e and costs	and improved		Reduce the impact of the sector thro reduction in other forms of pollution	ough air quality in and intrusive action	nprovements and a vities		Improve goods ve	the safety of the sector to chicles	o reduce the number of accio	lents involving		
Industry contrib	oution			Min	Greenhouse gas emissions			Max	Vax Community disturbance					
Improved jobs an investment, land	nd opportunities to ac availability, infrastru	ddress skills shortages, supp cture provision	port for inward		Reduction in greenhouse gas emiss 2050	uction in greenhouse gas emissions from the sector to achieve net-zero by 0			Reduce the impact of freight on communities, nois informal overnight lorry parking			ls, air quality and		
Connectivity				Med	Urban realm			Med	Placema	king		Max		
Improved connect and international	ctivity seamless inter freight movements a	modal activity to support loca across the area	al, national		Minimising the intrusive impact of free protected settings	eight transport on	visual amenity and local,		Better inf servicing	egrate freight into land u plans, better freight data	se planning, development, c ı	onstruction and		

al	Commercial Maturity:	Mature commercial operation										
	Data and Connectivity											
y :												
t of double payload modified vans has transformed green ivery companies which were often cheaper. To add to this, nstraints, drive greater scalability, and provide a platform for telligence on vehicle state of charge.												
se logisti / system	e logistics orders, variable job durations vehicle matching (e.g. systems to provide proof of delivery, capturing digital											

PUBLIC | WSP January 2022 Page 22 of 67

wsp

Table 2-2 - Load Sharing (Reducing)

L	OAD SHARING	Mode Relevance		Freight Sector	Haulage & Freight Forwarding	4 Rs	Re-duce	Technical	Maturity	Mature technical ope		
	Definition:	Load sharing connects	parcels to journeys by making use of a	vailable space ir	existing journeys to deliver goods w	hich othe	rwise would			Category		
	[Trajectory]	have been shipped thr having to wait until the undertake a journey, w	ough traditional more expensive means y have accumulated enough product to ho is prepared to take a parcel to its de	. Load sharing m fill an entire decl stination by inco	eans that businesses can move freig a. Very often, there is always someon porating a parcel delivery in their rou	ht soone e nearby tine or o	r, rather than about to ccasional trip.		Geogra	phical Applicability:		
	Best Practice					Use	Cases					
		Innovate UK FreightShareLab [Uł	Innovate UK FreightShareLab [UK] FreightShareLab is aiming to reduce empty running and improve partly loaded vehicle percentages. They are developing an open data software platform to coord will act as a strategic planning tool, integrating job and vehicle data from shippers, fleets and carriers. The research project aims to confront a reality which could									
		Penske Logistics Clear Chain [USA]	Penske Logistics Clear Chain [USA] In the United States, Penske Logistics have developed software called Clear Chain that aims to match up empty-running trucks with jobs they could undertake. R backhaul loading opportunities to constantly be updated and matches to be facilitated when appropriate. Finding the right backhaul opportunity requires intense of the delivery process. Carriers need to find backhauls that fit within their schedule and their vehicles/ trailers.									
		LoadShare [UK]	LoadShare [UK] LoadShare is a unique service connecting parcels to journeys or people to deliveries. If you have a parcel to deliver there is always someone, about to undertake by incorporating your parcel delivery in their routine or occasional trip. Likewise, if you have a journey to undertake, there is always a parcel close to your route the or route and recoup some of your journey costs.									
		Shiply [UK]	Shiply is a hugely popular platform for over 150,000 FOCSs in the UK for backloading vehicles, with requests posted online every 30 seconds. FOCs can tailor so fulfilling other consignments and quote prices for customers (B2B, B2C or C2C) with supply chain visibility inherently built into the software. Shiply partners with r and integrate purchasing and delivery decisions.									
	Major Market Failures	Road Tech [UK}	Road Tech is a market leader for p Haulage Association for several ye in logistics actually rely on a relatio	roviding IT servi ars. In the end tl nship of trust be	ces for the haulage and logistics sect ley concluded it did not work as what ween the logistics provider and their	ors in the was alw custome	UK. The comp ays left were e r.	pany trialled a ther jobs that	marketp no one v	lace hub for matching requ vanted or ones that were p		
	Opportunities	Making use of spare c	apacity on other modes such as rail, bus	s, DDRT or car; I	out particularly road transport to help	tackle th	e scale of empt	y running acr	oss the L	IK.		
	Barriers	Most effective in geogr	aphies where transport is over longer d	istances than is	common in the UK. Also concerns by	operator	s around data	sharing and th	ne value f	for money for taking up shi		
L	ocal Relevance	There are existing soft limited to, greater awa of cabotage; to make i return journeys inland.	ware/platforms already developed on a reness and promotion by trade associat t cost effective for UK hauliers to compe Load sharing can offer SMEs the oppor	pan national leve ions (with public te with internatic tunity to source	el that can be accessed by operators authorities), conversion (and increas nal freight forwarders. The changing additional income.	Howeve es) in Sta customs	r, a number of Indard Operatii procedures re	issues need t ng Licences (sulting from B	o be resc SOPs) the rexit may	olved if there is to be scalin rough incentivisation and b r present an opportunity to		
					Impact on Frei	ght Obje	ctives					
			Economy		E	nvironm	ent					
F	reight efficiency			Max	Air quality				Max	Safety		
lr c	nproved journey ti onnectivity to save	mes, optimised use of fleet time and costs	eets, delay mitigation and improved sup	ply chain	Reduce the impact of the sector t and a reduction in other forms of	nrough a pollution	ir quality impro and intrusive a	vements ctivities		Improve the safety of the goods vehicles		
Ir	ndustry contribut	ion		Min	Greenhouse gas emissions				Max	Community disturbance		
lr Ia	nproved jobs and and availability, inf	opportunities to address rastructure provision	skills shortages, support for inward invo	estment,	Reduction in greenhouse gas emissions from the sector to achieve net-zero by 2050					Reduce the impact of frein informal overnight lorry pa		
C Ir ir	connectivity mproved connectiv nternational freight	vity seamless intermodal movements across the	activity to support local, national and area	Mec	Urban realm Minimising the intrusive impact of and local, protected settings	mpact of freight transport on visual amenity ngs			Min	Placemaking Better integrate freight int servicing plans, better fre		

ration	Commercial Maturi	tv:	Operating Comme	ercially					
		Aggre	gation						
		- 		Ŕ					
,									
dinate th see frei	e sharing of assets ar ght demand increase	nd antio by 290	cipate that their soft %.	ware					
Real-time coordina	e visibility of trucks, dri tion, because the timi	iver ho ng mu៖	urs and work allow at match at every ste	ep of					
e a journ nat, for s	ey, who is prepared to ome small deviations	o take t of jour	hat parcel to its des ney, you can take w	tination rith you					
earches nultinati	earches by route, region and urban areas to tailor around other nultinational marketplaces, such as eBay to maximise visibility								
irement riced at	s for haulage work wit too low a rate. It was a	h spar also ar	e capacity with the F gued that many acti	Road vities					
pment o	pportunities.								
g up in i proader o reduce	nterest across the TfS changes to industry st empty running from Tf	SE area ructure SE po	a. This includes but and greater enforce ts by swapping trail	is not ement ers for					
	Society			I					
sector t	o reduce the number o	of accio	lents involving	Min					
e ght on c arking	ommunities, noise lev	els, air	quality and	Min					
o land u ight data	ise planning, developr a	nent, c	onstruction and	Min					

vsp

Table 2-3 - Quiet Deliveries (Re-timing)

QUIET DELIVERIES	Mode Relevance		Freight Secto	r Haulage	4 Rs	Re-time Re-route	Technical M	laturity	Mature technical oper		
Definition:	Re-timing deliveries allo	ws goods to be delivered to businesse	s outside normal	nours, using techniques to minimise no	oise and	disturbance an	d the		Category		
[Trend]	impact of carbon emissi intrusion; ranging from t includes mitigating noise links to consolidation an	ons in peak hours (within or outside the he type of vehicle used to the equipme e from equipment such as roll cages (e d zero emission last mile deliveries.	shoulders of the shoulders of the nt sourced to mo g through rubber	day). There can be many techniques re goods over the last 250m for minim wheels or wooden structures instead	involved ising com of metal)	to reduce cong to reduce visua munity disturb . Quiet deliverio	al and noise ance. This es, or re-timing	,	Geographical Applicabi		
Best Practice					Use C	Cases					
	Silent Night Time Delive CIVITAS [Barcelona}	eries The development of night deliv using adapted trucks and quiet whilst greater efficiency was ac	eries was made i unloading metho hieved by replaci	n collaboration with two supermarket o ds. The pilot (which was subsequently ng seven daytime deliveries with two o	perators, rolled ou deliveries	Mercadona ar it across the re by larger, quie	nd Condis. In V st of the city) c ter vehicles ou	′alencia emonstr tside pe	Street. The operator Merc ated benefits in terms of r ak hours.		
	Retiming Deliveries Consortium Transport for Londo	The consortium was establisher retailers and several local author to help re-time deliveries acros	d on the back of orities, to advoca s 100 of their Lor	he 2012 Olympic Games and in collab e, promote and educate business and don based stores. A subsequent guide	ooration v governm e of Quiet	vith the Freight nent around the t Deliveries wa	Transport Ass benefits of re s also produce	ociation iming wi d for the	(now Logistics UK), Road thin London. The Co-op w capital to aid with re-timir		
	Project ZEUS European Institute of Innovation and Technology The ZEUS project aims to show that urban goods can be delivered in off-peak hours in a quiet, efficient, and environmentally friendly way. Using off-peak hours hour and traffic jams. To keep these late-night deliveries, quiet the project is looking at quiet transport trailers, low-noise pallet trucks, and covered loading dock centres as real test sites and hoping that the ZEUS project not only helps their own delivery system but can be used as a blueprint for cities across Europe.										
Opportunities	Reduces the externalitie and disruptions because	es from delivery and collection activities e of the financial repercussions but may	on local commu / need support in	ities, whilst recognising the need for f gauging the optimal delivery and servi	reight mo cing wind	vements to tak lows.	e place and o	otimised	for the industry to support		
Barriers	The application may var	y depending on the organisation and ir	Ifluence over sup	bly chain decisions (especially if vehic	es are tri	p chaining bet	ween multiple :	sites duri	ng a day)		
Local Relevance	As with many urban are mixing with freight and o Large supermarket chai guidance too for minimis Booking Systems (VBS) throughput times more r	as and city centres/service centres, a k other forms of road transport, creates cons and wholesalers, both with larger fu sing noise pollution during different time introduced at Dover and Southamptor reliable to allow hauliers to forward plar	ey aim is to enco ongestion and inc filment centres ir es of the day. Qui have also forced schedule deliver	urage freight transport using the prima reases air pollution. Quiet deliveries a peri urban locations, should be the ta et deliveries are best suited for B2B ar the issue of re-timing on a huge scale y programmes.	ry route i im to ider rget audi nd C2B tr e; with po	network and centify and recalib ence for re-timi ips where there tential issues c	entral business prate freight ac ing and even ro e is flexibility w on traffic roami	areas to tivity out e-routing ithin sch ng witho	re-time outside of peak p side of busy windows to m deliveries to improve jour eduling and enough of an ut advanced holding pens		
				Impact on Frei	ght Obje	ctives					
	Ec	onomy		Enviro	nment						
Freight efficience	ÿ		Max Air qu	ality				Max	Safety		
Improved journey impact from and o	times, connectivity and i on congestion	ntegration between modes. Reduced	Reduc reduct	e the impact of the sector through air o on in other forms of pollution and intru	quality im sive activ	provements ar ⁄ities	id a		Improve the safety of the goods vehicles		
Industry contrib	ution		Min Green	Greenhouse gas emissions Me				Med	Community disturbance		
Improved jobs an support for inward	d opportunities for the se d investment, land availat	ctor to address skills shortages, pility, infrastructure provision	Reduc 2050	Reduction in greenhouse gas emissions from the sector to achieve net-zero by 2050					Reduce the impact of frein informal overnight lorry pa		
Connectivity			Min Urban	Urban realm Ma				Max	Placemaking		
Improved connec	tivity to international gate	ways in the TfSE area	Minimi protec	Minimising the intrusive impact of freight transport on visual amenity and local, protected settings					Better integrate freight int servicing plans, better fre		

ation	Commercial Maturity	Operating Commercially									
	Eco L	ogistics									
ity:											
adona d educed	adona demonstrated that night-time deliveries could be made educed delivery times and lower transport operating costs										
Haulag as one g delive	e Association, Noise Abater of the organisations who er ries based on industry best	nent Society, major national gaged with the consortium practice.									
s of 7pm (s at the	of 7pm-7am means delivery trucks will not contribute to rush as at the stores. Colruyt Group is using their stores in city										
society	. Industry will naturally lean	towards minimising delays									
eriods (v inimise ney time opportu areas w	which will vary from place to delay (and ultimately impro es. Quiet deliveries can be f unity cost for industry to shift hilst regional airports are al	place). General traffic ve supply chain efficiency). actored into DSP and CLP routing patterns. Vehicle so aiming to make									
	Society										
sector to	o reduce the number of acc	Max idents involving									
ght on c arking	ommunities, noise levels, a	r quality and									
o land u ght data	ise planning, development, a	Max construction and									

\\S])

Table 2-4 - Port Side Booking System

PORT SIDE BOOKING SYSTEM	Mode Relevance		Freight Sector	Container Haulage (Freight Forwarding)	4 Rs	Re-time	Te Ma	echnical aturity	Mature technical operation	Commercial Maturity:	Mature commerci operation	ial
Definition:	Randomly timed arrival of tru problems such as noise and	ucks can lead to bottlenecks, produc harmful emissions, but also to majo	ing congestior r inefficiencies	n inside and outside the terminal. It can lead to a in various operations – not least for the port its	serious local self. The mair	environmental Category			Category	Data a	and Connectivity	
[]00007]	congestion is the fluctuating appointment systems (TAS), operation costs for terminals areas, the use of hard should	arrival pattern of trucks. This results , or equivalent systems, allow ports t and the waiting times for trucking co ders (VMS/ITS applied) and future lo	in a situation o reduce peal ompanies are orry parking fa	where demand significantly exceeds supply or as in truck arrivals and spread access over a low reduced. This intervention must be considered cilities (laybys and designated off road sites).	vice versa. Tr nger duration alongside ext	ruck . Thereby, the ternal holding		Geograph	hical Applicability:			
Best Practice				Use C	ases					·		
	1-Stop Vehicle Booking System (VBS) [Australasia / SE Asia]	VBS was developed to drive efficien VBS allows terminal operators to ma the quayside is busy, landside resou	cies by addres atch terminal re arces can be a	ssing the common issues shared by port comm esources with landside demand. Terminals can djusted to support best use of equipment. Equa	unities around configure tim ally, when qua	d the world – t neslots, work-c ayside activity	the lack day cale is lowe	k of transparent endars and bus er, landside ope	information flow, under-uti iness rules, and create and rations can be ramped up t	isation of equipmen maintain customer o support clearing fo	t and inefficient pract details. For example or the next vessel arr	ices. , when ival.
	Terminal Appointment Booking System [Manila, Philippines]	Manila's two main terminals have lat Booking System, or TABS, was a re standstill with vessel delays often me	unched a vehi sponse to the easured in we	cle booking system that is expected to improve truck ban and road policies that were introduce eks. TABS will also allow the terminals to bette	container flov d by the local r manage the	ws into and ou I government i ir port capacit	ut of the in 2014 sy and e	e port as the Ph 4 to combat the ensure the reso	ilippines' peak shipping sea traffic congestion in Manila urces are in place to handle	ason approaches. Th but only served to b more predictable v	ne Terminal Appointn pring the port to a cor olumes and scheduli	nent nplete ing.
	DP World Southampton [United Kingdom]	DP World Southampton [United Kingdom] VBS Premium, implemented in 2013 has been a tremendous success for managing terminal capacity. Firstly, all truck lines have been eliminated with hauliers saving time with turnarounds now at 30mins, one of the best in the UK . As a result, exchange areas are always now reachable because there are not hundreds of trucks blocking common areas. Additionally, traffic jams leading in and out of the port have been reduced. The process of logging into the VBS also requires drivers to undertake a Driver Awareness Assessment; thereby lifting standards of use and mitigating risk associated with egressing and accessing the terminal.										
Major Market Failures	Hutchison Port of Felixstowe [UK] The UK's largest container port, Port of Felixstowe, is making some significant changes to its troubled vehicle booking system (VBS) following criticism from the British International Freight Association to try to prevent container collection slots for box hauliers and freight forwarders being wasted. The failure of the system has come about as a result of a poor migration to the new systems and a spike in demand for the movement of containers. A statement from BIFA read "BIFA members have suffered from two years of poor service from the port, and we feel that there is a need for independent intervention by government to address the many issues faced by the port's users."											
Opportunities	Integration with real-time flee	et management systems to enable fl	exible schedu	ing dependant on slot availability to reduce wa	iting time. Act	ive routing of	drayag	je trucks throug	h the port based on interna	traffic.		
Barriers	Most actors of the port com	nunity are small-sized, and struggle	to fund the inv	restment for developing or modifying their syste	ms for conne	cting to the bo	ooking s	system. System	ns must be rigorously tested	1.		
Local Relevance	Most ports across the TfSE a System (VBS) and Dover has the growth ambitions laid out popularity of port centric logis	area are privately owned and commer s introduced the Transport Assessme in by individual port masterplans to e stics that will generate further moveme	cially operated nt Project (TAI xpand tonnage ents within the	I (with the exception of Portsmouth) and will be r P) in attempts to manage access to each respect e handled (and the landing space/yards required vicinity of port estates (including hydrogen hubs	notivated to in tive port. The to support the (Southampto	nprove their re predicted grov is), points towa on & Newhaver	elative a wth in ir ards the n) along	attractiveness fo ntermodal and c e need to strean gside smaller, m	or maximising revenue. Sout construction traffic, the contin nline access to site. This is a nore constrained ports arour	hampton already open nued dominance of o especially pertinent g nd Shoreham and Me	erates a Vehicle Book on demand Ro-Ro traf jiven the increased edway Towns (Sheerr	ing ffic and ness).
				Impact on Freight Objectiv	ves							
	Econo	omy		Environmen	t				s	ociety		
Freight efficiency			Max	Air quality		Γ	Med	Safety				Min
Improved journey time chain connectivity to s	es, optimised use of fleets, del ave time and costs	ay mitigation and improved supply		Reduce the impact of the sector through air of and a reduction in other forms of pollution an	quality improv d intrusive ac	rements ctivities		Improve the sa goods vehicles	afety of the sector to reduce s	the number of accie	dents involving	
Industry contribution	n		Min	Greenhouse gas emissions		Γ	Med	Community d	isturbance	1		Min
Improved jobs and op investment, land avail	portunities to address skills sh ability, infrastructure provision	ortages, support for inward		Reduction in greenhouse gas emissions from the sector to achieve net-zero by 2050			Reduce the im informal overn	pact of freight on communi ight lorry parking	ies, noise levels, air quality and			
Connectivity			Max	Urban realm			Med Placemaking					Min
Improved jobs and op investment, land avail	portunities to address skills sh ability, infrastructure provision	ortages, support for inward		Minimising the intrusive impact of freight transport on visual amenity and local, protected settings				er integrate freight into land use planning, development, construction and icing plans, better freight data				

echnical า	Commercial Maturity:	Mature commercial operation						
	Data and Connectivity							
cability:	٢							

vsp

Table 2-5 - Cargo Handling Equipment

CARGO HANDLING EQUIPMENT	Mode Relevance		Freight Sector	Rail, Sea (Ports/IWW)	4Rs	Re-duce, Re-mode	Tec Mat	hnical urity	Technical oper		
Definition: [Trajectory]	Cargo Handling Equi facility to lift or move and involves a lot of emissions attributed impact on local neigh (rail terminals) but als different governance	ipment is the provision of off-ro container, bulk, or liquid cargo CO ₂ emissions with equipmen to a site. Handling goods can nbourhoods. Cargo handling e so including flight runways (air /legislative model to the UK.	oad, self-prope o carried by sh t, including rea also be noisy a quipment mus ports). Many b	elled vehicles or equipment used in th hip, train, or another vehicle. Cargo ha ach stackers and empty container ha and contribute towards sound and du t tie into infrastructure upgrades (suc pest practice examples require govern	ne context of an inte andling equipment ndlers – contributir ist pollution which o h as berth extension nment intervention	ermodal rail yard or port/dock is still largely diesel-based og almost a quarter of the tota can have a disproportionate ons (ports) and handling yard /subsidy or operate on a	ll S	Geograp	Category hical Applicabilit		
Best Practice					Us	se Cases					
	Electric Top Handler Everport Terminal [Los Angeles]	As part of the Everport Ad handling operations. The I Each top handler has a da transitioning all cargo-han	vanced Cargo battery-electric ata logger for t dling equipme	• Handling Demonstration Project, the c top handlers, which are off-road veh racking hours of operation, charging ent to zero emissions by 2030.	e world's first zero- nicles with an overl frequency, energy	emission battery-electric top h nead boom for loading contair usage and other performance	nandlers ners, rui e indicat	s will be te n on a one tors. The p	sted at a Californ ∋-megawatt batter port aims to advar		
	Hydrogen Containe Yard Crane, KICT [Japan]	r A new near zero-emission 30% and reduces emissio initiative of Japan's Minist	n (NZE) rubber ns of CO2 and ry of Land, Infi	-tired gantry (RTG) container yard cr d other harmful substances in diesel e rastructure, Transport and Tourism a	ane is being pilote exhaust in compari imed at achieving o	d at the MOL-operated Kobe son with conventional fuels. I decarbonization in ports and h	Internat The intro narbours	ional Cont oduction o s.	tainer Terminal (K f the NZE RTG m		
	Renewable Diesel Fuel Fenix Marine Services [Los Angeles]	Renewable Diesel FuelThe Fenix Marine Services, a container terminal at the Port of Los Angeles that handles 2m containers a year, has transitioned its entire fleet of more than 300 support vehicles, from fossil-based diesel fuel to renewable diesel fuel, a blend made 80% of recycled organic oils and animal fats, and 20% of biomass. Fenix harmful emissions while also minimizing its costs and the time required for such a transformation. The change does not require any modifications to the equipm place alongside a trial of five hydrogen-fuelled heavy-duty trucks, two battery-electric yard tractors, and two battery-electric forklifts through the Shore 2 Shore p									
Opportunities	New equipment is be	eing trialled globally and introd	uced as a key	way for ports and rail yards to reduce	e emissions (and a	s a response to red diesel fue	el duty c	changes) a	and lowering noise		
Barriers	Making the transition	n towards electric or hydrogen	fuelled handlir	ng equipment will require investment	in fuelling infrastru	cture on site and power gene	ration (e	energy net	twork).		
Local Relevance	Most of the TfSE por of Sennebogen crane support the automob 2015 levels). Southa businesses at Newha along the Solent to M rolling stock.	rts are looking at, or have alreates es (the largest mobile material bile industry (with storage capa Impton has also recently invest aven Port (North Quay) and wi <i>I</i> idlands Corridor and the drive	ady made the t handlers in th city for 7,600 ted in 11 hybri Il form part of towards boos	transition towards cleaner and more en ne world) to futureproof customers cha vehicles en route from the UK to glob id straddle carriers and already has a the required expansion plans at Shee sting rail freight mode share more bro	efficient surface tra anging needs and al markets) but wit fleet of electric for erness for handling badly (utilising exist	nsport and handling equipme goods diversification (floating h additional handling equipme klift trucks. Secure areas for l bulk timbers and for the auto ing rail freight terminals) will i	nt. Sho windfar ent bein Handling omotive nclude	reham, foi rms/bioma ng required g Equipme trade. The requireme	r example, has a f iss). Southamptor d to be able to pro ent is integral to g e potential offered ents for handling e		
				Impac	t on Freight Obje	ctives					
	Econo	omy			Environment						
Freight efficiency Improved journey times supply chain connectivit	, optimised use of fleet ty to save time and cos	ts, delay mitigation and improv sts	Max red	Air quality Reduce the impact of the sector thr reduction in other forms of pollution	e sector through air quality improvements and a of pollution and intrusive activities			Safety Improve the safety of the s goods vehicles			
Industry contribution Improved jobs and oppo investment, land availab	ortunities to address sk bility, infrastructure pro	kills shortages, support for inwa	Min	Greenhouse gas emissions Reduction in greenhouse gas emissions from the sector to achieve net-zero by 2050				Community disturbance Reduce the impact of freig informal overnight lorry pa			
Connectivity			Max	Urban realm			Min	Placema	aking		

ration	Commercial Maturity:	New commercial operation
	Cleaner 7	Fransport
ty:		

hia container terminal as part of a port's drive for clean cargory designed to operate for up to 18 hours between charges. nce commercially feasible solutions to meet its goal of

KICT). The model seeks to improves fuel consumption by 20natches the concept of Carbon Neutral Port (CNP), which is an

pieces of container-handling equipment, as well as some has been able to immediately and significantly reduce its nent and can simply replace conventional fuels. This is taking project.

e pollution.

fleet of environmentally friendly Yale forklift trucks and a range n has previously invested in vehicle handling facilities to occess 1.9 million vehicles per annum by 2035 (a doubling on growth for the cluster of recycling and materials recovery d for moving unitised, intermodal containers from road to rail equipment for transhipment between road vehicles and rail

Society	
sector to reduce the number of accidents involving	Min
ght on communities, noise levels, air quality and rrking	Max
	Min

PUBLIC | WSP January 2022 Page 26 of 67

\\S]]

Improved connectivity seamless intermodal activity to support local, national and international freight movements across the area

Minimising the intrusive impact of freight transport on visual amenity and local, protected settings

Table 2-6 - Greener Fleets

GREENER FLEETS Mo	de Relevance		Freight Sector	Haulage	4 Rs Re-mode	Technical Mat	turity	Mature technical operation	Commercial Maturity	Operating Comm	ercially
Definition:	Undertaking period	lic vehicle fleet review and maintain a	clean fleet with co	orporate procurement policy being de	eveloped to continue wi	th improving fleet		Category	Proc	curement	
[Trend]	infrastructure in fut vehicle procuremen	ure investment priorities and strategie nt to keep up with the shift towards a	es respectively. Inc net zero-carbon fu	dustry is increasingly exploring a shift iture.	in fleet management	practices and		Geographical Applicability:	(
Best Practice					Use Cases						
	Cleaner Fleet Poli Derby City Coun [UK]	cy An attempt by a local authority f cil Emission Hierarchy of Vehicle F lead the way locally as a major emergency.	to replace their fle Procurement'; prov employer and key	et of 48 vehicles (cars & LGVs) with e viding the flexibility to take advantage anchor institution to encourage othe	electric battery alternat of future shifts in the or rs across the private s	ives, which will ren operational, financi ector to adopt the s	move § ial and same	98 tonnes of CO2 tailpipe emissic I environmental changes across l practices to meet the aims of loca	ns from the air each year. ⁻ ow emission vehicle techno al and national policy and a	The policy introduces logies. The intention ddress the climate	a 'Low is to
	Green Fleet Revie Commercial Grou [UK}	Commercial Group, the UK's lar per cent during 2007. This was came from its owned fleet vehic	rgest independent partly attributed to les. A 300,000-mi	office services company, transforme o a commitment to a companywide ca ile replacement policy was also introd	ed their delivery schedu arbon emissions reduct luced across the LGV	lling after committii ion after an extens fleet alongside a co	ing to a sive re ommiti	a 'greening' of their vehicle fleets view of its fleet vehicles, with alm ment to upgrading vehicles to a n	and managed to reduce fle lost 90 per cent of the organ nore fuel efficient, complian	et carbon emissions l nisation's CO2 emiss t Euro 6 engines.	by 50 sions
	EV Fleet Transitic Lime [US]	Example 2 Lime have pledged to transition commitment to the Climate Gro transition in the context of improve vehicles with verified carbon off	its entire fleets to up V100. It is worl oving infrastructure set projects.	electric by 2030. This is well over 10 king with Ceres to advocate policies in e capacity and delivering its local flee	00,000 owned and leas nternally that will supp at management strateg	ed trucks, vans and ort the transition. L y. It initially started	ıd vehi ₋ime aı I its fle	cles used for moving around sco re the first micromobility provider et transition in 2018 by neutralize	oters and associated equip engaged in the Ceres prog d all emissions associated	ment as part of its ramme and view its fl with their fleet of ope	leet erations
Opportunities	Opportunity for org	anisations to fulfil their CSRs and res	pond to the need t	to transition from diesel and petrol ve	hicles (linked to nation	al policy) towards e	electri	c and alternative fuels on a comp	rehensive scale.		
Barriers	May appeal to large	er organisations with significant fleet r	nanagement resp	onsibilities but more difficult for SMEs	s to achieve, especially	r for sole traders ar	nd with	h the apparent cost effectiveness	of older vehicles. Cost is a	major barrier to adop	ption.
Local Relevance	A hugely relevant a lead, with TfSE pla other councils that Programme. This ir	aim for larger fleet operators who have ying a mediator role to develop a com considers practical and financial limita ncluded strategy reviews, procuremen	e the capital to spe erent approach to ations. Engageme it support and stat	end on low emission vehicles. starting wards fuel infrastructure and green fle nt with the Energy Saving Trust woul ff training and upskilling as well as fos	g first with LGVs and th eet policies that takes d be highly advisable b stering knowledge sha	en exploring the density of the second secon	levelop e 'Derb iul case orities.	oment of hydrogen or CNG power by Model' for a Low Emission Hie e studies elsewhere working acro	red fleets. Public authorities rarchy of Vehicle Procurem ss the UK through the Loca	s should seek to take ent or the approach a al Government Suppo	the across ort
				Impact on Frei	ght Objectives						
	Ecor	nomy		Enviro	nment				Society		
Freight efficiency			Med Air qua	lity		M	lax	Safety			Min
Improved journey times impact from and on con	, connectivity and inte gestion	egration between modes. Reduced	Reduce reduction	the impact of the sector through air on in other forms of pollution and intru	quality improvements a isive activities	ind a		Improve the safety of the sector goods vehicles	to reduce the number of ac	cidents involving	
Industry contribution Improved jobs and oppor support for inward invest	ortunities for the sect tment, land availabili	or to address skills shortages, ity, infrastructure provision	Med Greenh Reducti 2050	ouse gas emissions on in greenhouse gas emissions from	n the sector to achieve	M net-zero by	lax	Community disturbance Reduce the impact of freight on a informal overnight lorry parking	communities, noise levels, a	air quality and	Min
Connectivity Improved connectivity to	o international gatewa	ays in the TfSE area	Min Urban I Minimis protecte	realm ing the intrusive impact of freight tran ed settings	nsport on visual amenit	M and local,	lin	Placemaking Better integrate freight into land servicing plans, better freight dat	use planning, development, a	, construction and	Min

Better integrate freight into land use planning, development, construction and servicing plans, better freight data

\\S[]

Table 2-7 - Shared Assets

SHARED ASSETS	Investment Needed	Low	Freight Sector	Road, Ra	iil, Air, Sea	Actors		Businesses, Industr Bodies, Public Sect	ry or	Risk Level	High		Scheme Maturity:	Deployed	
SHARED ASSETS M	ode Relevance	Not Modes - Warehousing	Freig	ght Sector	Warehousing, Fulfilmer Distribution	nt &	4 Rs	N/A Techr	nical Matu	rity Mature	technical operation	Com	mercial Maturity	New Commerci Operation	al
Definition:	Larger companie	es working together or a host of sr and efficiencies. This can work to s	naller organisa	ations seekin	g to achieve online delive	ry logistio	cs synergi	es in an industry led a	pproach		Category		G	iroupage	
[Trend]	investment risk i a premium due t more attractive.	n a facility and to share the runnin to the rise in e-commerce and the	g of the site ar costs and avai	nd many asp ilability of lar	bects of the delivery operations, so	tions. Aff o more fle	ordable w exible or s	arehousing space is bo shared options are bec	ecoming oming	Geogr	aphical Applicability:				
Best Practice							Us	e Cases		•			·		
	Shared Fulfilm Ocado & Morri [South East Lor	nentOcado entered into an agsonsonline orders from its storndon]area coverage – including	reement to su res with the air g last mile deliv	apply Morriso m of offering veries. The a	ns' online grocery delivery online services in areas n approach is viewed as low	/ service ot curren risk and	and provi itly service a capital-	ded space in Shared F ed by a customer fulfiln light wholesale supply	ulfilment C nent centre arrangeme	Centres (SFC). e. Morrisons h ent.	This required gaining as also recently agreed	access d terms	to Morrisons' internal with Amazon based o	fulfilment softwar n a similar offer to	e to fulfil o expand
	Flexible Wareh Peel Ports [Liverpool}	ouse The availability of decent with rental space covering supports flexibility. Peel F customer, through flexible	ralised, strateg g pallets or oth Ports, home to e warehousing	gic network oner standardi the £400m l solutions.	of warehouses located clos ised module designs. The .iverpool2 terminal, is an e	ser to the digital sh example	market a naring plat of a new c	vailable for sharing (or form allows utilisation container shipping hub	ne-to-one a of the vaca with advar	and multi-custo ant warehousir nced facilities,	mer space sharing). A g space where mixing port-side storage and	multi-u diverse the flex	ser facility provides fle e sectors with different ibility to meet the dem	exibility in space a seasonality peak ands of each and	allocation (s I every
	Multi User Warehouse Imperial Logis [Germany]	opened in 2020 with easy as-you-use billing model, lines, as well as providing purchasing of packaging	y access to Ge reducing user ı frequent traile materials.	ermany's A1 r costs and a er shuttles to	and A2 autobahns and pr ssisting budgeting and cas and from manufacturing s	oximity to sh flow a sites). Th	o courier a nd is close le lean ma	and express companies ely aligned to manufac anagement methodolog	s with adja turing oper gy also driv	cent land avai rations within t /es efficiencies	able for potential futur ne wider industrial zon whilst the company is	e expar le (Impe s able to	nsion. The multi user v erial is handling invente pass on savings thro	varehouse operat ory control for out ugh consolidated	es a pay- bound
Opportunities	Maximising the u	use of surplus warehousing capac	ity and optimis	sing use of n	ew facilities at strategic loo	cations fo	or freight r	novements to improve	site, travel	l and cost effic	encies				
Barriers	High capital cost	t to invest or retrofit a facility (and	who pays?). A	s a burgeon	ing concept, there may be	a demai	nd by com	panies to see supply o	hain trans	parency. Land	also has to be availab	ole in ke	y locations		
Local Relevance	This practice loo allowing smaller shorter stem mil well as housing	ks towards building a 'future read organisations to enter the market eage and proximity to end users/c and commercial property. TfSE sh	/' freight secto . This intervent onsumers, is li ould seek to u	or which ackr ition can help likely to conti undertake a r	nowledges both the rising of boost the role of freight a nue concurrently with the review of the logistics esta	demand and logist rise in e- te across	for and pr ics as a k commerce s the study	essure on warehousing ey economic driver. Th e. This must recognise y area and assess cap	g space, w ne trend tow the compe acity needs	hich is at a pre wards concent eting/complem s and the pote	mium across the TfSE rating warehousing spa entary uses of space for ntial for utilising existin	area, a ace aro for othe g prem	and the opportunity tha und peri urban locatio r freight specific interv ises better with the fre	at shared assets I ns to take advant entions, namely S ight industry.	bring for age of SRFIs, as
					Impact	t on Frei	ght Objec	ctives							
	Ec	conomy				Enviro	nment						Society		
Freight efficiency			Max	Air qualit	у				Med	d Safety					Min
Improved journey times impact from and on cor	s, connectivity and ngestion	integration between modes. Redu	ced	Reduce th reduction	e impact of the sector thro in other forms of pollution	ough air o and intru	quality imp sive activ	provements and a ities		Improve t goods vel	ne safety of the sector nicles	to redu	ce the number of acci	dents involving	
Industry contribution			Max	Greenhou	use gas emissions				Med	d Commun	ity disturbance				Min
Improved jobs and opp support for inward inve	ortunities for the se stment, land availa	ector to address skills shortages, bility, infrastructure provision		Reduction 2050	in greenhouse gas emiss	ions from	n the secto	or to achieve net-zero l	by	Reduce the informal c	e impact of freight on vernight lorry parking	commu	inities, noise levels, ai	r quality and	
Connectivity			Max	Urban rea	alm				Min	Placema	ting				Min
Improved connectivity t	o international gate	eways in the TfSE area		Minimising protected	g the intrusive impact of fre settings	eight tran	sport on \	visual amenity and loca	al,	Better inte servicing	grate freight into land blans, better freight da	use pla ta	nning, development, c	construction and	

		Scheme Maturity:		Deployed	
ation	Com	mercial Maturity	New Oper	Commercial ration	
		C	Groupa	ige	
ability:					

vsp

Table 2-8 - Driver Training

DRIVER TRAINING	Investment Needed	Low-Med	Freight Sector	Road Freight	Actors	Businesses, Industry Bodies	R	lisk Level	Low
Definition: [Trend]	The provision of would be aimed a assisting fleet ma research into the restricted vehicle	training and development opportun at drivers of HGVs and vans, along anagers with improving vehicle util technical and behavioural aspects licensing and a Certificate of Prof	nities will provi gside fleet mar isation, accide s of driving and essional Comp	de a cost-effective way of getting the nagers of organisations, and is design nt rates, vehicle downtime and maint d undertaking a fleet review. Driver tr betence (CPC).	best out of individ ned to improve ove enance costs. Ofte aining is an additio	uals. A training programme erall fuel consumption, whilst en this can involve extensive n to securing standard or		Geograp	Category hical Applica
Best Practice					Us	e Cases			
	Driver Trainin Carlsberg [UK]	ng Carlsberg UK runs a flee all of which are 7.5 tonne and gives live updates via £568,687 and 1,346 tonn	t of 296 vehicle s or above, m a a web portal es of CO2 and	es, covering over 8.5 million miles ev ostly 26 tonne rigid trucks. On this ba) helping to provide feedback on drivi d has reduced their driver insurance p	ery year and delive sis, emphasis was ng efficiency along premiums.	ering to around 13,000 accour placed on driver engagemen side providing training (cours	nts eve t and e es), de	ry week. They empowerment briefs and intr	y wished to real with the use of roducing incer
	Young Drive Academy British Ga s [UK}	s Launched in 2014 to redu reputation and image of t including eco-driving train growth) and positive feed	uce collision ra he company a hing which is s back from eng	tes, improve fuel use and lower fleet s well as meeting its CSR objectives ubsidised through the Energy Saving gaged drivers on the course.	maintenance costs . The academy is r . Trust. Overall, the	s; with 45% of the company's nandatory for 12 months unde academy has helped see a ´	young er an a I4% re	drivers (unde pprenticeship duction in fuel	r 25s) involve produced by l consumption
	Advanced Dri Training Drive DeVilb [UK]	ver The organisation experie a sustainable driving cult dramatically fell by 44% i	nced rapid exp ure and techno n the same ye	pansion and formed a 'Green Team' t plogy to monitor data/feedback. Over ar. Fuel use also declined year on ye	o assess environm all, fleet speeding o ar from 3,960 litres	nental performance; identifying offences reduced by over 15,0 s per vehicle in 2012 to 3,145	g adva 000 in 2 litres p	nced driving tı 2014 alone wł per vehicle on	raining as key hilst the avera average in 20
Opportunities	Considerable cos increased and SI	st saving benefits to businesses wi MEs work off of small profit margin	thin road freig s.	ht alongside better driver recruitment	and retention leve	ls. A strong case for schemes	s to tie	in to meeting	businesses' C
Barriers	Can often be ass	sociated with larger fleet operators	and organisat	ions who have significant budgets– ir	n contrast to smalle	er operators who may lack the	budge	ets and the tim	ne to invest in
Local Relevance	With a large prop and vehicle main realistic step in th operators and the transport in the S to the industry st	portion of the haulier industry domi itenance through a structured train ne roadmap towards decarbonising eir respective bases across the Uk South East compared to other parts ructure at a pan national scale. Pro	nated by smal ing programm g the road freig K. Cross count s of the UK. Tf pomotion and a	ler fleet operators with limited capital e. Like with many accreditation and r ght sector. Whilst a local scheme cov ry relations at an EU level would also SE would benefit from liaising with tra wareness of the virtues of driver train	to invest in new te ecognition scheme ering the TfSE area be advantageous ade bodies and LT, ing would likely lea	chnologies and alternative fue es, boosting uptake and prome a would be advantageous, a r to raise standards across the As, as well as DfT, to support ad to an uplift in adoption by ir	els, driv oting th nationa indust driving ndustry	ver training ca ne virtues of th I programme i rry, including fo training scho 7.	in provide a va te scheme (po may be neces oreign registe pols which cou
				Impac	t on Freight Obje	ctives			
	Ec	onomy			Environment				
Freight efficiency			Max	Air quality			Max	Safety	
Improved journey times impact from and on con	s, connectivity and i ngestion	ntegration between modes. Reduc	ced	Reduce the impact of the sector thr reduction in other forms of pollution	ough air quality im and intrusive activ	provements and a ities		Improve the goods vehic	safety of the
Industry contribution			Max	Greenhouse gas emissions			Max	Community	y disturbance
Improved jobs and opport support for inward invest	ortunities for the se stment, land availa	ector to address skills shortages, bility, infrastructure provision		Reduction in greenhouse gas emiss 2050	sions from the sect	or to achieve net-zero by		Reduce the informal ove	impact of freig ernight lorry pa
Connectivity			Min	Urban realm			Max	Placemakir	ng
Improved connectivity to	o international gate	eways in the TfSE area		Minimising the intrusive impact of fr protected settings	eight transport on	visual amenity and local,		Better integr servicing pla	rate freight int ans, better fre

	4Rs	Re-duce	
	Raising Best	Practice	
ability:		•	
			i
duce the fuel o of telematics (htives. Since 2	cost and emissions generate monitors drivers' performan 011, Carlsberg have saved	ed by their veh ce on a daily b 502,549 litres	icles, asis of fuel,
d in a collision Fleetmaster a /wear and tea	. The academy was also cro nd is run in a structured mai r, a 30% reduction in collisio	eated to improv nner covering § on rates (despi	ve the 9 units, te fleet
part of emplo ge distance, p 115 through Ec	yee inductions alongside a ercentage speeding and ve co Driving and enhance flee	handbook to de hicle idling time t maintenance	evelop es alone.
SRs and espe	ecially relevant when operat	tional costs hav	/e
training and fl	eet reviews		
aluable means otentially suppl sitated becau red drivers wh Ild link to a bro	to save costs associated w lemented by financial incent se of the cross-boundary m o make up a significant pro pader standard raising progr	vith fuel consur tives) could ma ovements of portion of freig ramme and cha	nption ırk a ht anges
	Society		
sector to redu	ce the number of accidents	involving	Max
ght on commu arking	nities, noise levels, air quali	ity and	Max
o land use pla ight data	nning, development, constr	uction and	Min

\\S[]

Table 2-9 - Accreditation & Recognition Schemes

ACCREDITATION AND RECOGNITION SCHEMES	Investment Needed	Low	Freight Sector	All Road Freight	Actors	Industry Bodies, Public Sector, Businesses	Ri	sk Level	Low	4Rs	Re-mode, Re-duce, Re-route, Re-time	
Definition: [Trend]	Many businesse credentials amo	es are recognising the value of ngst potential clients and supp	being an ac ly chain part	credited or recognised member of an ners. Whilst improving supply chain v	industry body and /isibility, refining ef	scheme to help boost their ficiency, and minimising cost a	are	C	Category		Raising Best Practice	
[]	key operational performance on datasets to info	drivers, fleet operators, suppli financial sustainability. Equal m future decision making.	ers and oper / local autho	ators recognise the virtues of setting rities and industry bodies are able to	high environmenta raise standards ar	l, safety and vehicle nd help generate valuable		Geograph	ical Applicability:			
Best Practice						Use Cases						
	Fleet Opera Recognition Sc FORS	tor heme The Fleet Operator F exemplary levels of b well established acro goods (bronze, silver	ecognition S est practice i ss the UK wit and gold).	cheme (FORS) is a voluntary accred n safety, efficiency, and environment h accreditation delivered through C ⊺	itation scheme for al protection. FOR ſrack (Inseego) bu	fleet operators which aims to i S helps reduce work related r t further promotion is key. The	raise the oad risk ere are th	e level of qualit (WRRR) and hree levels of a	ty within fleet operations, demonstrates to a comm accreditation that can be	and to demon hitment to exce attained for ha	strate which operators are achievin eding the industry standard. Alread auliers, suppliers and carriers of	ng dy
	EcoStars Fle Recognition Sc ECOSTAR	seet heme S EcoStars has been a improve efficiency, re provide further, pract year or up to £2,450	dopted arour duce fuel co cal assistanc per vehicle ir	nd many UK and European cities with nsumption & emissions and make co are to members. Implementing the key fuel costs. The scheme is managed	a several members st savings. This typ ⁄ measures recomi by consultants, T⊓	hip options available to new o be of scheme seeks to both ac mended by ECO Stars, a typic R.	rganisati ccredit /r cal comm	ions, business ecognise the i nercial vehicle	es and local authorities. mpetus taken by industry operator could expect to	The aim of the / to improve sa reduce fuel co	e scheme is to help fleet operators afety, environmental standards and onsumption at least 5% in the first	1
	Logistics Emis Reduction Sch Logistics L	sions heme IK Scheme is accessible helps build awarenes scheme is also pivota	nitiative to re to a compar s and promo I for data col	cord, report and reduce transport em ny with a minimum of one vehicle and tion of environmentally friendly practi lection and using this to inform future	issions to feed into I is designed to rais ces across the ind decision making.	a public database (open sou se standards across the indus ustry; operators can demonstr	rce) to h stry and a rate their	elp report the awareness of f green creder	sector contribution towar the challenges and oppo ntials which hold weight v	ds national en rtunities faced vith buyers, go	nission reduction targets. The to meet targets. Such a scheme vernment and industry bodies. The	•
Opportunities	Can help raise i	ndustry standards to support b	usinesses el	ficiency and meet wider social and e	nvironmental aims	. The structure of accreditation	n & reco	gnition schem	es is already well establi	shed in some o	cases.	
Barriers	Extra resource communicated	will need to be expended to er by trade bodies, whose role it	gage with sn s to support	naller operators, who may be less inc heir membership, as well as through	lined or able to rai	se standards due to financial a I major organisation supply ch	and time nains.	constraints/co	ommitments. The virtues	of being accre	dited should be more clearly	
Local Relevance	Freight standard small fleet opera efficiency) and s collection of dat	ds and best practice can be so ators across haulage and freig social (road safety and accider a, in some schemes, will help	aled up with nt forwarding ts) impacts o contribute to	support from major trade bodies such sub sectors of road freight transport of the sector whilst bringing about pos wards a better, more robust database	n as the Road Hau . The push towards sitive benefits to in e for making inform	lage Association (RHA) and the professionalisation of the dividual organisations and bused freight decisions.	ne promo e sector v sinesses	otion and awar will have posit who can bene	reness of accreditation a ive impact on reducing th efit from additional marke	nd recognition ne environmen et exposure, ac	schemes aimed at both large and tal (emissions through fuel ccess to training and resources. The	ıe
				Impac	ct on Freight Obje	ctives						
	Econor	ny			Environment					Society		
Freight efficiency		Max Air quality Max Max						Max	¢			
Improved journey times, conn impact from and on congestion	ectivity and integr	ration between modes. Reduc	d	Reduce the impact of the sector thr reduction in other forms of pollution	rough air quality im and intrusive activ	provements and a <i>v</i> ities		Improve the s goods vehicle	afety of the sector to red	uce the numbe	er of accidents involving	
Industry contribution			Med	Greenhouse gas emissions			Max	Community	disturbance		Мах	¢.
Improved jobs and opportunit support for inward investment	ies for the sector t, land availability,	to address skills shortages, infrastructure provision		Reduction in greenhouse gas emis 2050	sions from the sec	tor to achieve net-zero by		Reduce the ir informal over	npact of freight on comm night lorry parking	unities, noise	levels, air quality and	
Connectivity			Min	Urban realm			Max	Placemaking	1		Min	
Improved connectivity to inter	national gateways	s in the TfSE area		Minimising the intrusive impact of fur protected settings	reight transport on	visual amenity and local,		Better integra servicing plar	te freight into land use p ns, better freight data	lanning, develo	opment, construction and	

	Raising Best Practice
bility:	
Table 2-10 - Alternative Modes (Re-moding) – Waterbourne Transport

	WATERBOURNE FREIGHT	Mode Relevance		Freight Sector	Haulage	4 Rs	Re-mode		'echnical Iaturity	Technica	
ſ	Definition:	A city's waterways are ofte	n an underutilised asset and yet, whils eart of many of our towns and cities. T	t the roads ar	e increasingly congested, the rivers and canals	experience	very little traffi	c Categ		Category	
	[Trajectory]	transhipment without need other vehicles and can be carrying non-time depende handling and storage.	ing to interface with road traffic. Equally used as compounds for construction ac ent, non-perishable bulky goods (such a	y, waterbourn ctivity taking p as aggregate	he freight can be used for accessing hard to rea place canal side or adjacent to river courses. W materials) or abnormal loads with affiliated infra	ccessible for reight is apt fo quired for goo	r ds	Geograp	hical Appli		
ſ	Best Practice				Use Ca	ases					
		River Barges Vert chez Vous [Paris]	An intermodal example of using low e set stops per day with seamless trans put additional value on a moving war	emission vehi sition and har ehouse as mo	cles, combining barges and e-tricycles to delive ndling of goods between modes. Each trike has ore stops can be made per day.	er 2,500 pack a 2m cargo	ages each da hold, while the	y. The e barg	e ship doubles u e holds 120m, s	p as floating o a total of	
		Green Highway Ship Canal [Manchester]	The Port of Liverpool and the Manche Liverpool and Manchester serves as potential to save an additional 2,000	ester Ship Ca a 'green high tonnes of CO	nal are jointly owned and managed by Peel Po way' and provides an alternative to the congest 2 per annum. Until recently the service carried	rts and now l ed motorway only containe	handle more t network in th ers, but the ca	han 4(e Nort rriage	0 million tonnes th West; with ea of a giant chem	of cargo an ch journey iical tank to	
		Aggregate Shipments Hanson, Grand Union Canal [London]	The shipment of 450,000 tonnes of a a canal side concrete making plant or sometimes two journeys a day. This o	ggregate star wned by Hans culminated in	ted in 2003 as part of a new initiative to move s son, the international construction materials gro taking 6,000 lorry movements off the network e	and and gra oup at Stockle each year.	vel by water a ey Park, West	nd avo Londo	oid using conges on. Up to 60,000	sted local ro) tonnes wa	
ſ	Major Market Failures	New Lock System Albert Canal [Belgium] The Albert canal, located in the eastern part of Flanders and used as a vital connection between industrial zones around Liege with the harbour of Antwerp, r dependency on the Meuse Basin to receive water for the sluice gates. As a consequence of climate change, it is projected that there will be extensions to the into the canal system to support navigation of ships along its course.									
	Opportunities	Increasingly popular as a c	cost-effective means for transporting bu	ılkier goods a	nd removing HGV traffic from sensitive and har	d to reach ur	ban areas. Ca	an inte	grate with other	· land uses a	
ſ	Barriers	Does require handling and	canal/riverside infrastructure (mini por	ts) and enhar	nced integration with portside facilities (if require	ed). Rivers a	nd canals mus	st be fi	ully navigable fo	r the craft th	
	Local Relevance	There are several navigabl (policy and data/evidence) from Maidstone to London HGV movements and to de policies to safeguard whar	e Inland Waterways across the TfSE a to support waterbourne freight and tra- via Medway Ports providing connection eliver consignments of waste, minerals wes and handling facilities from develop	rea; most of v nshipment/go n with the SR and parcels ; oment propos	which are underutilised for freight transport; des ods handling between modes, the River Medwa N at the A249/M2.The Kennet & Avon Canal, b , the latter on more time critical deliveries from als.	spite them be ay (the only ' etween Read peripheral bu	ing originally live' Inland Fr ding & Newbu usiness/tradin	built to eight F ry, cou g esta	o serve this purp Route offers an c uld also be used tes. These optio	ose. Whilst opportunity I for slow bu ons have be	
					Impact on Freight Objectiv	es					
		Ecol	nomy		Environment	:					
	Freight efficiency Improved journey time connectivity to save time	es, optimised use of fleets, do me and costs	elay mitigation and improved supply ch	Med	Air quality Reduce the impact of the sector through air of and a reduction in other forms of pollution an	quality improv d intrusive ad	vements ctivities	Max	Safety Improve the sa goods vehicles	afety of the	
ſ	Industry contribution	ı		Med	Greenhouse gas emissions			Med	Community d	disturbance	
	Improved jobs and op land availability, infras	portunities to address skills s tructure provision	shortages, support for inward investme	nt,	Reduction in greenhouse gas emissions from net-zero by 2050	sions from the sector to achieve			Reduce the im informal overn	npact of frei night lorry p	
ſ	Connectivity			Max	ax Urban realm Max				Placemaking		
	Improved connectivity international freight m	seamless intermodal activity ovements across the area	y to support local, national and		Minimising the intrusive impact of freight transport on visual amenity and local, protected settings				Better integrate freight in servicing plans, better fre		

l operation	Commercial Maturity:	Commercial Ope	ration								
	N	ew Modes									
cability:											
'mobile' warehouse that cruises on the river Seine, with 5 pre- 60 full bike loads can be delivered each day. Space constraints											
1 15,000 ship movements. A canal barge service linking equating to a saving of 180kgs of CO2 emissions, with the a facility at Runcorn saw the start of non-containerised traffic											
ads (with width restrictions also in place) from the gravel pit to s move by four craft annually over a distance of 5 miles, with											
ecently invested i discharge time fo	n new lock systems or water to feed thro	and developed a bugh the sluices to f	eed								
and transport netv	vorks.										
at are to use ther	n and future proofe	d for long term use.									
there is currently o transport const lky freight moverr en loosely referer	a lack of integratior ruction aggregate ir nents and floating pl nced in local freight	n and dedicated pro nland (during high ti atoons to reduce lo strategy and doveta	vision de) cal ail with								
Sc	ociety										
sector to reduce t	the number of accid	ents involving	Max								
ght on communitie arking	es, noise levels, air	quality and	Med								
o land use plannii ght data	ng, development, co	onstruction and	Min								

\\SD

Table 2-11 - Alternative Modes (Re-moding) – Freight on Public Transport

FREIGHT ON PUBLIC TRANSPORT	Mode Relevance		Freight Sector	Rail / Courier	Re-mode, Re-tim 4 Rs Re-duce	le,	Technical Maturity	Technical operation	Commercial Maturity:	Commercial Ope	eration	
Definition:	Train stations act as majo as much a potential benef	r transport interchanges and offer unpai fit to logistics as it is currently to passen	alleled direct	access and low journey times to city o d allow e-cargo bikes to collect parcel	centres compared to travel by road	d. This is I deliverv.		Category	١	lew Modes		
[Trajectory]	Similarly, buses are runnin would in turn help retain th operation than convention or journey times.	ng below capacity and supplementing the financial viability of essential services and buses, could factor in both people an	e movement The routing d freight to cr	of people with freight would add anoth algorithms that underpin DDRT, which reate the most efficient routes that do r	ner much-needed revenue stream n would offer a more flexible style not compromise on customer expe	that of erience	Geograph	nical Applicability:				
Best Practice					Use Cases							
	GB Railfreight Freight trial [UK]	UK rail freight operator GB Railfreight on the West Midlands to London rout road access. The train was loaded wi modifications, and to see how many of worked with Porterbrook, another trai	worked with e in 2020, and th cages that of the parcel on n leasing con	train leasing company Eversholt to a d said that with minor interior modifica can each carry 200kg of packages an cages could be conveyed within each w npany, to convert passenger rolling sto	commuter train to carry express fr tions, it could be loaded in both de d parcels, The test was to ensure vehicle with seating removed or a hock for this purpose.	reight to L edicated f that the modified	ondon. The comp freight terminals or cages could be loa seating arrangem	any completed a trial shi r platform-side in any tow aded/unloaded from the t ent." The Orion service, "	oment of NHS supp n or city that has a rain's existing door which operates light	lies on a passenger station and appropr arrangement, with r logistics express tr	r train riate minimal rains,	
	HobbyDB PostBus [Switzerland]	PostBus Switzerland is a subsidiary of separate in Switzerland, the PostBus bus services. The frequency of these	company of th still exists to services is in	e Swiss Post, which provides regional connect to post offices in peripheral re direct proportion to the population de	and rural bus services throughou gions. The federal law and the Sy nsity; however, for the most remo	ut Switzer wiss Cons te commu	land, and also in F stitution stipulate tl unities, combining	France and Liechtenstein hat every village with a p postal and passenger m	. Whilst post and pa opulation greater th ovements makes co	ssengers are mostl an 40 is entitled to r mmercial sense.	ly regular	
	InterCity Rail Freight [UK] InterCity RailFreight now runs up to 30 trains per day, and returns, across multiple main line corridors. They use secure and spare paths across a network of 125 miles per hour (200 kilometres per hour) trains, running at an average of around 70 mph (110km/h). Their reliably is an enviable 97 per cent within 15 minutes of schedule). On some routes, a zero-emission door-to-door service is now offered, combining electric trains with electric delivery vehicles. The company has collected industry awards and ISO certification, helped by a zero deliveries lost record over ten years of service.											
Major Market Failures	Royal Mail Postbus [UK, Historic]	Royal Mail postbuses used to be a co so did the respective services. The po running once or twice a day. Even as	ommon sight i ostbus was of recently as 2	in some rural areas across the United riginally created to replace rapidly decl 2006 there were more than 200 service	Kingdom, most notably across the ining local bus and rail services a s running with the last service rur	e Yorkshii cross ren nning up t	re Dales and Sout note locations whe to 2017 in the Sco	h West Scotland, but as ere they sometimes serve ttish Highlands.	the needs of passer ed as the only form o	ngers and freight div of public transportat	verged, tion,	
Opportunities	Creating suitable consolid	lation hubs at rail freight hubs and rail st	ations, along	with bus interchanges (and multi-use	mobility hubs) to create a modal i	nterchan	ge for parcels, mai	l and packages for onwa	rd delivery by last m	nile modes.		
Barriers	Regulatory barriers to mov	ving freight alongside passengers, the c	urrent challer	nge around retrofitting and secure stor	ing of items on rolling stock and w	vithin stati	ion environs.					
Local Relevance	This is an area that has no will be exploring new reve conurbations (and propose opportunity to serve rural Mobility Hubs or Local Au	ot been explored to much extent across nue streams to complement a core, but ed mobility hubs as part of the Solent F hinterlands; saving suppliers of goods s thority travel hubs could also act as mod	the TfSE are reduced, cor IZ), are all hi ignificant cos dern equivale	a but would align with aspirations for rannuter and leisure offer. The density of ghly conducive to shipping goods effic ts by consolidating pre-existing public nt to bus travel offices which previousl	ail freight to play an expanded rol of suburban, branch line and strate iently; with first & last mile logistic transport services and utilising tra y received parcels at bus stops/st	e for the r egic rail c s in place ansport pa tations.	movement of good connections across to transfer goods artnerships (e.g. T	ls. Emerging from the pa s the South East, combin (parcels) between origir he 18 Community Rail Pa	ndemic, Train Opera ed with mass transit is and destinations. artnerships (CRPs)	ating Companies (T proposals within la There is also an across the TfSE reg	iOCs) arger gion.	
				Impact on Freight	Objectives							
	Eco	pnomy		Envi	ronment			S	ociety			
Freight efficiency Improved journey time connectivity to save tir	es, optimised use of fleets, d me and costs	delay mitigation and improved supply ch	Max ain	Air quality Reduce the impact of the sector thro and a reduction in other forms of pol	ough air quality improvements lution and intrusive activities	Max	Safety Improve the safet goods vehicles	y of the sector to reduce	the number of accid	lents involving	Min	
Industry contributior	n		Med	Greenhouse gas emissions		Med	Community dist	urbance			Min	
Improved jobs and opp land availability, infras	portunities to address skills structure provision	shortages, support for inward investme	nt,	Reduction in greenhouse gas emiss net-zero by 2050	ions from the sector to achieve		Reduce the imparinformal overnigh	ct of freight on communit t lorry parking	ies, noise levels, air	quality and		
Connectivity			Max	Urban realm		Med	Placemaking				Min	

nical operation	Commercial Maturity:	Commercial Operation								
у	New Modes									
plicability:										

****\\]]

Improved connectivity seamless intermodal activity to support local, national and international freight movements across the area

Minimising the intrusive impact of freight transport on visual amenity and local, protected settings

Better integrate freight into land use planning, development, construction and servicing plans, better freight data

Table 2-12 - Alternative Modes (Re-moding) – E Cargo Bikes

E-CARGO BIKES	Mode Relevance	A Do	Freight Sector	Last Mile Logistics	4 Rs	Re-mode	Technical Maturity	Initial real-world operation	Commercial Maturity:	Operating commercially			
Definition:	Electric cargo bikes are goods vehicles (LGVs),	e a highly versatile form of first and la , whilst using a fraction of the roadsp	st mile freight trans ace. Being electrica	sportation that can replace deliveries ir ally assisted, they enable the rider to e	n urban areas efficiently trans	traditionally made by light sport cargo with zero emissions	\$	Category		New Modes			
[Trajectory]	at street level, with som around a city and their s	ne variants able to carry loads of 250 smaller size allows them to be parke	kgs+. Additionally, d more convenientl	where infrastructure allows, they can u ly near to their destination and to have	use the cycling access to pe	g network to efficiently move destrianised areas.	Geograp	hical Applicability:	مًا 1.				
Best Practice					Use Cases								
	Outspoken Cycles Zedify [UK}	Zedify use a fleet of zero emission local, digitally-tracked delivery rou as well as local businesses for 'ac	cargo bicycles and nds and sent to the ross town' same da	d tricycles, supplemented by electric va ir final addresses by specially adapted ay deliveries. They currently operate in	ans, that oper d cargo bikes i 9 UK cities, i	ate out of small urban logistics carrying up to 250kg – or elect ncluding Brighton, Cambridge,	hubs to fulfil deli ric vans for longe London, Edinbur	veries and collections in r distances, if needed. (gh, Glasgow and most i	n urban areas. At th Clients include onli recently in Bristol.	ne hubs, items are so ne retailers, logistics	orted into carriers,		
	DHL City Hub [Utrecht, Netherlands]	DHL Express is piloting a new City customised cargo bicycle which ca Cubicyles for last-mile inner-city de plan to roll out the approach more	Hub concept that an carry a containe elivery. It can then widely over the ne	will enable increased use of cargo bic r with a load of up to 125 kg (one cubic be reloaded for outbound shipments. I xt 3-5 years.	ycles for inner c meter in volu DHL Express	-city deliveries. The City Hub is ume). A DHL van delivers the t has already replaced up to 60%	s a customised tr railer into the city % of inner-city vel	ailer which can carry up centre, where the conta hicle routes in some Eur	to four containers ainers can be quicl ropean countries w	for the DHL Cubicyc kly loaded on to two vith cargo bicycles ar	ole, a nd they		
	Hereford Pedicabs Pedicargo [Hereford] Hereford] Hereford PediCargo collect business waste for recycling on a weekly or ad hoc basis. They use cargo trikes and deployable trailer bins to gather the city's paper, cardboard and plastic and then shred, compact and send it for recycling. The service is then invoiced at the end of the month to collect cash from the clients. Having diversified from a pedicab service after identifying a lack of trade waste recycling facilities in Hereford, they now provide an easy way to recycle waste, much of which would ordinarily go to landfill despite 80% of the waste being recyclable. Having rapidly grown, they now operate a fleet of e-cargo bikes and prevent over 10,000kg of recyclable waste from going to landfill every week.												
Major Market Failures	General Challenges	Previous work has identified that e price pressures and the margins ir gone through the same rigorous te highly versatile, clearly much large	e-cargo bike operate n logistics are quite esting processes as er modes are out of	ors face a number of challenges which slim, making expedient or risky invest ordinary bikes. This leads to issues w scope. This can result in partners nee	n affect their a ments very di vith reliability a eding to mana	bility to compete with traditiona fficult. Furthermore, as a relativ and increases costs, especially ge two separate operators, wh	I van traffic. First vely new mode, tl given that some ich often proves t	tly, in logistics, e-cargo b here is a limited market larger models can cost too costly or time-consu	bike operators are for e-cargo bikes a in excess of £10,0 ming.	subject to strong dov and many models hav)00. Whilst e-cargo b	wnward ven't vikes are		
Opportunities	Links to micro-consolida	ation centres and mobility hubs, logis	stics centred develo	opment where there is scope for mode	shift over the	last mile, the most expensive	part in the supply	v chain journey					
Barriers	Limited to a small geog	raphy, cannot carry some larger loac	ls, not suited to all	locations and dependent, to a degree,	on urban forr	n. There are many variations tl	nat could also be	applied.					
Local Relevance	Future schemes would to have a competitive a interchanges and a high link up their respective	need to coalesce around identified 't dvantage over other vehicles especia her proportion of independent shops networks and deploy e-cargo bike de	riggers' per urban a ally where measure serving a more hyp livery at scale from	area that make uptake appealing and one as are introduced to limit and restrict ve perlocal customer market) and the intro- n existing and proposed peri urban loca	commercially ehicle access oduction of Cl ations, such a	viable for operators; whether b namely timed closures in Can ean Air Zones (CAZ) in Portsm s in Maidstone.	eing deploying as terbury City Cent outh and Southa	s a last mile, only mile o tre, across historic centr mpton. 3PLs, such as D	r shared use sche es of Newbury (wi DHL. Amazon and	me. E-cargo bikes ar th links between DPD would be best p	re likely placed to		
				Impact on Freight	Objectives								
	E	conomy		Envi	ronment			s	Society				
Freight efficiency Improved journey time connectivity to save time	es, optimised use of fleets me and costs	s, delay mitigation and improved sup	Max ply chain	Air quality Reduce the impact of the sector thro and a reduction in other forms of po	ough air qualit llution and inti	y improvements usive activities	Safety mprove the safet loods vehicles	y of the sector to reduce	e the number of ac	cidents involving	Max		
Industry contribution Improved jobs and op land availability, infras	n portunities to address ski structure provision	lls shortages, support for inward inve	Max estment,	Greenhouse gas emissions Reduction in greenhouse gas emiss net-zero by 2050	ions from the	sector to achieve	Community dist Reduce the impace Informal overnight	ties, noise levels, a	air quality and	Max			

Society	
sector to reduce the number of accidents involving	Max
ght on communities, noise levels, air quality and ırking	Max

PUBLIC | WSP January 2022 Page 33 of 67

Connectivity	Max	Urban realm	Max	Placemaking
Improved connectivity seamless intermodal activity to support local, national and international freight movements across the area		Minimising the intrusive impact of freight transport on visual amenity and local, protected settings		Better integrate freight inte servicing plans, better frei

Max

to land use planning, development, construction and ight data

wsp

3 THE ROLE OF PUBLIC AUTHORITIES

3.1 THE CURRENT CONTEXT

- 3.1.1. The different types of public authorities and their respective roles and responsibilities are outlined in Section 1.5 of this report. This chapter helps to provide additional detail and coverage, especially concerning land use planning, strategic transport investments and creating the apparatus for approaching the freight industry.
- 3.1.2. Freight, and the study of goods movement, has traditionally been siloed and undervalued as a 'core' component of transport and land use planning. There are only a handful of local transport authorities (LTAs) that have designated officer posts, defined strategies or live actions plans (namely Kent, West Sussex and West Berkshire). This is activity is driven by the need to confront particular issues (for example, Lorry Parking for Kent County Council). In most instances, consideration of potential freight issues for a project is a bolt on to emerging transport strategies and considered at the last minute; without the planning and guidance offered by expertise in the area. Funding availability and challenges with staff recruitment also play into the absence of freight expertise to guide future investment and strategy formation.
- 3.1.3. Public Authorities, both Local Planning Authorities (LPA) and LTAs, have a critical role going forward; supported and guided by TfSE to help create the optimal conditions for the freight industry whilst balancing the demands and priorities of other industries and social, environmental and economic objectives. However public authorities can play a key role in two key areas:
 - Pursuing freight interventions. These are the actionable measures that LPAs/LTAs can influence and shape; including planning considerations and strategy; and
 - Cultivating a 'Think Freight' culture. Helping to upskill and normalise freight expertise and forging conducive relationships with industry across the TfSE area to improve decision making.
- 3.1.4. The approach to both is inconsistent across the TfSE area. The development of a Freight Forum and Steering Group for the development of a TfSE Freight Strategy marks a turning point in raising awareness of the industry and coordinating policy development through the different layers of government and governance. As the latest form of devolved power, STBs are being asked to take on more responsibility from central government and the DfT for shaping local/regional priorities; but equally they rely on sound national guidance and steering principles at a pan national scale.

Snapshot of Industry Issues

- 3.1.5. Previous engagement with public authorities, directly and through the analysis of published materials as part of the TfSE Freight Scoping Study reveal that road safety was a particular issue; namely the interaction with vulnerable road users, the safety standards of freight vehicles and the (lack of) investment in suitable driver training. There was a recognised need to improve safety and driver standards despite their being an overall decrease in vulnerable road users killed or seriously injured over the past decade.
- 3.1.6. Furthermore, air quality was the most pressing concern flagged by public authorities throughout the review of local freight documentation, plans and strategies with emission zones, of varying shapes and forms, being frequently referenced as part of solutions to addressing levels of particulate matter



and nitrogen oxide which exceed UK & EU limits in most larger conurbations. In total, TfSE featured 22 of the most polluted areas within its region³⁴.

3.1.7. The desire to introduce and enforce a number of examples of best practice guidance and support for the freight industry, through Construction Logistics Plans (CLPs), Delivery & Servicing Plans (DSPs) and similar tools, was raised in the same AECOM Freight Scoping Study. This was identified in response to increased congestion and demand for road space; particularly pertinent issues across the TfSE area.

3.2 A NEW APPROACH

- 3.2.1. The underlying rationale for public authorities, with industry, is for the development of practices that maximise the realisation of the individual company and wider societal objectives. These can be seen to revolve around the principle of managing (and minimising) freight trips; reviewing and developing freight transport in ways in which people, businesses and organisations are encouraged to make optimal use of locally available transport resources to improve efficiencies, reduce costs and mitigate the impact of travel on society. For consistency, this implies deploying the aforementioned Freight Demand Management (FDM) principles used to frame industry interventions.
- 3.2.2. Public authorities, collectively, can be responsible for shaping the freight interventions, meeting the 4Rs, and cultivating a think freight culture through several mediums. This includes, but is not limited to the following (which are then discussed individually):
 - **Partnerships**: Helping to foster relationships between industry and public decision makers to develop and deliver coordinated, mutually beneficial schemes and minimise investment risk;
 - **Freight Data**: Acting as the conduit for collecting and collating data across industry and ensuring some form of standardisation and consistency (see Work Package Two for more information);
 - **Regulations**: To put in place legislation that will influence freight routing, timing and ultimately the conditions for moving goods; often as a means to reduce freight externalities;
 - Planning Policy: Supporting burgeoning freight and logistics markets and changing consumer expectations through land use allocations; and safeguarding essential infrastructure/strategic sites;
 - Planning Conditions: Setting the tone through development control decisions (LPAs) and efforts to attach conditions to the development or regeneration of new housing and commercial properties;
 - **Consolidation**: Leveraging interest in facilities and zero emission deliveries within urban areas whilst recognising the virtues and challenges with different applications/models; and
 - Procurement: Using public authority levers, within legislative frameworks, to influence internal supply chain decisions (as trailblazers).

PARTNERSHIPS

3.2.3. Public authorities play the leading role in shaping transport and land use policy and securing funding for delivering services for the public good LPAs and LTAs across the TfSE area, will ultimately be shaping the freight environment throughout the course of day to day decision making across a range

³⁴ AECOM (2020) Freight Scoping Report

of transport, land use, environmental and development planning subject areas. There is a critical role to play for public authorities on numerous fronts to create optimal conditions for the freight sector to thrive and support the economic, environmental and social wellbeing. This should ideally coincide with greater industry collaboration to develop synergies and shared visions for the role of freight in the future.

- 3.2.4. TfSE can play a coordination role by bringing together the freight industry representatives including suppliers, couriers, hauliers, shippers and businesses partaking in a supply chain, alongside trade bodies who will play a key role in lifting industry standards and supporting sector professionalisation through driver training and course accreditations. The latter could dovetail aspirations for sector specialisation; working with universities and developing courses (e.g. Marine Technology, Renewable Technologies and Advanced Manufacturing etc) to support burgeoning local industries³⁵. Alongside a lack of infrastructure, a lack of support for the freight industry was, by far, the main challenge raised by stakeholders (fifty delegates across industry, public authorities and other local stakeholders)³⁶.
- 3.2.5. TfSE can use the Freight Forum and Steering Group, the predecessors to the Transport Stakeholder Forum, featuring a combination of public institutions, such as National Highways, through to Network Rail (now under the umbrella of GB Rail), to form close working partnerships to help align activities and provision as well as sharing information to inform regional priorities. As TfSE currently has limited funding and legislative powers, emphasis must be placed on dovetailing and influencing those who can pull the levers of change whilst STBs generally establish themselves as new devolved entities. National policy and the coordination between national stakeholders will be imperative for helping set the tone (e.g. standardisation in data collection).
- 3.2.6. Partnerships can also be key to supporting economic activity and coordinating a response across multiple stakeholders. For example, this could be responding at the micro level to the impact on deliveries and servicing from pedestrianisation proposals; the like of which are starting to take shape across larger conurbations (in response to the Active Travel Fund and combined with emergency walking and cycling schemes). The importance of collaboration and cooperation is captured across various public sector plans (i.e. Highway England's Strategic Business Plan, 2015); planting the seed for continuous dialogue to assist future network planning.
- 3.2.7. Liaison with representatives of the private sector and freight 'receivers' will also be necessary; at both the micro and macro level. Chamber of Commerce, Business Improvement Districts and Manufacturing Associations, generally present in some shape or form across all towns and cities across the TfSE area, can be vital mouthpieces for organising around a theme or agenda, which may have a freight and logistics angle. Discussions at this scale may be better cascaded up via the relevant LPA/LTA or arranged locally and used as an exemplar of best practice for partnership working that can deliver change at pace.
- 3.2.8. Considering the role the South East plays in accommodating long distance strategic movements nationally and internationally (and that approximately 85% of international Ro-Ro traffic comprises

³⁵ TfSE (2019) Economic Connectivity Review,

https://transportforthesoutheast.org.uk/app/uploads/2020/10/FINAL-Economic-Connectivity-Review.pdf ³⁶ AECOM (2020) Freight Scoping Report

foreign-registered operators), partnerships should engage with major international operators located outside of the UK. Engagement with these may be challenging but the benefits of developing working relationships could be significant for raising vehicle and safety standards. In terms of goods moved, the major participants carrying out cabotage in the UK were vehicles from Poland, Romania and Ireland; with TfSE exploring opportunities to work with pan global trade associations to push for best practice.

FREIGHT DATA

- 3.2.9. Data harvesting is increasingly key for developing a robust evidence base for informing decision making by both businesses and public authorities. This includes understanding the origin and destination of freight movements. However, obtaining and collecting freight specific data, ranging from vehicle movements to road and vehicle utilisation, is a notorious challenge faced by the freight sector historically that impacts on the relevancy of future investment priorities and fleet management respectively. This has been acknowledged, in detail, as part of WP2 and the TfSE Logistics & Gateway Review.
- 3.2.10. TfSE, working with public authorities, can help identify knowledge gaps in local databases as well as lobbying for change with other STBs to escalate demands for data standardisation and guidance of data gathering further upstream (DfT). For example, the Continuing Survey of Road Goods Transport (CSRGT), which captures a data sample of HGV trips annually, excludes foreign registered vehicles from its accounts; which skews the representativeness of goods traffic, including European freight forwarders, throughout the TfSE area that connect through international gateways.

Links to DfT

TfSE should maintain strong links to the DfT team creating the National Freight Strategy and to its Future of UK Freight Team, which includes a data analyst, particularly as it is considering innovative methods for data capture. National Highways, along with other STBs, including TfN, are also exploring different options; the latter of which involves developing a freight data repository to enable TfN and its partners to access and interrogate a wide range of freight datasets, from strategic commodity flows to local traffic counts.

- 3.2.11. Public Authorities will continue to play a facilitating role in collecting and collating data; ranging from LGV registrations and operating licence records, through to Annual Average Traffic Data (AATD) counts and Air Quality Management Area (AQMA) statistics. However, there is a distinct lack of data, available within the public domain, that derives from actual industry activities; in part due to commercial sensitivity and the absence of standardised processes for data collection. Data collected by public authorities must also seek to understand why goods move in a certain way, rather than simply highlighting a freight situation.
- 3.2.12. The emergence of the sharing economy and initiatives such as the FreightShare Lab (a collaboration of industry bodies with close links to public authorities) and Data Hubs by STBs, namely Transport for the North (TfN), are trailblazing approaches to collating and collecting data sources for informing policy approaches and investment priorities across the industry. Equally the sharing of live data between public institutions and conveying core messages with industry to aid diversionary routing and forward planning is an obvious, yet blurred practice. As previously implied, a consistent data collection approach is required across all public authorities which would be ideally mediated through a pan national approach that can be lobbied for/supported by TfSE.

3.2.13. As around 95% of the UK's international trade moves through UK seaports with 91% of deep sea volumes entering and leaving via the wider South East (including Felixstowe)³⁷, TfSE should be working with other STBs to understand future traffic flows; where goods are going to and from and why and taking a broader outlook on future developments outside of the south east that will depend on efficient freight network thorough the TfSE area.

REGULATIONS

- 3.2.14. Public authorities are increasingly introducing measures to minimise the impact of vehicle traffic in sensitive urban areas, which recognises freight and the impact the sector has on air quality and the quality of the public realm. Barriers imposed through traffic management or traffic regulation orders, loading restrictions and zoning principles will shape the freight operational environment; a trend that is likely to be accelerated in response to the decarbonisation and placemaking agenda. A distinction must be made between fostering voluntary actions by industry and, in this case, delivering mandatory requirements to trigger behavioural and operational changes across the freight industry.
- 3.2.15. The introduction of Clean Air Zones (CAZ) in Portsmouth and Southampton, alongside HGV Routing Strategies (countywide, e.g. West Sussex or site specific e.g. Surrey Eco Park Application are existing examples of regulatory interventions that nudge fleet operators and freight sector businesses to adopt new practices; providing incentives are also in place to stimulate behaviour change. This could include the transition towards greener vehicle fleets, in response to charging zones being introduced for higher emitting vehicles, alongside re-timing deliveries outside of peak hours to minimise interaction with vulnerable road users (benefits for road safety).
- 3.2.16. The freight industry is a disparate industry with a large proportion of SMEs. Caution must be exerted when deploying interventions due to the disproportionate impacts of regulations on different parts of the freight sector across the TfSE area and their ability to respond (quickly) to changing conditions. For example, lorry parking bans may be symptomatic of a lack of available parking and absence of real data demonstrating the gulf between demand and supply available locally which must be factored into the discourse by those involved in the making decisions internally. The harmonisation and legibility of regulations is also key; this can lead to issues with enforcement and overall effectiveness whilst infrastructure costs, administrative and maintenance costs must be evaluated.

Digitising Data

To aid the deployment, management and compliance of regulations, public authorities can work with software providers to make vital datasets and key information legible and available virtually. This extends to HGV routing schemes, as in the case of the London Lorry Control Scheme (LLCS) to complement 'hard' guidance in the form of signage delivered through the highways department and core funding (West Sussex Advisory Lorry Maps).

³⁷ DfT (2020) UK Port Freight Statistics: 2019,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908558/portfreight-statistics-2019.pdf

- 3.2.17. Broader travel and consumer behaviour change would be ideally deployed in conjunction with new or emerging regulations to frontload changes to supply chain activity and freight demand. This is especially relevant as part for Future Transport Zones (Solent) and the widespread adoption of Low Traffic or Liveable Neighbourhoods at the hyperlocal scale. LTAs working at this scale can look to apply a package of interventions, designed with and for local communities, to adopt new practices and a sense of place around the changing role of the street and the popularity of non-motorised travel. TfSE is well placed as a new STB establishing itself nationally, to positively use marketing and communication channels to raise awareness of sustainable deliveries and the wider role of freight and logistics in our everyday life.
- 3.2.18. The Goods Vehicle Operator Licensing Scheme, administered by the Driver and Vehicle Standards Agency (DVSA) on behalf the Traffic Commissioners, play an instrumental role in both shaping and ensuring compliance with industry standards. Changes to licensing to enable and incentivise own account, restricted licence holders to backload their vehicles, could have a major, positive impact on addressing empty running and improving overall freight efficiency. Any proposals, which would need to be decided at a national level, must be sensitive to the terms and conditions stipulated to current licence holders.

PLANNING POLICY

- 3.2.19. Planning policies can be delivered through national guidance, local plan strategic/development management policies and Supplementary Planning Guidance, such as design guides. These provide the framework through which Community Infrastructure Levy (CIL) contributions, planning conditions and developer agreements (s106), for infrastructure and services, should be applied and funding secured.
- 3.2.20. There should be a symbiotic relationship between the policies contained within the National Planning Policy Framework and LPA Planning Policy; informed and shaped by industry input and broader consultation with local stakeholders across the TfSE area. The former offers more strategic guidance to supporting sustainable development that stipulates the need for accommodating efficient delivery of goods and services.

National Freight Strategy

The DfT is developing a National Freight Strategy, due for publication in mid-2021 (revisit timeline as were beyond this point now, which will provide the opportunity for its outputs, if delivered on time, to be dovetailed with the development of the TfSE Freight Strategy. This is likely to feature or focus on the broader decarbonisation agenda but will help to set the scene for the role of public authorities, including STBs.

3.2.21. Although TfSE does not have a direct role in shaping land use policy, it can work alongside the constituent LPAs across the study area to help influence the allocation of land uses (zones) within Local Plans (LPs) and Strategic Land Availability Assessments (SLAAs). LPAs could also be encouraged to plan for urban freight within infrastructure strategies and review local regulations and develop outline business cases. Equally LPAs and LTAs should be aware and contributing towards emerging masterplans, particularly ports across the TfSE area, and take a proactive approach to safeguarding land and infrastructure for future use.

- 3.2.22. The pace of growth in e-commerce (online retailing) and the prominence of Third Party Logistics (3PL), who have experienced 70% increase in volume carried during 2019 in some instances³⁸, is resulting in larger van fleets and the increased land demand for sortation and fulfilment centres. This is putting pressure on local infrastructure and the need for quicker spatial planning decisions to be made in response to demand.
- 3.2.23. Planning decisions on sites abutting industrial land, transport interchanges and international gateways must also be sympathetic to expansion plans and proposed site operations. However, the disruption and pace of change experienced across the freight and logistics sector is outstripping the speed of the planning system to respond accordingly. The need to address the current deficiency of Lorry Parking, a critical issue across the TfSE area and the spatial consequences of the disconnect between 'trunking' and 'last mile' deliveries on vehicle volumes and land for logistics, are two examples where planning policy must seek to address longstanding and emerging trends.
- 3.2.24. From a bottom up perspective, TfSE can play a supportive role in helping LPAs with developing a robust evidence base to support the allocation of land for freight and logistics use whilst flagging potential demand for space to help satisfy strategic, cross boundary objectives. At a top down level, TfSE must also be proactively engaging with industry to help understand demand and apply a holistic view of freight and logistics needs that can then be scoped with LPAs.
- 3.2.25. Freight efficiency, particularly intermodal movements of transport, relies on the seamless transition between different stages and stakeholders of the supply chain and the ease of access between and through local, national and international gateways. This can manifest in different ways and can be shaped by public authorities by means of fostering economic agglomeration; an approach that is being sought through the designation of freeports at Solent and Thameside and is already established around Heathrow and Gatwick respectively.
- 3.2.26. The National Policy Statement for Ports³⁹, Airports⁴⁰, DfT forecasts on port freight throughput and the emerging National Policy Statement on National Networks, the government's statement for major road and rail schemes, are all examples of major planning related strategic documents. A designated 'Future of Freight' team at DfT, are also pivotal for steering the course of the freight industry.

³⁹ DfT (2012) National Policy Statement for Ports,

³⁸ NIC (2019) Better Delivery: The Challenge for Freight, <u>https://nic.org.uk/app/uploads/Better-Delivery-April-</u> 2019.pdf

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/3931/national -policy-statement-ports.pdf

⁴⁰ DfT (2018) Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/858533/airports-nps-new-runway-capacity-and-infrastructure-at-airports-in-the-south-east-of-england-web-version.pdf

3.2.27. There are a number of key facts relating to Safeguarding Wharves as described below.⁴¹

Safeguarding Wharves

The safeguarding of wharves, storage and land availability through local plans for satisfying the South East's reliance on imports of sand, gravel and crushed rock (aggregates) (MDS Transmodel (2007)), is a prime example of the role public authorities can play in acknowledging commodity shipments/requirements and dependency on the freight industry. The broader study outlines the role of public authorities to continue adopting safeguarding measures to futureproof capacity, especially in this instance, with the rise in construction and transport of dry bulk materials to serve burgeoning markets (coastal shipping towards London). This also considers LPAs Minerals and Waste planning policies.

PLANNING CONDITIONS

3.2.28. A prime opportunity to counteract the combined challenges of a growing urban population, rapid development growth and increased freight trip, particularly across larger conurbations within the TfSE area, is to embed a 'think freight' approach into the planning process and the conditions requested by developers to secure permission. Equally, tools and action plans can be forged for mitigating existing freight based movements; although the consequences or 'ripple effects' of measures could have wider geographical implications.

The London Effect

Transport for London (TfL) adopted a pan city Freight & Servicing Action Plan (2019) with the view to minimising the externalities derived from road freight transport in the capital, covering deliveries, servicing and construction movements, including the reduction of peak period traffic by 10% by 2026. The key actions including working with boroughs to better coordinate freight movements with opportunities for applying the 4Rs approach to address congestion, air quality and safety concerns that complemented Vision Zero and Healthy Streets agendas.

3.2.29. Land zoned for housing, industrial development and employment/commercial uses will all have a freight requirement and generate freight movements; contributing and potentially exacerbating concerns around congestion, local access, pollution and road safety. Ideally new planning practice guidance on freight for strategic policy making and site specific decision making considerations would be steered at a pan national scale for consistency. LPAs can again play a crucial role, with updated guidance, in requiring developments to provide adequate land and infrastructure for on-site micro

⁴¹ MDS Transmodal (2007) Aggregate Wharves and Rail Depots in South East England, <u>https://www.iow.gov.uk/azservices/documents/2782-FI5-Aggregate-Wharves-and-Rail-Depots-in-South-East-England.pdf</u>



consolidation, concierge and waste management practices, or co-location in mixed use developments (providing mitigations are in place) and recycling of meanwhile spaces and car parking.

- 3.2.30. In many cases, larger developments will require a transport assessment with developers also being required to contribute Section 106 contributions and Section 278 highways funding towards traffic mitigation; which should seek to consider negating the impacts of freight and servicing and promoting sustainable alternatives. LTAs should work with LPAs across the TfSE area on this basis during the review of planning applications to assess infrastructure requirements.
- 3.2.31. On this basis, there is an opportunity to embed freight best practice principles into the process of securing permission and ensuring new developments and urban regeneration mitigate the externalities from freight movements; during both the construction (build) phase and for day to day operations covering waste management, deliveries and servicing activity. This will require providing sufficient materials and guidance to developers and initially upskilling department staff on the value, requirements and application of conditions. This should align with a commitment in local policy discourse with consideration also given to enforcing conditions and monitoring compliance.

ECONOMIC AGGLOMERATION

- 3.2.32. The term to describe the clustering of business activity to support economies of scale, productivity efficiencies and cost reduction. The zoning principles deployed across the TfSE area are already evident; ranging from the large scale 'Gatwick Diamond' through to the emerging hive of green technologies and eco-businesses proposed around Shoreham Harbour, a designated Eco-Port. These locations, often in peri-urban settings, ultimately come to depend on high quality access by road but are increasingly exploring rail links and rail freight capacity.
- 3.2.33. Future agglomeration will depend on policy and investment commitments, including mode shift and multimodalism, to unlock industry growth. This is hinted at in the growth scenarios and LEP Local Economic Strategies to promote smart specialisation and cluster policies based on identified strengths and competitive advantages. There is a particular requirement for public authorities of all sizes across the south east to support the development of processing facilities in the current climate in response to growing lack of affordable, accessible warehousing facilities available or visible to meet the demand for space near end users (driven and led by e commerce).
- 3.2.34. The burgeoning freight and logistics sector is an emerging economic driver driven by both the proximity of strategic road and rail networks, international gateways and clustering of suppliers, wholesales and third party logistics providers, offering competitive advantages through supply chain efficiencies. Alongside high-profile companies such as Amazon who had established distribution hubs pre pandemic across counties such as Kent amidst the boost in e-commerce, there is a requirement by public authorities to unlock land in conducive locations and provide the necessary infrastructure. The TfSE area is blessed with several international gateways which should be exploited.
- 3.2.35. Port centric logistics, with specific reference to Southampton, is discussed in the box below⁴²

⁴² Port of Southampton (2016) Port Master Plan 2016 – 2035, <u>https://www.southamptonvts.co.uk/admin/content/files/New%20capital%20projects/Master%20Plan%202016/M</u> <u>aster%20Plan%202016%20-%202035%20Consultation%20Document%20Oct%202016.pdf</u>

Port Centric Logistics

Future proposals to build on the Port of Southampton's Strategic Land Reserve (SLR) in Marchwood, signifies the future significance of port centric logistics and its role in supporting local employment and economic prosperity. Continued investment in major infrastructural investment on site; combining shoreside energy networks, on site warehousing facilities and hi tech/marine business clusters, will require subsequent investment by public authorities to upgrade road and rail infrastructure for improved port connectivity (ABP, <u>2016</u>).

- 3.2.36. As previously mentioned, the five LEPs across the TfSE area are well placed to guide economic agglomeration; with employment growth hubs acting as a proxy for the location of future freight demand. These are clearly situated around coastline/estuarial conurbations, namely the Medway Towns, Thanet, Southampton (and broader Solent area), Basingstoke and Thameside (Dartford). LEPS alongside other public authorities will play a key role in managing the dependency on freight and logistics across employment sectors, namely construction, manufacturing, mining (& quarrying), storage and wholesale and retail trade; the latter contributing the greatest proportion of employment industry share (%) per LEP area⁴³.
- 3.2.37. Infrastructure schemes, which are often integrated into land use planning decisions, are the most substantial category of measures and are usually implemented by public authorities. Due to the high cost of planning, implementing, and maintaining transport infrastructure in urban areas and their perception as being for the "public good", they are often the only actors willing and able to fund their implementation. Public Private Partnerships (PPPs) have emerged over recent decades as another financing model to invest in substantial improvements to road, rail, sea and air networks whereby the initial capital and risk is absorbed by public authorities to leverage private sector investment in the operational and longer term viability of initiatives that are associated with delivering a public good.

CONSOLIDATION

3.2.38. Consolidation, the means of grouping consignments in fewer vehicles based out of 'remote' or 'last mile' hubs are increasingly popular as a mechanism to reduce freight externalities in an urban setting. However, this requires public authorities to proactively identify and develop appropriate sites with industry partners to bring this to fruition; with historic challenges to developing financially viable schemes across the UK 'at scale'. The diminishing stock of industrial land, combined with land costs and the challenge in developing and sustaining 'open access' sites, are issues that public authorities must seek to overcome to bring schemes to fruition. Competing use for housing is a particularly acute challenge in the TfSE area; with local plans having to balance the interests of providing affordable living and increased urban densification with providing additional land capacity for logistics sites.

⁴³ WSP (2019) Freight Logistics & Gateway Review

3.2.39. The main example of an operation centre across the region, in Southampton, is referred to in the box below⁴⁴.

Southampton Sustainable Consolidation Centre (SDC)

The Southampton Sustainable Consolidation Centre (SDC), established in 2012, was formed by Southampton City Council (SCC) with Meachers Global Logistics to help meet the Green City Commitments 2030. The 20,000-sq. ft. site based out of Nursling Industrial Estate on the outskirts of the city, accommodates deliveries to a warehouse for onward distribution with fully optimised vehicle capacities outside peak periods. The scheme serves a number of public sector organisations and has forecast to reduce the number of HGV movements by up to 75% (6,900 vehicle movements per annum) (Meachers, 2020).

- 3.2.40. Previous industry experience of consolidation points towards the challenges of a state-led scheme compared to facilities that are accepted and embedded within business supply chains (the users). The growth in Third Part Logistics (3PLs) companies establishing bases at peri urban sites across the TfSE area, outside locations such as Maidstone (New Hythe), Rochester (London Medway Commercial Park) and Theale (Arlington Business Park) to name a few, provides an opportunity to work with industry partners on initiatives that can re-mode and reduce local HGV trips.
- 3.2.41. Siting consolidation centres presents a challenge similar to that experienced across the south east for locating warehousing and distribution facilities of scale. Concerted efforts and analysis of public authority estates should form part of a broader land based assessment to understand the scope for conversion or use. This should take into account urban 'triggers'; the factors that would 'nudge' prospective industry partners to using consolidation sites developed by the public sector which could include regulatory changes (e.g. Clean Air Zones) or historic urban grains (e.g. timed road closures). Consolidation Centres could start to play a greater role in relation to ports and airports to avoid the need for stem mileage and to shift away from road freight at the source.
- 3.2.42. Inevitably, public sector led schemes would require substantial subsidy and would possibility require mandatory status to scale up interest (as opposed to voluntary adoption) with trials often used to rest proof of concept and integration with other schemes (e.g. zero emission deliveries and urban depots). In theory, consolidation can be applied to any conurbation, in one guise or another, but requires due diligence in the planning and investment in facilities, steering by public authorities with industry.

Procurement

3.2.43. Anchor institutions, large public and private sector organisations rooted within a locality and with notable sway over local decision making, also have substantial budgets and spending power to procure goods and services. Alongside LAs across the TfSE area, larger multinational companies with bases or headquarters can arrange procurement contracts and terms to develop sustainable and local

⁴⁴ Meachers (2020) Smarter Deliveries in Southampton with the Sustainable Distribution Centre, <u>https://meachersglobal.com/news/smarter-deliveries-in-southampton-with-the-sustainable-distribution-centre/</u>



supply chains. This brings the benefit of reducing travel demand and freight miles with procurement contracts able to set conditions for the use of sustainable freight or emissions targets.

3.2.44. Smaller procurement contracts would also enable SMEs to compete with delivering goods over a shorter distance or in clean vehicles and encourage operators to raise standards to be eligible for tendering. This has the potential to develop the local freight and logistics sector, facilitate local prosperity and community wealth building whilst minimising the impact of supply chain activities on local communities through improvements to air quality and reductions in vehicle use.

Localised Manufacturing

There are signs of a reshoring of manufacturing activity within the UK that could have ramifications on port traffic (commodities moved) and globalised supply chains. However, local manufacturing can bring employment opportunities and be viewed as part of the shift towards shortening supply chains and exploring a greater range of added value services at defined sites that access the strategic road and rail network.

- 3.2.45. Whilst decarbonisation within the private sector is likely to be driven by cost efficiencies and a strong commitment to Corporate Social Responsibility (CSR) policies, public authorities can start to set future trends and become trailblazers in this capacity. In this respect, collective or joint procurement can help to reduce freight miles and optimise delivery drops whilst helping to save resources through economies of scale. This includes developing preferred suppliers for waste and recycling activities to minimise daily trip volumes, the concentration of vehicle carbon emissions and road safety concerns.
- 3.2.46. Linked to procurement is the opportunity public authorities and wider 'anchor intuitions' across the TfSE area can play in upgrading to cleaner vehicle fleets through a hierarchal approach to adoption (i.e. electric vehicle as the priority aim, hybrid as second best option depending on requirements) or stimulating broader uptake across the private sector through tailored scrappage schemes (currently being trialled on a localised scale in Coventry with the option of receiving mobility credits).

Buying Standards

In December 2017, new Government Buying Standards were introduced with a commitment that all new government vehicles will be zero or ultra-low emission by default, with alternatives considered only in exceptional circumstances as part of the Road to Zero Strategy. This can form the basis for local authorities to transition to greener fleets and for TfSE to help promote sustainable procurement practices.

3.2.47. TfSE can play an instrumental role in raising the profile of local procurement and localised supply chain activity by promoting the opportunities this brings and triggering interest across the region. This should start with stating the virtues across resident LPAs (and across departments such as economic development, procurement (HR) as well as transport policy and planning) and bringing in key experts in this field (e.g. Centre for Local Economic Strategies- A Think & Do Tank) to deliver a series of workshops on the practicalities of delivering new practices. LPAs could then be the trailblazers who can cascade the approach to other public authorities and anchor institutes across their respective areas.



3.3 THE INTERVENTIONS

- 3.3.1. A set of dashboards have been developed to help illustrate the range of considerations for public authorities to help deliver optimal conditions for the freight sector and wider society to thrive. The interventions will naturally help cultivate a 'Think Freight' culture amongst decision makers and officers working across public authorities with the aim of satisfying individual and strategic economic, social and environmental objectives.
- 3.3.2. TfSE should initially play an advisory role and set about establishing relationships and contacts with public authorities and developing a workshop series that communicate the virtues of different interventions (as well as sense checking levels of interest). Ultimately public authorities (LPAs, LTAs) will be responsible for decision making and actual implementation but TfSE can aid with the steer and development during the early stages and sharing best practice from across the UK and across the region. Funding will always be a challenge; so TfSE can look to build evidence with partner authorities on an intervention by intervention basis to help get them of the ground.
- 3.3.3. The interventions selected, featuring a combination of vehicle, place and people based approaches, are informed by the recommendations within the TfSE Logistics & Gateway Review and the feedback from stakeholders from the AECOM scoping report undertaken in 2019. The dashboards are self-explanatory but cover the following subject areas:
 - Investment Needed: scored on a scale of high, medium, low for financial commitment;
 - Sector: predominantly 'road' focused but covering all modes of freight;
 - Actors: key stakeholders involved in application/formation of intervention;
 - Risk Level: high level scoring based on a scale of low, medium, high for ease of deployment;
 - **4Rs**: the interventions role in remoding, retiming, rerouting and reducing freight movements;
 - Category: the type of intervention being pursued; and
 - Geographical Applicability: where the intervention could be pursued across the TfSE area.
- 3.3.4. The use cases and objectives section are formatted in the same way as the previous dashboards.

Dashboards

- 3.3.5. The following interventions have presented in dashboard format:
 - Freight Quality Partnerships;
 - Waste Management Partnerships;
 - Emission Zones;
 - Delivery and Servicing Plans;
 - Construction Logistics Plans;
 - Building Regulations;
 - Urban Consolidation;
 - Sustainable Procurement; and
 - Greener Fleets.



DASHBOARD SUMMARY

- 3.3.6. A number of observations can be made as to the value of each intervention (and dashboard) individually and how they can collectively inform the development and delivery of a freight strategy. These have been summarised below:
 - Many of the interventions are focused around influencing the operational framework and condition for the freight industry to simultaneously improve the efficiency of goods moved and reduce the externalities associated with (road) freight and both local and global supply chains. These are low risk, low cost and are designed to help embed a 'think freight' culture and freight 'lens' across decision makers within public authorities. A first step before implementation would be to review current practice (or lack thereof), standardise a process and template a monitoring dashboard.
 - Interventions place strong emphasis on partnerships with industry. For example, Freight Quality Partnerships, providing that they have a clear remit and motivation, can be especially fruitful for focusing on tackling freight issues across different parts of the region and are relative low risk and low cost to set up and mobilise. The same applied to Waste Management Partnerships which could, in theory, apply to any conurbation (although operators work within a free market so business engagement and BID buy are pre-requisites to setting up a preferred supplier).
 - A real focus of attention short term should be about raising and embedding best practice within the land use planning system. DSPs and CLPs, for example, could offer a fantastic return on time and investment providing resource can be committed to set up and monitoring. This offers a chance to proactively shape freight conditions as opposed to responding to a problem. These are low risk and have matured over the years as a ley TDM tool.
 - There are interventions that offer a more holistic set of benefits that go beyond freight considerations and meeting the objectives of a freight strategy. Sustainable procurement as the prime example, looks towards supporting local economic development and would likely gain buy in politically (e.g. through councillors) to mobilise quickly. It is practical and puts the impetus on public authorities to take the initiative (alongside easily identifiable anchor institutions).
 - Longer term, low emission zones are likely to be normalised. Designation should take place concurrently with a package of interventions, including alternative fuel technologies to ensure a just transition for the many operators who don't have the capital resource to adapt at pace (especially with limited grant funding and limited HGV vehicles on the market. However, this is already a regulatory/legislative process that is already ongoing in some conurbations. There is an opportunity to share best practice (do's and don'ts) to investigate roll out over the medium to long term across other towns and cities.
 - There are interventions that need further investigation and partnerships at a granular level and present more of a challenge to mobilise, Urban consolidation, for example, needs to be pump primed initially and a package of measures being in place to unlock the advantages and steer suppliers/organisations to use a facility. Again, public authorities can lead the way but evidence suggests that an approach has to be tailored to place dynamics.
 - Similarly to the interventions for industry, there is an immediate opportunity to set up and mobilise behavioural/operational interventions short term and, in this instance, to create the framework for better freight planning. These are practical interventions with previous traction and technical maturity.

Table 3-1 - Freight Quality Partnerships

INDUSTRY & PUBLIC AUTHORITY PARTNERSHIPS	Investment Needed	Low	Sector	All Sectors	All Sectors Actors		R	lisk evel	Low		
Definition:	There are a number	of platforms that aim t	o foster a greater unde	erstanding and appreciation of	of freight, delivery and servic	ing issues by bringing together	r		Category		
[Trend]	services with local e communication and often triggered by p	sconomic, environment sharing of data to infor articular issues of conc	al and social concerns m decision making ac ern.	s. They can form the basis of ross modes, helping to shape	addressing real world challe e future transport planning a	nges and fostering greater nd strategy discourse. They an	e	Geogra	phical Applicabi		
Best Practice					U	se Cases	·				
	Freight Quality Partnership (FQ Thurrock	 The Thurrock F and logistics ce by offering free 	FQP materialised beca entres alongside more green fleet efficiency	ause of the need to minimise localised concerns around d surveys and fleet recommen	the impact of high HGVs vol elivery and servicing activity dations as part of subscribir	umes on local communities an . The FQP also offered the opp ng to the local ECO Stars scher	d the loo portunity me.	cal road no / to raise s	etwork. Those im tandards amongs		
	Freight & Logisti Advisory Group Scotland	cs Established to s both industry a with active eng	act as a 'soundboard' nd other stakeholders agement taking place	for policies on the movemen and to foster collective partic in recent times around Lorry	t of freight and to help with r sipation; without being a lobt Parking and Rural Freight.	nonitoring delivery of policy to a pying organisation. Having nation	achieve onal org	national o janisations	utcomes and obj organising work		
	Regional Freight Fo (CILT) [Rail, PWW, TDM,	rums The Chartered policy experts. CL] thematic lines	Institute of Logistics & These are both pan n or to attend events an	& Transport (CILT) offer mem ational and at regional level; d days out to comprehend fre	bers (which can include LPA (Gatwick Group, Kent Group sight activities in 'real life' sce	As) the opportunity to attend ov a & Sussex Group, for example enarios.	er thirty) with th	forums to ne chance	explore topical ir to witness best p		
	Events Freight Forum A Freight Forum was established by TfL concurrently with the programming of the Olympic Games and built on 20 months of engagement work with partners are Businesses alongside the RHA, London Councils and many others). The forum helped identify and discuss how to apply joint solutions to adapting the regulato communicating with industry (and customers) and the importance of timing and quality of information.										
Opportunities	Offers a fantastic op clearly defined obje	portunity to reconcile t ctives or triggers for de	he needs and interests velopment/thematic fo	s of industry with the wider ol ocus), can help develop joint,	pjectives of public authorities robust solutions quickly and	to support economic prosperi responsively; into perpetuity.	ty and p	rotect the	environment and		
Barriers	No cost barriers, bu	t risk that another 'laye	r' of engagement and	time commitments, without ta	angible outcomes, will lead to	o low turnout (especially amon	gst sma	ller busine	esses across the f		
Local Relevance	Highly relevant for e Southampton and D port's Strategic Lan running along major	stablishing at a county over may be best suite d Reserve (SLR) and d freight corridors from t	or district scale (for a ed to bringing together eveloping tailored bids the ports to the Midlan	geographical focus) and a re local actors (ABP, Southamp s for capital funding for road a ds and helping scope SRFI le	gional scale (with focus on f oton City Council (LPA), Han access improvements. Them ocations (with Network Rail/l	reight themes) to complement npshire County Council (LTA) a natically, a sub group of the TfS DfT).	the intro and 3PL SE Freig	oduction of s (Amazol ht Forum o	f the TfSE Freight n, Hermes etc) wi could pursue 'Mo		
	*				Impact on Freight Ob	jectives					
	Ec	onomy			Environment						
Freight efficiency			Max	Air quality			Max	Safety			
Improved journey tin impact from and on o	nes, connectivity and i congestion	ntegration between mc	des. Reduced	Reduce the impact of th	educe the impact of the sector through air quality improvements				the safety of the sehicles		
Industry contribution	on		Min	Greenhouse gas emis	Greenhouse gas emissions				Community disturbance		
Improved jobs and o support for inward in	pportunities for the se vestment, land availa	ctor to address skills sl pility, infrastructure pro	hortages, vision	Reduction in greenhous 2050	e gas emissions from the se	ctor to achieve net-zero by		Reduce informal	the impact of freig overnight lorry pa		
Connectivity			Max	Urban realm			Max	Placema	aking		
Improved connectivit	ty to international gate	ways in the TfSE area		Minimising the intrusive protected settings	<i>I</i> inimising the intrusive impact of freight transport on visual amenity and local, protected settings				tegrate freight inte plans, better frei		

	4Rs	Re-route, Re-time, Re- duce, Re-mode								
	Raising Be	st Practice								
ity:		論 								
pacts were associated with proximity and access to the port at member companies and through supply chain vehicle fleets										
ectives. Key aim is to prioritise and coordinate action taken by ng groups around freight specific themes provided a focus –										
sights and contents offered by relevant industry research and ractice and seek support and advice for fellow members along										
cross the freight industry (DHL, UPS, Federation of Small ry framework for the freight industry, the best means of										
societal	wellbeing. A well planned, fo	ocused partnership (with								
reight in	dustry)									
Forum. th a focu de Shift	For example, unlocking port us on understanding timefran – Road2Rail'; delving deepe	centric logistics around nes for unlocking the r into reducing parallel								
	Society									
sector to	reduce the number of accid	Max ents involving								
iht on co rking	ommunities, noise levels, air	Max quality and								
o land us ght data	se planning, development, co	Max onstruction and								

PUBLIC | WSP January 2022 Page 49 of 67

Table 3-2 - Waste Management Partnerships

WASTE MANAGEMENT PARTNERSHIP	Investment Needed	Low	Sector	Waste Management	Actors	Public/Private	Ri Le	isk evel	Low		
Definition:	Business Improvem	ent Districts (BIDs) (of	which there are over 30	0 across the UK), Chamber of Trade (CoT) and other business led groups developing a					Category		
[Trajectory]	contract framework recycling, reduce bu concerns about HG regulate the industr	with a waste managem isiness costs and minin Vs mixing with vulnerab y.	ent provider on benait on hise vehicle movement a hie road users. The basi	around the city centre. This can help to c premise is to consolidate waste colle	ections into fewer v	vice that would increase improve air quality and allevia rehicles and seek to informally	eviate Geographical Applical				
Best Practice					Use	Cases					
	SUEZ & Bath Bl Trade Waste Partnership [Bath}	D The Bath BID r streamlining the public realm in costs of collect	as been working in part e city's trade waste colle this World Heritage Site ions and SUEZ optimise	nership with SUEZ (formerly SITA) for ection and recycling service is to reduce Rates are 25% less for levy payers, so vehicle loads during collections.	r the past seven ye ce congestion and with on site suppo	ears to provide a streamlined a city pollution by reducing the n rt from SUEZ to foster better re	nd exce umber ecyclinc	ellent cityv of waste o g practices	wide trade waste collection operatc s and reduce the		
	Bristol Waste & Broadmead Bl Zero Emission Collections	Broadmead BII Bristol commun packets to redu	D's partnership with Bris hity, bringing together bu lice general waste stream	tol Waste enables all levy-payers to ta isinesses across Bristol by reducing a n; with packets a being donated to Br	ake advantage of d nd re-using waste. istol Zoo Gardens,	iscounted, and very competitiv There is plenty of B2B moven who send them to Walkers, wh	re, price nent too no ther	es. Bristol o as Bristo n sends ba	Waste is proud r ol Waste would lil ack a small rebate		
	Better Bankside BID All Better Bankside businesses are eligible to sign up for subsidised recycling service with Paper Round offering an allocation of sacks (and 15% discount on for requirements (dry recycling). Paper Round will work with the business to arrange collections times and dates that work for the business. They can also come in were recycling rates can be improved and additional savings made and work with other partners to collect and recycle more unusual consignments.										
Opportunities	Fostering better rec	ycling activity and reduc	cing business overhead	s through behaviour change technique	es. Reduces HGV ı	movements and allows for rout	ing opt	timisation	to save provider		
Barriers	The challenges of o	perating within an unre	gulated market where o	ther commercial providers are still pre	sent. Needs buy in	by business community and p	olitical	will to wo	rk effectively.		
Local Relevance	The TfSE area has Chamber of Trade (modes for the collect focus on wider recy levy payers/membe Fratton).	a high concentration of CoT), although their lev ction and servicing of bu cling and environmenta rs (Peer 2 Peer). There	BIDs relative to the rest rel of activity varies sign usinesses within its boun lly friendly practices and is a prime opportunity t	of the UK (Lichfields <u>, 2018</u>), particula ificantly. CoTs can act proactively, con ndary. No known waste partnerships e I catalyse a discussion on the role and o dovetail successful Transforming Ci	rly around the orbi ordinate future was exist in the TfSE and I impact of deliverion ties Funding acros	tal road network and spread ad te management activity to reduce a so proof of concept (includin es (B2C), the scope for reverse s the Solent and through the F	cross th uce bus ng a tria e logist uture H	he souther sinesses o al) would l tics (C2B) ligh Stree	rn coastline (cove overheads, minim be ideal to trigger and options that ts Fund (Dover T		
				Impac	t on Freight Obje	ctives					
	Ec	onomy			Environment						
Freight efficiency			Max	Air quality			Med	Safety			
Improved journey tim impact from and on o	nes, connectivity and congestion	ntegration between mo	des. Reduced	Reduce the impact of the sector through air quality improvements and a reduction in other forms of pollution and intrusive activities					the safety of the ehicles		
Industry contribution	on		Мах	Greenhouse gas emissions	Med	ed Community disturbanc					
Improved jobs and of support for inward in	pportunities for the se vestment, land availa	ector to address skills sh bility, infrastructure prov	nortages, /ision	Reduction in greenhouse gas emissions from the sector to achieve net-zero by 2050					Reduce the impact of free informal overnight lorry p		
Connectivity			Min	Urban realm Max					aking		
Improved connectivit	ty to international gate	eways in the TfSE area		Minimising the intrusive impact of freight transport on visual amenity and local, protected settings							

	4Rs	Re-duce							
	Eco Lo	gistics	1						
lity:		台 間)回.							
and recycling service for the BID area. The purpose of rs in the city each day and improve the appearance of the weight of commercial waste. Companies save over 20% on									
ot to be just a waste collection company, but also a part of the e to, for example, encourage businesses to recycle crisp e (circular economy).									
ood wast to the bu	e sacks) and a subsidised ra usiness and carry out a wast	inge of other collec e audit to identify a	tion reas						
costs/se	cure demand.								
ring the larger conurbations), Most towns also have a ise vehicle trips (and shadowing) and support alternative wider adoption. This initiative would help bring together a businesses could pursue for moving goods and items between own Centre & Waterfront, Newhaven, Chatham, Thanet and									
	Society								
sector to	reduce the number of accid	ents involving	Med						
			Max						

ight on communities, noise levels, air quality and arking Max

nto land use planning, development, construction and eight data

\\S[]

Table 3-3 – Low Emission Zones

EMISSION ZONES	Investment Needed	Medium	Sector	R	Road Transport	Actors	Public	F	Risk ₋evel	High	4Rs	Re-mode, Re-duce, mode	Re-
Definition: [Trend]	An Emission Zone the zone. No vehicl	is an area where target e is banned in the zone	ed action is taken to e, but those which d	o improve o not have	prove air quality, in particular by discouraging the most polluting vehicles from entering ot have clean enough engines will have to pay a daily charge if they travel within the area.			ng area		Category	Reg	gulatory	
[]	There are different jurisdiction of nation	types of measures to o nal government departr	ffset the impact of v nents).	ehicle traf	iffic on air quality that can be imple	emented by local	authorities (often under the		Geogr	aphical Applicability:	司 편.		
Best Practice						Us	e Cases						
	Ultra-Low Emiss Zone (ULEZ) London	ion The Ultra-Low expands to co the amount of charged upon	Emission Zone (UL ver a broader area (pollution from traffic entry to the zone, b	EZ) opera (within the c remains o out not ban	rates 24 hours a day, 7 days a wee e North and South Circular Roads) one of the best ways of improving nned.	ek, every day of t). Despite recent) air quality. The [,]	ne year (except Christmas Da mprovements in air quality, t vehicle standards for entering	ay). It cov coxic air p g these C	vered the collution r CAZs will	e same area as the Conge remains the biggest enviro be Euro VI for diesel and I	stion Charge zone until 25 C nmental risk to the health of Euro IV for petrol, any non-c	October 2021 when it f all Londoners and redu compliant vehicles will be	icing e
	Air Quality Speed Trials UK	Limit Trialling 60mp reduced from	h speed limits on sh 70 to 60mph at six k	nort section ocations. T	ons of the Strategic Road Network The eight locations, mainly in the	where action neo North of England	eds to be taken to reduce em were where NO ₂ levels exce	issions a eed the le	and impro egal annu	ove air quality. This trial sh ial mean limit level of 40 μ	ould result in a reduction in g/m³.	NO ₂ when traffic speed i	is
	Green Travel Districts Pre-requisite to the Clean Air Zone, the Green Travel Districts sought to focus investment on public transport, walking and cycling to try to encourage people to use cars less, with the city's road infrastructure stretched. The vision for those districts is less congestion, less pollution and fewer accidents to contribute towards Birmingham's carbon and air quality targets. GTDs build on the experiences of Birmingham's Smarter Choices programme by integrating travel awareness on a local level within a wider policy and infrastructure framework and where there were higher concentrations of commercial activity.												
Opportunities	The core objectives of reducing air pollution through regulation and legislation to reduce the number of high emitting vehicles and overall emissions on urban roads and nudge changes in freight practices												
Barriers	Needs government is currently prohibit	approvals and strong l ive as well as developir	ocal political backin ng a network of supp	g. Will be porting infr	less effective if undertaken volunt frastructure (at pace).	arily or if the app	roach does not suggest char	ging moo	dels are a	applied. Will have dispropo	rtionate impact on HGVs. T	he cost of cleaner vehic	les
Local Relevance	There are a numbe contribute the most peak periods. Introd opportunity to deplo alternatives availab firms time to adapt. pollution can be wit	r of emission zones col towards NOx emission ducing regulations (whi- by greater enforcement le commercially for HG TfSE should consider nessed along the M25	ming to fruition in 20 is in Southampton. A ch includes road use measures (through Vs. Regulations mu a deployment hierau (outside the Londor	021/2022, Air Quality er charging ANPR teo st be com rchy to sup o ULEZ an	, including in Southampton and Po y Management Areas (AQMAs) ar- ng) would need agreement locally echnology) to manage access and nplemented, as part of an urban fro upport changes in behaviour throug nd arguably a consequence of the	rtsmouth, that wi e often concentra and sign off from apply charges ac eight manageme gh varying levels intervention) and	I attempt to minimise tailpipe ated along SRN and port accordingly. There are potentian to 'package', to enable a just of regulation; depending on a the major conurbations acro	e emission ess roads egin the p ally stark transition air quality oss the Tr	ns from g s as a co process o ramificat n that lim y threshol fSE area	general private, public and insequence of traffic mixing if nudging behaviour chang ions on the haulage indust its the financial repercussi lds, progress with alternati	freight traffic from ICE vehic g and heightened HGV volu ge through re-moding and re try, especially with limited na ons on the road haulage se ve fuels and other intervent	cles. LGVs and private c mes – particularly during educing journeys; with th ationwide clean fuel ctor and allows haulage ions. The most acute	ars ງ າe
					Impac	t on Freight Obj	ectives						
	Ec	conomy				Environment					Society		
Freight efficiency			N	led Ai	ir quality			Max	Safety			М	led
Improved journey tim impact from and on o	nes, connectivity and congestion	integration between mo	odes. Reduced	Re	educe the impact of the sector throeduction in other forms of pollution	ough air quality in and intrusive ac	nprovements and a ivities		Improv goods	e the safety of the sector t vehicles	o reduce the number of acc	idents involving	
Industry contributio	on		N	led Gr	Greenhouse gas emissions Ma				Max Community disturbance				lax
Improved jobs and op support for inward inv	pportunities for the se vestment, land availa	ector to address skills s bility, infrastructure pro	hortages, vision	Re 20	eduction in greenhouse gas emiss 050	house gas emissions from the sector to achieve net-zero by			Reduce informa	e the impact of freight on c al overnight lorry parking	communities, noise levels, a	ir quality and	
Connectivity			N	led Ur	Urban realm Min			Min	Placen	naking		M	lax
Improved connectivit	ty to international gate	eways in the TfSE area		Mi	Minimising the intrusive impact of freight transport on visual amenity and local, Better in servicing				integrate freight into land ι ng plans, better freight dat	ight into land use planning, development, construction and trer freight data			

	4Rs	Re-mode, Re-duce, Re- mode							
	Regulatory								
lity:									

wsp

Table 3-4 - Delivery & Servicing Plans

DELIVERY & SERVICING PLANS	Investment Needed	Low	Sector		Planning Policy	Actors	Public	Ri Le	isk evel	Low		
Definition:	A Delivery and Serv	ricing Plan (DSP) sets o	but how building o	ccupiers	s will enable safe, clean and efficient	deliveries to their s	site. These are typically a		I	Category		
[Trend]	activity across a site make efficient use c	 DSPs can apply to explore a contribute 	kisting sites (that c towards Corporat	don't hav te Socia	ve such a planning condition) where the Responsibility (CSR).	there may also be	opportunities to save costs,		Geograp	phical Applicabil		
Best Practice						Use	Cases					
	Delivery & Service I Guidance Transport for Lon	PlansTransport for L are considered and mitigate th	ondon (TfL) have at the forefront of e externalities fror	develop f develo m freigh	bed a detailed set of DSP guidance to ping new residential or commercial d t movements on new and existing co	o help showcase a wellings; often with mmunities. DSPs	nd illustrate the stages that loc n the aim of ultimately discharg are a specific policy requireme	al auth jing a բ nt in th	orities and blanning co le spatial p	d developers (and ondition for a site plan for London, t		
	Pathfinder Towr Trailblazer Proje UK Towns	The TRAILBLA interventions a Sutton, Croydo practice in freig	ZER project (Trar cross Europe by s n and Lambeth). ⁻ ght energy efficien	nsport a showcas The evic icy amoi	nd Innovation Logistics by Local Auth sing good practices and promoting DS dence from the project suggested that ngst local and regional authorities, as	norities with a Zest SPs. The key objec It this led to a redu Is well as the private	for Efficiency and Realisation ctive of the project w to implem ction in energy use as a result e sector	has ac ent the of DSF	chieved a e actions c Ps, a trans	reduction in ener contained in the D sfer knowledge to		
	Delivery & Servic Plan Toolkit Birmingham Ci Council	Delivery & Servicing Plan Toolkit Birmingham City Council Birmingham City Council created a toolkit to support the development and implementation of Delivery and Servicing Plans (DSPs) by businesses and organisat Travel Districts (GTD) and business engagement across service centres located on arterial routes through the city. This was based on a desire to encourage be servicing activities as part of a one to one survey, interviews and observational analysis of sites.										
Opportunities	Embedding best pra	actice into key decision	-making processes	s and su	upporting integrated land use and tra	nsport planning. M	itigates externalities from deve	lopme	nts and op	ptimises freight jo		
Barriers	Needs to be proper	y enforced and monito	red to ensure com	pliance.	. A 'stick' needs to be applied to have	e an impact, which	may need to go beyond just th	e neec	l for a plar	n to be developed		
Local Relevance	DSPs are a missing similar arrangement determine their effect freight/servicing req need addressing to Berkshire Freight St	component of planning is already exist). This c ctiveness over time. Th uirements. A toolkit sho reduce congestion, imp trategy (2014) and the s	g conditions for ne an be accompanie e development of buld also have equ prove air quality ar Slough Freight Str	ew devel ed by of a clear ual appli nd progr rategy (2	lopment sites that could be progressi ficer training for delivery, monitoring a toolkit for developers would be highly icability to pre-existing developments ress business/supply chain efficiency 2011).	vely factored into s and compliance (a / valuable and ens so that it can be u . DSPs have been	spatial planning documents ac nd the resource for officer time ure consistency in the develop sed to target freight generator referenced in multiple cases,	oss all). The ment c s and r includir	57 LPAs, latter is pa of plans the olled out a ng the Ker	, based on a new articularly pertiner at can be request across service ce nt Freight Action F		
					Impac	t on Freight Obje	ctives					
	Ec	onomy				Environment						
Freight efficiency				Max	Air quality			Иах	Safety			
Improved journey tim impact from and on c	nes, connectivity and i congestion	ntegration between mc	des. Reduced		Reduce the impact of the sector thr reduction in other forms of pollution	ough air quality im and intrusive activ	provements and a rities		Improve goods ve	the safety of the s hicles		
Industry contribution	on			Max	Greenhouse gas emissions Max			Иах	Community disturbance			
Improved jobs and of support for inward in	pportunities for the se vestment, land availa	ctor to address skills sl bility, infrastructure pro	nortages, vision		Reduction in greenhouse gas emiss 2050	sions from the sect	or to achieve net-zero by		Reduce t	the impact of freig overnight lorry pa		
Connectivity				Med	Med Urban realm Max			Placemaking				
Improved connectivit	y to international gate	eways in the TfSE area			Minimising the intrusive impact of fr protected settings	eight transport on	visual amenity and local,	Better integrate freight integ				

	4Rs	Re-duce, Re-moo Re-route	le,						
	Land Use	Planning	'						
lity:									
d other organisations) go through to ensure freight movements . The guidance is designed to support the planning process he London Plan.									
gy used in urban freight transport through public sector policy SPs produced by PATHFINDER cities/towns (Liverpool, less experienced organisations and the adoption of best									
tions ope ehaviour	ions operating in Birmingham to support the roll out of Green chaviour change through an assessment of delivery and								
urneys									
d to discl	narge a planning condition								
TfSE gu nt so Tfs ted at pr ntres wh Plan (20	idance document/toolkit for SE could take on an evaluation e-application phase for sites here delivery and servicing is 16), East Sussex Freight Str	local application (if on role with LTAs to of a particular size sues are prevalent ategy (2011), the W	no or and /est						
	Society								
sector to	reduce the number of accid	ents involving	Max						
ght on co arking	ommunities, noise levels, air	quality and	Max						
o land us ght data	se planning, development, co	onstruction and	Max						

Table 3-5 - Construction Logistics Plans

	CONSTRUCTION LOGISTICS PLANS	Investment Needed	Low	Sector		Planning Policy	Actors	Public	R	isk evel	Low	
Г	Definition:	A CLP provides the	framework for understa	inding and mana	ging con	struction vehicle activity into and out	of a proposed dev	relopment. They are developed	1		Category	
	[Trend]	early in the planning chain covers all mor contractors, but the codes of practice, n	process and focus spe- vements of goods, wast guidance is produced b amely the Considerate	ecifically on consi e and servicing a by local authoritie Constructor Sche	truction s activity to s and en eme, also	supply chains and how to reduce imp o and from site. The plans are formula forced by them. There are outline an o worth consideration down the supp	act on the road ne ated and implemer Id detailed CLPs w ly chain.	twork. The construction supply nted by developers and their vith affiliated non-compulsory		Geograp	phical Applicabil	
	Best Practice						Use	Cases				
Г		H2020 Programme SUCCESS CIVITAS EU	I2020 Programme for SUCCESS The European Sustainable Urban Consolidation Centres for construction (SUCCESS) project aimed to improve the efficiency and reduce negative impacts of the and innovative solutions. Different solutions were tested in four pilot sites in the partner countries, Valencia, Paris, Verona and Luxembourg City which including appropriate solutions (e.g. e-collaboration tools, GIS) to reduce cost and transit time of construction materials, the number of journeys and/or the number of kilo and the flexibility regarding delivery of supplies to construction sites.									
		Construction & Log Plans (CLP) Transport for Lon	Construction & Logistics Plans (CLP) Transport for London alongside CLOCS have produced a best practice guidance document for developers and local authorities to help mitigate the externalities looking to write either an effective outline CLP or a detailed CLP as well as explaining in further detail the difference between the two. Templates and tools have save time and costs with developing the plans and helping to steer the content required. CLPs are a specific policy requirement in the spatial plan for London, the									
		Construction Logistics Plan Framework Croydon Council Croydon Croydon Croydon Croydon Croydon Croydon Croydon										
	Opportunities	Embedding best pra	actice into key decision-	making processe	es and m	itigating externalities from new devel	opments. Supply o	chain efficiencies and collabora	ition sa	ave time a	nd reduce costs.	
	Barriers	Needs to be proper	y enforced and monitor	ed to ensure dev	veloper a	nd supply chain compliance. Succes	s is built on sound	cooperation between different	stakeł	nolders to	be meaningful.	
	Local Relevance	Similarly to DSPs, C planning permission city centre locations benchmarking impa	LPs are often a missing I. These can be outline which are spatially con cts.	g component of t or full CLPs with strained and who	he local clear gu ere HGV	development planning architecture to idance/toolkit being developed to cor access should be limited to improve	help mitigate the nplement the roll c (the perception of	externalities from construction out of the condition. CLPs are r) road safety. TfSE would agai	activit <u>y</u> elevan n take	y. Each Lf it in all cor on an eva	PA should seek to ntexts; whether it i iluation role and s	
						Impac	t on Freight Obje	ctives				
		Ec	onomy				Environment					
	Freight efficiency Improved journey tim impact from and on c	es, connectivity and i	ntegration between mo	des. Reduced	Max	Air quality Reduce the impact of the sector thr reduction in other forms of pollution	ough air quality im and intrusive activ	provements and a /ities	Max	Safety Improve goods ve	the safety of the s shicles	
Industry contribution Max Greenhouse gas emissions Max Comparison Improved jobs and opportunities for the sector to address skills shortages, support for inward investment, land availability, infrastructure provision Max Greenhouse gas emissions from the sector to achieve net-zero by 2050 Max							Commu Reduce to informal	n ity disturbance the impact of freig overnight lorry pa				
	Connectivity Improved connectivit	ad jobs and opportunities for the sector to address skills shortages, reduction in greenhouse gas emissions from the sector to achieve her-zero by reducted information tor inward investment, land availability, infrastructure provision Med Urban realm Max Placema ed connectivity to international gateways in the TfSE area Med Urban realm Max Placema								iking tegrate freight into plans, better freig		

	4Rs	Re-duce, Re-rout Re-time	e,								
	Land Use	Planning									
lity:											
e construction supply chain by exploring and testing reliable using guidance material and tools to assess data and use metres per vehicle (GHG emissions) and improve the reliability											
s from de e also be he Lond	evelopments. This guidance een designed that can be cor on Plan.	document assists th npleted by develop	nose ers to								
plementation of a macro level 'Framework CLP' considers vidual sites in isolation. This would make it easier to integrate olidation of deliveries leading to a reduction in the number of											
o embed is a new seek to d	the requirement for a CLP in site within a burgeoning log levelop some consistency in	nto the conditions s istics site near the s approach to help w	et for SRN or rith								
	Society										
sector to	reduce the number of accid	ents involving	Max								
ght on co arking	ommunities, noise levels, air	quality and	Max								
o land us ght data	se planning, development, co	onstruction and	Max								

Table 3-6 - Building Regulations

BUILDING CODE REGULATIONS	Investment Needed	Low	Sector	Planning Policy	Actors	Public	Risk Leve	Low				
Definition:	This measure involvensuring that they have	ves the use of building reacted ave suitable off-street d	egulations to ensure that	new business premises provide adec	quate space for go	ods handling and storage. By		Category				
[I rend]	obstruction due to the most relevant ta	ne high number of delive rgets for this measure a	ery trucks and the related is they generate very free	l heavy burden on public streets can quent deliveries.	be reduced. Marke	ets, bars, and restaurants are	G	ographical Applicabi				
Best Practice					Use	Cases						
	Servicing Adaptati Mercat de la Conc [Barcelona]	ons The remodelling eptió business establ premises. New	g of the Mercat de la Cor ishments and stores, wit bars and restaurants hav	nceptió in 1998 was the start of the in h the objective of reducing the numbe ve to build a storage area with a minir	itiative to provide o er of on-street oper num size of 5 m² c	off-street cargo handling space rations. The ordinance states t for 5% of their total floor area.	in public r nat all nev	narkets regulations to t v buildings of at least 40				
	BREEM Certificat BREEM	ion BREEAM is an use, health and people who live	assessment undertaken wellbeing, pollution, trar and work in them, help	by independent licensed assessors un sport, materials, waste, ecology and protect natural resources and make for	using scientifically l management proc or more attractive p	based sustainability metrics an esses. This means BREEAM r property investments.	d indices ated deve	which cover a range of lopments are more sus				
	Loading Docks Sa Logistics UK	Loading Docks Safely Logistics UK Logistics UK Logistics UK Logistics UK Logistics UK Logistics UK Logistics Loading docks present a number of significant risks that require careful management. Differing specifications for docks and vehicles, visiting drivers, a warehouse staff all contribute to potential problems.										
Opportunities	To reduce enforcem	o reduce enforcement requirements, road user conflict and congestion alongside user safety during delivery, collection and servicing activity; Would set best practice.										
Barriers	Would require cross	department collaborati	on within local authorities	s to deliver working with developers.	Sites may also be	physically constrained or need	retrofitting	រ and unable to accomr				
Local Relevance	Applying or updating and particularly the or a sense check to Management depar Equipment/Shoresic yards/space and de	g building regulations co intensification of housin ol into the process can tments, including parkin de Energy Networks). W livery points that can blo	ould start the process of r g and commercial activity nelp to raise standards. <i>A</i> g standards (max/min re lith road safety being a p end into a setting	normalising freight considerations into y in larger conurbations (e.g. Medway A broader discission, led by TfSE, wo quirements), warehouse and transpo articularly sensitive issue raised durir	o the design and pl / Towns, Solent cit uld entail developin rt terminals (LTAs/ ng the TfSE Scopir	anning process of new develop ies). There is limited consisten ng a better understanding of cu Network Rail) and other infrast ng Report, there is an opportun	oments; e cy in the a irrent prac ructure pi ity to proa	specially given the fore application of building re- tice and building regula ovision to ensure the h actively build in standare				
				Impac	t on Freight Obje	ctives						
	Ec	onomy			Environment							
Freight efficiency			Med	Air quality		ח	/lin Sa	fety				
Improved journey tim impact from and on o	nes, connectivity and i congestion	ntegration between mo	des. Reduced	Reduce the impact of the sector three reduction in other forms of pollution	ough air quality im and intrusive activ	provements and a rities	lm gc	prove the safety of the ods vehicles				
Industry contribution	on		Min	Greenhouse gas emissions		Π	/lin Co	mmunity disturbance				
Improved jobs and o support for inward in	pportunities for the se vestment, land availa	ctor to address skills sh bility, infrastructure prov	ortages, ision	Reduction in greenhouse gas emiss 2050	sions from the sect	or to achieve net-zero by	Re inf	Reduce the impact of frei informal overnight lorry p				
Connectivity			Min	Urban realm		N	lax Pl	acemaking				
Improved connectivit	y to international gate	eways in the TfSE area		Minimising the intrusive impact of fr protected settings	eight transport on	visual amenity and local,	al, Better integrate freight servicing plans, better					

	4Rs	Re-route, Re-duce							
	Land Use	Planning							
lity:									
ouild off-s 00 m² ha	uild off-street delivery areas or storage areas within newly built 10 m ² have to arrange at least one delivery zone within their								
environn tainable	nental issues. Its categories environments that enhance	evaluate energy and water the well-being of the							
veloped and the la	a guide for delivering safe, e ack of direct communication	fficient, and sustainable between drivers and							
nodate s	ervicing yards.								
cast grov egulation ations en ighest sta ds that re	with in mixed use developments to this effect so embedding forcement by different LTAs andards of energy efficiency educe user conflicts and the o	nts across the TfSE area g best practice principles Transport Development (e.g. Port Handling development of servicing							
	Society								
sector to	reduce the number of accid	Max ents involving							
ght on co arking	ommunities, noise levels, air	Max quality and							
o land us ight data	se planning, development, co	Max onstruction and							

\\S])

Table 3-7 - Urban Consolidation

URBAN CONSOLIDATION	Mode Relevance	All Freigh	nt Sector	Last Mile Logistics	4 Rs R	Re-mode, Re-rou	te	Technical Maturity	Initial real-world operation	Commercial Maturity:	Commercial Launch	
Definition:	Freight consolidation exploits	is the economies of aggregation by comb	oining mult delivery a	iple shipments destined for a geograp	hic region into a s	single load where	upon fferently a	t	Category	С	onsolidation	
[Trajectory]	various points in the logistica warehousing units; with LGV and is more interwoven withi	al chain. Remote consolidation, as implie /s delivering consignments across a broa in a city centre context.	ed, takes p ad area. M	lace on the periphery of an urban area licro consolidation is often associated	a usually aggrega with zero carbon	ating deliveries in delivery over the	larger last mile	Geograp	hical Applicability:			
Best Practice					Use Cases							
	Zedify Zero emission hub [Bristol}	Zedify received a £100,000 grant to se 95% of deliveries can be made by elec electric cargo bike, or other sustainable Bristol, and therefore creates savings i	et up a zero ctric vehicl e last mile in CO ₂ em	o emission delivery hub in Bristol to en es. The zero-emission hub is located o mode of delivery, to make the part of issions and improves air quality in the	nable their fleet of on the edge of Br its journey to the locality. Zedify B	f electric cargo bil istol where it inter recipient of the d ristol's new depot	kes to mak rcepts deli elivery. Th t is part of	e sustainable la veries bound for is mode prevent a national urban	st mile deliveries across the city centre. Here, fr s vans and HGVs from network, with nine othe	s the city centre. It is eight is processed ar having to access the er micro consolidation	hoped that within 10 years, nd then re-moded on to congested centre of n hubs across the country.	
	Travelwest Bristol Bath Freight Consolidation Centre	Bristol Freight Consolidation Centre wa number of onward trips was seen by th the consolidation centre, just 2 or 3 on viable; with management now shifted t	as initially ne freight o ward jourr to DHL to o	set up as a pilot scheme in 2004 with consolidation scheme subsidised by Br neys to the central area were made. Th operate and run.	European funding ristol City Council ne return trip prov	g to help alleviate I to serve the cent vided the opportur	issues as tral area b nity to retu	sociated with fre etween 2004 an rn packaging ma	ight in Broadmead, Bris d 2018. This meant that iterials for recycling. Th	stol. At its peak, a 70% tor every 10 vehicles is has only recently b	% to 80% reduction in the s that made a delivery to become commercially	
	CoMoUK Mobility Hubs Guidance	CoMoUK Mobility Hubs Guidance Mobility Hubs' will provide an array of mobility, commercial and community services to a surrounding area and will allow people to lead low-car lifestyles by co-locating the movement of people with the services that they might commonly need on their daily journeys. One such service that could be provided is a micro-consolidation hub where freight can arrive for distribution across a local area. Furthermore, the movement of goods and people also offers an opportunity for travellers to access 'click-and-collect' services and access parcel lockers.										
Major Market Failures	Elcidis UCC Urban consolidation Centre [La Rochelle] La Rochelle] La Rochelle] La Rochelle] La Rochelle Urban Community has been implementing a last mile urban freight delivery service using electric vans and trucks for more than 15 years, based on receiving conventional heavy goods vehicles (HGVs) and transferring goods to electric vehicles to make the last mile delivery. The assessment on the freight movements captured by the Elcidis UCC revealed that the service is not fully delivering the expected environmental and financial gains (capturing 100 freight movements per day out of 670 (15%) in the city centre generated by freight carriers - or 4% of 2,288 movements per day overall). Reasons for failure included: Location – not being located on strategic routes in La Rochelle, Regulatory framework - does not incentivise the use of the UCC, or indeed electric vehicles. Complementary functions - No additional services beyond the distribution of goods are offered (e.g. recycling processing facility for reverse flows).											
Opportunities	Links with mobility hubs and	I transport interchanges for interface with	space ca	pacity on public transport, consolidatio	on as a means of	re-moding for the	last mile	of delivery.				
Barriers	Extra cost incurred as a resu	ult of additional handling of goods. Appro	ach shoul	d look to be industry led and embedde	ed to ensure syne	ergies with busine	ss supply	chains to reduce	public subsidy depend	ence.		
Local Relevance	Urban Consolidation takes p by public authorities, only the will need to work around iden institutions, high business in granular detail that LPA/LTA	place already via closed networks with ind e Sustainable Distribution Centre (SDC) entified triggers and work with industry ba iterest/engagement and buy in, communi as can steer.	dustry usir at Southa sed on pri ity engage	ng hierarchies of centres to deliver goo mpton, operated by Meacher's Global nciples such as: proximity to the SRN, ment/sponsorship/partnering and 'ripe	ods across the Tf Logistics, offers watercourses ar 'and/facility (me	SE area (Royal M a best practice ex nd rail stations, int eanwhile space/ex	lail being t cample. Si troduction cisting indu	he best example milarly to the sui of access restric istrial units with	nationwide). However, tability of zero emission tions and regulations (r EV charging capacity, h	in terms of open acc last mile deliveries, p nandatory vs volunta igh eaves, 24hr acce	eess sites delivered in part public (urban) authorities ry), presence of anchor ess etc). This delves into the	
				Impact on Freight	Objectives							
	Econo	omy		Envi	ironment					Society		
Freight efficiency Improved journey time connectivity to save ti	es, optimised use of fleets, dela me and costs	ay mitigation and improved supply chain	Max	Air quality Reduce the impact of the sector thro and a reduction in other forms of po	ough air quality in Ilution and intrusi	nprovements ve activities	Med S	Safety mprove the safe loods vehicles	y of the sector to reduc	e the number of accid	dents involving	
Industry contribution Improved jobs and op land availability, infras	n portunities to address skills sh tructure provision	nortages, support for inward investment,	Max	Greenhouse gas emissions Reduction in greenhouse gas emiss net-zero by 2050	ions from the sec	s from the sector to achieve Med R ^r		Community disturbance Reduce the impact of freight on communities, noise levels, air quality informal overnight lorry parking			r quality and	
Connectivity			Max	Urban realm Max Pla			Placemaking			Max		
Improved connectivity international freight m	seamless intermodal activity t ovements across the area	to support local, national and		Minimising the intrusive impact of free and local, protected settings	impact of freight transport on visual amenity tings Better integrate freight into land use planning, development, constructing plans, better freight data				construction and			

real-world tion	Commercial Maturity:	Commercial Launch
ry	Co	onsolidation
oplicability:		

PUBLIC | WSP January 2022 Page 55 of 67

Table 3-8 - Sustainable Procurement

SUSTAINABLE PROCUREMENT	Investment Needed	Low	Sector	Procurement	Actors	Public/Private	Ri: Le	sk evel	Low
Definition:	Starting with in hour contract terms and	se policy changes for p conditions for sustainab	rocuring goods and ser le delivery and opportu	rices to ensure these are 'green' and c nities for re-moding. Changes to procu	an reduce freight r rement can levera	niles; with conditions applied ge a wider benefit pool,	to		Category
[Tenu]	including supporting commitment to livin perishable goods.	g SMEs, and helping to g wages and sound env	improve the social, environmental standards.	ronmental and economic outlook of th loint procurement should also be explo	e town and wider r ored between publi	egion by stipulating a c institutions for essential nor	1-	Geograp)hical Applicabi
Best Practice					Use	Cases			
	Preston Mode Community Wea Building [Preston, Lancash	I The "Preston M alth council is comr offers an oppor their local instit	lodel" is a term applied nitted to implementing tunity for local people t utions can work togeth	to how the council, its anchor institution his approach and, as the "place leader to take back control, to ensure that the er on an agenda of shared benefit.	ons and other partn " for the city is pro benefits of local gr	ers are implementing the prir moting the concept to other a owth are invested in their loca	ciples of nchor ins al areas,	f Commur stitutions i are used	nity Wealth Build in and around Pr to support inves
	Joint Procureme Ryedale, Selby a Scarborough Cou [North Yorkshir	and Joint procurem and with aggregatic ncils public of all are e]	ent means combining t on taking place in the su as. How well these goo	ne procurement actions of two or more pply chain during delivery. The Counc ds are procured to those requirements	contracting author ils of Ryedale, Sell s has a critical impa	ities. The key defining charac by and Scarborough jointly sp act on performance and ability	teristic is: end £53 / to provi	s that ther million ev ide value	re should be only very year on the for money.
	Sustainable Procurement Frame Clean Cargo U	work In order to reduber to reduber to reduber the identifying key	ice their transport-relat mselves against their p activities and best prac	ed impacts and achieve global climate eers and to evaluate their progress in ices that they can implement to impro	objectives, membe supplier managem ve their own sustai	er companies of the Clean Ca ent, within the context of sust nability performance and fost	rgo Work ainability er sustai	king Grou / practices inability im	p have co-develo in logistics. Ship provements am
Opportunities	Reducing freight mi	les and maximising veh	icle payloads by securi	ng constant demand. Opportunities to	re-mode freight ve	hicles by sourcing locally and	embedd	ding this in	i contractual agre
Barriers	Potential to conflict	with competition author	ity, as seen to favour lo	cal companies; but can be avoided by	breaking up large	contract orders into smaller re	equests ι	under a pi	rocurement three
Local Relevance	Sustainable procure and collating togeth area to assess the example that has be to bulk goods purch local scale with pub	ement is a key discussion er local spend and cont mpact that freight requi- een developed in the so mase from local suppliers lic authorities.	on subject that could be tract conditions to unde rements have on suppo outh east with plentiful o s. It would be highly rec	facilitated by TfSE, starting across all rstand the extent to which procuremen rting the local economy. The approach pportunities for the likes of university a pommended that advice be sought from	57 LPAs and invol t is sustainable and towards commun and hospital estates n experts within the	ving benchmarking procurem d reducing freight trips/miles/o ity wealth building has an exp s, schools and libraries, along field, including 'think & do' ta	ent pract lemand. licit ecor side LT <i>A</i> nk, the C	tice, explo This disc nomic and As/LPAs to Centre for	ring shared proc ussion can expa d social message o review a range Local Economic
				Impac	ct on Freight Obje	ctives			
	Ec	onomy			Environment				
Freight efficiency			Max	Air quality			Max	Safety	
Improved journey tim impact from and on c	es, connectivity and congestion	integration between mo	des. Reduced	Reduce the impact of the sector the reduction in other forms of pollution	rough air quality im and intrusive activ	provements and a <i>r</i> ities		Improve f goods ve	the safety of the hicles
Industry contribution	on		Max	Greenhouse gas emissions			Max	Commur	nity disturbance
Improved jobs and o support for inward in	oportunities for the se vestment, land availa	ector to address skills sh bility, infrastructure prov	nortages, vision	Reduction in greenhouse gas emis 2050	sions from the sec	tor to achieve net-zero by		Reduce t informal o	he impact of freig overnight lorry pa
Connectivity			Med	Urban realm			Min	Placema	king
Improved connectivit	y to international gate	eways in the TfSE area		Minimising the intrusive impact of find protected settings	reight transport on	visual amenity and local,		Better int servicing	egrate freight int plans, better fre

	4Rs	Re-mode, Re-duo	ce					
	Demand M	anagement	I					
lity:								
			I					
ng within Preston and the wider Lancashire area. The city eston and to the private sector. Community wealth building ment in productive economic activities and that people and								
one ten supplies,	der published on behalf of al services and works needed	l participating autho to deliver services	orities to					
oped a fr opers ad ong their	ped a framework that will enable companies to effectively pers advance their supplier management programs by ong their suppliers.							
ements.								
hold.								
urement nd to larg with ran of optior Strategio	opportunities (with LTAs an ger private sector companies nifications on local sourcing. ns for procurement; from sha es (CLES) who work on a pa	d local public institu within each respect Lewes is the only k ared vehicle fleets th an national, regiona	itions) ctive nown nrough I and					
	Society							
sector to	reduce the number of accid	ents involving	Min					
ght on co arking	ommunities, noise levels, air	quality and	Min					
o land us ght data	se planning, development, co	onstruction and	Min					

Table 3-9 - Greener Fleets

GREENER FLEETS	Investment Needed	Low-High	Freight Sector	Road Freight	Actors	Businesses, Industry Bodies, Public Sector	Ri: Le	sk vel	Medium	
Definition:	Undertaking periodi	c vehicle fleet review ar	id maintain a clean flee	with corporate procurement policy be	eing developed to o	continue with improving fleet			Category	
[I rend]	infrastructure in futu procurement to kee	re investment priorities p up with the shift towar	and strategies respecti ds a net zero-carbon fu	vely. Industry is increasingly exploring ture.	a shift in fleet man	agement practices and vehic	le	Geograp	hical Applicabi	
Best Practice					Use	Cases				
	Cleaner Fleet Pol Derby City Coun [UK]	An attempt by a Emission Hiera lead the way low emergency.	l local authority to repla rchy of Vehicle Procure cally as a major employ	ce their fleet of 48 vehicles (cars & LG ment'; providing the flexibility to take a er and key anchor institution to encou	SVS) with electric b advantage of future rage others across	attery alternatives, which will shifts in the operational, fina the private sector to adopt th	remove s ncial and le same	98 tonnes I environn practices	of CO ₂ tailpipe nental changes a to meet the aims	
	Green Fleet Revi Commercial Gro [UK}	ew Commercial Gr up per cent during came from its o	oup, the UK's largest in 2007. This was partly a wned fleet vehicles. A 3	dependent office services company, tr ttributed to a commitment to a compa 00,000-mile replacement policy was a	ransformed their de ny wide carbon em also introduced acr	elivery scheduling after comm issions reduction after an ext oss the LGV fleet alongside a	itting to a ensive re a commit	a 'greenin eview of it ment to uj	g' of their vehicle s fleet vehicles v pgrading vehicle	
	EV Fleet Transition Lime [US] Lime have pledged to transition its entire fleets to electric by 2030. This is well over 100,000 owned and leased trucks, vans and vehicles used for moving arou commitment to the Climate Group V100. It is working with Ceres to advocate policies internally that will support the transition. Lime are the first micromobility p in the context of improving infrastructure capacity and delivering its local fleet management strategy. It initially started its fleet transition in 2018 by neutralizing carbon offset projects.									
Opportunities	Opportunity for orga	nisations to fulfil their C	SRs and respond to the	e need to transition from diesel and pe	trol vehicles (linke	d to national policy) towards e	electric a	nd alterna	ative fuels on a c	
Barriers	May appeal to large	r organisations with sig	nificant fleet manageme	nt responsibilities but more difficult for	r SMEs to achieve,	especially sole traders given	the cost	t effective	ness of older vel	
Local Relevance	Hugely significant in and become trailbla seek to take the lea approach across oth Support Programme	the context of public an zers in this respect; star d, with TfSE playing a n ner councils that conside e. This included strategy	uthorities across the Uk ting first with LGVs and nediator role to develop ers practical and financ r reviews, procurement	and the South East; with a fraction of then exploring the development of hy a coherent approach towards fuel infr al limitations. Engagement with the Er support and staff training and upskillin	vehicles being ele vdrogen or CNG po astructure and gre nergy Saving Trust ng as well as foster	ectric or hybrid and no commo overed fleet policies dependir en fleet policies that takes ins would be highly advisable ba ing knowledge sharing betwe	on policy ng on a p spiration ased on s en autho	being in p parallel pol from the ' successful prities.	place to green ve licy being put in Derby Model' for I case studies el	
				Impac	t on Freight Obje	ctives				
	Ec	onomy			Environment					
Freight efficiency			Мах	Air quality			Max	Safety		
Improved journey tim impact from and on c	es, connectivity and i congestion	ntegration between mo	des. Reduced	Reduce the impact of the sector thr reduction in other forms of pollution	ough air quality im and intrusive activ	provements and a <i>r</i> ities		Improve t goods ve	the safety of the hicles	
Industry contributio	on		Med	Greenhouse gas emissions			Max	Commur	nity disturbance	
Improved jobs and op support for inward in	pportunities for the se vestment, land availa	ctor to address skills sh bility, infrastructure prov	ortages, ision	Reduction in greenhouse gas emise 2050	sions from the sect	tor to achieve net-zero by		Reduce t informal o	he impact of frei overnight lorry p	
Connectivity			Min	Urban realm			Min	Placema	king	
Improved connectivit	y to international gate	eways in the TfSE area		Minimising the intrusive impact of fr protected settings	reight transport on	visual amenity and local,		Better inters intersections	egrate freight inf plans, better fre	

	Scheme Maturity:	Deployed	
	Procurement		
lity:			
emissions from the air each year. The policy introduces a 'Low cross low emission vehicle technologies. The intention is to of local and national policy and address the climate			
e fleets and managed to reduce fleet carbon emissions by 50 vith almost 90 per cent of the organisation's CO ₂ emissions s to a more fuel efficient, compliant Euro 6 engines.			
nd scooters and associated equipment as part of its rovider engaged in the programme and view its fleet transition all emissions associated with their fleet of vehicles with verified			
omprehensive scale.			
nicles.			
hicle fleets. The public sector should look to lead by example blace for alternative fuel infrastructure. Public authorities should a Low Emission Hierarchy of Vehicle Procurement or the sewhere working across the UK through the Local Government			
Society			
sector to reduce the number of accidents involving			Min
ght on co arking	ommunities, noise levels, air	quality and	Min
o land use planning, development, construction and ight data			Min

4 ROLE OF TFSE

4.1 ACKNOWLEDGING THE CHALLENGE

- 4.1.1. The first step on the journey towards improving the safe, sustainable and efficient movement of goods in the future is to acknowledge the challenges posed by 'freight blindness', particularly across public authorities, and the comparative lack of attention paid towards the industry historically. This can be partly attributed to the fact freight has traditionally been the preserve of the private sector and dictated by market conditions with minimal intervention, investment and strategic steer offered by public authorities.
- 4.1.2. The crux of the challenge is that the freight industry inherently relies on public authorities shaping conditions for the industry to thrive. This is especially pertinent with the drive towards decarbonisation taking place at pace and at scale which coincides with the introduction of new regulations and legislation to reach net zero targets. The pace of change observed across the industry concurrently with emerging trends and scenarios (see Work Package Two) demands partnership working to respond to opportunities as well as confronting the externalities from the way goods are currently moved; now and in the future.
- 4.1.3. Freight is still viewed as an issue to be resolved rather than an opportunity to be explored, with freight 'planning' considered only in few instances as a set of 'bolt on' recommendations. This can be attributed to the image of the industry, the lack of expertise in the field of freight and logistics within public authority departments and the poor or unrepresentative insights into the operational characteristics of the industry. Engagement between the industry, public authorities and local stakeholders has only recently been pursued at scale and with proper deliberation.
- 4.1.4. As a new, devolved entity still taking shape and moulding its future role and responsibilities, TfSE is not in a position to directly change legislation or unlock opportunities through capital or revenue investment in the short term. However, TfSE can address the aforementioned factors through its mediator role and build relationships between and within industry, public authorities and other local stakeholders and developing an approach that falls between awareness building, upskilling and industry initiatives.

4.2 AWARENESS BUILDING

4.2.1. The first and most obvious, cost effective place to start for TfSE is to raise awareness of the role and significance of the freight industry across the South East and its relationship to the rest of the UK; both within the public domain and internally across public authorities, targeting LPAs and LTAs who will be primarily responsible for dealing with issues and opportunities at a granular and strategic level. Image is key. TfSE, through its marketing and communications departments, would seek to apply its (limited) resource to communicating the everyday virtues of freight; clearly illustrating (literally), how it

supports daily life. The pandemic and disruptions to supply chains have exposed the reliance on the industry to fulfil basic social and economic needs.

Proposition One: Fr8 Campaign

To help raise the profile of freight and logistics, as well as TfSE, a concise, targeted mixed method promotional/marketing campaign, delivered through various platforms (e.g. hard copy brochure, video snapshot) and channels (e.g. government departments, councillors, local TV) to convey eight core messages around the role and importance of the industry. This should also communicate, in layman terms, key statistics and showcase the journey items going through to get from A to B along a supply chain (tailored to different scenarios and applying a TfSE lens). The campaign would also present an opportunity for companies based across the South East to partake in raising their respective profiles and link into school visits.

4.2.2. A constructive way for educating people who are engaged or may potentially be involved in freight and logistics is the chance to see how the movement of goods and supply chain activity takes place in 'real life' scenarios across the road, rail and maritime sectors. This would run concurrently with a campaign (Proposition One) but at a more granular scale to help shift the image of the industry and for developing a better appreciation of future needs and requirements across the TfSE area.

Proposition Two: Organised Industry Visits

TfSE, working alongside trade bodies/associations, would be well placed to coordinate the delivery of industry field visits and a programme of events; bringing together a cross section of public authority figures across LTAs and LPAs involved in development control, highways management, strategy and policy to better understand the industry in 'real life'. A programme could fall between thematic lines (and assisted by suggestion two), ranging from:

- Goods vehicle cab rides with SMEs/fleet operators across the haulage industry that could be brokered through CILT (freight carriers, hauliers) or the FSB, CBI (businesses with transport fleets);
- Port field trips to Southampton (large scale, deep sea shipping) to understand growth plans, issues and aspirations, alongside smaller ports, such as Shoreham, to observe their approach towards becoming an PERS accredited, ECO Port, and
- Contact with East Midlands Gateway consortium to capture planning process approvals/ conditions, design codes and 'triggers' for SRFIs and warehousing.

Reverse visits should also be accommodated; with industry looking to arrange visits to LTA and LPA offices to gain a glimpse into decision making processes, plans and strategies.

4.2.3. The overwhelming perspective captured through previous scoping work across the TfSE area (but also more broadly across the UK) is the absence or lack of freight strategies. This echoes the views expressed previously around freight being viewed as an issue rather than an opportunity and the limited expertise and resource available to LTAs to develop plans. For industry, that relies on having a reliable steer and knowledge over investment activities and proposals; updated strategy is key, especially if this can be positively portrayed and framed around key areas such as decarbonisation.

Proposition Three: Updated Freight Strategies

One of the more obvious roles that TfSE could help with steering is the need to update the thirteen existing freight strategies in place across the south east; most of which are over a decade old. New strategies should be informed by the emerging DfT Freight Strategy and would benefit from a consistent approach to data capture and collection whilst cross referencing the output of the TfSE Freight Strategy to ensure full vertical integration of messaging.

Local strategies can take a more granular approach and build on the suggestions for localised approaches to broader themes with consistency of formatting/KPIs/objectives helping with future benchmarking and evaluation of effectiveness. Inevitably, this will all require resource being committed but could help feed up intelligence (e.g. to DfT) and inform future updates to TfSE strategy.

- 4.2.4. A 'quick win' option for TfSE, which would ideally benefit from some degree of national coordination across all STBs, is the development of a best practice repository to complement a 'data catalogue' (see Work Package Two for further details). Just within the TfSE area, the opportunity for public authorities to communicate and agree around shared goals, facilitated by TfSE, should naturally bring together successful (and unsuccessful) examples of freight measures in action.
- 4.2.5. More specifically, it would be beneficial to reflect on the key ingredients for delivering successful freight measures, such as regular communication between delivery partners or optimal timing (and strategic planning) of the project to help unlock a package of benefits. It is equally as important to reflect on the difficulties or challenges with delivering interventions to help mitigate future risks (e.g. Limited future gazing on lorry parking demand resulting in existing infrastructure being underutilised. This is all with the aim of providing a better roadmap to aid public authority decision making and joint working.

Proposition Four: Best Practice Repository

Developing a user friendly, transparent database of best practice freight interventions which, crucially, can communicate the approach (roadmap) towards deployment; with some indication of timescales, spend, key considerations, main actors and 'triggers' for investment. This database would complement the catalogue of suggestions for TfSE to explore across the study area. A virtual platform easily embedded within current LTA/LPA systems/intelligence base or developed as a standalone website, funded jointly by all STBs, would be recommended (see Bristol Traffic Choices BS1) for an easy to use format).

4.2.6. The delivery of strategic infrastructure of national significance, is ultimately reliant on the planning system and decisions made by LTAs and councillors/members representing constituents across the TfSE area. However, the scale and role of schemes, namely 'big box' warehousing and SRFIs close to the SRN and strategic rail connections, local and international markets and labour supply, will need to be leveraged by pan national stakeholders and signed off by the Secretary of State. TfSE can take steer on bringing together industry and public authorities to address notorious, long term challenges about siting major logistics hubs and SRFIs by defining a clear 'developer charter' to guide the conditions for interested commercial property developers.

Proposition Five: Planning Working Group

TfSE can start bringing together key stakeholder contacts representing DfT Network Rail, National Highways, LTAs, LPAs and LEPs to begin the process of defining SRFI and warehousing typologies and scoping out locations. These can then be matched against/floated with industry (operator) partners, namely Rail Freight Operators and 3PLs alongside notable commercial property developers (e.g. Segro/Prologis) to further define locations/conditions.

A working group could act as the screening process for future applications that consider:

- Large SRFIs featuring added value services and distribution/warehousing facilities;
- Multiple smaller hub locations affiliated/attached to existing centres/parks; and
- Upgrades of existing assets (rail terminals/warehousing).

The working group would look to hold responsibility for the proposed 'Logistics Property' Review (see WP3 Recommendations).

4.3 UPSKILLING

- 4.3.1. The structure of the freight industry can be confusing and disparate. Furthermore, being able to read and understand freight data and to apply this knowledge to real life scenarios and decision making can be daunting, especially for those who have limited contact with the profession.
- 4.3.2. One of the obvious challenges to moving away from business as usual in freight planning and strategy is the availability of dedicated resource across public authorities. This type of role would help to deliver expertise in the field across areas of policy and strategy and generally aid with embedding a 'think freight' culture across officers within environmental planning departments.
- 4.3.3. Only where there is a distinct freight-related issue, such as in Kent, has a Freight Officer being employed with the relevant background, expertise and experience to focus on improving current conditions. Whole departments are dedicated to planning the provision of passenger transport and sustainable, active travel (increasingly); dedicated freight resource is sparse. This can be attributed to both securing funding and committing to creating a designated post (demand side factors) as well as recruiting the right candidate with the skills, experience and technical expertise to perform in the role

wsp

(supply side). This ties into Proposition Eight and Nine. LTA core funding and recruitment policy falls outside the remit of TfSE; but they could be influenced through collective lobbying to DfT or a dedicated post loaned to authorities via TfSE. This need for additional resource and expertise applies not only to policy and strategy but for enforcement and monitoring of projects and schemes to aid evaluation/monitoring. For example, the popularity of DSPs and CLPs, viewed as cost effective ways to frontload freight considerations on developments, does require time to accurately assess submissions and, ultimately, compliance.

Proposition Six: TfSE Freight & Logistics Officers

Pending future funding allocations, across all scale of public authority, one option would be to explore developing designated TfSE Freight & Logistics Officer posts to help steer the legacy of a freight strategy and embed a 'think freight' approach across LTAs and LPAs across the South East through raising their capabilities/capacity. Likewise, LTAs/LPAs could help inform the new officers of issues and opportunities in a two way dialogue. Officers could be allocated across geographical areas (outer orbital, economic hubs etc), themes (e.g. lorry parking, warehousing etc) or modes (e.g. sea, aviation, rail, road etc) depending on the possible alignment with existing trade body forums and traffic commissioners (a debate for the existing TfSE freight forum and steering group). This could evoke a national conversation (and network) of officers with close ties to industry and levels of government/governance. Remits would need to be defined but could extend too:

- Development and review of DSP/CLP Toolkits & Guidance (and developing a more robust, but easy to use monitoring process for benchmarking/reviewing compliance
- Management and promotion of accreditation schemes (e.g. FORS); and
- Stakeholder engagement and liaison.
- 4.3.4. Membership of institutions and trade bodies provide good outlets for helping support sector professionalisation. This can apply both to industry and public authority figures who could be encouraged (through structured learning or role requisites) to subscribe to courses to gain accreditation and certificates across freight and logistics related disciplines. This would help to raise standards internally across public authorities, especially if adopted by non-freight specialists, such as urban designers, who will need to consider how street spaces can be tailored to the movement of goods in the future. How this could be practically arranged would require consultation across the TfSE Freight Forum and Steering Group.

4.3.5. There is also a collective opportunity, arranged by TfSE, to bring in service providers who can also offer practical advice to public authorities and industry.

Proposition Seven: Fleet Reviews & Local Economic Strategies 'Learnshops'

TfSE can play an instrumental role in raising best practice across public authorities through a programme of 'Learnshops' to ensure the public sector can become trailblazers for future freight thinking and delivery. This should start with the 'low hanging fruit' and organising a programme for public authority representatives to attend. Two initial suggestions are as follows:

- Fleet Reviews and 'Green Fleet' Policy Procuring the Energy Saving Trust or a Transport Consultancy with plentiful experience with delivering fleet reviews, management and advice, on the shift towards greater fuel efficiency and fuel alternatives; and
- Local Sustainable Procurement Requesting the Centre for Local Economic Strategies (CLES) deliver a Learnshop on local sourcing and community wealth building with LPAs (e.g. economic development departments) across the region. This would then be a catalyst for further, detailed discussions at a local authority level with anchor institutions (e.g. Canterbury would consist of Canterbury City Council. St Martins Hospital, Kent & Canterbury Hospital, University of Kent, Canterbury Cathedral.
- 4.3.6. The knowledge gap and skills demands to support the successful future of freight and logistics cannot be addressed through industry investment alone. The skills of the future must be embedded within vocational courses delivered through service providers as part of burgeoning apprenticeships within industry. However, upskilling is a continuous process that should be accessible to all, especially those with less resource to fund training and qualifications against a backdrop of technological change.

4.4 INDUSTRY INITIATIVES

- 4.4.1. Ultimately, TfSE will need to engage effectively with industry into the future to provide the optimal conditions for growing the sector in line with *A Sustainable Route to Growth*; the preferred 'scenario' for the TfSE Freight Strategy. The first priority will be to retain, but mould, the function of the TfSE Freight Forum and Steering Group (as indicated under the dashboard 'Industry & Public Authority Partnerships' where different 'versions' have been referenced) so it can play an instrumental role in delivering the outcomes from the strategy. Reference should be made to the comprehensive stakeholder engagement strategy, developed during the initial scoping review, as the blueprint for future engagement including the engagement matrix and plan and the categorisation of stakeholders into primary, secondary and tertiary tiers for prioritised contact and communication.
- 4.4.2. Alongside the dashboard interventions developed for industry and public authorities (Chapters 2 & 3), TfSE can aid industry as a facilitator; especially where this involves bringing in other key local and regional stakeholders. One of the more obvious examples includes brokering future educational and vocational opportunities for the next generation of freight and logistics sector employees; drawing in the role and expertise of the LEPs, universities and colleges to embed the local offer.

wsp

Proposition Eight: Skills Manifesto & Hub learning

There are many HGV driving schools and individual training providers offering sessions and courses but are not part of a structured programme or hub to develop the essential skills of the future that could serve a broad audience across the TfSE area. TfSE, alongside the five LEPs and contracted training providers, could be chiefly responsible for establishing a skills manifesto detailing the future requirements of the freight and logistics sector and satellite hub learning locations across the south east. This could include sessions on:

- IT skills for application of emerging technologies (office based essentials) including or extending to website design and knowledge of different logistics/freight tools
- Customer service and communication skills highly relevant on the basis of recently increased demand in home deliveries and direct end-user contact and engagement;
- Contract relationship management Managing customer expectations from contracts but handling these effectively and efficiently;
- Compliance awareness adhering to new rules and regulations and being able to demonstrate compliance with contract needs, which may require complex auditing;
- Analytical / Reporting skills many of the technologies and systems hold a vast array of data relating to performance, so analytical skills are key to effective translation;
- Planning the ability to use historical data as a means to influence future planning; and
- Problem solving skills ability to use real-time data to identify and deal with issues quickly and efficiently.
- 4.4.3. Whilst this does not apply necessarily to driver training, which has separate schools it does hold relevance for those looking towards subjects such as supply chain management, freight forwarding and the central tenets to decarbonisation (e.g. alternative fuels, renewable energy networks etc). As the TfSE area has a burgeoning reputation for sector specialisation and clustering of business expertise, as well as leading universities, future collaboration on course/module development and syllabuses could be approached jointly by TfSE and industry partners alongside delivery partners such as CILT and PTRC (Education & Research Services Ltd).

4.4.4. A quick fire way to raise industry standards, particularly for improving road safety, is to begin the process of embedding accreditation requirements into contract terms and conditions. Public authorities have the power and influence to shape their procurement and supplier contracts for servicing and deliveries (for FOCs directly), as well as through businesses selling goods and services, to drive best practice across the industry and reduce risk. Whilst industry may be inclined to take on the opportunity that this presents to improve fuel efficiency, reduce insurance premiums and enhance reputations, public authorities can make it a requirement on the basis of improving best practice to address the externalities from road freight transport on society, the environment and the economy.

Proposition Nine: Apprenticeships & Placements

The proposed changes to the Apprenticeship Levy by the UK Government may help to mark an acceleration in apprenticeships across the country and provides a good springboard for liaising with industry on future opportunities across the TfSE area. Working in partnership, public authorities, including LEPs, can help promote opportunities for young people with willing businesses and organisations in burgeoning logistics and industrial sectors.

Expanding the number of placement opportunities is another target area that TfSE could help mediate at a high level. Ideally better engagement with industry will help to allude to role and skill shortages to shape future opportunities (STEM subjects look likely to remain the focus of attention) whilst prospective candidates also need to be better informed of careers within freight and logistics which may not an obvious location for entering the workplace. To some extent, pan national industry and public authorities already perform this role through graduate programmes (e.g. Network Rail).

The desire to boost interest and recruitment into the freight and logistics sector, as an important industrial sector and employer across the TfSE area, and address specific labour and skills shortages, is listed under a set of strategy objectives in the TfSE Area Studies Paper alongside the need to improve working environments for employees.



Proposition Ten: FORS Supplier Standards (& CLOCS compliance)

TfSE with public authorities across the South East, can look to broker a relationship with FORS to incorporate FORS accreditation into supply chain contracts and procurement processes whilst also receiving support internally for upskilling drivers and fleet operators as trailblazers for the private sector to follow. This cost-effective approach, which would likely come to fruition on a rolling basis as contracts come up for renewal, is a lever by which to shape industry standards; with industry (e.g. operators and businesses) also benefitting from discounts on other value-added services.

Consideration would need to be given to SMEs (the likely beneficiary of localising supply chains and raising standards), for whom cost will be the biggest determining factor in uptake. The scheme could also look to extend to freight forwarders based in mainland Europe who serve the UK, as a way to address inconsistencies in standards. The aim would be to generate an additional 20% more FORS-accredited companies/fleets over the freight strategy period across the TfSE area.

CLOCS is the other recognised accreditation scheme that LPAs can influence through planning conditions; requiring developers to sub-contract accredited members across the construction industry. The same also applies to Considerate Contractors. All of these need only limited resources and effort on the part of public authorities in exchange for risk management and mitigation. TfSE could also liaise with FORS on generating FORS champions from across industry.

4.4.5. Encouraging and facilitating the transition towards better freight management and planning should go beyond the classroom and 'static' proposals. As implied in the TfSE Area Studies Paper, TfSE can play a proactive role with industry to addressing some of the immediate challenges and emerging scenarios unfolding across the region. The Solent FTZ is an example of a new approach towards the delivery of interventions that engage with multiple local freight-related actors in an agile way of working. 'Living Labs' may help counteract the feedback received through the stakeholder engagement conducted as part of the Freight Strategy Scoping Study. The lack of support for the industry, through funding or otherwise, was the top issue/challenge raised. Other concerns relating to freight routing, restrictions and consistency in policy and standards did not score highly.
NSD

5 CONCLUSIONS

- 5.1.1. This report has sought to break down the future roles, responsibilities and possible actions of the freight industry, public authorities and other local stakeholders to developing a safe, sustainable and efficient freight network of the future. There are a number of triggers that are encouraging industry to adopt new practices and opportunities for public authorities to provide optimal conditions for the industry to address longstanding issues and meet future growth aspirations. The relationship between industry and public authorities, alongside the role of other local stakeholders, is key moving forwards to counteract 'freight blindness' and promote new and best practices that reconcile individual business objectives with broader economic, social and environmental wellbeing.
- 5.1.2. TfSE have a mediator role to play in the short term by brokering relationships between public authorities, industry and local stakeholders such as trade bodies to raise the awareness of freight and logistics, upskill officer and departmental expertise and weave in a 'think freight' lens in decision making. Equally, TfSE can take a strategic stance to deliver consistent approaches to freight planning and management and help LTAs/LPAs deploy these on the ground at the local scale. Whilst industry can look to apply a suite of freight demand management measures, TfSE and partners must provide the conditions for these to work effectively.
- 5.1.3. TfSE should seek to sense check each proposition with members of the freight forum and steering group, particularly public authorities, and seek to apply these under the key 'actions' of the freight strategy, namely awareness building and skills development within the sector. The propositions enter into more granular detail and bringing them to fruition will require a combination of interest and funding availability. There are propositions that would be quicker and easier to mobilise to build on the momentum of the freight strategy being released; namely 2,4,5 and 7.
- 5.1.4. The dashboards that feature throughout this report are valuable reference points for the type of schemes that could come to fruition. Whilst they bring together best practice examples and the benefits of deployment, they also relate back to the objectives of the freight strategy and make direct reference to their (current and future) application regionally. Interventions aimed at public authorities have also being scored based on the investment required and risk scoring; which can help to steer decision making.
- 5.1.5. The key takeaway from this report is the need for TfSE to promote interventions to support industry in response to emerging trends and triggers for change whilst helping to leverage interventions that would support a number of public authority objectives and the capacity for both to work collectively with trade bodies to deliver the aims and objectives of the freight strategy. Ultimately, though, TfSE cannot deliver on its own. It is essential that the public and private sectors collaborate to lead the delivery of the strategic actions and measures necessary to meet objectives.

vsp

London Square Cross Lanes Guilford GU1 1UN

wsp.com