



DECEMBER  
2018

# Merton Local Plan 2020

Stage 2 Consultation Draft October 2018

Iceni Projects Limited on behalf of  
SEGRO

December 2018

ICENI PROJECTS LIMITED  
ON BEHALF OF SEGRO

## Iceni Projects

London: Da Vinci House, 44 Saffron Hill, London, EC1N 8FH  
Glasgow: 177 West George Street, Glasgow, G2 2LB  
Manchester: 68 Quay Street, Manchester, M3 3EJ

t: 020 3640 8508 | w: [iceniprojects.com](http://iceniprojects.com) | e: [mail@iceniprojects.com](mailto:mail@iceniprojects.com)  
linkedin: [linkedin.com/company/iceni-projects](https://www.linkedin.com/company/iceni-projects) | twitter: @iceniprojects

**Merton Local Plan 2020**  
STAGE 2 CONSULTATION DRAFT OCTOBER 2018



---

## **CONTENTS**

<b>1.</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2.</b>	<b>REPRESENTATIONS ON THE DRAFT LOCAL PLAN.....</b>	<b>2</b>
<b>3.</b>	<b>SUMMARY.....</b>	<b>7</b>

## **APPENDICES**

- A1. 'KEEP LONDON WORKING' REPORT
- A2. 'FUTURE OF FREIGHT' INTERIM REPORT

---

# 1. INTRODUCTION

- 1.1 On behalf of our client, SEGRO, we provide our comments below on the draft Merton Local Plan 2020 Stage 2 Consultation Draft, which was published for consultation in October 2018.
- 1.2 SEGRO is a leading owner, manager and developer of warehouses and light industrial property with over six million sqm of space in and around major cities and across Europe. Its portfolio is valued at £10bn serving 1,200 customers. Its Greater London property portfolio includes 12 million sqft of light industrial and urban logistics space in key logistics locations such as Park Royal, Heathrow and the Upper Lee Valley. These properties are home to 400 businesses including Brompton Bikes, Rolls-Royce, DHL, DPD, Post Office, Camden Town Brewery, British Airways and Sotheby's. SEGRO is also the Mayor of London's development partner for the 86 acre East Plus portfolio, which will deliver 1.4 million sqft of modern industrial space by 2024.
- 1.3 As a market leader in this sector, SEGRO routinely monitors the progress of emerging policy within London, and welcomes the opportunity to provide comments and insight on the industrial and logistics market to help inform and positively shape planning policy.
- 1.4 Accordingly, we set out below SEGRO's comments on the overall employment strategy set out within LB Merton's emerging Local Plan.

---

## 2. REPRESENTATIONS ON THE DRAFT LOCAL PLAN

### Chapter 1 – The Vision and Strategic Objectives

---

- 2.1 In light of Merton’s geographical location and socio-economic profile, the Borough is a key strategic location for economic growth within the wider London context, and plays an important role in serving the industrial and logistics needs of the city’s population.
- 2.2 We are broadly supportive of the overall spatial vision for the Borough set out within the Vision and Strategic Objectives chapter of the draft Plan, which identifies the intention to deliver housing and economic growth whilst also improving the local environment and people’s quality of life.
- 2.3 However, in our view it would be beneficial to also identify within this section of the Plan what the development needs for the Borough are. This would provide a clear picture of the context in which this Plan is being prepared, and help to explain the socio-economic imperatives driving the key objectives set out. Given the requirement at paragraph 35 of the National Planning Policy Framework (NPPF) for plans to meet objectively assessed needs, it would be helpful to detail what these needs are, and the level of housing and economic growth being planned for in quantitative terms.
- 2.4 In particular, we consider that it would be beneficial to highlight the importance of economic development over the Plan period, as a crucial aspect of the Borough’s needs that will need to be planned for. The ‘Keep London Working’ report published by SEGRO in 2017 (included at Appendix 1) highlights the importance of urban logistics to the economy of London, which covers all activities involved in the transport of goods within the city. The provision of modern logistics space in the right locations is a critical consideration in the overall functioning of London’s economy. It ensures goods required by businesses and households in the capital are fulfilled and met in ever decreasing timescales. Urban logistics space supports hospitality, health, retail, construction and a wide range of other sectors – all of which are fundamental to the function of Merton’s own local employment market. The report notes however that whilst the growth of this sector presents significant opportunities for economic growth and job creation, it also faces intense competition from other land uses, particularly residential. This is also acknowledged in the recently published ‘Future of Freight’ interim report by the National Infrastructure Commission (NIC) (included at Appendix 2), which notes that in London the demand for freight/ logistics sites (particularly last mile logistics) is significantly outstripping supply, with such needs often overlooked in favour of residential and other land uses.
- 2.5 The assessment undertaken by SEGRO has highlighted the need for ‘hub and spoke’ distribution models where a number of depots (spokes) are required to serve sub-regions of London with goods provided from a larger ‘hub’ location outside of the Capital. These hubs and spokes are necessary to ensure that the increasingly narrow delivery timeframes and rapid delivery responses such as

---

'one-hour' or 'same day' can be achieved. The demand for these facilities is further fuelled by the increasing population that demand the goods. It will therefore be important to ensure that sufficient employment land is identified in suitable areas within the Borough to accommodate these facilities, as emphasised in Policy GG5 of the draft London Plan.

- 2.6 Given the fundamental importance of this issue, we consider that additional detail regarding the local economic need and the proposed vision and objectives for meeting this need should be discussed within the Vision and Strategic Objectives chapter of the Plan, and that further details could be provided within Strategic Objective 6 to indicate the level of growth being planned for in this regard. In our view this would help to clarify what the need for employment floorspace is within Merton, and to what extent the Plan will seek to meet this need. We note for example that later sections of the Plan (e.g. the chapter relating to Mitcham) include reference to the potential reduction in the size of a Strategic Industrial Location (Site Mi1 – Benedict Wharf), and it is therefore unclear whether the overall strategy for economic growth would be sufficient to meet the needs of the Borough, in light of such proposals.
- 2.7 We therefore encourage the Council to acknowledge the importance of economic growth to the future of the Borough, and to detail within this section the quantitative needs of Merton and to explain how these needs will be met in full, in order to demonstrate that the Plan has been positively prepared in accordance with paragraph 35 of the NPPF.

## **Chapter 7 – Economy**

---

- 2.8 In the context of the presumption in favour of sustainable development, paragraph 11 of the NPPF indicates that Local Plans should positively seek opportunities to meet the development needs of their area, and be sufficiently flexible to adapt to rapid change. Paragraph 35 goes on to set out the need for Plans to be positively prepared to, as a minimum, seek to meet the area's objectively assessed needs.
- 2.9 Having regard to the need for employment floorspace in Merton, we understand that the Council has not produced its own evidence base to establish the level of need on a Borough-wide basis. However, the 'London Industrial Land Demand' report<sup>1</sup> published as part of the evidence base for the new London Plan identifies report identifies the London Borough of Merton as a borough which has seen significant and consistent growth in warehouse floorspace between 1998 – 2015. This reflects the increasing demand for warehousing floorspace on the outer London Boroughs, correlating with the increasing demand for e-commerce and last mile fulfilment requirements. As a result of continuing

---

<sup>1</sup> 'London Industrial Land Demand', CAG Consultants (October 2017)

---

strong demand, the projected need for warehouse floorspace and land in LB Merton between 2016 – 2041 is 41,000 sqm or 6.3 ha.

- 2.10 The evidence thus indicates a strong and continuing demand for additional industrial/ warehouse floorspace within the Borough, which the new Local Plan for Merton should seek to positively meet, in accordance with the requirements of the NPPF.

#### **Policy Ec 7.1**

- 2.11 As Policy Ec 7.1 sets out the Borough's strategic policy for economic development, we suggest that it would be beneficial for this policy to identify the need for employment floorspace within the Borough, and clarify the extent to which this need is being planned for in the Local Plan through the allocation and protection of employment sites. In our view this would help to demonstrate compliance with paragraph 20 of the NPPF, which indicates that strategic policies should set out an overall strategy for the pattern, scale and quality of development, and make sufficient provision for a range of development needs including employment. Policy Ec 7.1 does not currently detail the overall scale of employment floorspace being planned for, or the spatial strategy for growth, and consequently we encourage the Council to expand upon the general provisions set out in part c) of the policy, to include the quantity of floorspace being planned for and how the different sources of supply will contribute towards this requirement.
- 2.12 We also encourage the Council to clarify the reference at part c) iv of the policy to protecting and managing the designated Strategy Industrial Locations (SIL). Given the intention to reduce the overall size of SIL land within the Borough, as identified in the table at paragraph 7.2.14, it would be helpful for this part of the policy to clarify that the intention is to protect and manage the remaining SIL, rather than to maintain the extent of the existing SIL land in the Borough.
- 2.13 With regard to the supporting text to Policy Ec 7.1, we support the significant weight given to supporting economic growth identified in paragraph 7.1.1 and the intention to substantially protect and improve the quality of Merton's employment sites set out in paragraph 7.1.10. We further note the acknowledgement in paragraphs 7.1.2 and 7.1.9 of the significant demand for industrial land in the Borough and the relative lack of supply. In this context, we consider that the Local Plan should ensure that appropriate land is identified to accommodate the significant demand for industrial land, and as a minimum, that existing employment sites should be retained and protected, in accordance with Table 6.2 of the draft London Plan, which indicates that industrial floorspace capacity should be retained in Merton, following the general principle of no net loss of designated SIL and LSIS.
- 2.14 We note however the intention of the Council to release an element of SIL, and it is consequently unclear whether the Local Plan will ensure that there is no net reduction of SIL as a result. The supporting text to the policy at paragraph 7.1.11 appears to suggest that some industrial areas are now unsuitable due to potential impacts on local residential amenity and the need for restrictions on

---

businesses as a result. This seems to be the reason driving the loss of some SIL within the Borough. However, no further detail or evidence is provided within the supporting text to Ec 7.1 to explain why the SIL proposed to be released is not suitable to accommodate modern businesses or the extent to which any issues identified would indeed limit demand from businesses to occupy this space. We note that the potential for residential and other uses to co-locate with industrial uses is highlighted within Policy E7 of the draft London Plan, as well as within the 2018 NIC Future of Freight report, and we encourage the Council to consider the extent to which existing SIL could positively and efficiently accommodate industrial and logistics uses without unduly harming the amenity of nearby residents, to ensure the policy is justified and therefore sound, having regard to the requirements of paragraph 35 of the NPPF.

- 2.15 Given the lack of explanation as to how the proposed reduction in SIL within the Borough would ensure the economic needs of Merton are met, and whether any associated net reduction would comply with the draft London Plan, we are concerned that the policy is not currently positively prepared or justified. We encourage LB Merton to review its proposed approach to employment floorspace and SIL in particular, and consider the benefits of protecting and retaining all of the existing strategic employment land within the Borough to ensure that the significant need for industrial and logistics floorspace is positively planned for.

#### **Policy Ec 7.2**

- 2.16 Whilst we note that Policy Ec 7.2 largely focusses on assessing proposals for developments within the identified employment areas, the supporting text to the policy sets out in further detail the proposed strategy for the management of the existing employment areas in the Borough. This includes the proposed reduction in the overall area of SIL within Merton, through the re-allocation of part of the Halowfield Way/ Benedicts Wharf SIL, as indicated in the table at paragraph 7.2.14.
- 2.17 For the reasons set out above in relation to Policy Ec 7.1, we encourage the Council to reconsider its approach, and to seek to prevent any net loss of SIL across the Borough in order to ensure Merton's significant employment needs are adequately met. Paragraph 7.2.13 acknowledges the high levels of demand, high occupancy rates and high rental values resulting from a relative lack of supply compared to demand, and we are concerned that any further loss of SIL will only exacerbate this situation, and would not constitute a positive response to meet the Borough's development needs. We note that paragraph 7.2.13 suggests that the draft London Plan identifies Merton as a 'restricted transfer of industrial land' borough. However, Table 6.2 of the draft London Plan actually refers to "retain capacity", placing a greater emphasis on the retention of existing industrial floorspace capacity. The draft London Plan emphasises the need to retain London's existing capacity to meet the needs of residents, as demonstrated by the research within SEGRO's own 'Keep London Working' report, and to ensure that the desire to accommodate significant residential needs do not override the equally important need to plan for London's economic development. We therefore encourage the Council to ensure the Local Plan adequately reflects this emphasis within the London

---

Plan on the retention of existing capacity, and does not result in the net loss of industrial floorspace capacity. On this basis, we consider that it will be necessary to retain the entirety of the Hallowfield Way/ Benedicts Wharf site as SIL in order to ensure that the Plan is positively prepared in accordance with the requirements of paragraph 35 of the NPPF.

- 2.18 Whilst the SEA produced in support of the draft Local Plan suggests that the re-allocation of part of this site for residential development would have a ‘minor positive’ effect on the Economic Growth and Town Centres sustainability objective, we consider that the reduction in SIL capacity would in fact have an adverse impact on the local economy. As discussed in SEGRO’s ‘Keep London Working’ report, a lack of capacity for urban logistics is detrimental to residents and businesses; a shortage of available space creates challenges for urban logistics companies due to their reliance on proximity to their customer market, and results in them being less efficiently able to respond to the demands placed on their services. The logistics sector plays a key role in supporting economic growth and providing a range of employment opportunities, and any failure to adequately meet the needs of the sector will inevitably limit economic growth.
- 2.19 We therefore encourage the Council to reconsider the overall strategy for the provision of SIL across the Borough, and to ensure that sufficient space is retained and increased as necessary to meet the economic needs of Merton.

---

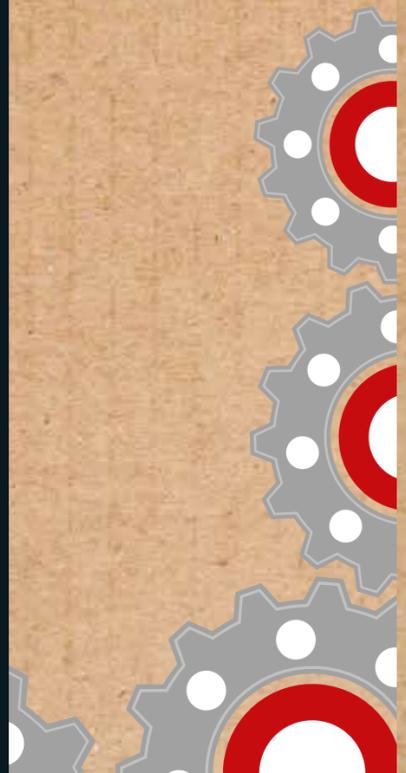
### **3. SUMMARY**

- 3.1 This document sets out our comments on the draft Merton Local Plan 2020 Stage 2 Consultation Draft on behalf of our client, SEGRO.
- 3.2 We support the broad intention to deliver housing and economic growth whilst also improving the local environment and people's quality of life, which is identified within the key objectives and vision for the Local Plan. However, we encourage the Council to more explicitly acknowledge the importance of planning for economic growth, and to clearly identify the scale of need for employment floorspace in the Borough, and how this need will be met by the employment policies of the Plan. In particular, we suggest that the overall industrial floorspace capacity within Merton should be retained, with no reduction in SIL, in order to adequately serve the needs of businesses and residents.
- 3.3 We welcome the opportunity to work positively with LB Merton in the production of the emerging Local Plan, and trust that the above comments will be taken into consideration as the document progresses.

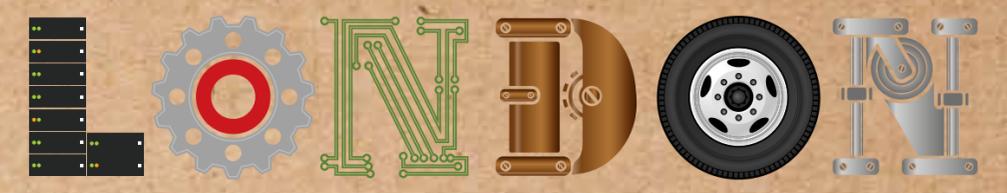
---

## **A1. 'KEEP LONDON WORKING' REPORT**

- ↑
- ES
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2
- A3
- A4
- A5
- A6



KEEP



WORKING



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

### About SEGRO

This report was commissioned by SEGRO, a leading owner, manager and developer of warehouses and light industrial property with over six million sq m of space in and around major cities and across Europe. Its portfolio is valued at £7.4bn serving 1,200 customers. Its Greater London property portfolio includes 12.5 million sq ft of light industrial and urban logistics space in key logistics locations such as Park Royal, Heathrow and the Upper Lee Valley. These properties are home to 415 businesses including Brompton Bikes, Rolls-Royce, DHL, DPD, Post Office, Camden Town Brewery, British Airways and Sotheby's. SEGRO is also the Mayor of London's development partner for the 86 acre East Plus portfolio, which will deliver 1.4 million sq ft of modern industrial space by 2024.

### Acknowledgements

Many thanks to Turley for delivering such a comprehensive and professional evidence based report and to Deloitte Real Estate for their proficient planning policy advice. A number of our customers also contributed to the production of the report through the provision of their time and considerations for the production of the case studies. We are very grateful for their insightful input. Thanks go to Danny Kennedy at Ocado, Nigel Harris and Mark Robinson at John Lewis Partnership, Andrew Wadsworth at DHL, Simon Ives at DB Schenker, Nigel Saffery at Brompton Bicycle Ltd, Laura Brown at MX1 (previously RR Media) and Mark Farley at Farley Group.

## LONDON'S URBAN LOGISTICS LAND LOGISTICS LAND ANALYSIS

A report by  
**Turley**



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## CONTENTS

## CONTENTS

Executive Summary	1
1. Purpose of the Study	11
2. The Evolution of Urban Logistics in London	21
3. The Economic and Social Impacts of Logistics in London	41
4. Industry Innovations in Environmental Sustainability	63
5. Planning Policy and Implications	91
6. London Borough Insights	105
7. Employment Land Supply	119
8. Meeting Future Need	159
9. A Way Forward	181
Appendix 1: Glossary of Terms	196
Appendix 2: Case Studies	197
Appendix 3: Case Study Consultation	221
Appendix 4: Research Approach	224
Appendix 5: Trends in Emissions in London	231
Appendix 6: Forecast Change by Sector	233



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

# EXECUTIVE SUMMARY

## EXECUTIVE SUMMARY

### 1. LONDON IS A THRIVING AND GROWING CITY

As the number of businesses and consumers in the capital continue to grow (the population is forecast to reach over 10 million by 2031) the demands placed on businesses to get their goods and services to their customers naturally increases.

### 2. THIS DEMAND IS NOT JUST DRIVEN BY POPULATION GROWTH BUT ALSO BY THE CHANGE IN CONSUMER BUYING HABITS

Today, the UK already has the largest e-commerce sector in Europe. Estimated to be equivalent to £60 billion and 17% of total retail trade in 2016. This sector grew by 16% in 2015 and is projected to continue growing as the country becomes more digitally enabled.

### 3. DELIVERING A PRODUCT TO A HOME OR A PLACE OF BUSINESS ISN'T A NEW CONCEPT

It's been happening for years. The reason that local delivery, or urban logistics as it is commonly known, is so important is that it is no longer a back-end process that happens after a sale is made. It is truly a competitive differentiator that drives sales and enhances customer loyalty. Nowhere is this trend more evident than in omni-channel fulfilment, where retailers are providing customers with a wide range of delivery options including same-day delivery.

### 4. HOWEVER, URBAN LOGISTICS COVERS ALL ACTIVITIES INVOLVED IN THE TRANSPORTATION OF GOODS IN A CITY

Not just retail, and is a critical consideration in the overall functioning of a place like London. It ensures the goods required by the capital's businesses and residents are fulfilled and met in ever decreasing timescales. As such urban logistics supports the efficient functioning of a wide range of sectors across the capital from retail to hospitality, construction to manufacturing and finance to banking.

### 5. WHILST THE GROWTH OF URBAN LOGISTICS PRESENTS HUGE OPPORTUNITIES FOR ECONOMIC GROWTH AND JOB CREATION IN LONDON IT ALSO FACES INTENSE COMPETITION FOR OTHER LAND USES

In particular housing. Proximity to the customer is ever more important as goods need to be moved quickly and efficiently along the network. Premises not only need to be located in London but also on appropriate transport links to get the goods to market as quickly as possible.

### 6. URBAN LOGISTICS OPERATORS HAVE BEEN ADOPTING A VARIETY OF OPERATIONAL APPROACHES TO RESPOND TO GROWING DEMAND

- Hub and spoke distribution models where depots (spokes) serving a sub-region of the London market are provided with goods from a larger hub location outside of the capital
- Consolidation centres which enable a number of individual deliveries from a variety of firms to be amalgamated into fewer vans on the edge of London before being transported to the shop or business they are destined for
- Last mile solutions which focus on the final point of delivery to consumer or store. This includes narrow delivery timeframes and rapid delivery responses such as one hour or same day delivery. Such activities need to be located within relative proximity of the customers they are serving
- Click and collect which enables online consumers to place an order for a good online and collect from a local store or alternative pick up point
- Reverse logistics and returns processing where vans are filled in the back haul journey with waste products or where returns from online customers are centrally located, cleaned and repackaged for sale before being delivered back to the store or depot



ES

# EXECUTIVE SUMMARY

1

2

3

4

5

6

7

8

9

A1

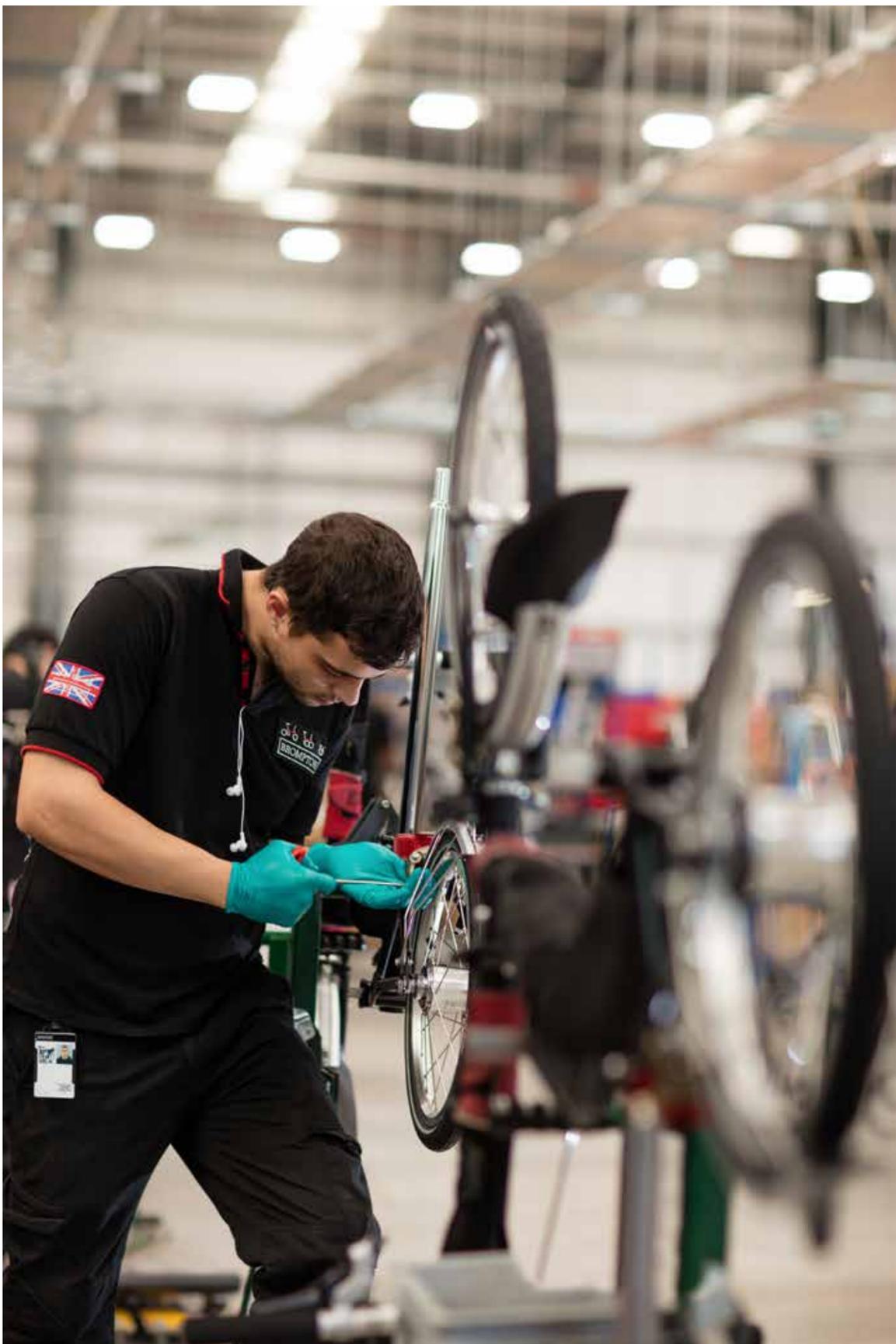
A2

A3

A4

A5

A6



## 7. AS THESE OPERATIONAL APPROACHES HAVE EMERGED, THE LOCATION REQUIREMENTS OF URBAN LOGISTICS COMPANIES HAVE EVOLVED

Despite the Greater London Authority (GLA) recognising the importance of the logistics sector to the capital in both the London Plan (2015) and the Supplementary Planning Guidance (SPG), Land for Industry and Transport (GLA, 2012), the London Plan notes that industrial land can be released, with varying scope for release across London boroughs. The greatest releases are targeted in East London and parts of inner West London, where the GLA considers there is generally a greater supply of vacant industrial sites relative to demand and scope for reconfiguration of existing sites to secure additional capacity for industrial uses.

## 8. THE LAND FOR INDUSTRY AND TRANSPORT SPG SET A TARGET FOR 37HA OF INDUSTRIAL LAND TO BE RELEASED ANNUALLY BETWEEN 2011 AND 2031 ACROSS THE CAPITAL

To put this in perspective this is equivalent to the loss of an area the size of Park Royal industrial estate over a twenty year period. Recent evidence published by the GLA (London Industrial Land Supply and Economy Study, 2016) indicates that three times the target annual loss of land has been released in the last five years; 106ha has been released on average each year compared to the 37ha annual target. Twelve London boroughs saw releases over four times greater than targeted during this period, with six Central London boroughs experiencing rates of release more than eight times above the target rate of loss<sup>1</sup>. This rate of release is reflective of the competition that industrial land faces from other land uses such as housing which can command higher land prices.

## 9. IF THIS RATE OF RELEASE WERE TO CONTINUE THEN THE GLA RECOGNISE THAT THIS WOULD RESULT IN THE TOTAL TARGET LOSS BEING EXCEEDED BY 2017 AS OPPOSED TO THE 2031 TIMEFRAME THEY SET

This suggests that to date there has been no effective management of industrial land release or remedial action taken when a local authority exceeds its target. It also suggests that planning policy is not as effective as it needs to be to protect industrial land supply, in the right locations, from rapid depletion. Looking to the future, if the pipeline of development and redevelopment across London were to be added to the land already lost since 2010, this would result in the loss of approximately one fifth of total industrial land supply (against a 2010 baseline).

<sup>1</sup> Camden, Islington, Kensington & Chelsea, Lambeth, Westminster and Richmond



ES

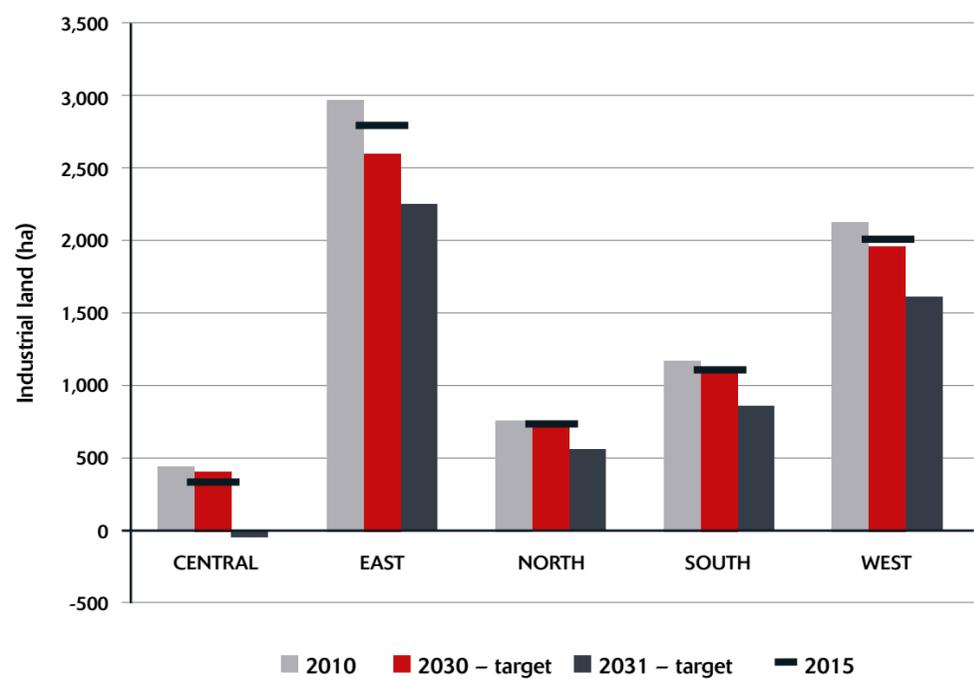
# EXECUTIVE SUMMARY

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2
- A3
- A4
- A5
- A6

## 10. ALL SUB-REGIONS OF LONDON ARE ON A TRAJECTORY TO BE ADVERSELY AFFECTED THROUGH LOSSES ABOVE THE TARGETED RELEASE

This includes those authorities which have 'logistics friendly' policies and which are most predisposed to receive demand from industrial land occupiers, such as Ealing, Enfield and Hillingdon.

Current and future (trend based) employment land supply



Source: GLA, 2015; Turley, 2016





ES

# EXECUTIVE SUMMARY

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## 11. WITHOUT ENOUGH LAND IN THE RIGHT LOCATIONS THE URBAN LOGISTICS SECTOR WILL BE COMPROMISED IN ITS ABILITY TO EFFICIENTLY MEET THE NEEDS OF LONDON'S RESIDENTS AND BUSINESSES

This will impact on the wider London economy. Relocating London's industrial land requirements further out of (or indeed outside of) the capital is not a practical solution for urban logistics operators whose businesses function on speed of access into Central London to ensure they respond to demand and time critical requirements of businesses and residents. Indeed urban logistics firms are beginning to look for sites in more central locations for their last mile solutions. Further to this, relocating these operations outside of London will cancel out the environmental innovations made by both occupiers and developers in the industry.

## 12. URBAN LOGISTICS IS NOT JUST CRITICAL TO THE FUNCTIONAL EFFICIENCY OF LONDON – IT ALSO GENERATES A SIGNIFICANT ECONOMIC AND SOCIAL IMPACT THROUGH ITS OPERATIONS

As a minimum, the sector is formed of 6,105 businesses and 76,100 employees. This does not take into account the substantial number of employees in other sectors which relate to logistics operations such as those in retail and e-commerce. Notably the logistics sector has experienced jobs growth of 6,800 (9.8%) between 2011 and 2014, equivalent to 2,270 a year. The sector supports salaries of £38,585 per annum on average, above the national average for all sectors of £27,607. It provides a wide range of employment and training opportunities and supports an above average (85.3%) proportion of full-time positions compared to the London average (73.8%). Importantly, the local rates benefits contributed by the sector to local authorities are increasing, with the current average rateable value of logistics warehouse space in London reported to be £82 per sq m. For every 50,000 sq ft (4,645 sq m) logistics space built, business rates of £190,000 will be generated. This is equivalent to almost £1million per building of this size over a five year period. From 2020 onward local authorities will be able to keep 100% of the uplift in business rates and so growth of urban logistics will have tangible financial benefits.

## 13. THERE IS A CRITICAL NEED TO MANAGE AND MAINTAIN LONDON'S SUPPLY OF INDUSTRIAL LAND TO ENSURE URBAN LOGISTICS CAN EVOLVE AND FIND SITES IN THE RIGHT LOCATIONS TO SERVE A GROWING RESIDENT AND BUSINESS BASED MARKET EFFICIENTLY

To date this has not occurred and there has been no system of rebalancing releases above target losses set by the GLA. The next London Plan must recognise the essential role that urban logistics plays, and develop effective policies to support the sector. This should be in the wider context of industrial land requirements.

## 14. BY INFORMING THESE POLICIES IT IS RECOMMENDED THAT THE FOLLOWING TEN ACTIONS ARE UNDERTAKEN

**Recommendation 1** – A London-wide review of Strategic Industrial Land and London Plan policy 2.17 (Strategic Industrial Locations) to ensure planning does not take place in a piecemeal fashion.

**Recommendation 2** – The preparation of a full and comprehensive review of the demand for floorspace to meet the future needs of urban logistics and industrial occupiers.

**Recommendation 3** – A full review of policy designations for industrial land to ensure they are fit for purpose and reflect the most appropriate locations for urban logistics operators and industrial occupiers.

**Recommendation 4** – The London Plan should acknowledge and make provision for last mile requirements for land and premises, especially in areas with significant population growth.

**Recommendation 5** – The London Plan should recognise the location requirements of urban logistics operators in establishing industrial locations, noting that locations out of London are unlikely to enable them to perform effectively.

**Recommendation 6** – Flexible planning policies should be developed to take account of the rapidly evolving technical and operational needs of urban logistics occupiers.

**Recommendation 7** – A requirement for replacement land to be allocated or re-designated to counter the loss of industrial land above target levels.

**Recommendation 8** – Refine policy to enable intensification of industrial uses more readily.

**Recommendation 9** – Ensure that London's infrastructure supports the industry's adoption of environmental technologies.

**Recommendation 10** – A GLA industrial and logistics sounding board should be set up to provide a voice for the industry within London and to help inform the implementation of the above recommendations into effective policy.



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

# EXECUTIVE SUMMARY

## IT IS CLEAR THAT THE LONDON PLAN'S POLICY TARGETS FOR INDUSTRIAL LAND LOSS HAVE BEEN EXCEEDED IN MANY LONDON BOROUGHES AND THAT THE SUPPLY OF LAND IS DIMINISHING TO THE DETRIMENT OF URBAN LOGISTICS OPERATORS AND OTHER INDUSTRIAL OCCUPIERS FINDING SITES IN THE RIGHT LOCATION TO SERVE THE CAPITAL

This trend of land loss is unlikely to abate and policy needs to be strengthened to protect the best land as well as making provision for new sites to support the development of urban logistics solutions. Without this action there is a fundamental risk that the demands which arise from London's growing population and business base will not be efficiently and effectively met. This will make London a less competitive place to do business and will have a social cost on the residential amenity of the city.



# 1 PURPOSE OF THE STUDY

## 1.1

London is arguably the most influential global city. The capital's vibrant economy is underpinned by an incredibly diverse range of business sectors from finance to retail, construction to television and film and tourism to hospitality. These sectors make a significant economic contribution and, though distinct in their own right, all share a common requirement. They all rely on a highly efficient and effective supply chain to function and serve their customers. Urban logistics – the movement of goods around a city – enables the supply chain to function for a multitude of sectors and is therefore integral to London's "productivity" as a city and its success on the world stage.

## 1.2

Urban logistics is facing an unprecedented level of growth in consumer demand arising from:



### A growing population

London's population is forecast to grow from approximately 8.7 million in 2015 to over 10 million by 2031<sup>2</sup> and potentially to 13 million by 2050<sup>3</sup>. This level of growth is equivalent to the combined population of Birmingham and Coventry being accommodated in London between 2015 and 2031<sup>4</sup>. As a result, there will be increased demand for goods and services and an expectation that this consumer demand will be met.



### Changes in the way we shop

There is a significant pace of change towards digitally-enabled retail platforms, with UK shoppers spending more than any other European country online (£60 billion forecast for 2016)<sup>5</sup>. UK online sales grew by 16% in 2015 and are forecast to continue to grow around 15% in 2016. Demand for almost immediate delivery of orders (with the rise of services such as Amazon Prime Now providing one hour delivery) as well as the related product returns requiring the logistics response to continually improve. Location of urban logistics premises will only become more important as timeliness becomes ever more fundamental to the service offered to customers.

<sup>2</sup> GLA 2014 round population projections

<sup>3</sup> GLA 2013, Population and Employment Projections to Support the London Infrastructure Plan 2050 (Update)

<sup>4</sup> Based on local authority areas of Birmingham (1,111,307 in 2015) and Coventry (345,385 in 2015) compared to projected change in London population between 2015 and 2031 (1,464,521)

<sup>5</sup> Centre for Retail Research (2016) <http://www.retailresearch.org/onlinetailing.php>

**PURPOSE OF THE STUDY**

**1.3**

It is clear that demand for urban logistics is growing to serve the needs of London and maintain its ability to function effectively. The ability of the urban logistics sector is, however, challenged by a diminishing supply of industrial land, in particular to other uses.

From 2010 – 2015, a total of 528 hectares (ha), or 7.1%, of London’s industrial land was released to non-industrial uses, such as housing. This is equivalent to 106ha that has been lost every year. This is around three times greater than the targeted release of land as established in the Greater London Authority’s (GLA) (2012) Supplementary Planning Guidance – Land for Industry and Transport of 37ha per annum.

**1.4**

In light of the growth in demand for urban logistics operations, this continuing trend of industrial land loss poses a significant challenge for urban logistics operators seeking sites and modern premises in the right locations. There is a diminishing supply of well located land to accommodate urban logistics operations. Left unaddressed, this trend will compromise the ability of the sector to serve London.



**WHY IS THIS STUDY NEEDED?**

**1.5**

It is of critical importance that urban logistics is recognised as a priority within the GLA’s planning policy in order to enable the sector to continue to play its essential and increasingly important role in keeping London ‘moving’. The risk of failing to recognise the role of the sector and adopting suitable policies to enable it to thrive will lead the sector to not function effectively, which will undermine both business performance and customer satisfaction. In short, failure to plan for the needs of urban logistics businesses risks London’s competitiveness as an effectively functioning global city of 8.7 million people.

**RESEARCH OBJECTIVES**

**1.6**

The research was commissioned by SEGRO and undertaken by Turley to provide an objective assessment of urban logistics in London and the issues faced by this important sector as a result of loss of industrial land. The research will be used to inform discussions with the GLA in producing the next London Plan. Its purpose is to ensure the London Plan takes account of the important role of urban logistics. Ultimately the research is designed to support the Mayor in enabling London to continue to thrive and function effectively as a global city.

**1.7**

This research has been published in order that it may be freely used to contribute to the debate about urban logistics in London and how the planning system can positively support its growth. Alongside this the report also touches on industrial land more generally and considers other occupiers of these areas.

**THE AUTHOR**

**1.8**

Turley is a planning-led multi-disciplinary consultancy operating in London and the UK. The report has been researched and produced by Turley’s Economics and Sustainability services. For further research produced by Turley relating to the logistics sector see:

- The British Property Federation (BPF) on the economic value of logistics nationally<sup>6</sup>
- The Land That Time Forgot on the age of employment land evidence relied upon by local planning authorities in England

<sup>6</sup>BPF (December 2015) Delivering the Goods



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## PURPOSE OF THE STUDY

### METHOD

#### 1.9

The report has been compiled through desk-based research and has been illustrated and verified using eight case studies of businesses occupying industrial land, focusing on urban logistics companies.

#### 1.10

For analysis of future industrial land supply and demand 2031 has been used to provide consistency with the GLA's release target. It should be noted that the current London Plan period runs to 2036. The next version of the London Plan will look beyond this date. The data and analysis is therefore intended to be indicative of the problems being stored up and to provide a starting point for consideration by the GLA.



#### 1.11

The case studies are focused on two main business types:

- Urban logistics companies, particularly those which have responded to the rise in e-commerce
- Other industrial land occupiers ranging from manufacturers to media supply chain companies

#### 1.12

The businesses consulted are as follows:

### URBAN LOGISTICS/LOGISTICS OCCUPIERS



#### Ocado

- Online retailer with significant logistics component
- Operate nine spoke distribution sites for the London market, each with between 160 – 200 van movements a day using Ocado's own fleet
- Includes new premises at Origin Business Park, Park Royal with high sustainability credentials
- Seeking last mile locations in inner London. To date this has not been fulfilled due to a lack of sites and premises

### John Lewis

#### John Lewis Partnership

- Store and online retailer with significant omni-channel campaign to diversify the offer and points of sale
- Online sales account for 35% of total sales (peaking at 50%). Around half of the company's deliveries are serving online demand, equivalent to £1.5bn sales in 2015 – 2016
- 10 national distribution centres split by product type, distributing to stores, 23 delivery hubs and direct to customers using third party logistics (3PL) operators
- Includes delivery hub at Origin Business Park, Park Royal which is the company's largest and busiest customer hub, serving the West of London and catering for 15% of UK demand

### CASE STUDIES



## PURPOSE OF THE STUDY

### URBAN LOGISTICS/LOGISTICS OCCUPIERS



DB Group



#### DHL

- Parcel delivery and courier services across the UK and internationally
- Operations include international parcel delivery, supply chain delivery and global forwarding
- Clients include Heathrow Airport, the Olympic Delivery Authority, Net-a-Porter, Argos and Royal Mail
- E-commerce is driving 20% growth per annum in the company's supply chain delivery service
- Relocating from Vauxhall to Lewisham due to Vauxhall–Nine Elms–Battersea (VNEB) redevelopment. However due to site size limitations deliveries have to be staggered



#### DB Group

- International logistics provider including third party logistics and rail freight
- One train is equivalent to the load of 40 – 45 HGVs
- Air freight located at Heathrow provides consolidated or direct cargo, including parts for Boeing and Rolls Royce
- DB Cargo sites at Bow and Cricklewood at threat from release of land for alternative development

### OTHER INDUSTRIAL OCCUPIERS



#### Farley

- Vintage prop hire company for television and film, providing props for studio and on location productions including Bond films
- Based in office/warehouse unit in Acton, Ealing (Park Royal)
- 20 – 30 lorry movements per day to filming studios and on location in London



#### MX1 (previously RR Media)

- Digital media and broadcast solutions
- Provides content for platforms including Netflix and iTunes
- Clients include ITV, Channel 4, MTV, the BBC and National Geographic
- Based in an industrial unit used mainly as desk space in Acton, Ealing (Park Royal)

## CASE STUDIES

### BROMPTON

#### Brompton Bicycle Ltd

- Home grown London manufacturer producing hand brazed folding bicycles
- c.45,000 bicycles produced a year, sold primarily in London and overseas
- Located in Greenford, South West London giving proximity to skilled workforce and the London market
- Fourth premises since 2008 due to lack of available or appropriate industrial premises



Brompton Bikes

#### 1.13

A full methodology is included in the Appendix to the report, together with a copy of the case study consultation proforma.

**PURPOSE OF THE STUDY**

**REPORT STRUCTURE**

**1.14**

The remainder of the report is set out as follows:

<p><b>CHAPTER 2 THE EVOLUTION OF URBAN LOGISTICS</b></p> <p>Sets out the ways in which urban logistics has changed in recent years, highlighting that this sector is dynamic in responding to new drivers for growth.</p>	<p><b>CHAPTER 3 THE ECONOMIC SOCIAL IMPACT OF LOGISTICS IN LONDON</b></p> <p>Details the economic and social impacts of the logistics sector within London and highlights the range and quality of jobs within the sector.</p>	<p><b>CHAPTER 4 INDUSTRY INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY</b></p> <p>Demonstrates how the urban logistics sector is an industry leader in environmental innovation.</p>
<p><b>CHAPTER 5 PLANNING POLICY AND IMPLICATIONS</b></p> <p>Reviews relevant planning policy with regards to the logistics sector in London, as well as nationally.</p>	<p><b>CHAPTER 6 LONDON BOROUGH INSIGHTS</b></p> <p>Provides a perspective on different approaches to industrial land supply that have been taken by five London boroughs.</p>	<p><b>CHAPTER 7 EMPLOYMENT LAND SUPPLY</b></p> <p>Details the employment land position published by the GLA. This highlights the scale of recent losses, as well as the new baseline of industrial employment land in the capital.</p>
<p><b>CHAPTER 8 MEETING FUTURE NEEDS</b></p> <p>Explores the potential for future growth in the logistics industry, based both on employment projections as well as key market drivers for urban logistics such as population growth and increasing e-commerce.</p>	<p><b>CHAPTER 9 A WAY FORWARD</b></p> <p>Sets out ideas for how London's logistics needs can be met in the coming years including policy recommendations for the GLA and ways in which the industry itself can be part of the solution.</p>	<p><b>APPENDIX 1</b></p> <p><b>APPENDIX 2</b></p> <p><b>APPENDIX 3</b></p> <p><b>APPENDIX 4</b></p> <p><b>APPENDIX 5</b></p> <p><b>APPENDIX 6</b></p>



# 2

## THE EVOLUTION OF URBAN LOGISTICS IN LONDON

### KEY FINDINGS



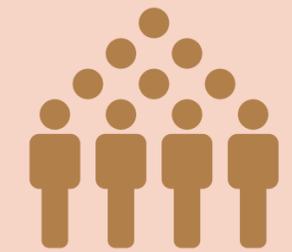
The urban logistics sector has seen unprecedented change as a result of the shift towards e-commerce. The UK is the largest online market in Europe, equivalent to £60 billion in 2016 and 16.8% of all retail spend.

**76,100**  
EMPLOYED  
IN LOGISTICS

76,100 people are employed in the sector in London and this grew by 6,800 employees between 2011 and 2014. However this figure does not include retail companies which operate their own urban logistics activities such as Ocado and ASOS. This is a key growth area for logistics.



The increasingly time critical nature of the sector means new operating models are being introduced. This includes hub and spoke, last mile, Click and Collect and reverse logistics/returns processing<sup>7</sup>.



It also necessitates sites and premises in proximity and with easy access to urban population and business concentrations.

<sup>7</sup> See glossary in Appendix



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

# THE EVOLUTION OF URBAN LOGISTICS IN LONDON

## 2.1

Logistics is a vital economic enabler in all economies across the globe, linking businesses and people to the goods they demand. London's urban logistics businesses are responding to an unprecedented increase in this demand, fuelled by significant growth in e-commerce with the rise and rise of online retail platforms. This growth is expected to continue as the capital's population expands, reaching upwards of 10 million by 2031<sup>8</sup>, and becoming increasingly digitally enabled<sup>9</sup>. The UK is the largest online market of all of Europe (equivalent to 16.8% of all retail trade)<sup>10</sup>, and e-commerce is projected to experience significant revenue growth of 10.0% a year in coming years<sup>11</sup>.

## 2.2

These changes are important as they have repercussions on the geographical location and the premises required by businesses in this sector. To keep pace with this rise in demand and the changing ways consumers buy online, urban logistics operators have to be close to their customers to respond quickly.

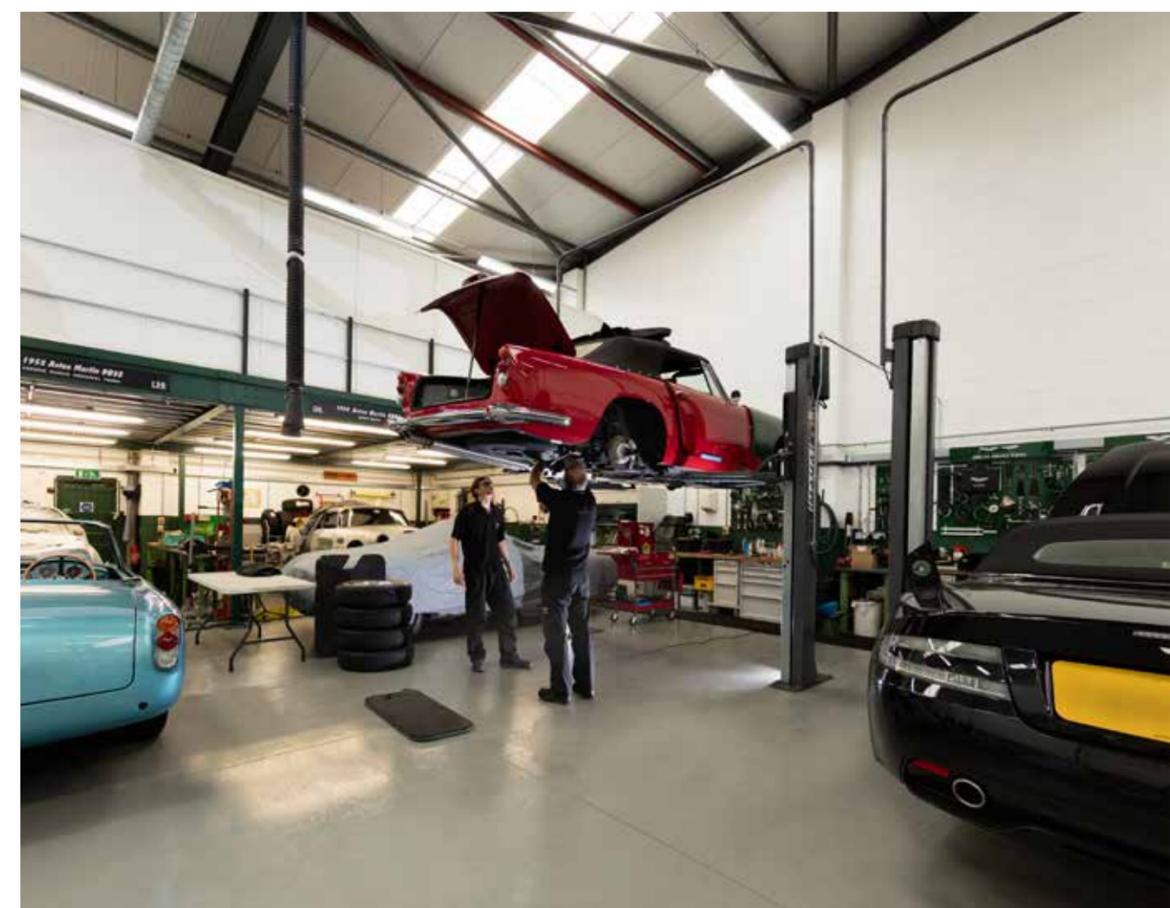
## THE LOGISTICS SECTOR IN LONDON

### 2.3

The logistics sector is made up of a number of sub-sectors including road freight, warehousing and courier services. These activities are carried out by 6,105 businesses in London. Collectively they employ 76,100 people. Over the period from 2011 to 2014, these sectors have achieved growth of 6,800 jobs representing a 9.8% increase on the 2011 levels of employment in London. This change is a result of significant growth in the number of jobs in specific sub-sectors such as 'other transportation support activities', which increased by circa 4,000 jobs (34.5% growth), and the 'other postal and courier activities' sub-sector, which saw an increase of 3,000 jobs (39.6% growth) over the same period.

### 2.4

Similarly, IBISWorld reports for these sectors nationally indicate that the logistics sector has experienced significant change over recent years. Revenue demonstrates positive growth since 2013, signifying the growth in e-commerce and the associated delivery mechanisms to get products to the consumer in increasingly narrow timeslots. This will have repercussions for urban logistics activities responding to the London market, requiring land, premises and employees to meet growing demand. Proximity to urban concentrations of population and business is likewise ever more fundamental to the successful operation of the sector.



### 2.5

These operations are only part of a much bigger picture of evolution in the sector as there have been a number of new entrants to the logistics market in recent years, with online retailers (and general retailers) becoming a key component of the logistics supply chain as they respond to a rise in online sales. These operations are not captured in the data presented here due to the Office for National Statistics (ONS) data capture method and are considered separately later in this chapter and throughout the report.

<sup>8</sup> GLA 2014 round population projections  
<sup>9</sup> Age UK (no date) Technology and Older People Evidence Review  
<sup>10</sup> Centre for Retail Research (2016) <http://www.retailresearch.org/onlineretailing.php>  
<sup>11</sup> IbisWorld (2015) UK Industry Reports

**THE EVOLUTION OF URBAN LOGISTICS IN LONDON**

**2.6**

The dominant logistics sub-sectors in London are:



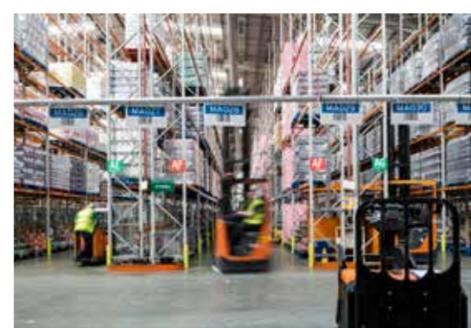
**Road freight**  
Which has the most businesses of the sub-sectors – supporting 2,555 businesses and 7,300 jobs



**Postal and courier services**  
Which have the most employees of the sub-sector – 1,720 businesses and 32,800 employees



**Other transportation support activities<sup>12</sup>**  
Supports the second largest number of employees of the sub-sector – 1,075 businesses and 15,600 jobs



**Warehousing and storage**  
Which although has a small number of businesses has a high ratio of jobs per business – 365 businesses and 12,900 jobs

<sup>12</sup> Including: forwarding of freight; arranging or organising of transport operations by rail, road, sea or air; organisation of group and individual consignments (including pickup and delivery of goods and grouping of consignments); issue and procurement of transport documents and waybills; activities of customs agents; activities of sea-freight forwarders and air-cargo agents; brokerage for ship and aircraft space; and goods handling operations

**2.7**

The following table presents this information for each of the logistics sub-sectors for both London and England<sup>13</sup>:

**Number of Logistics Businesses and Jobs and % of Total Jobs in London and England**

	Businesses				Employee Jobs			
	London		England		London		England	
Warehousing and storage	365	0.1%	2,695	0.1%	12,900	0.3%	208,100	0.9%
Operation of rail freight terminals	0	0.0%	5	0.0%	0	0.0%	0	0.0%
Cargo handling	115	0.0%	355	0.0%	3,300	0.1%	7,600	0.0%
Other transportation support activities	1,075	0.2%	4,065	0.2%	15,600	0.3%	59,300	0.2%
Freight rail transport	10	0.0%	30	0.0%	800	0.0%	5,400	0.0%
Freight transport by road	2,555	0.6%	36,640	1.6%	7,300	0.2%	170,100	0.7%
Sea and coastal freight water transport	200	0.0%	525	0.0%	3,100	0.1%	6,600	0.0%
Inland freight water transport	10	0.0%	70	0.0%	0	0.0%	400	0.0%
Freight air transport	55	0.0%	210	0.0%	300	0.0%	2,000	0.0%
Postal and courier activities	1,720	0.4%	13,565	0.6%	32,800	0.7%	200,400	0.8%
<b>Logistics Sub-Sectors</b>	<b>6,105</b>	<b>1.4%</b>	<b>56,160</b>	<b>2.7%</b>	<b>76,100</b>	<b>1.6%</b>	<b>656,900</b>	<b>2.7%</b>

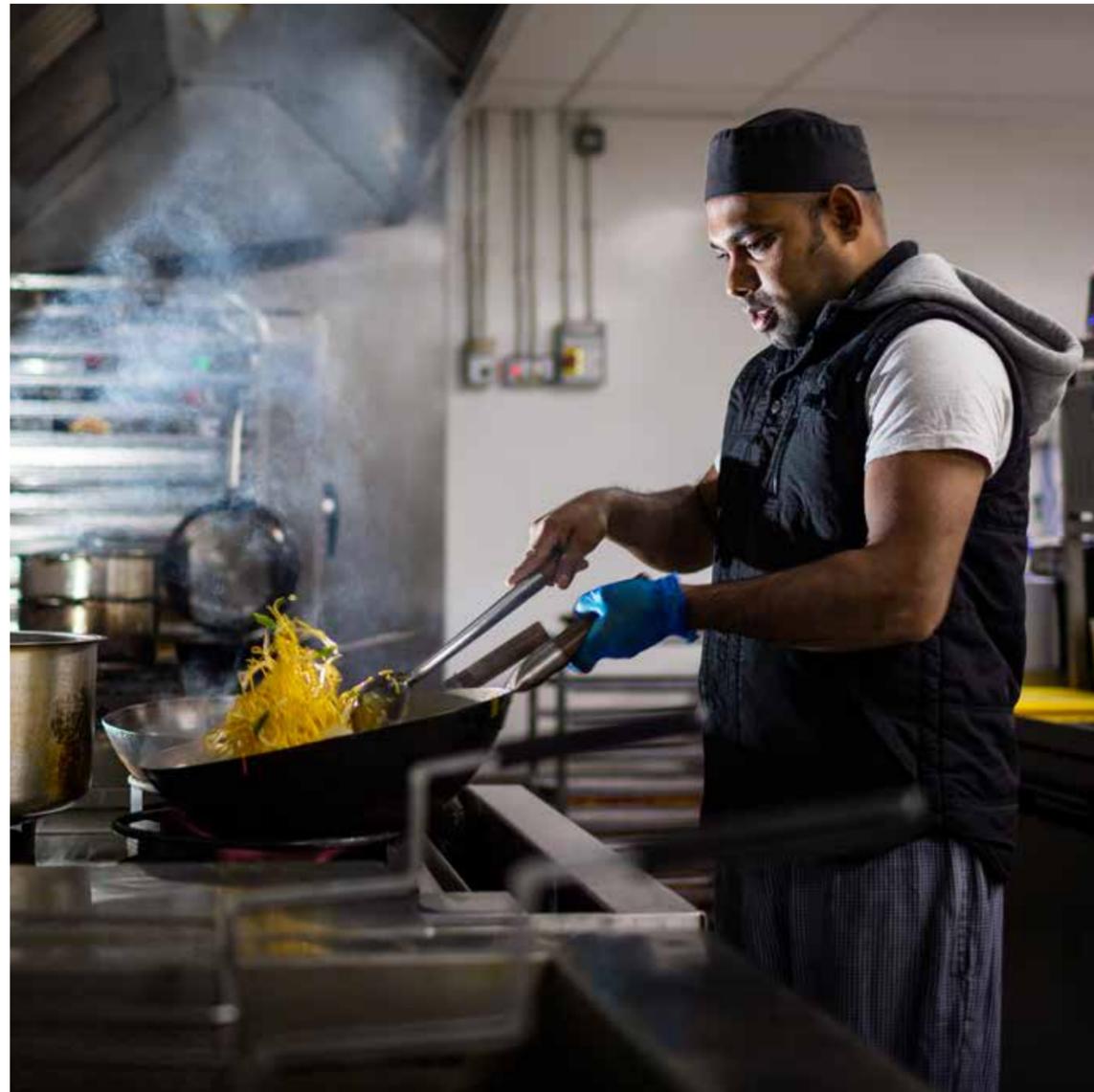
Source: BRES 2014; UK Business Counts 2015

<sup>13</sup> In some instances the data underplays the importance of some activities, such as those associated with air freight. Operations related to London's airports will appear in a number of sub-sectors such as warehousing and storage, cargo handling, freight air transport and postal and courier activities.

**RETAIL AND E-COMMERCE – THE MISSING LINK**

**2.8**

BRES data (on previous page) does not fully represent the logistics sector and excludes businesses classified within other sectors but exhibiting a significant logistics element to their operation. The prime example of this being the retail sector, and e-commerce in particular. Companies such as Ocado, Amazon and ASOS, while building their operations on the ability to move goods from a warehouse to a customer’s home or work, are classed as retail/e-commerce as opposed to logistics. The company and employee numbers for these businesses do not appear in the BRES statistics presented.



**2.9**

These figures therefore underplay the true scale and scope of logistics activities. Given the scale and pace of change within the industry, there is a lag between technological developments and how these are recorded in data. In informing industrial land supply, the GLA must take into account the full picture of demand arising from these changes as opposed to relying purely on employment data which does not capture the full extent of need.

**2.10**

In London, the wholesale trade and retail trade<sup>14</sup> sectors account for a valuable proportion of the economy, equivalent to 11.8% of jobs (3.2% wholesale trade and 8.6% retail trade). Over the period from 2009 to 2014, the number of people employed in the sectors increased notably, with wholesale trade demonstrating jobs growth of 18,500 (13.8%) and retail trade increasing by 33,700 employees (9.0%).

**2.11**

High levels of revenue growth have also occurred in online retail, including e-commerce and online auctions, online women’s clothing retailing and online home furnishing retailing. For example, John Lewis is investing significantly in the roll out of its omni-channel strategy and online sales now account for 35% of the company’s total sales, growing by 17% in the last financial year alone. This growth is predominantly a result of an increase in households with internet access, an increase in the consumer confidence index and the resulting increase in real private consumption expenditure<sup>15</sup>, a rise in the appeal of online shopping and the resulting increase in total online expenditure.

<sup>14</sup> Except motor vehicles and motorcycles.

<sup>15</sup> Real private consumption expenditure measures how much consumers spend through income or credit.

<sup>16</sup> Home Builders Federation (March 2015) The Economic Footprint of UK House Building.

<sup>17</sup> Disruptive technology is the way in which technological progression challenges the status quo and demands the world to work in alternative ways – such as online shopping, phone applications and so on.

**2.12**

Greater activity in the housing market also drives capital expenditure on dwellings (for example it is estimated that households spend an average of £5,000 on furnishing and decorating supplies to ‘make a house feel like a home’ when they move<sup>16</sup>). So as London continues to deliver new homes to provide places to live for the growing population, so too will it need to provide a logistics response to furnishing those homes – moving products from warehouses and distribution centres to housing developments across the capital.

**2.13**

The e-commerce and online auctions, online women’s clothing retailing and online home furnishing retailing sectors are forecast to achieve revenue growth of 6.9% – 10.0% annually over the period to 2022 demonstrating high levels of growth over coming years. DHL reports that their supply chain operations for businesses such as Net-a-Porter and Argos is seeing 20% growth per annum due to the shift to e-commerce.

**RESPONDING TO CHANGE**

**2.14**

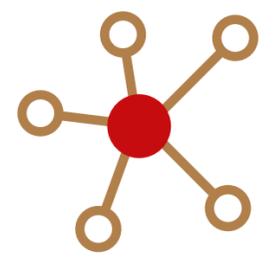
There have been a number of drivers of change influencing logistics activities in recent years. In particular, warehousing & storage, and postal & courier services have seen a shift to high efficiency as a result of the rapid rise in online retail. This is driven by population growth and disruptive technology<sup>17</sup>. The following page provides an overview of the dominant ways in which urban logistics operators have been responding to this change.

# THE EVOLUTION OF URBAN LOGISTICS IN LONDON

## OPERATIONAL MODELS

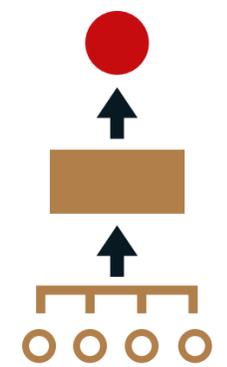
### 2.15

Operational models for logistics can take a number of forms, with businesses developing a range of responses depending on their product, market and delivery requirements (such as one hour delivery slots). A number of operational models were identified through the case studies, all of which illustrate the paramount importance of location to a business to ensure an effective logistics response. Ultimately, meeting the needs of customers is driving responses within the industry:



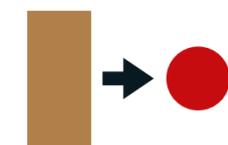
#### Hub and spoke

The hub and spoke model has become the go-to operating model for many businesses operating logistics activities. This enables goods to be sorted, prepared and packed at a Central location before being distributed to smaller spoke depots from which they will be delivered to the customer. Ocado operates a hub and spoke system, with two customer fulfilment centres (CFCs) feeding nine spokes<sup>18</sup> which deliver to customers' doors across the capital. The spokes are located in conurbations in outer London (or in areas neighbouring the capital) and each has a one to one and a half hour drive radius for deliveries. Spoke locations reflect residential locations, particularly those of dense or growing populations, and are chosen based on future growth predictions by postcode sector over a one to two year time horizon.



#### Consolidation centres

Consolidation centres enable deliveries from a range of suppliers to be consolidated at an easily accessible point before they are delivered in one consignment to store. Over 20 retailers, including Liberty, Ferrari and Gap, use the Regent Street consolidation centre operated by Clipper Group in Enfield. A number of consolidation centres are needed in addition to this to meet the needs of retailers and other businesses and DHL is looking at the possibility of running a retail consolidation centre at Waterloo. It is also considering development of multi-user consolidation centres in cheaper storage locations such as East and North London. Consolidation centres provide a number of sustainability benefits due to combined deliveries and vehicles being taken off the road. For instance the Regent Street consolidation centre reduced vehicle movements to participating stores by 77%. This results in a reduction in CO<sub>2</sub> by 44 tonnes per annum, improving air quality within the city centre<sup>19</sup>.



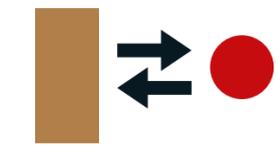
#### Last mile

Getting goods the final few miles to the consumer is a crucial, and often time-specific, element of the logistics chain. Delivery slots have become more responsive to customer requirements. For example, Amazon Prime Now offers one hour delivery and two hour same-day delivery. DPD Group and other courier services have enhanced their customer communications with regards to delivery-customer interchange through improved text messaging and opportunities for the customer to rearrange delivery to an alternative time or more convenient location. Locations enabling effective last mile solutions are therefore critical to the successful operation of these models. These need to be in immediate proximity to urban populations. Ocado has been seeking Central London sites for units to serve last mile but has not been able to identify anything suitable. This will be a key issue in enabling the industry to change with the times and continue to meet our ever increasing expectations.



#### Click and Collect

As well as getting goods directly to the customer, there has been a rise in the Click and Collect model. This is offered in store (for example, John Lewis has invested significantly in its omni-channel strategy and Click and Collect customers spend an additional 20% in store on top of their online spend) as well as through specific outlets such as via Duddle stores and Amazon lockers at train stations. Duddle provides a collections and returns service for customers of companies including ASOS, Coast, Boden, Amazon, Gap, Wiggle and Zavvy.



#### Reverse logistics and returns processing

The management of online returns is now big business. Online customers return up to 40% of their purchases<sup>20</sup>. This has led to specific returns processing activities from the likes of Clipper Group who have set up a returns management function, Boomerang. Clients include Asos, John Lewis and Supergroup. The service enables rapid turn-around of returns, improved quality control of returned stock to ensure they are fit for re-sale and improved cash flow from efficient returns processing. There are also environmental benefits of improved van utilisation including reduction in the environmental impacts of commercial traffic and associated congestion in city centres.

<sup>18</sup> West Drayton, Park Royal, Ruislip, Enfield, Dagenham, Dartford, Wimbledon, Weybridge and Hatfield

<sup>19</sup> Regent Street Delivery Consolidation Scheme, [http://www.clippergroup.co.uk/wpcontent/uploads/2016/01/Regent-Street-Consolidation-Case-Study\\_LR\\_v2.pdf](http://www.clippergroup.co.uk/wpcontent/uploads/2016/01/Regent-Street-Consolidation-Case-Study_LR_v2.pdf)

<sup>20</sup> <http://www.clippergroup.co.uk/services/boomerang-the-future-of-returns-management/>

LAND AND PREMISES REQUIREMENTS

2.16

Logistics, and related sectors, have a number of land and premises requirements. While these vary by individual occupier in their detail, we present some of the common themes below. Importantly, many occupiers seek to balance three location requirements:

- Proximity and access to consumer market
- Cost of premises
- Location of staff

PROXIMITY TO MARKET

2.17

Proximity to market is of paramount importance for urban logistics operators. Governed by fast turnarounds and narrow delivery slots, finding a site close to urban concentrations, be it residential or commercial areas, is crucial to effective operation. For example:



DHL's international parcel business is limited to those locations which ensure it can pick up parcels (for example in the City of London) and arrive at Heathrow Airport in time to make allocated flights.

Businesses with perishable and time critical goods, such as Wasabi and other lunch product providers, as well as companies such as Mash Purveyors who deliver fruit and vegetables to London's high end restaurants and hotels, have time critical deliveries. Proximity to market is a key consideration.

Proximity to London's urban locations is a fundamental operating consideration for Ocado, with 40% of the businesses market being based in the capital. A West London location also gives proximity to Kensington, which accounts for 5% of all London orders within only two postcodes.

Other businesses which require industrial land, such as those in the television and film industry, also see location as important. Proximity to production studios such as Ealing and Shepperton, as well as Central London for on-location shoots govern the location of businesses such as Farley Group and MX1.

“As the world’s largest dedicated online grocery supermarket, having quick and direct access to our customers is vital for our business. We want to deliver to our customers the best quality product in the shortest time. Our current 68,393 sq ft unit at SEGRO’s West London flagship development, Origin, Park Royal (where we have created 340 jobs), enables us to continue to be at the forefront of the e-commerce revolution – changing the way consumers shop, and ultimately, consume goods. This location is perfect for distributing grocery orders to our customers in North, West and Central London. SEGRO’s well-located facilities enable us to deliver orders to our customers quickly and efficiently and, as we grow, we expect to need more of a presence in residential communities in order to meet the needs of London’s growing population.”

Danny Kennedy  
Business Project Manager for Ocado’s  
Property & Network Development

# THE EVOLUTION OF URBAN LOGISTICS IN LONDON

## 2.18

Without satisfying this fundamental demand of logistics businesses, businesses risk not being able to meet contract demands and the wide range of sectors they support will suffer.

### ROAD INFRASTRUCTURE AND DRIVE TIMES

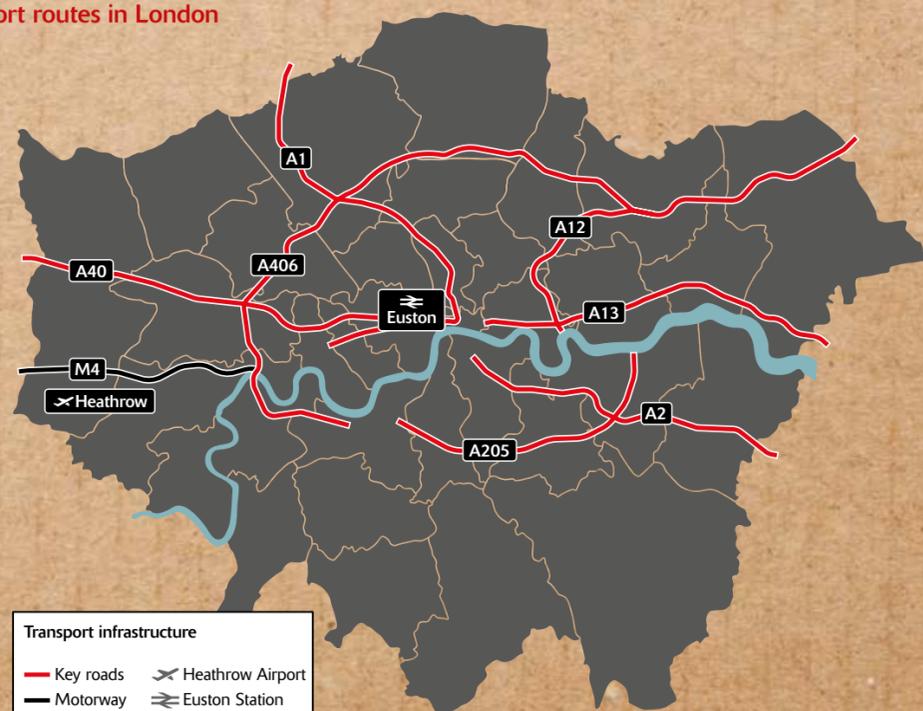
## 2.19

Transport infrastructure (particularly road) and journey times are paramount in ensuring collections and deliveries can be made efficiently and economically, within allocated time slots. Logistics activities therefore need to be located on good transport networks, with connectivity to the key markets they serve.

## 2.20

Locations such as Origin Business Park in Park Royal provide access to the A406, M40 and North Circular. A map of London's main road routes (M1, A1, A12, A13, A40, A406, A205) as well as Heathrow Airport (parcel and freight) and Euston station (recently part of a LaMiLo pilot for rail freight<sup>21</sup>) is shown below:

Key transport routes in London



<sup>21</sup> LaMiLo is a European funded project which was run by the Institute for Sustainability. A pilot was run to explore opportunities to bring goods into London using rail into Euston.

### COST OF PREMISES

## 2.21

The cost of premises is an important consideration for logistics businesses, often operating with narrow profit margins and bearing a number of other costs. Given the high land values generated by the demand for housing, logistics businesses (and other industrial land occupiers) cannot compete. They report constrained supply particularly in more Central London locations. As housing pressures push up land prices in outer London and the Mayor of London focuses on large scale regeneration projects, these logistics businesses are now also at risk of being relocated out of what have traditionally been industrial outer London locations which meet many of the location criteria of the sector.

### WORKFORCE

## 2.22

Access to the right staff is also a consideration for logistics businesses in finding optimum locations. These businesses tend to draw from a close catchment area. For example, 51% of employees in Park Royal are reported to live locally<sup>22</sup>. Conversely, office-orientated locations such as Canary Wharf have much larger labour force catchments. Logistics premises near to urban areas are therefore not only necessary from a delivery perspective but also from a staffing one.



<sup>22</sup> GLA (2014) The Park Royal Atlas: An Employment Study of London's Largest Industrial Area.

**OTHER REQUIREMENTS**

**2.23**

There are further site and premises requirements which urban logistics companies seek:



**Parking**

Sufficient vehicle parking is a key requirement for logistics businesses. These requirements are not only a consideration for businesses when seeking new sites, but must also be fully understood by Local Planning Authorities when considering planning applications for urban logistics developments in London.

This relates to two key core aspects of their operation:

- Shift work – many logistics businesses operate on a shift basis, meaning a greater number of car parking spaces are required than the number of people who may work on site at any one time due to cross-over periods. As logistics operations are often in locations not served by public transport, car parking remains an important factor for the effective functioning of these businesses.
- Fleets – space is required to park fleet vehicles when not in use. During non-business hours, these can often be stored within warehouse units, however out of these hours there must be sufficient space for fleet parking on site. As a core component of urban logistics operations, these businesses will not be able to operate effectively or maximise productivity without sufficient space.



**Fibre Broadband**

Traditionally, industrial estates are poorly served with internet connection as the priority for fibre providers seems to be the demands of residents rather than industrial occupiers. In the internet age, logistics businesses require fast and reliable broadband connections to enable effective operation. Developments which build this into building infrastructure are increasingly attractive to potential occupiers<sup>23</sup>.



**Ancillary Office Space**

Logistics operators should not be thought of only in terms of requiring warehouse space. A fifth of floorspace at Park Royal is estimated to be office<sup>24</sup> and the case studies presented in this report indicate that office space is necessary alongside warehouse space to house administration and management functions of logistics operations.

<sup>23</sup> Transport Intelligence (2016) Global Warehouse and Logistics Networks

<sup>24</sup> GLA (2014) The Park Royal Atlas: An Employment Study of London's Largest Industrial Area

**THE REALITY**

**2.24**

As London's industrial land is diminished, those locations and premises which fit the previously mentioned criteria will become fewer. It will become ever harder for logistics operators to secure space and premises which are fit for purpose in the right locations. They will however still have to deliver a timely service to their customers. A workable solution is needed.

**2.25**

The case studies presented in this report indicate that businesses are already experiencing the negative effects of reduced industrial site availability. DHL reported searching for a new site for six years before taking a site which only accommodates half of their space requirements. John Lewis likewise struggled to find space in West London due to a lack of land supply, before securing space at Origin Business Park. Ocado have been searching for last mile locations in inner London but have so far been unsuccessful. Other occupiers of industrial land indicate that they anticipate outgrowing their current space in the near future for example MX1 anticipate requiring move-on space within the next five years as they outgrow their current premises.

**2.26**

In seeking future premises, businesses are becoming creative in their use of space, for example:

- In relocating to Origin Business Park, John Lewis invested in a 60,000 sq ft mezzanine provision to combine its digital product photography division with its existing homeware distribution facility
- DHL's new site at Lewisham is half the size needed due to a lack of suitable premises available. They are therefore staggering deliveries to maximise use of space as the eaves height does not enable a mezzanine to be added. However this situation is not ideal

**2.27**

The pressures that a lack of suitable sites and premises places on logistics, and other, operators, is clear. Adaptive strategies have provide some limited additional capacity but are not sufficient to meet growing need and demand and are not therefore a future proofed strategy for the industry. This trend of squeezed supply will only continue as more of London's industrial land is released for other uses (see chapter 7). There will be implications for these companies in meeting the time critical demand of Londoners and London's businesses for products.



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

# THE EVOLUTION OF URBAN LOGISTICS IN LONDON

## OTHER OCCUPIERS OF INDUSTRIAL LAND

### 2.28

Industrial land accommodates a wide range of occupiers which are an integral component of London's vibrant economy. Not only do these businesses need warehouse, storage and distribution space within the capital but their growth will further fuel the growth of the logistics sector as it responds to meet their demands. Important components of industrial land use beyond urban logistics providers are food manufacturing and other manufacturing. There is also evidence that businesses in the media supply chain occupy industrial land, as explored below using Park Royal as an example.<sup>25</sup>



FOOD MANUFACTURING



MANUFACTURING



MEDIA AND PRODUCTION

### FOOD MANUFACTURING<sup>26</sup>

#### 2.29

Park Royal is described as 'London's bread basket'. Five percent (c.100 businesses) on the estate are food manufacturers while further businesses operate in catering related activities<sup>27</sup>. A number of businesses provide on site food manufacturing to serve London's lunch market. Companies include Wasabi who produce sushi and cooked Asian lunches and Mash Purveyors who provide fruit and vegetables to London's top hotels and restaurants. Both occupy premises at SEGRO's new (November 2014) Origin Business Park development which is a high end urban logistics development only 8 miles from London and adjacent to the A40 providing access to the M25 and A406.

#### 2.30

Such operations require manufacturing, packaging and storage space and operate on a just-in-time basis, with perishable goods being moved quickly through the building to the point of sale in Central London. Proximity to market and short delivery journey time is vital. Timeliness of logistics movements is therefore key to support their success. Fruit and vegetables, meat processing, poultry processing and yoghurt & dairy manufacturing have seen growth in their revenue nationally, with fruit and vegetables performing particularly well in the last five years (10.7% revenue growth per annum from 2011 – 2016). This is being fuelled by a growth in health conscious consumers, partly driven by government campaigns, as well as higher disposable income. This is further illustrated by a rise in fitness product sales. For example, John Lewis sales of FitBits rose by 240% in 2015<sup>28</sup> and continued to see a 131% spike following Rio 2016<sup>29</sup>.

### MANUFACTURING

#### 2.31

There are 200 manufacturing businesses (excluding food manufacturing) at Park Royal<sup>30</sup>. As the capital city of a country promoting British credentials and the 'Made in Britain' campaign<sup>31</sup>, London itself has its share of home grown manufacturers. Brompton is a prime example of this having grown to 240 employees, producing 45,000 bicycles a year at their factory in Greenford in South West London. The company struggled for nearly eight years to find suitable premises in an appropriate location and was forced to split operations across four sites for a number of years, potentially constraining production output. Ensuring land is available to support home grown manufacturers is an important consideration in London's rich tapestry.

<sup>25</sup> Park Royal, as Europe's largest industrial estate (713ha), houses a wide range of business activities and therefore provides a good illustration of the range of occupiers on industrial land. As an Opportunity Area, Park Royal is earmarked to provide an additional 10,000 jobs by 2031 as well as to intensify use of space so as to retain existing businesses.

<sup>26</sup> For further reading also see UKWA (2016) Feeding London

<sup>27</sup> GLA (2014) The Park Royal Atlas: An Employment Study of London's Largest Industrial Area

<sup>28</sup> John Lewis (2015) The John Lewis Retail Report, 2015, Howe Shop, Live and Look

<sup>29</sup> John Lewis (2016) The John Lewis Retail Report, 2016, Howe Shop, Live and Look

<sup>30</sup> GLA (2014) The Park Royal Atlas: An Employment Study of London's Largest Industrial Area

<sup>31</sup> <http://www.madeingb.org>

# THE EVOLUTION OF URBAN LOGISTICS IN LONDON

## MEDIA AND PRODUCTION

### 2.32

Businesses working in television, film and online content also locate in industrial spaces. Park Royal is home to a substantial number of businesses in the film industry, as well as 37 specialist film equipment and prop hire firms. There are also around 100 businesses operating in the Information and Communication sector at Park Royal<sup>32</sup>. Our case studies included the following media and production related businesses within Park Royal:

#### MX1 (previously RR Media)

Provides digital and media services to companies including ITV, Channel 4, MTV, the BBC and National Geographic. Content is used on Netflix and iTunes for example. They employ 60 staff at their media centre. They have grown in the last year and anticipate continued growth in the short/medium term due to rise in online content and alternative platforms (such as Netflix).

#### Farley Group

A period props hire company for films (including the James Bond films), television and theatre sets. They have recently expanded to create 25% more space. The company has showroom, warehouse and office space at Acton as well as three workshop buildings near to Hanger Lane.

### 2.33

Such businesses require warehouse and storage space for equipment together with associated office space for administrative work and order processing. Park Royal, as an industrial location, is therefore ideal. The location of Park Royal is also of paramount importance as these businesses tend to cluster in areas which give proximity and access to a number of London's production studios which are located in the West of the capital. This includes Leavesden Studios, Shepperton Studios and Ealing Studios as well as BBC, ITV and Channel 4 in Central London.

### 2.34

Motion picture production has experienced particular revenue growth in recent years (2011 – 2016) (5.1% per annum) which has contributed to longer term growth (6.9% per annum) from 2004 – 2016<sup>33</sup>. Television production has also experienced long term revenue growth of 3.1% per annum from 2004 – 2016. Such activities are forecast to continue to be an important sector and are a cornerstone of London's international reputation as a forward thinking, innovative global city.

<sup>32</sup> GLA (2014) The Park Royal Atlas: An Employment Study of London's Largest Industrial Area

<sup>33</sup> IbisWorld (2016)

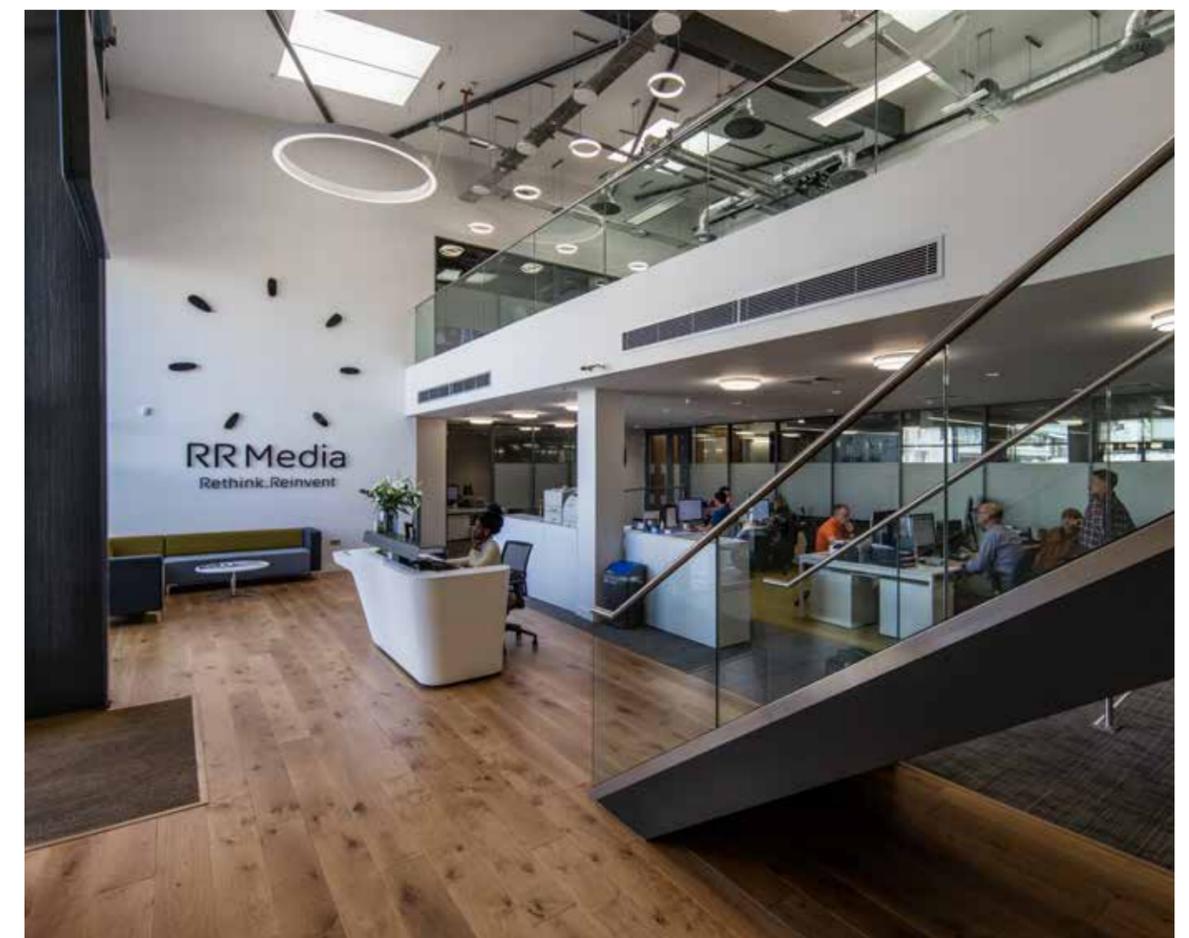
## WHAT THIS MEANS

### 2.35

This chapter has demonstrated that urban logistics in London is a dynamic, growing sector that provides critical support for a wide variety of other sectors that are important to London's economic performance and ultimately competitiveness. Traditional definitions of the logistics sector fail to capture all logistics activity which is now a significant feature of many businesses such those in the retail and wholesale trades.

### 2.36

Specific logistics operator requirements are not being met due to the lack of suitable sites and premises in London. Urban logistics businesses have responded as best they can in these limiting circumstances have shown innovation in the adaptation and utilisation of existing spaces but this cannot be considered a long-term solution in the face of growing demand. Left unaddressed these trends will eventually lead to London's economic functionality and competitiveness being diminished.





ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

THE ECONOMIC  
AND SOCIAL  
IMPACTS OF  
LOGISTICS IN  
LONDON

# 3 THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON



- ↑
- ES
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2
- A3
- A4
- A5
- A6

**THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON**

**KEY FINDINGS**

**6,105**  
**LOGISTICS BUSINESS**

A minimum of 6,105 businesses and 76,200 employees are classified as being in the logistics sector in London. This figure does not include the substantial numbers of employees and businesses who operate in a logistics environment but which are classified within another sector, such as retail and e-commerce.

**103.7%**  
**BARKING & DAGENHAM** ↑

London boroughs with a logistics focus (through a presence of logistics businesses and/or policy) have experienced an increase in businesses above the London average and as high as 103.7% in Barking and Dagenham. This suggests that these boroughs present ideal locations for agglomeration of such activities as well as that positive policy support can assist in boosting the performance of the sector in terms of the number of businesses and thereby employment contribution.



The sector offers an above average proportion of full time positions and these are across a range of occupation types including managerial, skilled trades and machine operatives.



Businesses offer bespoke training packages and progression opportunities for employees.



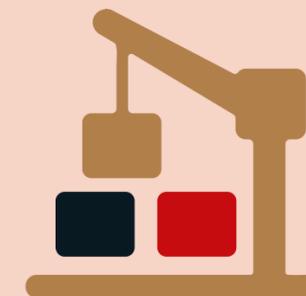
Salaries are increasing, especially for drivers who now play an increasingly customer focused role.



Productivity is rising and the sector is forecast to contribute a greater proportion of national Gross Value Added (GVA) than previously forecast.



The rateable value for warehouse logistics premises are now at an average of £82 per sq m across London boroughs. Across all industrial premises in London the rateable value has increased by 44.7% between 2000 and 2012.



The logistics sector supports a range of other sectors through supply chains as well as its own procurement and investment, including significant expenditure in construction activity.

## THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON

### 3.1

The logistics sector is commonly perceived to be associated with low value activities. This chapter explores data on the performance of the sector and in doing so evidences the important role the sector plays in supporting economic growth and providing a range of employment opportunities.

### METHOD

### 3.2

Data has been analysed using specific sectors, defined using Standard Industrial Classifications. These are set out in the Appendix and reflect the logistics classification used in the British Property Federation's Delivering the Goods report<sup>34</sup>.

## BUSINESSES AND BUSINESS GROWTH

### 3.3

According to evidence published by ONS<sup>35</sup>, there are 6,105 businesses operating in the logistics sector in London. However this does not capture businesses classified within other sectors, such as retail and particularly e-commerce, which will have a significant logistics component.

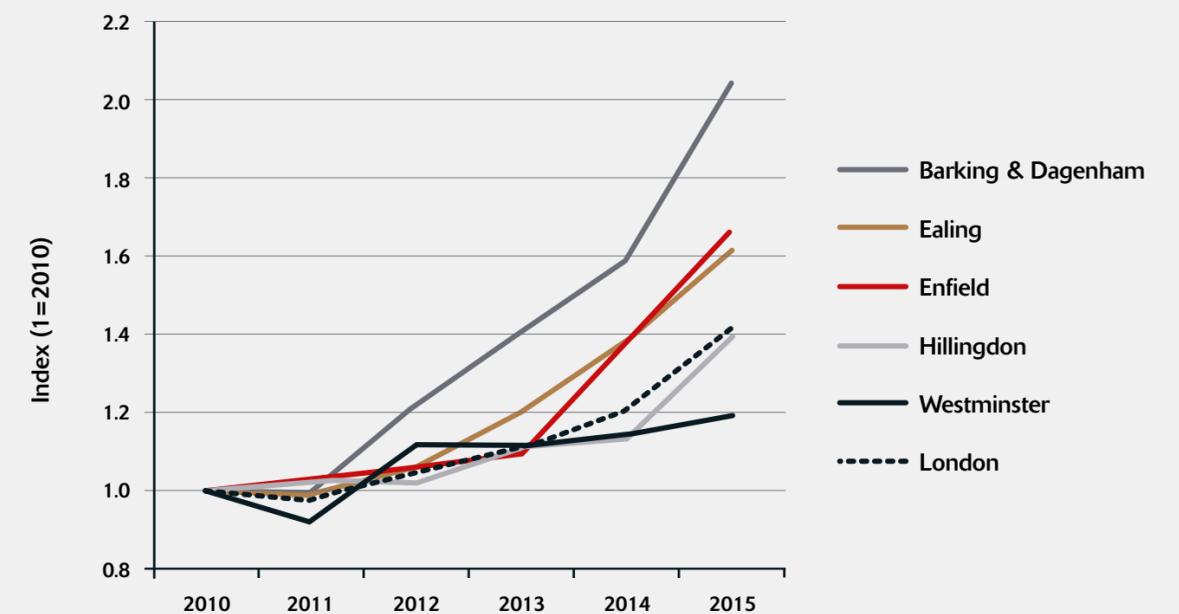
### 3.4

The number of businesses in the sector in London has increased from 4,335 in 2010, demonstrating an increase of 40.8%. The level of growth is notable – it is higher than the overall growth in the number of businesses across all sectors in London at 34.2% and is therefore included in the top ten growth sectors.

### 3.5

The following figure illustrates logistics business growth over the period from 2010 to 2015 in five example London boroughs of Barking and Dagenham, Ealing, Enfield, Hillingdon and Westminster, in comparison to London overall. Barking and Dagenham has seen a significant growth in businesses, equivalent to 103.7%, which is notably higher than the 40.8% logistics average for London. The London boroughs of Enfield and Ealing have also seen notable business growth, at 66.7% and 61.4% respectively.

Indexed change in number of logistics businesses



Source: ONS 2016

<sup>34</sup> British Property Federation (December 2015) Delivering the Goods

<sup>35</sup> ONS (2016) UK Business Counts – Enterprises. An enterprise can be thought of as the overall business, made up of all the individual sites or workplaces.

**THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON**

**3.6**

There are 57,250 wholesale and retail businesses in the capital and these grew by 6,250 (12.3%) between 2010 and 2015. Information and communications businesses also increased by 19,885 (51.2%) in this period. This includes businesses supporting the film and television production activities and media production companies for online platforms such as Netflix.

**3.7**

A high proportion of increase in the manufacturing sector is attributable to the manufacture of food products, which has increased by 335 businesses or 50.0% over the same period. These businesses are critical to providing food for Londoners.

**3.8**

The table below illustrates some of these trends.

**Change in the number of businesses in London by sector**

	2010	2015	Change 2010 – 2015	% Change 2010 – 2015
<b>Logistics sub-sectors</b>	4,335	6,105	1,770	40.8%
<b>Related sectors<sup>36</sup></b>				
Manufacturing	11,620	12,505	885	7.6%
Wholesale and retail trade	51,000	57,250	6,250	12.3%
Information and communication	38,820	58,705	19,885	51.2%
<b>All sectors</b>	<b>331,540</b>	<b>444,880</b>	<b>113,340</b>	<b>34.2%</b>

Source: GLA Economics



**JOBS AND JOBS GROWTH**

**3.9**

Data from the Office of National Statistics (ONS)<sup>37</sup> suggests that at least 76,200 people are employed directly within logistics companies based in London<sup>38</sup> although as previously stated this undercounts the size and extent of logistics related activity in the capital. For example, while being a retailer, Ocado operates very much as a logistics firm in terms of premises and activities. Retail warehouses are estimated to account for roughly a third of all warehouse floorspace<sup>39</sup> but the employment in these is not necessarily captured in logistics data.

**3.10**

Since 2011 the sector has seen growth of 6,800 employees (9.8%), equivalent to circa 2,270 employees per annum<sup>40</sup>. This is significantly higher than the estimated annual growth of 550 (growth of 11,000 from 2011 – 2031)<sup>41</sup>, for the wider transportation and storage sector as evidenced by the GLA. This high growth rate is attributable to the change in 'other transportation support activities' and the 'other postal and courier', sub-sectors which saw an increase of circa 4,000 jobs (34.5%) and 3,000 jobs (39.6%), respectively, over the same period. Looking at the broader transport and logistics sector, according to the GLA, from 2011 – 2014 employment increased significantly by 33,000 jobs.

<sup>36</sup> The figures presented for the supply chain sectors represent the broader sectors (e.g. Manufacturing SIC 10 – SIC 33).

<sup>37</sup> ONS (2014) Business Register and Employment Survey

<sup>38</sup> Whilst GLA provide employment data for the broader transportation and storage sector (SIC 49 – SIC 53), for the purpose of this analysis statistics have been gathered from ONS in order to provide data more specifically for the defined logistics sub-sectors, as set out in the Appendix

<sup>39</sup> UK Warehouse Association (2015) The Size and Make Up of the UK Warehousing Sector

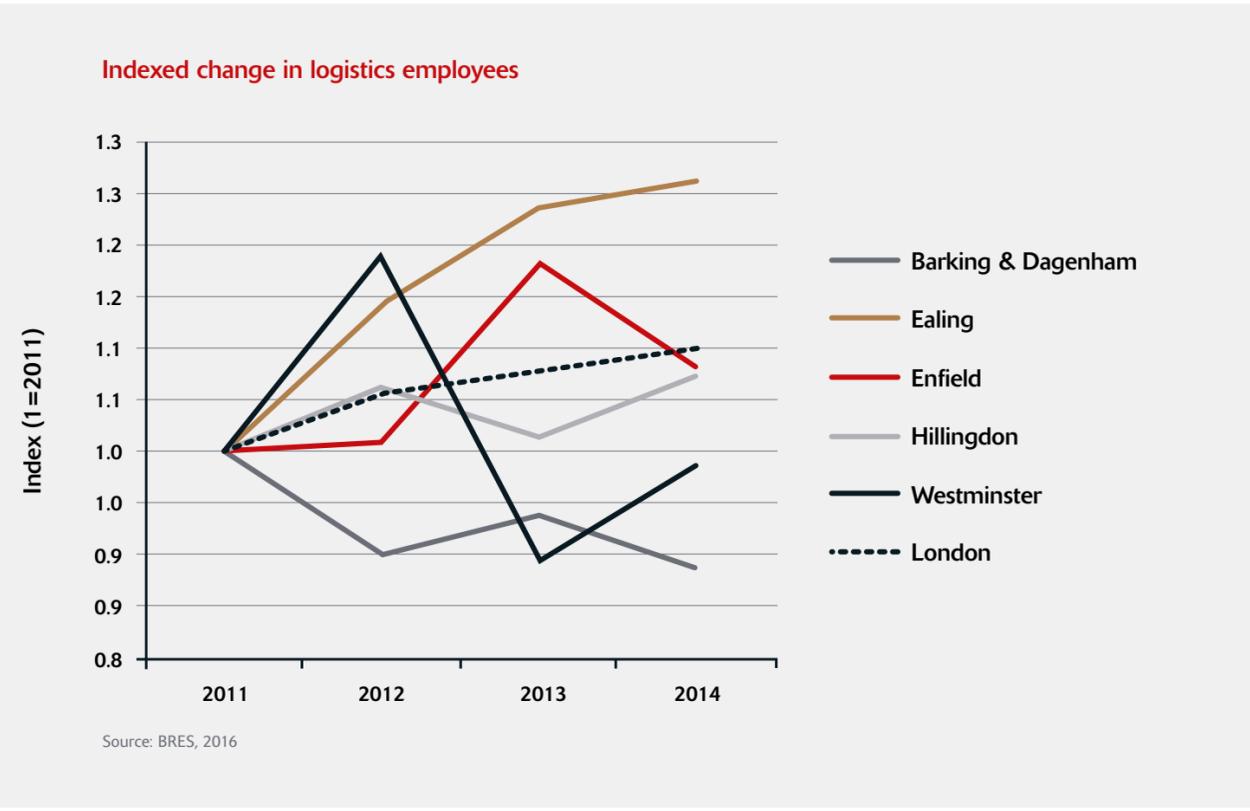
<sup>40</sup> ONS (2016) Business Register and Employment Survey

<sup>41</sup> GLA (2015) Employment Projections

**THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON**

**3.11**

The change in the number of employees working within logistics companies based in the five London boroughs varies notably. Comparing these trends to those in the previous graph illustrates that the relationship between logistics businesses and logistics jobs is not linear. One may decline while the other increases. Therefore, employment alone cannot be used as an indicator of sector performance and land requirements. Any demand assessment undertaken by the GLA should seek to ensure that the full picture is considered in estimating future employment land need for the logistics operations.



**25.1% OF MANUFACTURING EMPLOYEES WORK IN THE MANUFACTURE OF FOOD PRODUCTS**

**3.12**

Other sectors with notable logistics operations which are not captured in the data presented on the left includes:

**The wholesale and retail sector**

Employs 594,700 people in London and a notable number of these will be involved in the distribution of goods between stores or direct to the consumer. For example, in implementing its omni-channel strategy, John Lewis Partnership is increasing its online retail element. Over a third of sales are now online, all requiring a delivery response, either direct to the customer, or to a store for Click and Collect. The sector grew by 48,300 jobs between 2011 and 2014. Experian project growth of 57,800 jobs in London in this sector between 2011 and 2031.

**Manufacturing Industry**

A significant proportion of all employees in the manufacturing industry work in the manufacture of food products (25.1%). This can be directly associated with urban logistics due to the need to distribute perishable produce to supermarkets, sandwich and sushi shops as well as hotels and restaurants on a daily basis. This sector has experienced employment growth of 36.4% between 2011 and 2014.



**THE WHOLESALE AND RETAIL SECTOR EMPLOYS 594,700 PEOPLE IN LONDON**

- ES
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2
- A3
- A4
- A5
- A6

## THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON

### Historic change in logistics and supply chain sector employees

Sector	2011	2014	Change	% Change
Logistics sub-sectors	69,400	76,100	6,800	9.8%
Related sectors				
Manufacturing	100,200	113,300	13,100	13.1%
Wholesale and retail trade	546,400	594,700	48,300	8.8%
Information and communication	328,200	372,800	44,600	13.6%
<b>All sectors</b>	<b>4,303,700</b>	<b>4,732,900</b>	<b>429,200</b>	<b>10.0%</b>

Source: BRES, 2016

### Forecast change in employees in employment in London by sector

Variable	2011	2031	Absolute change (2011 – 2031)	% Change (2011 – 2031)
Transportation and storage	245,900	313,000	67,000	27.2%
Supply chain sectors				
Manufacturing	151,700	117,100	-34,600	-22.8%
Wholesale and retail trade	629,800	687,700	57,800	9.2%
Information and communication	382,500	469,100	86,600	22.6%
<b>All sectors</b>	<b>4,946,700</b>	<b>6,452,700</b>	<b>1,506,000</b>	<b>30.4%</b>

Source: Experian, September 2016

### 3.13

The latest Experian employment projections, based on actual data from 2016<sup>42</sup>, provide a longer term forecast to the year 2036. This suggests that over a period from 2016 to 2036, the transportation and storage sector is expected to see an increase of 54,700 employees, equivalent to employee growth of 19.8%, which is greater than the average across all sectors in London, at 17.8%. The information and communication supply chain sector is also expected to grow significantly with employment increasing by 21.0%.

<sup>42</sup>The latest September 2016 Experian Projections use 2016 as the historical end-point (the point beyond which data becomes forecasts) for regional labour market variables, such as employment.

PREDICTED INCREASE OF  
**54,700**  
 EMPLOYEES  
 IN THE TRANSPORTATION AND STORAGE SECTOR



AN INCREASE OF  
**19.8%**  
 BETWEEN 2016 AND 2036

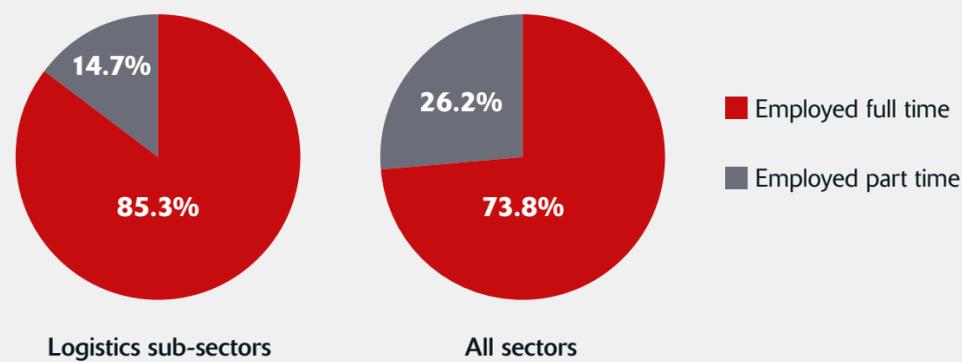
**THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON**

**A RANGE OF FULL-TIME POSITIONS**

**3.14**

For a sector commonly associated with part-time employment it is important to understand that the majority of employees (85.3%) in the logistics sector work full-time. This is greater than the average proportion of full-time employees in London, at 73.8%<sup>43</sup>.

Employees in London by sector – 2014



Source: ONS Business Register and Employment Survey (BRES), 2015

**A MIX OF OCCUPATIONS**

**3.15**

The logistics sector provides a range of employment opportunities in London, skewed towards managerial and technical positions. The proportion of employees in higher paid, managerial, professional and technical occupations (55.7%) is above the London average for all sectors (52.7%).

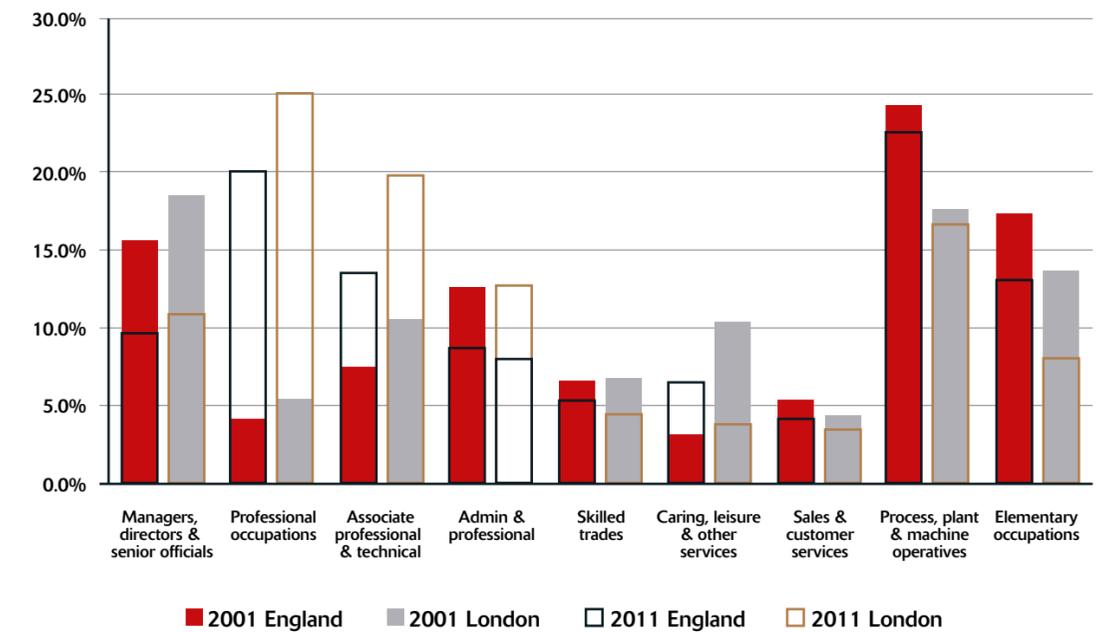
**3.16**

Comparing 2011 data with that for 2001 shows that the proportion of jobs in professional and associate professional and technical occupations (55.7%) has increased from 34.5% in 2001.

**55.7% OF LOGISTICS EMPLOYEES ARE IN HIGHER PAID, MANAGERIAL, PROFESSIONAL AND TECHNICAL ROLES**

<sup>43</sup> ONS (2015) Business Register and Employment Survey (BRES)

**Change in sector occupation types (2001 – 2011)**



Source: Census 2011

**3.17**

The case studies indicated a full range of occupation types within urban logistics. For example:



**Ocado**

Employs approximately 250 FTE positions at its Origin Business Park site. The majority of these (90%) are drivers known as CSTM's (Customer Service Team Members). 5% are permanently on site including technicians and loaders and the remaining 5% are involved in site management.



**John Lewis Partnership**

Employs 200 FTE Partners at its Origin Business Park site including delivery staff, installation experts, engineers, administration and warehouse staff. The majority of roles (130) are engineer and installation positions. Employment at the site doubles during the peak periods of Christmas and summer clearance.

**THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON**

**EDUCATION AND TRAINING**

**3.18**

Businesses operating in the sector also provide a range of education and training opportunities to their employees. These ensure that individuals are upskilled in job specific requirements as well as providing career progression opportunities. Training is provided both in-house as well as through external providers, for example through Master of Business Administration (MBA) courses. The case studies contained within the Appendix provide specific illustrations of this.

**ABOVE AVERAGE SALARIES**

**3.19**

The average (mean) salary in the London transportation and storage sector stands at £38,585 per annum, which is a significant 39.8% higher than the national average wage (£27,607).

**3.20**

Evidence suggests that across all sectors in London, the average wage has declined slightly over the period from 2008 to 2015 by £539, equivalent to 1.3%. Salaries in the transportation and storage sector have increased at a significant rate of 16.7% over the same period, demonstrating a gross salary increase of £5,531. This has served to narrow the gap between the average wage in logistics and the London average (£1,710 difference). This trend may be led by an increase in the number of drivers who typically command higher average salaries than administration, process and elementary employees.

**3.21**

Within the transportation and storage sector, the following sub-sectors have seen significant average salary growth in London over the period from 2008 – 2015:

- Water transport – **56.3%**
- Postal and courier activities – **22.3%**
- Land transport and transport via pipelines – **21.7%**

**3.22**

A recent press release by Amazon indicated that they provide a starting wage above the national minimum wage and this increases over the first two years of employment. Fulfilment centre staff also benefit from a comprehensive benefits package<sup>44</sup>.

<sup>44</sup> Amazon (6th October 2016) Amazon Expands UK Fulfilment Centre Network: Meeting Increasing Customer Demand and Growth of Fulfilment by Amazon

**£38,585**  
PER ANNUM

**AVERAGE SALARY IN THE LONDON TRANSPORTATION AND STORAGE SECTOR**



**39.8%**

**HIGHER THAN THE NATIONAL AVERAGE WAGE**

# THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON



## GROWING PRODUCTIVITY

### 3.23

Over the coming period from 2014 – 2036<sup>45</sup>, productivity<sup>46</sup> in transportation and storage in London is projected to grow at a faster rate than seen historically, at 2.9% per annum over the London Plan period (2011 – 2031) and over the longer term (2014 – 2036) compared to 1.7% per annum from 1997 to 2014. This is significant compared to the expected productivity growth rate for London which is 3.3% (2011 – 2031) and 3.1% (2014 – 2036) per annum, compared to historic growth of 4.8% per annum in the period 1997 to 2014. The transport and storage sector is therefore projected to perform more strongly than previously when compared to equivalent figures for London over the period of the London Plan and beyond.

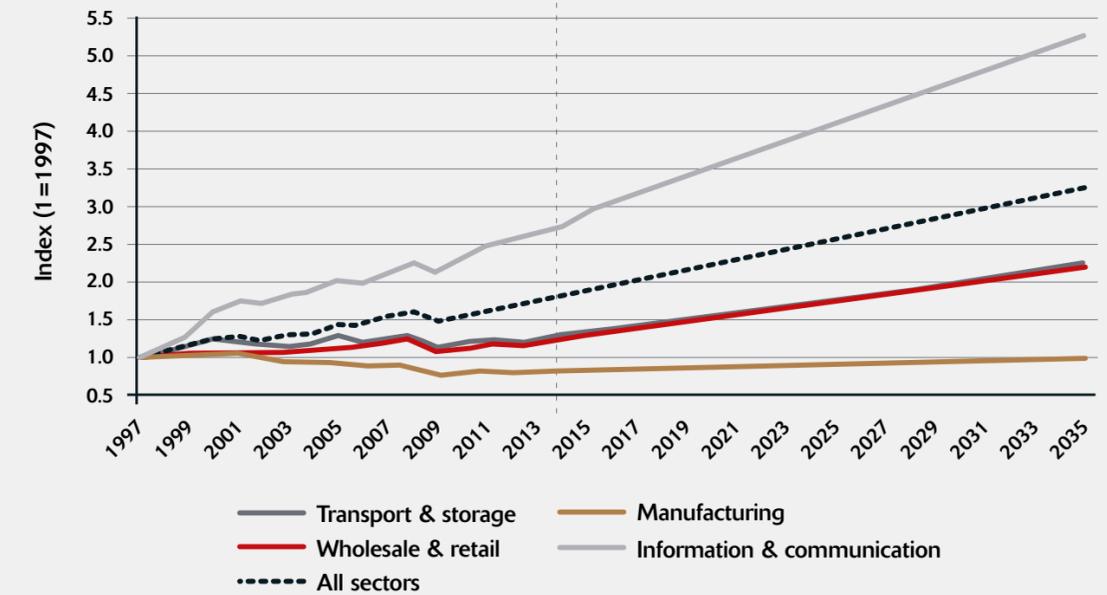
### 3.24

Gross Value Added (GVA) in manufacturing and wholesale and the retail trade is also anticipated to grow at a faster rate than seen historically. GVA projections sourced from Experian illustrate the very real potential of the logistics sector and its role in supporting other sectors to grow as well as responding to such growth. It is evident that the transport and storage sector and wholesale and retail sectors are projected to grow at the same rate, reflecting the close relationship between the two.

<sup>45</sup> Analysis has been undertaken using Experian sources as GVA data from GLA Economics is unavailable.

<sup>46</sup> Measured using Gross Value Added (GVA) GVA measures the value of output created (i.e. turnover) net of inputs purchased and used to produce a good or service (i.e. production of output). It provides a key measure of economic productivity.

## Indexed change in GVA by sector



Source: Experian, 2016

## Historic and forecast change in GVA by sector

	Historic change pa 1997 – 2014	Plan period forecast change pa 2011 – 2031	Forecast change pa 2014 – 2036
Transportation and storage	1.7%	2.9%	2.9%
Supply chain sectors			
Manufacturing	-1.1%	0.5%	0.7%
Wholesale and retail trade	1.5%	3.5%	3.4%
Information and communication	10.2%	3.8%	3.6%
All sectors	4.8%	3.3%	3.1%

Source: Experian, 2016



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

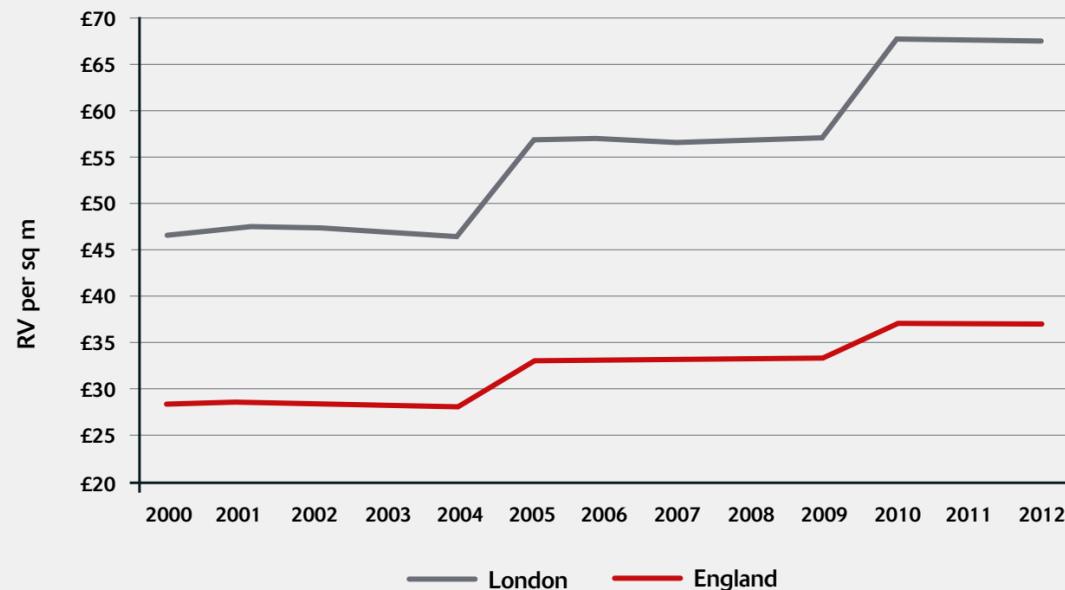
# THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON

## INCREASING BUSINESS RATES

### 3.25

The Rateable Value (RV)<sup>47</sup> per sq m for industrial premises in London increased over the period from 2000 to 2012 by £21 per sq m, equivalent to a 44.7% increase. This is somewhat greater than the increase seen across England on average, at £9 per sq m or 31.2%. The following figure demonstrates that the RV per sq m for industrial properties in London is almost double the national average, at £68 and £37 per sq m in 2012, respectively.

Change in rateable value per square metre for industrial premises



Source: VOA, 2012

<sup>47</sup> The Valuation Office Agency (VOA) publish evidence on the total rateable value (RV) and floorspace (sq m) of industrial, retail, office and other business premises in London. The industrial category includes logistics related uses such as post office sorting centres and warehouses, including distribution and high tech warehouses, although excluding retail warehouses and foodstores.

<sup>48</sup> Note that these calculations are for illustrative purposes and do not include business premises which qualify for business rate relief.

<sup>49</sup> This is an average value per RV based information collected from VOA on warehouse premises in London in April 2016. The RV of a property can vary depending on the age, layout, type, location, facilities etc. as noted in the VOA Rating Manual.

<sup>50</sup> <https://www.gov.uk/apply-for-business-rate-relief/> Small businesses – if a business uses only one property or if the RV is less than £12,000 a business will receive a discount on their business rates bill. Properties in Greater London with an RV below £25,500 that do not qualify for BRR are still considered small businesses and so business rates will be calculated using the small business multiplier. Enterprise Zones – if properties are located within an Enterprise Zone the occupier could receive BRR of up to £50,000 a year over 5 years.

**50,000 SQ FT LOGISTICS PREMISES = CIRCA £190,000 BUSINESS RATES PER ANNUM**

### 3.26

Based on this evidence it can be estimated that in 2012, circa £650 million business rate revenue was generated by industrial premises, including logistics related premises in London<sup>48</sup>.

### 3.27

More recent evidence provided by VOA indicates that the RV per sq m for logistics related warehouse premises in London is approximately £82 per sq m<sup>49</sup>. This demonstrates the growing contribution of the logistics sector and logistics related industries to business rate revenue accruing to the Government and London boroughs. An urban logistics premises of 50,000 sq ft (4,645 sq m) would generate circa £190,000 in business rate revenue per annum, based on the £82RV per sq m. This is equivalent to £950,000 over a five year period. From 2020, local authorities will keep 100% of the uplift in their business rates and so new urban logistics premises would contribute to the public sector monies available for investment in the local area. It should also be noted that some properties are eligible for discounts on business rates, known as business rates relief (BRR)<sup>50</sup>.

**FROM 2020 LOCAL AUTHORITIES WILL KEEP 100% UPLIFT IN THEIR BUSINESS RATES**





ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

# THE ECONOMIC AND SOCIAL IMPACTS OF LOGISTICS IN LONDON

## SUPPLY CHAINS AND PROCUREMENT

### 3.28

While the logistics sector predominantly sells to other sectors, it also purchases goods and services and therefore creates an economic impact through its procurement patterns.

### 3.29

The strongest demand connections exist with manufacturing businesses, retailers including e-commerce as well as other transport and storage providers. These sector based relationships are indicated in the table below. Beyond this logistics supports a wider range of sectors.

### 3.30

The sector also buys from a range of sectors, particularly construction, manufacturing and information and communication sectors. These are indicated in the table below and explored in more detail subsequently.

### 3.31

National supply chain data suggests that in 2012, the logistics sector had a total procurement expenditure of £8.4 billion<sup>51</sup>. A large proportion of this, equivalent to 92.1% of total spend or £7.7 billion, was spent on construction services including investment in new premises and reinvesting in existing land and property, demonstrating the scale of investment and growth in the sector as well as the extent to which it supports the construction industry.

Supply Chain Industries by Logistics Sub-Sector

	WAREHOUSING AND STORAGE	FREIGHT RAIL TRANSPORT	FREIGHT ROAD TRANSPORT	POSTAL AND COURIER
<b>SUPPLY INDUSTRIES (BUY FROM)</b>	COMMERCIAL BUILDING CONSTRUCTION FREIGHT ROAD TRANSPORT LIFTING & HANDLING EQUIPMENT MANUFACTURING	RAILWAY EQUIPMENT MANUFACTURING	MOTOR VEHICLE MAINTENANCE & REPAIR MOTOR VEHICLE PARTS WHOLESALING	INFORMATION AND COMMUNICATION OTHER MOTOR VEHICLE SALES
<b>SUPPLY INDUSTRIES (SELL TO)</b>	MANUFACTURING WHOLESALE AND RETAIL TRADE FREIGHT RAIL TRANSPORT FREIGHT ROAD TRANSPORT SEA & COASTAL FREIGHT WATER TRANSPORT FREIGHT FORWARDING & CUSTOMS AGENTS	HARD COAL MINING MANUFACTURING CONSTRUCTION WHOLESALE AND RETAIL TRADE TRANSPORTATION AND STORAGE	PETROLEUM REFINING BUILDING PROJECT DEVELOPMENT WHOLESALE AND RETAIL TRADE FREIGHT FORWARDING & CUSTOMS AGENTS	ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY E-COMMERCE & ONLINE AUCTIONS CONSUMERS

Source: IBISWorld, 2016

## WHAT THIS MEANS

### 3.32

The logistics sector makes a unique contribution to the economy of London and creates a range of social and economic impacts. As the data demonstrates, urban logistics provides a large and varied range of employment opportunities as well as supporting the fiscal receipts of local authorities and the activities of other sectors. It is an important part of the London economy and one which should be supported.

<sup>51</sup> ONS (October 2015) Supply and Use Tables 2013 – Total Consumption at Purchasers' Prices

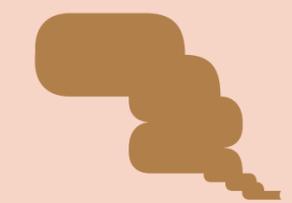
# 4 INDUSTRY INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY

## KEY FINDINGS



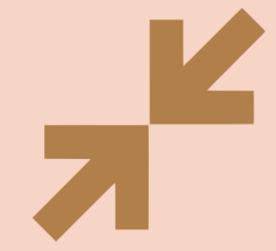
**TOTAL CARBON EMISSIONS**

Heavy and Light Goods Vehicles account for only 16% of total transport related carbon emissions. This means that collectively these commercial vehicles are the source of less than 4% of total carbon emissions in London.



**PM10**

They are also only a small contributor to London's total Nitrous Oxide (NOx) (less than 10%) and Particulate Matter (PM10) (less than 6%).



Further to this, transport emissions consistently reduced between 2005 – 2013.



Logistics businesses are implementing innovative solutions to increase their environmental sustainability. This includes electric vehicles, retiming of deliveries, use of reverse logistics and sustainable buildings.



The sector would benefit from further Government support in implementing and funding changes. There is also the need for recognition that not every solution works for every business.



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## INDUSTRY INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY

### 4.1

Due to the very nature of logistics operations, the sector is often criticised in regards to congestion and associated environmental impacts. However, the sector has been quick to innovate. Evidence demonstrates that the sector is reducing emissions year on year and is responsible for only a very small proportion of the overall total emissions in London.

### 4.2

Logistics sector operators demonstrate a number of proactive and innovative responses to environmental challenges through building efficiency and adoption of new technologies in delivery fleets. As the sector continues to grow, solutions could be rolled out more widely. The government, both local and national, can play a greater role in supporting the industry to continue to adapt and adopt these solutions.

### 4.3

Innovations such as roll out of consolidation centres, Last Mile Logistics or Ultra-Low Emission Vehicles or more simple measures like the retiming of deliveries and those discussed below, can be further supported through new planning policy by ensuring there is sufficient industrial land available in proximity to urban concentrations, which in turn means there will be less need for longer journey distances for the last mile component of the delivery supply chain. This will not only reduce vehicle miles overall and therefore congestion but will also make Electric Vehicles more feasible for a wider range of operators.

## VEHICLE EMISSIONS

### 4.4

Around 80% of London's freight is currently delivered by road, although cars still account for the majority of vehicle movements with approximately 65,000 people entering Central London via private car trips in the weekday morning peak<sup>52</sup>. Light commercial traffic makes up 13% of all London's road traffic, compared with 4% for Heavy Goods Vehicles (HGV) and 1.7% for buses.<sup>53</sup>

### 4.5

During the morning peak, this equates to around 7,300 vans per hour.<sup>54</sup> Data from TfL suggests Light Goods Vehicles (LGV) traffic will increase by 22% between 2011 and 2031, while HGV traffic will remain static.

### 4.6

On a typical weekday in London, in relation to logistics and the wider sector there are:

**281,000 JOURNEYS  
A DAY: DELIVERING  
TO 290,000 BUSINESSES  
AND 8.2M RESIDENTS;**

**TRAVELLING  
APPROXIMATELY  
13 MILLION  
KILOMETRES; AND**

**80% OF THIS OCCURS  
BETWEEN  
06:00 AND 18:00.<sup>55</sup>**

<sup>52</sup> Transport for London (2015) Travel in London, Report 8

<sup>53</sup> Transport for London, Transport Committee Investigation scope Light commercial traffic in London,

<sup>54</sup> Transport for London (January 2015) Freight and Fleet presentation to UKNMB  
<http://www.ukroadsliaisongroup.org/en/utilities/document-summary.cfm?docid=31DA53DC-664B-4164-87603AFECDFAE6C7>

<sup>55</sup> Transport for London (January 2015) Freight and Fleet presentation to UKNMB

**INDUSTRY INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY**

**4.7**

Analysis of emissions data shows us that the totals specifically attributed to transport and indeed LGV and HGVs are much lower than those from other industries and other vehicles types.

**4.8**

In relation to the source of CO<sub>2</sub> emissions in London the following graphs, from the Mayor's Transport Emissions Roadmap (2014) demonstrate that while transportation is a contributor to London's overall CO<sub>2</sub> emissions (21%), it is responsible for fewer emissions than that of the domestic sector which produces approximately 37% of emissions.<sup>56</sup>

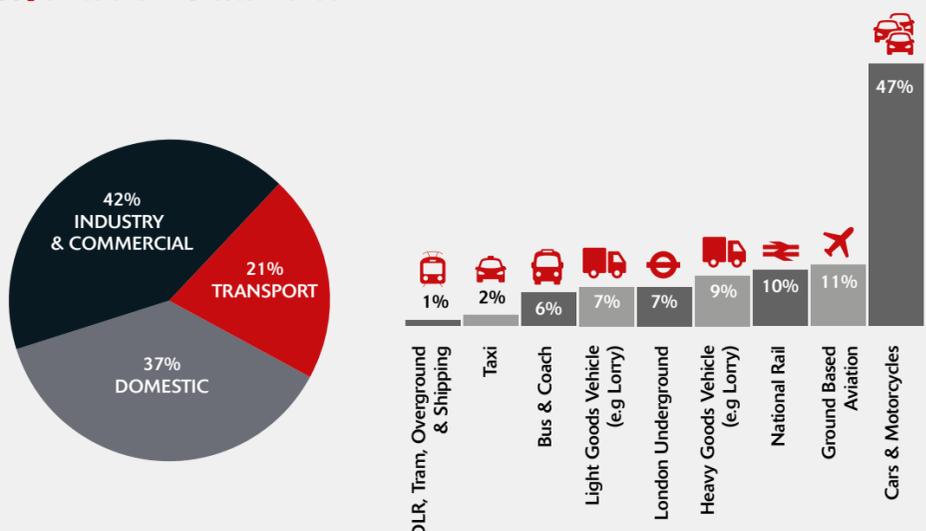
**4.9**

The graph below demonstrates that HGVs and LGVs are jointly responsible for 16% of total transport related emissions. This means that collectively these commercial vehicles are the source of less than 4% of total carbon emissions in London.

**4.10**

In relation to Nitrous Oxide (NOx) emissions, the figures draw a similar picture. The set of graphs below show the emissions of NOx within London. Transport accounts for approximately 63% of total NOx emissions in the capital. HGV and LGV are responsible for 17% of these emissions or less than 10% of London's total NOx.

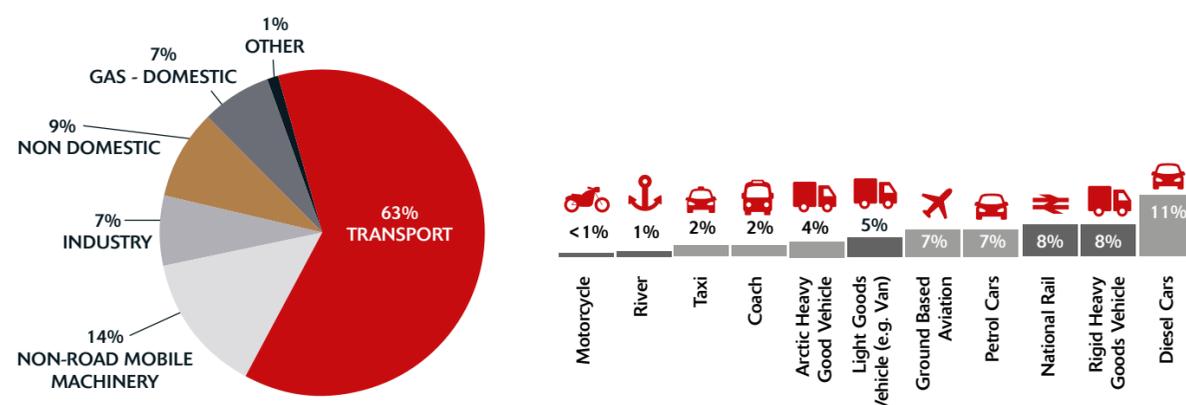
**CO<sub>2</sub> emissions in Greater London**



Source: GLA Transport Emissions Roadmap (2014)

<sup>56</sup> GLA (September 2014) Transport Emissions Roadmap

**NOx emissions for London**

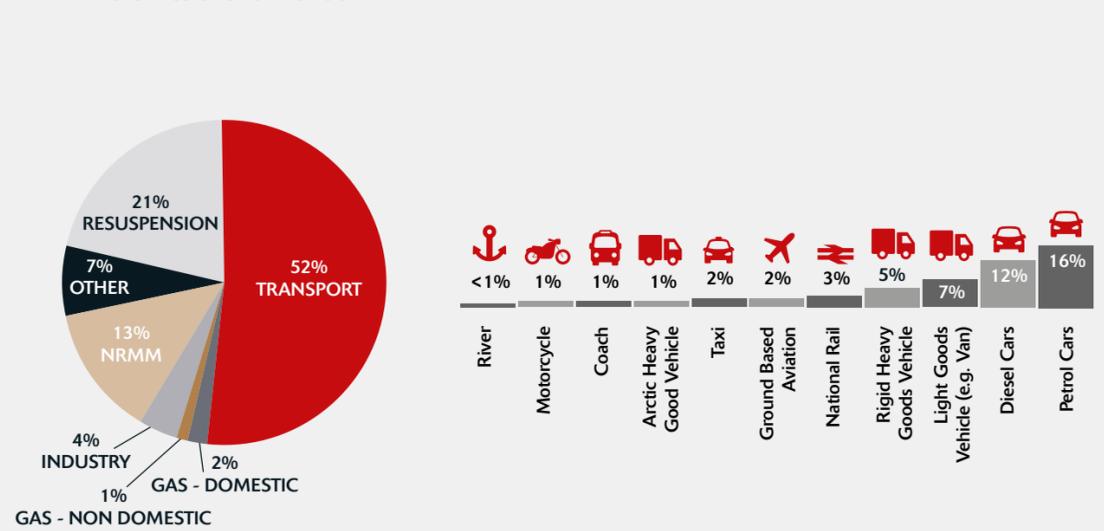


Source: GLA Transport Emissions Roadmap (2014)

**4.11**

Finally in relation to Particulate Matter (PM10) emissions, transport is responsible for approximately 52% of total PM10 emissions. Within that 52%, HGV and LGV account for 13% of these emissions, meaning that logistics vehicles are responsible for less than 6% of the overall London total.

**PM10 emissions for London**



Source: GLA Transport Emissions Roadmap (2014)



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

# INDUSTRY INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY

## 4.12

This data demonstrates that while logistics vehicles do generate emissions, they are far from being the largest polluters. The overall totals are much less than those from private vehicles (car) and taxis.

## 4.13

Further to this, between 2005 and 2013, emissions from the transport sector have decreased by over 15%. King's College have also carried out a number of studies into air quality, which demonstrate the downwards trend of total NOx, PM10 and PM2.5. This decrease can be considered significant when compared to trajectories of other industries. Further information on these studies can be seen in the Appendix.

## 4.14

Such improvements are due to a number of factors – which include industry and vehicle efficiency improvements as well as some policy mechanisms and interventions. Some of these industry improvements along with the support required from public agencies and local and national government are discussed below.

# INDUSTRY INNOVATIONS

## 4.15

Within the industry there has been increased emphasis on clean vehicle technology, efficient supply chain and the use of modern logistics solutions. Some solutions are as a result of industry competition and include improving efficiency of vehicles or external policy interventions. Some of these initiatives are underway while others are only at pilot stage and include:

<p><b>CONSOLIDATION CENTRES (CENTRALISED COLLECTIONS AND DELIVERIES)</b></p> 	<p><b>LAST MILE LOGISTICS</b></p> 	<p><b>ULTRA-LOW EMISSION VEHICLES / FUEL CELL EMISSION VEHICLES</b></p> 
<p><b>DELIVERY PLANS INCLUDING REVERSE LOGISTICS</b></p> 	<p><b>RETIMING DELIVERIES</b></p> 	<p><b>IMPROVEMENTS IN EMISSION STANDARDS</b></p> 



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

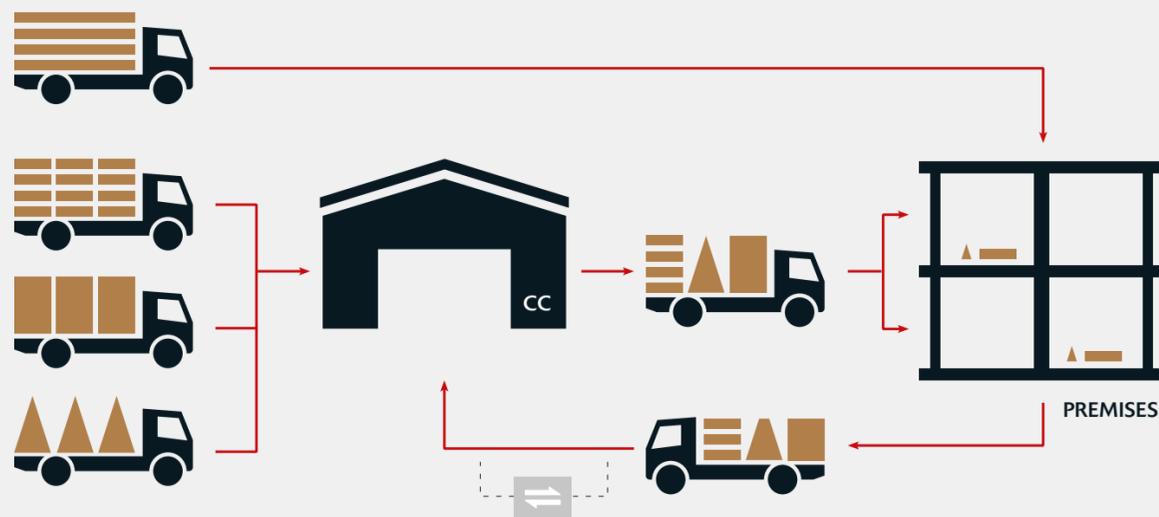
# INDUSTRY INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY

## CONSOLIDATION CENTRES

### 4.16

Urban consolidation centres (UCC) can offer significant delivery streamlining for logistics companies, combining loads together to be delivered into locations utilising a single vehicle rather than multiple vehicles, thus making the same journey to deliver single packages. Benefits of reduced trips, reduced fuel costs and corresponding reduction in associated emissions as well as improved vehicle capacity utilisation have been demonstrated by studies of existing consolidation centres<sup>26</sup>. Studies have also demonstrated that UCC significantly improve the utilisation of vans.<sup>57</sup>

Schematic showing UCC operations



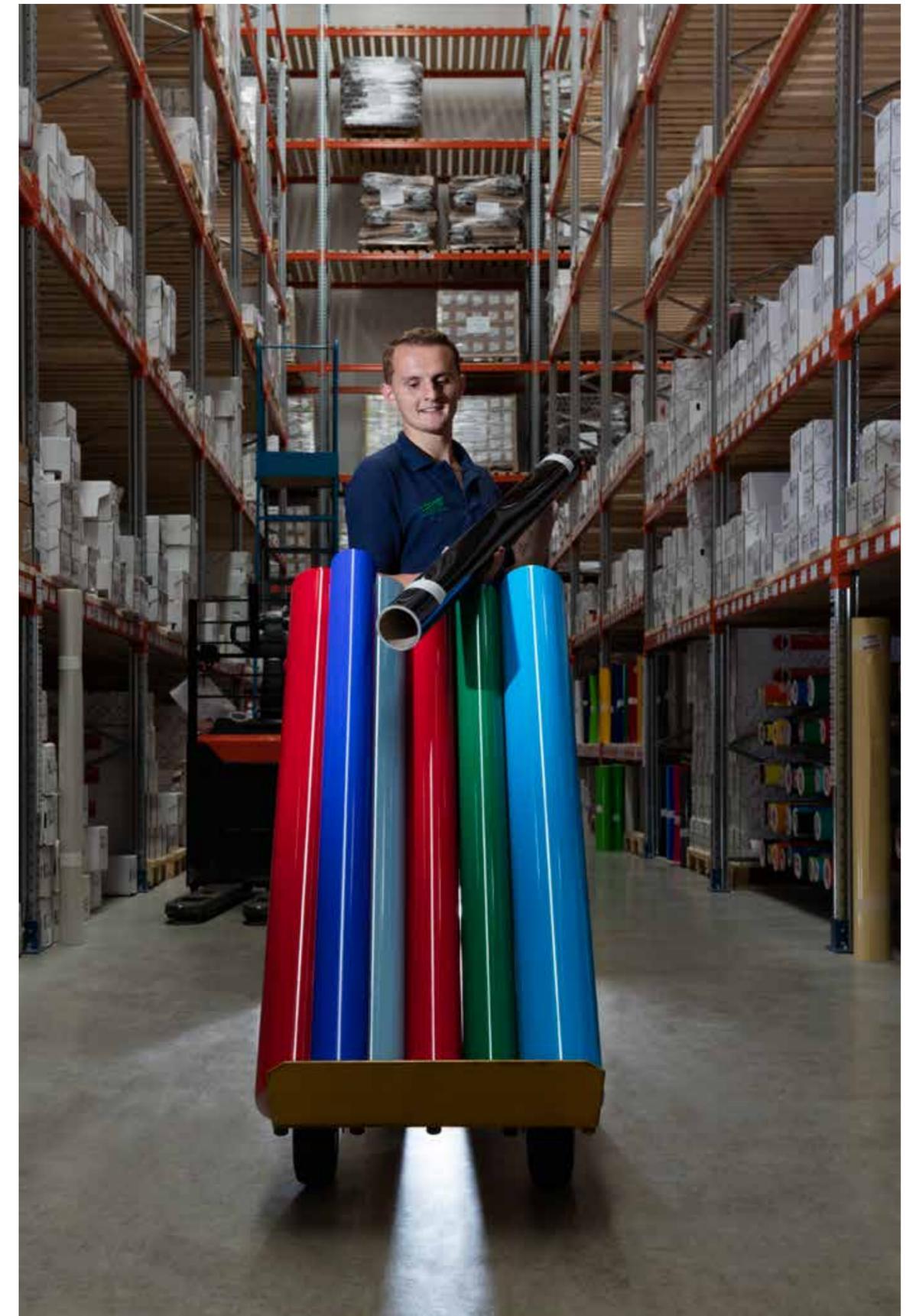
### 4.17

According to a report produced by WRAP, construction consolidation centres (CCC) have reduced freight traffic to construction sites by over 70%, helped to increase productivity of site labour leading to an average of 6% productivity gain and a reduction in waste of between 7-15% due to less material damage and shrinkage.<sup>58</sup> Deliveries from the CCC are also made 'just-in-time', which minimises on site storage requirements and downtime.

<sup>26</sup> For further reading also see UKWA (2016) Feeding London

<sup>57</sup> University of Westminster (2005) Urban Freight Consolidation Centres Final Report

<sup>58</sup> WRAP (2011) Using Construction Consolidation Centres to reduce construction waste and carbon emissions



**INDUSTRY INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY**

**CASE STUDY**

**4.18**

Specific benefits from a UCC in London Borough of Camden can be seen below:

**4.19**

**LONDON BOROUGH CONSOLIDATION CENTRE (LBCC)<sup>59</sup>**

LBCC is a shared resource between the London boroughs of Camden, Enfield, Waltham Forest and Islington. The facility is based in Edmonton and is currently operated by DHL. It is a 2,000 sq ft warehouse space but could be expanded to 8,000 sq ft if demand grows. It serves over 300 council buildings across the four boroughs in Central and North London.

**Operations**

- All inbound goods from the four initial suppliers are delivered to the LBCC at pre-agreed time slots (6.30am – 8.00am)
- Goods from other suppliers can arrive at any time between 6.30am – 6.00pm. The goods are then consolidated and delivered to the Councils’ buildings (9.30am – 4.00pm) by DHL, with collections returned to LBCC
- Two vehicles are currently making the final delivery to council buildings. Vehicles are now operating at 80% or higher utilisation
- In the 12 months of operation, the LBCC consolidated 51,000 items for delivery fulfilling 9,700 orders. Only 0.64% of items were returned

**Benefits**

- 57% reduction in vehicle trips
- 69% less kilometres travelled
- 72% reduction in empty vehicle running
- Reductions in NOx (71%), PM (87%) and CO<sub>2</sub> (67%) emissions
- Goods delivered ‘just-in-time’ reducing the pressure on available storage facilities

Source: LaMiLo, Knowledge Hub, London Boroughs Consolidation Centre (LBCC) Case Study

**CONSTRUCTION CONSOLIDATION CENTRES HAVE REDUCED FREIGHT TRAFFIC TO CONSTRUCTION SITES BY OVER 70%**



**4.20**

A TfL review of consolidation solutions showed that most urban consolidation centres started as a demonstrator project and needed a subsidy, regulations or certain circumstances (e.g. Christmas traffic) to operate longer term.<sup>60</sup> Barriers to large-scale implementations of such schemes are often related to commercial viability and property or rental prices of centrally located logistics depots. Furthermore, when no structural long-term subsidies are available, or no regulatory conditions restrict transport operations, the likelihood of the creation of privately funded consolidation centre operations is low.

**4.21**

Therefore, in order to encourage uptake of UCCs it is necessary for supportive policy and funding mechanisms to be identified and worked through with logistic providers. This will obviously need to be implemented in a way that provides incentives for promoting consolidation activity while supporting free competition.

**4.22**

While such mechanisms may take time to emerge, simpler support interventions are those that could take advantage of the purchasing power of government entities including TfL, the Boroughs and the GLA. As major purchasers of products and services, these public sector organisations can lead the way by introducing such consolidation solutions within their organisations and be influencers of change.

<sup>59</sup> LaMilo Knowledge Hub (2014) London Boroughs Consolidation Centre (LBCC) Case Study

<sup>60</sup> TfL (2013) Retiming Deliveries Report

**LAST MILE LOGISTICS**

**4.23**

Given the increase in e-commerce, planning for last mile logistics has become increasingly critical for urban logistics companies. Last mile logistics refer to the final leg of the distribution journey to the final end user – that is, the shopper in a store or customer in a home. The metaphorical term ‘last mile’ is generally the least efficient link in the supply chain, comprising up to 28% of the total cost of the delivery.<sup>61</sup>

**4.24**

Over the last few years a number of pilot studies have been rolled with the aim of reducing the environmental impacts of commercial traffic and congestion in city centres. Pilots have included the utilisation of more environmentally friendly transport methods such as electric and other low emission fuel powered vehicles. While it is not possible to roll out such solutions in every situation, these pilots demonstrate the potential of industry to change where appropriate and practical. The public sector should support these changes where they are practical from a commercial perspective.



<sup>61</sup> Parcel2Go, Freddie Pierce (2013) The ‘last mile’ problem  
<sup>62</sup> <http://www.citylab-project.eu/London.php>  
<sup>63</sup> Transport for London (2015) Rethinking Deliveries Report  
<sup>64</sup> <http://www.smartfusion.eu/>

**CASE STUDIES**

**4.25**

Examples include:

**LaMiLo**

One of the largest initiatives under way is the European LaMiLo (Last Mile Logistics) programme which has brought together experts from all sectors of the freight transport industry to change behaviour of private companies, the public sector and consumers to make better use of existing transport infrastructure and networks. In London, the LaMiLo project has ended but during its time was able to co-fund a number of pilot schemes and monitor their effectiveness including the LBCC referred to previously.

**City Lab project**

An EU funded scheme that has rolled out in a number of cities.<sup>62</sup> In London, the focus of the initiative is on new distribution models and clean vehicles in association with TNT and Gnewt Cargo logistic companies. As of June 2015, Gnewt Cargo was the single biggest operator of a 100% electric van fleet for urban freight in the UK. Gnewt is often described as the ‘carrier’s carrier’ because it delivers parcels for several major parcel businesses (namely Hermes, TNT and DX).<sup>63</sup> The area it covers focuses around the London Congestion Charge (LCC) zone. The aim is that scalable and transferable business models for urban deliveries will be developed between a large carrier (TNT) and a small ‘last-mile’ carrier (Gnewt Cargo), using electric vehicles and cycles. The implementation will experiment with integrated and co-operative supply chain approaches between carriers.

**4.26**

The final miles of the supply chain and how efficiently they operate, are crucial to competitive logistics and indeed to ensuring air quality and transport congestion impacts are mitigated. Such successful projects demonstrate that sustainable delivery options need to be examined and encouraged by the GLA and policy mechanisms or perhaps short-term fiscal/financial incentives introduced to support private initiatives.

**Smartfusion**

Another positive example of the industry innovating in association with public agencies.<sup>64</sup> This initiative is a public-private partnership (PPP) last mile logistics scheme which builds upon the existing urban freight development strategies of three demonstration city-regions including Newcastle in the UK. It has been able to demonstrate smart urban freight solutions in urban-interurban supply chains and involves a number of multi-disciplinary partners from the logistics industry as well as academia and government bodies such as Newcastle City Council, University of Westminster, Clipper Logistics and Volvo Technology Corporation.

**ULTRA-LOW EMISSION VEHICLES AND FUEL CELL EMISSION VEHICLES**

**4.27**

Ultra-Low Emission Vehicles (ULEV) and Fuel Cell Emission Vehicles (FCEV) have the potential to dramatically mitigate transport emissions amongst both commercial and private vehicles.

**4.28**

The UK is a world leader in the uptake of ULEV and the Institute of the Motor Industry (IMI) states that its long term economic plan is to invest £600 million by 2020 to improve air quality, create jobs and achieve their goal of every new car and van in the UK being ultra – low emission by 2040.<sup>65</sup>

**4.29**

In order to support this ambition however, Government needs to keep on track with meeting targets for low emissions and provide regulatory and financial support to the sector to implement changes and assist take up of ULEV and FCEV. For instance, the IMI states that the UK needs to have consistent and sustainable Electric Vehicle (EV) charging facilities across the country and will need 1,150 hydrogen fuelling stations by 2030.

**4.30**

ULEV are also supported by the London Plan (Policy 6.13), which states that new residential, retail and employment uses should provide Electric Vehicle Charging Points (EVCPS). The London Plan Electric Vehicle (EV) charging infrastructure policy is intended to future-proof development in London, by enabling greater future choice in EV ownership and usage. London currently has over 850 public charge points and 4,500 more will be installed between by 2018. The majority of these are located within the M25 although there are some in trading estates outside, such as in Slough.

**4.31**

However it should be noted that EVs are not a practical solution for all operators due to the distance range and down time during charging. Moving logistics operations out of London will further limit the use of EVs due to these issues. While no doubt there are still challenges, such rollout will help make the use of EVs within the logistics industry increasingly feasible.

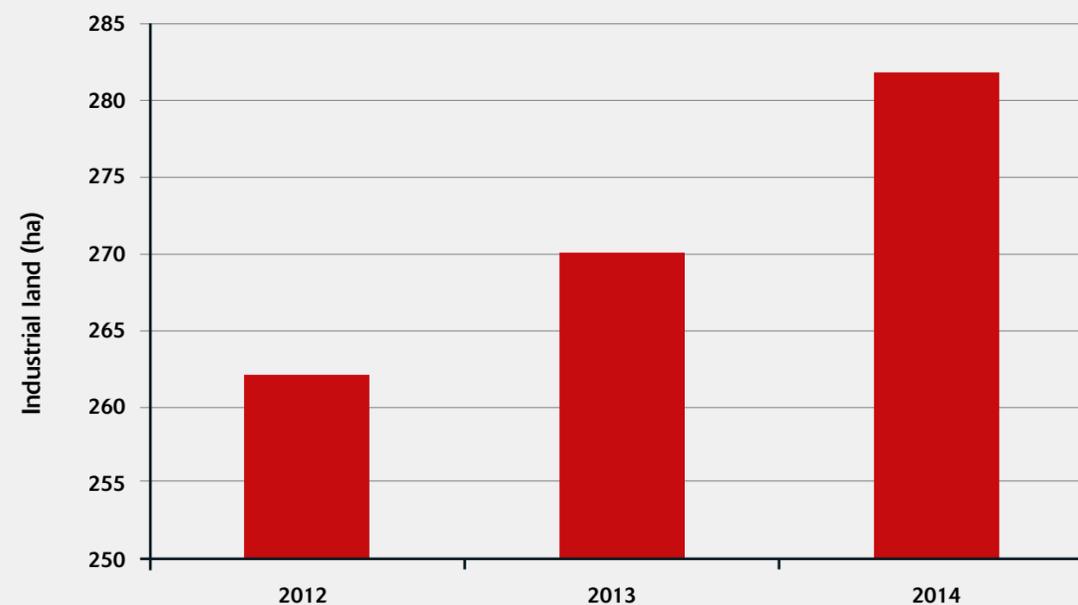
**4.32**

To reduce transport emissions Ocado for instance, operates two electric vehicles from its building at Origin Business Park, serving local markets with high concentrations of deliveries, such as Kensington and Chelsea. In addition, Ocado is trialling the use of start stop vans at Origin with a view to rolling this system out across the company.

**4.33**

The EV industrial and commercial sector is growing year on year and can offer significant benefits, reducing emissions as well as fuel costs for operators. Global sales of EV industrial vehicles have grown steadily since 2012 and examples of electric and hybrid light industrial vehicles include the Nissan e-NV200 light commercial vehicle and the Volvo FE Hybrid Lorries.

Global sales of light industrial and commercial EVs by numbers (000s)



Source: ID Tech Ex (2015)

<sup>65</sup> Institute of Motor Industry (2016) On the Road to Sustainable Growth, Boosting EV sales in the UK

**INDUSTRY INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY**

**CASE STUDIES**

**4.34**

Some logistics organisations such as FedEx and UPS have already made significant progress in adoption of EVs and ULEV in this area in order to reduce costs and comply with environmental requirements. Companies such as those highlighted below have replaced HGV vehicles with smaller, more fuel efficient vehicles without sacrificing cargo space or any other business requirements. In other cases, alternative technologies are becoming increasingly viable on the commercial stage and adoption rates are rising. Examples include the following:

**UPS**

Through its capabilities and methodologies for transport efficiency UPS for instance, has increased its fuel economy (measured in Miles per Gallon (MPG)) for its ground fleet by 10%, resulting in 3% annual reduction of CO<sub>2</sub> emissions. UPS also improved its on-road fuel economy by 29% with the inclusion of hybrid diesel electric delivery vehicles in its ground fleet.<sup>66</sup>

**FedEx**

FedEx is another positive example of innovation with regards to environmental sustainability. The company operates 330 hybrid-electric delivery vehicles, including an all-hybrid station in New York City. These hybrid trucks have resulted in: 42% improved fuel economy; reduced GHG emissions by 25%; and cut particulate pollution by 96%. In addition to the hybrid-electric vehicle initiative, FedEx operates 58 trucks fuelled by compressed natural gas (CNG), liquefied natural gas (LNG) and liquefied petroleum gas (LPG) in Europe, Asia Pacific and Latin America. The company also has over 375 LPG and electric-powered ground support equipment in use at its hub in Paris and other operational facilities across Europe.<sup>67</sup>

<sup>66</sup> Management Research Review (Vol. 34) (2011) Building sustainability in logistics operations

<sup>67</sup> FedEx Study (2011)

<sup>68</sup> Institute of Motor Industry (2016), On the road to sustainable growth; Boosting EV in the UK

**4.35**

Despite this progress, the lack of infrastructure to support the ULEVs and FCEVs is still a major issue. As more manufacturers move into ULEV and FCEVs there is going to be pressure for charging stations that respond to and meet commercial/logistics industry requirements as well as hydrogen fuel infrastructure to be built. The central problem, according to estimates from Goldman Sachs, is cost. The capital investment for hydrogen stations is approximately four times that of petrol stations.<sup>68</sup> From an urban logistics operative point of view the down time during charging is also an issue in adoption. This would suggest that organic growth may be slow, unless it is supported by local and national government policy and fiscal incentives.

**4.36**

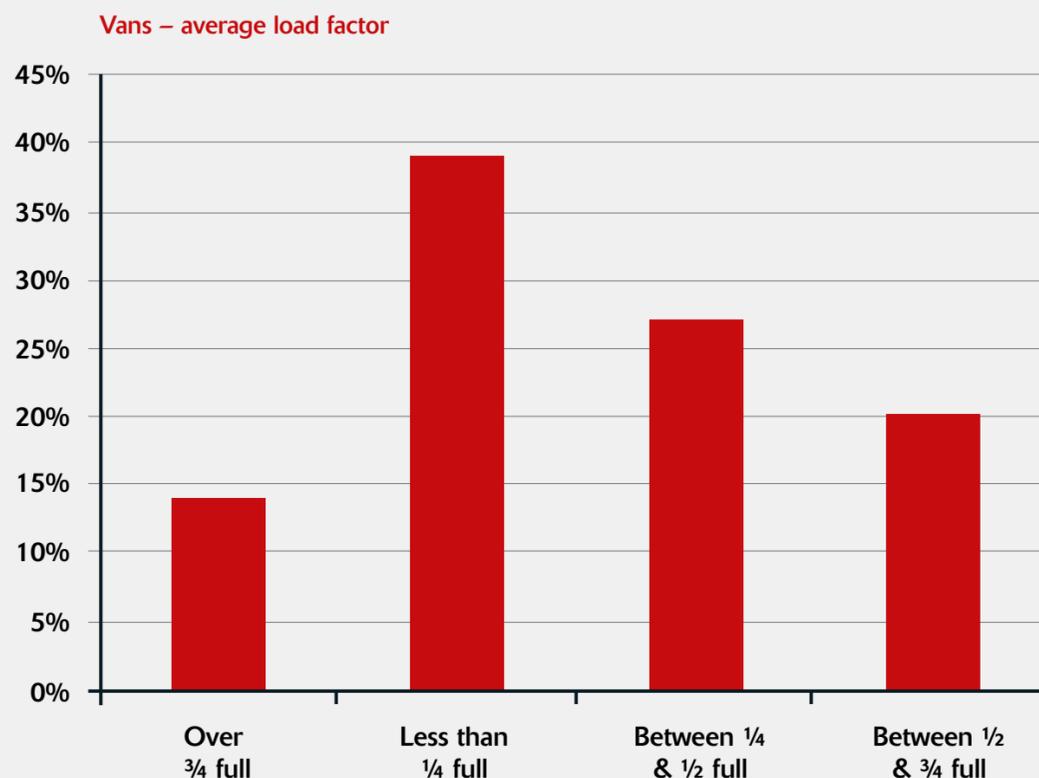
Therefore, in order to achieve growth in this sector, there is a need for support from national and local government to provide a holistic approach to the infrastructure. This support will include policy interventions that encourage roll out of national EV infrastructure suitable for commercial vehicles, initial financial support in some cases, technological and skills support required and down time during charging.



**REVERSE LOGISTICS AND RETURNS PROCESSING**

**4.37**

Reverse logistics (RL) is gaining increased traction within the wider industry and involves the backward flow of returned products from the consumer to an organisation. Given the growth of e-commerce, direct-to-shop shipments, direct-to-home shipments, and the complexity involved with the timing of these deliveries and associated risk of failed deliveries, delivery returns are increasing exponentially. The logistics sector has been encouraged by environmental, legal and financial considerations which ensure that reverse logistics are increasingly forming part of progressive delivery plans aiming to improve supply chain practices<sup>69</sup> Analysis from TfL's Road Task Force<sup>70</sup> states that commercial vans are relatively poorly-utilised – 39% are less than one-quarter full with an average payload of just 300kg, as can be seen from the following graphic. The industry is addressing this through improvements in operational planning practices and development of more efficient delivery/supply chain plans that incorporate RL as a significant component. For example, Clipper Group offers its Boomerang service to retail clients for the returns management of online orders.



Source: TfL (2013) Road Task Force Technical Note 5

<sup>69</sup> Carter and Ellram (1998)

<sup>70</sup> TfL Road Task Force, Technical Note 5  
<http://content.tfl.gov.uk/technical-note-05-what-are-the-maintrends-and-developments-affecting-van-traffic.pdf>, 2013

**4.38**

Where an operator incorporates reverse logistics, the delivery vehicle can be also loaded with waste to take on the journey back to depot. For instance at the One Hyde Park CCC, effective waste management was facilitated through reverse logistics with 13.8 tonnes of recyclable waste returned to the consolidation centre on vehicles that originally supplied goods to the site.

**4.39**

While this may sound simple, in practice, RL is a nuanced and complex activity, with further intricacies when it extends beyond a company's own service organisations to third parties such as contractors, subcontractors or distributors. This is also exacerbated by the fact that business requirements for RL are complex, and can change as relationships with customers, distributors and contractors shift over time.

**4.40**

RL has several implications for supply chain management, but probably the most challenging is related to the design of the RL network. The interest of academics and professionals in activities related to RL has provided a somewhat better understanding of the characteristics, processes and implications. However, a lot more support from academia, the industry and public bodies is required in order to initiate some trial studies across the sector. Only through trials and pilot studies can RL start to play a more significant role in encouraging this initiative to reach its full potential.

**WHERE AN OPERATOR INCORPORATES REVERSE LOGISTICS, THE DELIVERY VEHICLE CAN BE ALSO LOADED WITH WASTE TO TAKE ON THE JOURNEY BACK TO DEPOT**



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## INDUSTRY INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY

### RETIMING OF DELIVERIES

#### 4.41

Retiming of deliveries is being tested and implemented in a small number of London boroughs. By avoiding rush hour times, urban logistics vehicles can avoid congestion and operate more efficiently, helping to counter some of the aforementioned issues. As well as reducing the risk of collisions, particularly with cyclists and pedestrians, businesses can also reduce costs, and contribute to improving air quality.



#### 4.42

The following case study demonstrates the potential benefits associated with retiming initiatives.

#### RETIMING DELIVERIES – SAINSBURY'S THE NOISE ABATEMENT SOCIETY (NAS) AND WANDSWORTH BOROUGH COUNCIL<sup>71</sup>

Sainsbury's, the Noise Abatement Society (NAS) and Wandsworth Borough Council worked together on a pilot scheme that involved the lifting of planning restrictions at the Sainsbury's supermarket in Wandsworth for a period of three months. The scheme aimed to demonstrate that night-time deliveries would not have a detrimental impact on local residents and the local community.

##### Operations

Sainsbury's supply chain operations developed a management plan for all staff involved in the trial which included the following rules:

- The delivery profile was amended to incorporate night-time deliveries at 01.30 and 03.00 hours
- All engines to be switched off when stationary
- No empty roll cages to be loaded during night-time deliveries
- Doors not to be slammed and radios switched off when doors are open
- Rubber matting to be installed at appropriate locations to reduce the noise of the roll cages
- Noise monitoring survey was undertaken to characterise noise levels from deliveries to the store before and during the trial

##### Benefits

- The most noticeable result was the reduction of some 8–10 decibels of the maximum noise from unloading as a result of 'dock curtains' being installed
- On average, the journey time reduced by 30 minutes each way from depot to store thus giving a 60 minute total reduction per trip
- In drivers' hours' terms, this equated to a saving of two hours per day. Extrapolating this over a year for this store would save over £16,000 or over 700 hours per year
- The trial took two journeys off the road during the most congested periods, equating to over 700 vehicle journeys per year
- In carbon dioxide terms, this equates to a saving of 68 tonnes of CO<sub>2</sub> per year
- In terms of fuel utilisation, this equates to over 25,000 litres per annum
- Feedback from customers has been extremely positive as products are now available upon store opening
- No complaints were received from local residents in relation to noise during the trial

Source: Freight Transport Association (2007), Night-time deliveries – Wandsworth trial

### CASE STUDIES

<sup>71</sup> Freight Transport Association (2007) Night-time deliveries – Wandsworth trial

**4.43**

Although the key issue is hours of operational use, which can cause potential conflict in residential areas, with the right level of support and when carried out responsibly, deliveries can take place at different times to suit residents, businesses and operators. However much more support is needed from Planning Departments at the borough level to facilitate a roll out of retiming of deliveries. Depending on the local authority and the specifics of the associated planning condition, negotiation of retiming can be a time consuming and costly exercise for companies to initiate.

**4.44**

Although TfL are working hard in this area and have set up a Retiming Working Group, support in terms of clarification and consistency of policy and approach at local authority level is still required. The GLA needs to drive this forward and assist in such processes by working with TfL, industry bodies, local authorities and organisations within the sector to move retiming beyond pilot stage and establish it as a valid mitigation response.



**IMPROVEMENTS IN EMISSION STANDARDS**

**4.45**

Emission standards have become more stringent, through implementation of standards in the logistics and freight industries such as Euro V and Euro VI21 and as a result there has been a gradual improvement in emissions over the last number of years. The road freight sector has already played an important part in improving air quality through the progressive adoption of vehicles with lower emissions resulting in a substantial reduction in HGV emissions. For instance, new Euro VI trucks, which were introduced in 2013, have NOx emissions that are 97% lower than the pre-Euro average and PM levels that are 99% lower.

**4.46**

The London Atmospheric Emissions Inventory demonstrates the NOx emissions of different vehicles since 2008 and the projected emissions reductions until 2020. It reiterates the trend in total NOx emissions showing reductions from around 30,000 tonnes per year in 2008 to around 17,000 tonnes per year in 2015. They are projected to reduce to around 12,000 tonnes per year by 2020<sup>72</sup>.

**4.47**

As Euro IV, V and VI vehicles come to populate the UK fleet, the local air quality impacts of HGVs will be greatly improved by routine vehicle replacement. However, given the normal replacement cycle for HGVs is around 6–8 years, seeking to address local air quality problems just through financial penalties such as the ultra-low emission zone (ULEZ) which the GLA proposes to introduce is unlikely to actually solve the remaining problem on its own. That is, a more nuanced and multi-faceted approach is required which means the GLA working together with the logistics industry to roll out a variety of initiatives such as some of those described here.

<sup>72</sup> London Atmospheric Emissions Inventory (2008)

**BUILDING EMISSIONS**

**4.48**

The London Plan has an ambitious target to cut carbon emissions in London by 60% by 2025.<sup>73</sup> As a result, the GLA has implemented a comprehensive set of energy efficiency policies and guidance within the London area.

**4.49**

For new buildings, including those of the logistics and related sectors, energy efficiency measures need to ensure a 40% reduction in carbon emissions over Part L 2010 of the Building Regulations.<sup>74</sup> These London Plan energy policies go beyond the requirements of the national Building Regulations. This is in part a response to London's position of a global, forward thinking city.

**4.50**

New and modern industrial buildings are by their very nature large buildings but their energy consumption and carbon emissions on a square metre basis are relatively modest compared to other non-domestic development. These buildings have unique energy requirements and typically comprise a large unheated space used for storage, packing and dispatching with an ancillary office area. In this context, developments have therefore very low heating and cooling requirements, apart from a relatively small demand of the associated office spaces.

**4.51**

In modern industrial buildings, many incorporate a range of design solutions that results in efficient use of energy and deliver energy through the use of renewable/low carbon technologies. In London in particular, due to both planning and corporate policy, the use of renewable and low carbon technologies has become increasingly common on logistic buildings.

**4.52**

The following case study demonstrates some of the sustainability features at Navigation Park, which is located on the A1055 in Ponders End, Enfield. The site offers access to the M25 (J25) and the A406 (North Circular).

**NAVIGATION PARK – LONDON**

The Park has achieved a BREEAM rating of 'Excellent', and is London's first 'carbon neutral' industrial scheme. The scheme harnesses energy efficient initiatives including LED lighting controlled by motion and light sensors and high U-Value building fabric, outperforming building regulations by approximately 40%. The most significant component in the scheme's 'carbon neutral' status has been achieved through the installation of 535 kWp of photovoltaic panels across the three buildings. The solar panels are expected to offset approximately 240 tonnes of carbon per year, generating more energy than will be required from the grid.

Camden Brewery has signed up to a Power Purchase Agreement ("PPA") which is anticipated to result in energy savings of approximately £10,000 annually for the company.

**NAVIGATION  
PARK IS  
LONDON'S  
FIRST 'CARBON  
NEUTRAL'  
INDUSTRIAL  
SCHEME**



Source: SEGRO Sustainability Manager

**CASE STUDIES**

<sup>73</sup> GLA (2015) The London Plan – the spatial development strategy for London consolidated with alterations since 2011

<sup>74</sup> GLA (2015) The London Plan – the spatial development strategy for London consolidated with alterations since 2011, Policy 5.2 Minimising Carbon Dioxide emissions

**INDUSTRY INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY**

**4.53**

Through the London Plan and the Sustainable Design and Construction Supplementary Planning Guidance (SPG), the GLA have embraced the use of the Building Research Establishment Environmental Assessment Methodology (BREEAM) to encourage a stepped improvement in the development of sustainable design and construction of commercial – including logistic – buildings.

**4.54**

A number of logistics companies have adopted BREEAM as part of their corporate targets. Ocado for instance, has found BREEAM certification has led to lower energy costs and reduced maintenance issues. London Plan energy policies go beyond the requirements of the National Building Regulations. Industrial developers have responded proactively to such policies by developing innovative solutions to reduce energy use and carbon emissions, often working hand in hand with the final occupier of the building.

**4.55**

London Plan energy policies go beyond the requirements of the National Building Regulations. Industrial developers have responded proactively to such policies by developing innovative solutions to reduce energy use and carbon emissions, often working hand in hand with the final occupier of the building.

**4.56**

Should logistics activities be forced to relocate outside the GLA area, the BREEAM requirements may not apply to development, unless required by the specific local authority. As a result there may be a risk that industrial buildings may become less energy efficient and more carbon intensive compared with counterparts delivered within London.

**THE WAY FORWARD**

**4.57**

As noted previously, HGV and LGV account for 16% of transport related carbon emissions which equates to less than 4% of London's total carbon emissions. During the morning peak, these commercial vehicles only make up around a quarter (28%) of all vehicles on the road.<sup>75</sup>

**4.58**

There is a positive correlation between the logistics sector and that of London's overall population<sup>76</sup>. However, if activities servicing core London markets are forced to relocate out of London, total travel miles, congestion and associated emissions will most likely increase as those goods need to travel further to reach their intended market.<sup>76</sup> This will make it more difficult for goods and services to be delivered to businesses and homes in London.

**4.59**

Given that the sector is likely to be disproportionately impacted by a one dimensional mitigation proposal, such as emissions charging, public agencies must improve and extend collaboration efforts with the logistics sector in order to identify new ways to respond to industry challenges.

**4.60**

It is vital that proportional, multi-faceted approaches are put forward. Some of the key issues facing the sector including congestion, under-utilised vehicle capacity and associated emissions can be in part at least, mitigated through a multi-faceted approach towards the use of consolidation centres, retiming measures and roll out of different technologies such as commercial EV charging points. Positive results from pilot studies and short term projects need to be capitalised and momentum maintained while the details of longer-term plans are developed.

**4.61**

While these issues are unlikely to be resolved overnight, the industry is making consistent progress. However, it does need further support from the GLA and other public agencies in order to build on recent successes and ensure that logistic deliveries in London can be even safer, greener and more efficient in future.

**WHAT THIS MEANS**

**4.62**

Urban logistics are becoming increasingly innovative in their delivery fleets and buildings. By operating in London, solutions relating to environmental sustainability are more deliverable due to critical mass and economies of scale (for instance in relation to number of EV charging points). If these businesses are forced to relocate outside of London they will generate more travel miles and will be less able to adopt innovative solutions. The logistics sector can be further supported to implement innovations through planning policy, for example in relation to consolidation centres.

<sup>75</sup> GLA (September 2014) Transport Emissions Roadmap  
<sup>76</sup> GLA (March 2016) London Industrial Land Supply & Economy Study 2015

# 5 PLANNING POLICY AND IMPLICATIONS

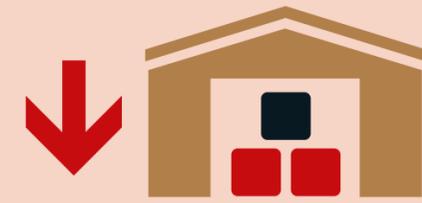
## KEY FINDINGS



The National Planning Policy Framework notes that a 'strong, responsive and competitive economy' needs 'sufficient land of the right type... in the right places and at the right time to support growth and innovation'.



The London Plan emphasises the important role that the logistics sector plays in the wider functioning of the economy. As London's service economy grows, so too will the need to support the logistics sector, through provision of appropriate land in both quantitative and qualitative terms.



Evidence of industrial land lost over the last five years in London highlights that losses have been three times the target rate of release (as set out in the London Plan SPG). This is not a sustainable trend for the logistics sector and runs a significant risk of "crowding out" logistics from optimum locations within London.



The shortcomings of current policy need to be addressed in developing the new London Plan to protect and enhance the role that urban logistics can play in London's economy.

**5.1**

Planning policy sets the scene for how logistics and industrial uses are seen to fit within the context of economic growth objectives. In this chapter we set out key policy relating to the economy and employment land at national and London levels. While there is a recognised importance afforded to industrial and logistics uses there is a clear policy steer for the release of industrial land nationally, with concentrated efforts across the capital (explored further in chapter 7). Without compensatory policy measures being in place to ensure an alternative supply of land in suitable locations, this has the potential to affect the functioning of the urban logistics sector and its ability to meet the needs of both businesses and people.

**NATIONAL**

**5.2**

The Government's economic strategy<sup>77</sup> is focused on raising productivity and promoting a dynamic economy. Development of an economy which encourages innovation and supports the flow of resources towards their most productive use is encouraged.

**5.3**

The publication of the National Planning Policy Framework (NPPF)<sup>78</sup> in March 2012 clearly sets out the Government's commitment to supporting sustainable development, which plays an important economic role by:

**5.4**

The Ministerial Foreword of the NPPF is explicit on the need for development to support growth, so that 'the new ways by which we will earn our living in a competitive world' can be accommodated<sup>80</sup>. This highlights the dynamic nature of the economy, which is not static but is instead subject to continuous change and evolution. Planning has a role to play in responding positively to changes in the economy, and the NPPF expects local authorities to proactively drive and support sustainable economic development to provide the homes, business space and infrastructure needed in the country. This will ensure that businesses' development needs are proactively met in order to support a modern economy.

**5.5**

Government guidance on assessing economic development needs is also clear in expecting local authorities to develop different policy responses to reflect the increasing diversity of employment generating uses<sup>81</sup>. This generates a requirement for a variety of employment sites.

**5.6**

The NPPF requires local authorities to plan to meet economic development needs, based on relevant evidence on the economic characteristics of the area<sup>82</sup>.

**LONDON**

**A ROLE FOR LOGISTICS**

**5.7**

The projected growth in London's population will support and fuel economic growth and increase demand for services. London's economy is also expected to continuously change – as it has in the past – with the emergence of new sectors and enterprises, including those meeting the needs of new markets and a changing world. The London Plan, through its policies seeks to ensure that land and infrastructure are in place to support the growth of sectors of all types and sizes and to meet business needs.

**5.8**

This includes industrial uses; Policy 4.4 ('Managing Industrial Land and Premises') of the London Plan is to:

**A** Adopt a rigorous approach to industrial land management to ensure a sufficient stock of land and premises to meet the future needs of different types of industry and related uses in different parts of London, including for good quality and affordable space.

**B** Plan, monitor and manage release of surplus industrial land where this is compatible with a) above, so that it can contribute to strategic and local planning objectives.

**“Contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation.”<sup>79</sup>**

The publication of the National Planning Policy Framework (NPPF)

<sup>77</sup> HM Treasury (2015) Fixing the foundations: creating a more prosperous nation

<sup>78</sup> DCLG (2012) National Planning Policy Framework

<sup>79</sup> Ibid (para 7)

<sup>80</sup> Ibid (page i)

<sup>81</sup> [http://planningguidance.communities.gov.uk/blog/guidance/housing-and-economic-development-needsassessments/methodology-assessing-economic-development-and-main-town-centreuses/# paragraph\\_033](http://planningguidance.communities.gov.uk/blog/guidance/housing-and-economic-development-needsassessments/methodology-assessing-economic-development-and-main-town-centreuses/# paragraph_033)

<sup>82</sup> DCLG (2012) National Planning Policy Framework (para 158)

5.9

Logistics is acknowledged by the GLA as of central importance to the health and function of London:

Efficient logistics systems and supporting infrastructure to distribute goods to, from and within London are essential to the competitive offer of almost all London's economic sectors and to sustain future economic and demographic growth.<sup>83</sup>

GLA

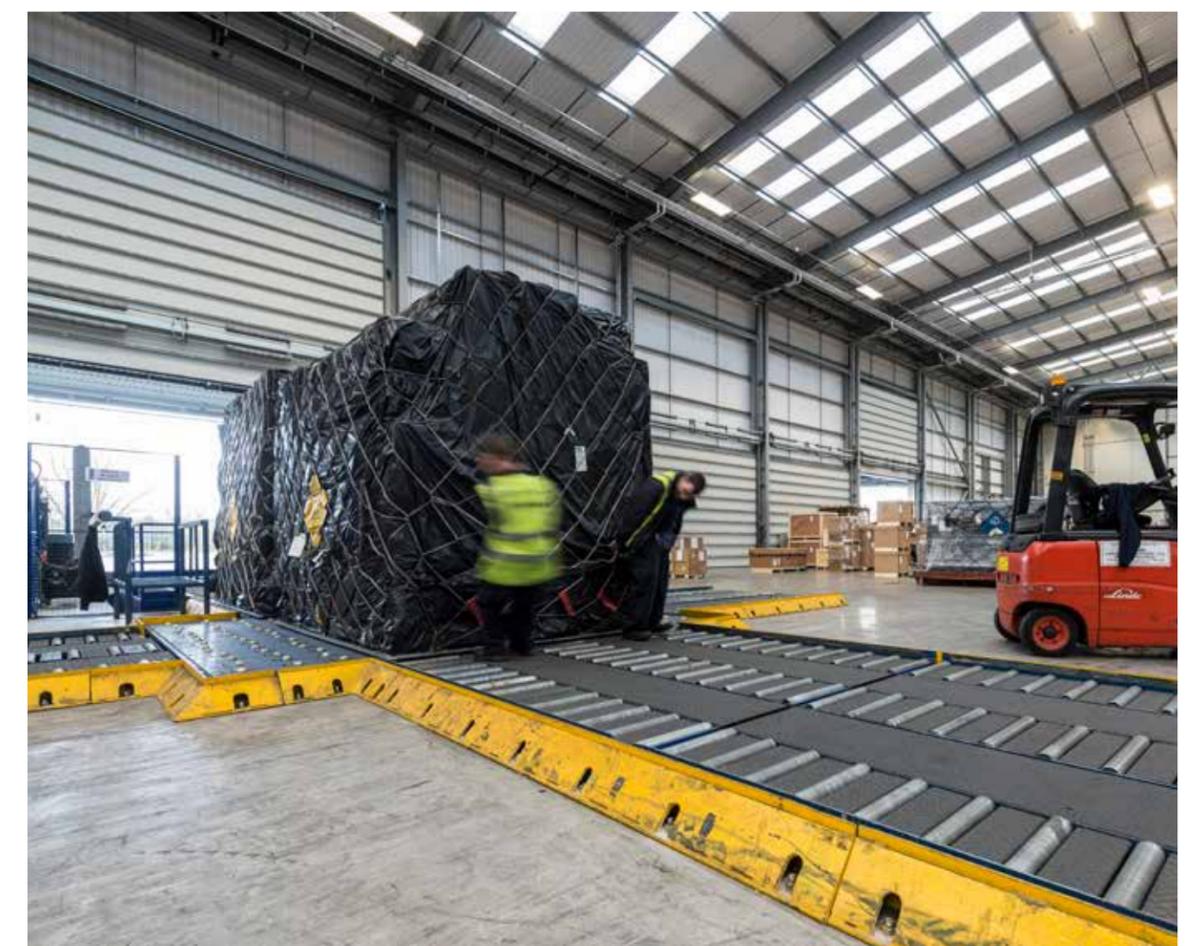
<sup>83</sup> GLA (2012) Land for Industry and Transport – Supplementary Planning Guidance (para 5.1)  
<sup>84</sup> GLA (2015) The London Plan – the spatial development strategy for London consolidated with alterations since 2011 (para 4.18)  
<sup>85</sup> Parts of Bexley, Barking and Dagenham, Enfield, Havering, Hillingdon, Hounslow and Park Royal

5.10

The London Plan acknowledges that an increasingly service-based economy requires space for industries such as logistics<sup>84</sup>. The role of the logistics industry in outer London in particular is highlighted, with a recognition that some existing sectors could have historically grown to a greater extent if their competitiveness and success were not held back by other factors, such as a perceived historic underinvestment in infrastructure provision and economic development.

5.11

Those sectors which play a sub-regional or wider function should be developed and enhanced, with parts of outer London<sup>85</sup> identified as potentially playing a strategic logistics function of greater than sub-regional importance within the London Plan. This objective will fail to be met if the key requirements of the logistics industry, in terms of location and size of sites and premises, are not provided for. This in turn will have a knock-on effect on the ability of the sector to fulfil its wider function supporting the economy of London.



## UNDERSTANDING LOCATIONS

### 5.12

There are three types of location identified for industrial occupiers within the London Plan<sup>86</sup>. These are:

- Strategic industrial locations
- Locally significant industrial sites
- Other industrial sites

### 5.13

This categorisation does not explicitly reflect the changing nature of the urban logistics sector and the need for a greater variety of locations including those to meet last mile delivery needs in more Central locations. However, boroughs are required to make clear the types of uses considered appropriate for locally significant industrial sites and take into account guidance in the Mayor's Land for Industry and Transport SPG in developing criteria to guide the management of sites<sup>87</sup>.

### 5.14

Evidence published by the GLA<sup>88</sup> highlights the extent to which there is high competition for land within different parts of London, with businesses frequently looking to cluster together. This results in competition between not only commercial uses but critically between housing and commercial uses. Residential uses generate higher land values and can crowd out businesses which cannot compete for land. This results in these operations being pushed towards less Central and, often, sub-optimal locations from an urban logistics operator perspective.

### 5.15

The GLA's evidence points to the availability of land specifically for distribution and warehousing use being a particular area of concern as the following quotation highlights:

**“The need for fast and predictable delivery times – not least due to the rise of online retail – may change the preferred locations for warehousing space. Specifically, firms could increasingly require warehouse space near to their customers so they can offer better delivery options. This may mean firms that have previously used warehouses further away from London seek to establish premises within or close to the capital.”<sup>89</sup>**

GLA

<sup>86</sup> GLA (2015) The London Plan – the spatial development strategy for London consolidated with alterations since 2011 (para 4.19)

<sup>87</sup> GLA (2015) The London Plan – the spatial development strategy for London consolidated with alterations since 2011 (para 4.20)

<sup>88</sup> GLA Economics (2016) Draft Economic Evidence Base 2016

<sup>89</sup> Ibid (p170)



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

**PLANNING  
POLICY AND  
IMPLICATIONS**

**5.16**

Proximity to customers is identified within the evidence as becoming increasingly important to London's urban logistics businesses. The GLA evidence recognises that some sectors are more sensitive to location, due to a need to be positioned close to markets or consumers. Warehousing and distribution operators are specifically referenced:

**“Some of these activities might be expected to require London locations to serve their markets in particular for just-in-time logistics and growth in fulfilment of e-tailing and business to business deliveries. The Central London sub-region covers a wide area and there is some evidence that the warehousing and distribution sector does look for (relatively small scale) sites in close proximity to [the Central Activities Zone] and Canary Wharf for sustainable last mile distribution. We would expect this sector to increase in size if the economy of London continues to expand.”<sup>90</sup>**

GLA



**5.17**

Indeed we are already seeing retailers such as Ocado seek inner London locations for last mile operations and a number of institutional investors are looking to invest in consolidation centres within London.

**5.18**

However there is a contradiction between the GLA's evidence and the industrial land release process currently underway in the capital with five boroughs (Islington, Westminster, City of London, Camden and Kensington and Chelsea) losing more than a third of their industrial land supply over the past five years (2010 – 2015) as explored in Chapter 6.

<sup>90</sup> Ibid (p149)

- ES
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2
- A3
- A4
- A5
- A6

**PLANNING  
POLICY AND  
IMPLICATIONS**

## LAND SUPPLY AND DEMAND BALANCE

### 5.19

The London Plan seeks to balance the supply and demand for employment land, with a recognition that the changing nature of the economy has implications for the type and location of office space and industrial land required. The opportunity to release surplus industrial land is identified in order to contribute towards strategic and local planning objectives, particularly regarding housing provision.

### 5.20

Targets are set for annual quantum of industrial land release by local authority in the GLA's Supplementary Planning Guidance – Land for Industry and Transport. The scope for release is variable across London, however, with the greatest releases targeted in East and parts of inner West London, where the GLA considers there is generally a greater supply of vacant industrial sites relative to demand and scope for reconfiguration of existing sites to secure capacity for industrial uses<sup>91</sup>. No indication of specific employment densities is given.

### 5.21

The GLA identifies restricted scope for release across much of Central and South London, typically due to the scarcity of land relative to demand, particularly for waste management and land for logistics. The GLA recognises that there is also scope for limited land release in North and outer West London. The targets for release by borough are explored in further detail in Chapter 7. This is also reviewed in comparison to the rate of release which has been occurring in practice.

### 5.22

Despite acknowledged limitations in the availability of land for release in reality there is evidence to suggest that land is being released for uses such as residential development. One such example is Old Oak Common. This process of eroding the supply of land for commercial use, and potentially for use by logistics operators, has not been coupled with the allocation of compensatory land in suitable locations to meet the needs of logistics operators.

### 5.23

The GLA needs to undertake a full and up-to-date demand assessment to truly understand the needs of the sector and the land and location requirements associated with meeting demand.

### 5.24

The London Plan references evidence set out in the supporting Supplementary Planning Guidance (SPG) – Land for Industry and Transport<sup>92</sup> and sets a target for 37ha of industrial land to be released annually between 2011 and 2031. It is noted that this will require rigorous management in order to fully understand the future needs for different types of industrial uses. The actual quantum of land released is 106ha between 2010 and 2015 which is three times the London Plan target for release. This suggests that land release targets have been demonstrably exceeded. A full and comprehensive demand assessment is needed to understand the future employment land needs of the sector. A full review of how effectively policy mechanisms for land release have worked in practice is also required, so that the situation is not exacerbated further by the development of ineffectual policy.

### 5.25

A review has recently been published to update this position<sup>93</sup>. It indicates that the scale of release has surpassed this annual benchmark over recent years by a significant degree. The GLA therefore states:

**“It appears likely that at some point, potentially within the life of the current London Plan, there will be a case to switch from releasing industrial land to retaining most of the remaining land.”**<sup>94</sup>

GLA

<sup>91</sup> GLA (2012) Supplementary Planning Guidance – Land for Industry and Transport

<sup>92</sup> GLA (2012) Supplementary Planning Guidance – Land for Industry and Transport

<sup>93</sup> GLA (2016) London Industrial Land Supply and Economy Study

<sup>94</sup> Ibid (p14)

## SUSTAINABILITY

### 5.26

The London Plan also sets policy on environmental and transport activities. London Plan policy which includes measures to decarbonise energy supply and improve energy efficiency (Policy 5.2) at the building level has helped to result in significant improvements in the efficiency of buildings. Buildings within the GLA are required to align with some of the most stringent energy efficiency/sustainability policy in the country. This has resulted in a stepped improvement in environmental requirements and standards within London boroughs.

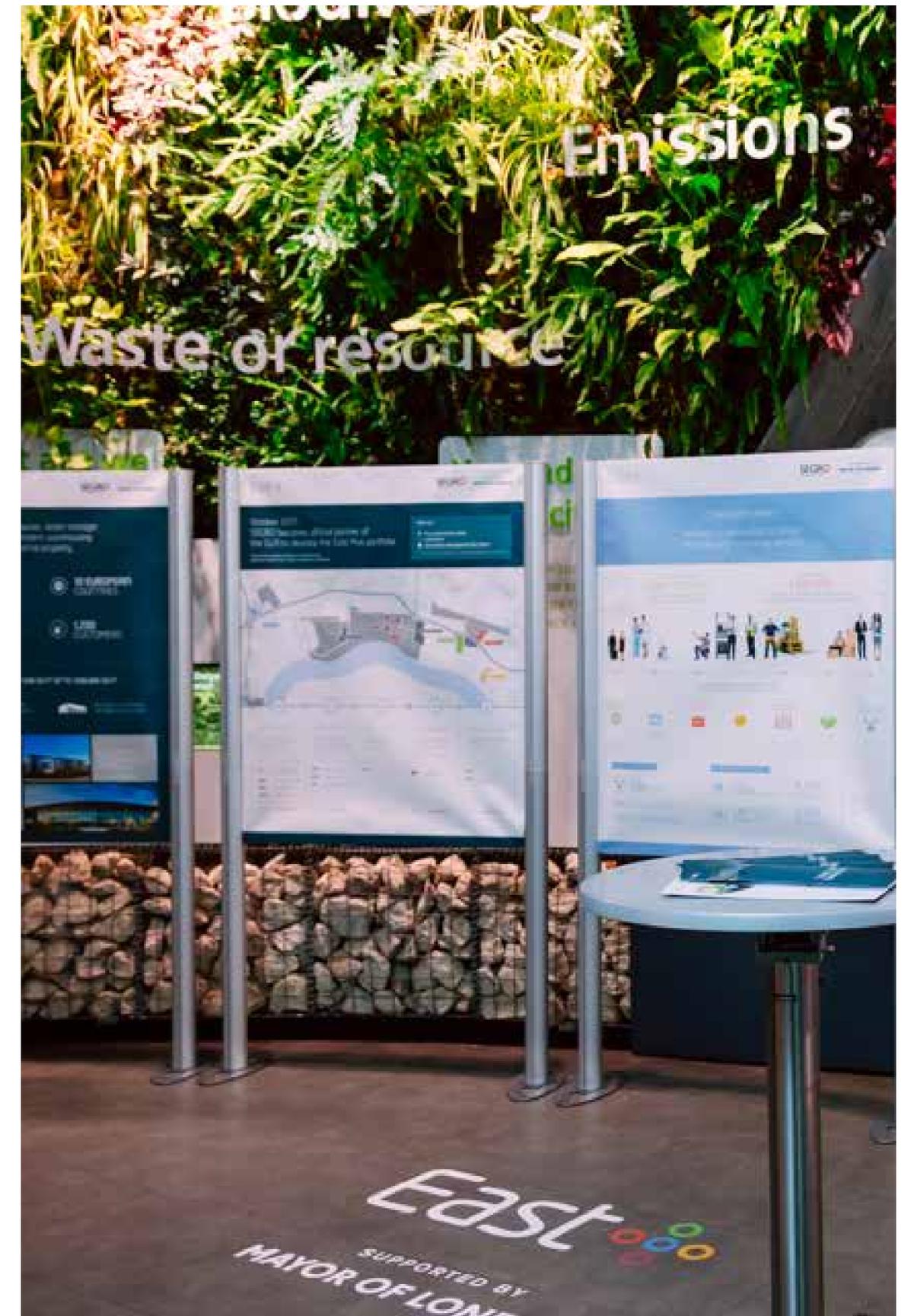
### 5.27

The focus for transport policy is the reduction of emissions; EU Directive 2008/50/EC in particular aims to ensure ambient air quality and cleaner air for Europe and entered into force in the UK on 11 June 2008. The GLA is consulting on the introduction of the Ultra-Low Emission Zone in 2019, a year ahead of schedule. The consultation, which runs until December 2016, seeks views on proposals to introduce an Emissions Surcharge (“T-charge”) for older polluting vehicles entering the Congestion Charge zone in October 2017. This will further reinforce the innovations already being implemented by the sector (see chapter 4).

### WHAT THIS MEANS

### 5.28

There is a clear policy imperative to support London’s logistics sector and recognition of the importance that urban logistics plays in the functioning of the economy. The London Plan acknowledges the importance of the logistics sector and sets land release targets. However, in practice these targets have been significantly exceeded. Policy targets have been effectively breached without any compensatory mechanisms to provide alternative industrial land supply. This is clearly an important contributory factor in the problems that logistics operators face in sourcing land in London to meet their location requirements. Left unaddressed this trend of rapid loss of land for industrial uses is unlikely to abate, worsening choice for the logistics sector and compromising its ability to help London function effectively.





ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

LONDON  
BOROUGH  
INSIGHTS

# 6 LONDON BOROUGH INSIGHTS





ES

## LONDON BOROUGH INSIGHTS

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

### 6.1

Planning policy varies on a borough basis, depending upon established business sector specialisms and the assessed capacity for future growth. In this section the industrial land context for five example boroughs is presented, four of which include key industrial and logistics locations and the fifth (Westminster) which is an important recipient for last mile deliveries to Central London businesses and residents.

### 6.2

A summary of the respective policy position in each borough is presented, alongside an overview of industrial land supply<sup>95</sup>, planned release and key industrial and Opportunity Areas. All but one of the five boroughs presented have seen a rate of industrial land release which has exceeded planned targets, despite their acknowledged importance for logistics operations that support their economies and serve London as a whole.

<sup>95</sup> GLA (2016) London Industrial Land Supply and Economy Study

## BARKING & DAGENHAM

Barking and Dagenham is an area where substantial regeneration is expected to support new job creation

Ealing has a longstanding reputation as a premier location for industrial land

## EALING

## ENFIELD

Enfield is forecast to experience a lower level of growth than its neighbours

The opportunities afforded by transport infrastructure investment such as Crossrail will benefit Hillingdon

## HILLINGDON

## WESTMINSTER

Westminster has a limited supply of commercial and industrial land

## BARKING AND DAGENHAM

### 6.3

Barking and Dagenham is an area where substantial regeneration is expected to support new job creation<sup>96</sup>, with development taking advantage of the borough's strategic water, rail and road connections. Policy also clearly supports the development of emerging growth sectors, with the latest consultation<sup>97</sup> on the new Local Plan setting out the Council's view that the borough has strength and potential for growth across six economic sectors: primarily green technology; bio tech; health and social care; creative industries; logistics and other industries serving London and advanced manufacturing.

### 6.4

The emerging Local Plan for Barking and Dagenham identifies the significant amount of land protected for industrial use, noting that this surpasses any other borough even taking into account planned release of land<sup>98</sup>. This informs a view that there is a surplus of industrial land, with the volume of industrial land in the borough remaining similar despite a significant long-term fall in the number of people employed in industry. The Council is currently considering in detail opportunities to redevelop underused areas of industrial land, noting that this can provide land for housing or mixed use development. It is acknowledged by the council that this would require a clear strategy to ensure that remaining industrial land can be best used to maximise economic growth.

### 6.5

While the borough has lost some industrial sites to housing, such as the Ford stamping plant<sup>99</sup> and areas at Barking Riverside, it retains key industrial areas and has increased overall industrial land supply. This includes the London Sustainable Industries Park (which is the possible reason for an increase in industrial land in recent years). The Park is part of the forthcoming 86ha GLA and SEGRO development 'East Plus' which will include units suitable for warehouse and light industrial uses to attract a range of businesses from blue-chip to start-ups.

<sup>96</sup> London Borough of Barking and Dagenham (2010) Core Strategy

<sup>97</sup> London Borough of Barking and Dagenham (2015) Issues and Options Report

<sup>98</sup> Ibid

<sup>99</sup> Following closure in 2012 the site was sold for housing development in summer 2016

## BARKING AND DAGENHAM – SUMMARY

513.7HA	513.7HA	LIMITED	1.8HA PER ANNUM	+0.7HA PA (+3.6HA TOTAL)	LONDON RIVERSIDE	2
Industrial land supply 2010	Industrial land supply 2015	Industrial land release classification	Annual benchmark release target	Actual industrial land supply change (2010 – 2015)	Opportunity areas	Strategic industrial locations

Source: GLA

**THE EMERGING LOCAL PLAN FOR BARKING & DAGENHAM IDENTIFIES THE SIGNIFICANT AMOUNT OF LAND PROTECTED FOR INDUSTRIAL USE, NOTING THAT THIS SURPASSES ANY OTHER BOROUGH EVEN TAKING INTO ACCOUNT PLANNED RELEASE OF LAND.<sup>98</sup>**



ES

## LONDON BOROUGH INSIGHTS

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## EALING

### 6.6

Ealing has a longstanding reputation as a premier location for industrial and warehousing businesses, which will be protected through a policy of securing and maintaining the stock of employment land, encouraging regeneration and renewal and responding to market demands<sup>100</sup>.

### 6.7

There is an ambition to harness new growth opportunities, with a promotion of business and enterprise and a desire to encourage regeneration and renewal. The historically underperforming office market, for example, could be stimulated by the delivery of high quality office space in Ealing town centre, which would ensure that the benefits of Crossrail are captured.

### 6.8

While the GLA classes Ealing as an area of 'limited' targeted industrial land release, with an annual targeted loss of 1.2ha, in reality a much more significant rate of release has occurred, with 22.1ha being lost between 2010 and 2015 (equivalent to 4.4ha a year compared to the 1.2ha target).

### 6.9

Park Royal is located in Ealing (as well as the London Boroughs of Brent and Hammersmith and Fulham) and is an Opportunity Area along with Old Oak Common (Old Oak and Park Royal Opportunity Area). The area accommodates 2,150 workplaces covering 2.3 million sq m of floorspace<sup>101</sup>. The Opportunity Area is earmarked for substantial redevelopment which includes the release of some industrial land. This will require careful management of land or more creative solutions that will bring forward both jobs and homes. Two SEGRO sites (Victoria and Westway) which are currently fully let (circa 50 occupiers) have been identified for residential redevelopment.

### 6.10

However the GLA strategy for Park Royal is to 'continue to support Park Royal as London's leading industrial area'. It is intended that new workspace will be delivered that 'maximises and intensifies the use of the site to support delivery of 10,000 new jobs, and where possible accommodate business relocations from elsewhere in the OAPF area'<sup>102</sup>.

<sup>100</sup> London Borough of Ealing (2012) Core Strategy DPD

<sup>101</sup> GLA (2014) The Park Royal Atlas: An Employment Study of London's Largest Industrial Area

<sup>102</sup> GLA, OAPF Framework Park Royal Strategy

<sup>103</sup> No specific reference to logistics in Southall Hinterland, with Opportunity Area Planning Framework

## EALING – SUMMARY

533.3HA

511.2HA

LIMITED

-1.2HA PA

-4.4HA PA  
(-22.1HA TOTAL)

OLD OAK AND PARK  
ROYAL; SOUTHALL  
HINTERLAND<sup>103</sup>

3

Industrial  
land supply  
2010

Industrial  
land supply  
2015

Industrial  
land release  
classification

Annual  
benchmark  
release target

Actual  
industrial  
land supply  
change  
(2010 – 2015)

Opportunity  
areas

Strategic  
industrial  
locations

Source: GLA

**GLA CLASSES EALING AS AN AREA OF 'LIMITED' TARGETED INDUSTRIAL LAND RELEASE, WITH AN ANNUAL TARGETED LOSS OF 1.2HA, IN REALITY A MUCH MORE SIGNIFICANT RATE OF RELEASE HAS OCCURRED, WITH 22.1HA BEING LOST BETWEEN 2010 AND 2015**

## ENFIELD

### 6.11

Enfield is forecast to experience a lower level of growth than its neighbours<sup>104</sup>, due to an over reliance on declining economic sectors and a historically weak enterprise culture. Within the borough, however, the Lee Valley has adapted to the severe decline in manufacturing, with large manufacturing firms replaced by businesses operating in a wide range of sectors, including logistics. There is the potential for the Upper Lee Valley to make a greater contribution to the local and regional economy. The Council recently consulted on growth options including the development of transport hubs and growth corridors which in turn could lead to a rationalisation of secondary employment land to accommodate “sustainable growth”<sup>105</sup>. No findings from this consultation are available at the time of writing.

### 6.12

However, this shift in sector specialism is not reflected in industrial land supply, with the rate of industrial land release (-4.5ha per annum) being greater than the target set by the GLA (-1.7ha per annum).

### 6.13

Opportunities for the redevelopment of redundant or poorly located industrial areas for other uses are being considered by the council where regeneration benefits outweigh the alternative retention and reinvestment in sites for industrial uses.

### 6.14

Meridian Water is a major forthcoming redevelopment opportunity being taken forward by lead developer Barratt London and SEGRO. This will deliver an 85ha mixed use community including 10,000 new homes and 6,700 new jobs, including in logistics uses<sup>106</sup>. The land is presently brownfield (c.210 ha) and will therefore result in the loss of industrial land (c.190 ha) in the borough.

<sup>104</sup> London Borough of Enfield (2010) Enfield Core Strategy

<sup>105</sup> London Borough of Enfield (2015) Consultation on a New Plan for Enfield 2017 – 2032

<sup>106</sup> SEGRO will deliver 3,000 commercial jobs



**MAJOR FORTHCOMING REDEVELOPMENT OPPORTUNITIES ARE BEING TAKEN FORWARD. THIS WILL DELIVER AN 85HA MIXED USE COMMUNITY INCLUDING 10,000 NEW HOMES AND 6,700 NEW JOBS**

## HILLINGDON

### 6.15

The opportunities afforded by transport infrastructure investment such as Crossrail are acknowledged by many authorities, such as Hillingdon. High quality mixed use development is supported in order to regenerate the town centres of Hayes and West Drayton<sup>107</sup>, while sustainable growth along this corridor will also be managed as part of the Heathrow Opportunity Area Framework. This corridor has seen significant historic change, with the traditional role of manufacturing having declined while logistics and distribution has strengthened.

### 6.16

Heathrow Airport is a key driver of the local economy, delivering a range of benefits for local residents and a wider travel to work area, and its prosperity will be sustained by optimising these benefits and maintaining support for operational uses within the existing airport boundary. This will strengthen the airport's role as a key employment area, although there will be a focus only on airport-related development with the continuing demand for associated freight handling and commercial floorspace within the airport boundary only accommodated if environmental conditions are improved and maintained.

### 6.17

In October 2016, following the Airport Commissions recommendation in 2015<sup>108</sup> the Government announced that its preferred location for the UK's hub airport is Heathrow. If approved, Heathrow will expand its on site operations, aiming to double cargo throughput which will have supply chain effects and require land to be available to support such growth.

### 6.18

Hillingdon has a policy of protecting land for employment use to ensure that the needs of different sectors are met, although there is a planned managed release of surplus employment land<sup>109</sup>. This reflects the London Plan – which classifies the borough as an area where 'limited transfer' can be supported – and also responds to the pressure on employment land for other uses. It is acknowledged that there has been a historic change in the use of employment land in Hillingdon, with a focus on industrial land around the Grand Union Canal and an increased focus and growth in the supply of office floorspace. It is noted that the release of employment land over the past twenty years has not harmed employment or business functions within Hillingdon, with the borough continuing to play a key industrial, warehousing and office role.

### 6.19

However in more recent years, it is apparent that the rate of industrial land release (-6.9ha per annum) has been over five times greater than that targeted by the GLA (-1.3ha per annum). This is a concerning trend given the importance of industrial and logistics activities around Heathrow Airport and the identification of only 'limited' land release for the borough in the London Plan. SEGRO's proposals for the redevelopment of the old Nestle factory at Hayes will serve to retain 3ha of industrial land in this part of the borough. The development is one of the first industrial-residential mixed-use developments in London and will demonstrate what can be achieved in delivery of this mix of uses.

## HILLINGDON – SUMMARY

430.3HA

395.6HA

LIMITED

-1.3HA PA

-4.9HA PA  
(-34.7HA TOTAL)

HEATHROW

4

Industrial land supply 2010

Industrial land supply 2015

Industrial land release classification

Annual benchmark release target

Actual Industrial land supply change (2010 – 2015)

Opportunity areas

Strategic industrial locations

Source: GLA

**IN 2015<sup>108</sup> THE GOVERNMENT ANNOUNCED THAT ITS PREFERRED LOCATION FOR THE UK'S HUB AIRPORT IS HEATHROW. IF APPROVED, HEATHROW WILL EXPAND ITS ON SITE OPERATIONS, AIMING TO DOUBLE CARGO THROUGHPUT**

<sup>107</sup> London Borough of Hillingdon (2012) Local Plan: Part 1 – Strategic Policies

<sup>108</sup> Airports Commission (2015) Final Report

<sup>109</sup> London Borough of Hillingdon (2012) Local Plan: Part 1 – Strategic Policies



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## LONDON BOROUGH INSIGHTS

### WESTMINSTER

#### 6.20

Westminster has a limited supply of commercial and industrial land, with many sites already containing offices, shops and housing with high existing values<sup>110</sup>. As a result: 'Development in Westminster is often about refurbishment and renewal of building stock rather than significant land use change'<sup>111</sup>

#### 6.21

Locations such as Westminster contain a large number of workplaces and jobs. It is therefore an important focus for last mile deliveries to businesses and consumers. Despite limited potential for land release as set out in the London Plan, the level of industrial land release has been -1.6ha per annum which significantly exceeds the target of -0.1ha per annum.

### WHAT THIS MEANS

#### 6.22

In all but one of the five case study boroughs the rate of industrial land release has been significantly higher than the GLA's target annual release rate. This gives rise to concern given that these sites provide valuable logistics locations in London and in policy terms are logistics 'friendly' (excluding Westminster which does not have a logistics policy focus but which is a key recipient of deliveries).

#### 6.23

The case studies demonstrate that despite policy provisions that actively seek to restrict land release, policy has not been sufficiently robust in its application. This has led to significant losses. In responding to this issue there needs to be a balance between protecting industrial supply and enabling flexible planning. The case studies predominantly show that rates of loss have resulted in a net reduction in industrial land supply, highlighting that replacement provision of land has not been made to counteract unintended and unplanned losses. This is an unsustainable position going forwards that will eventually push industrial users further out of London and which threatens the proper functioning of the capital. If policy priorities fail to be acted on in these boroughs then urban logistics will face an uncertain future in securing much needed sites in the capital.

#### WESTMINSTER – SUMMARY



<sup>110</sup> London Borough of Westminster (2013) Westminster's City Plan: Strategic Policies

<sup>111</sup> Ibid

<sup>112</sup> Job creation at both Paddington and Victoria is expected to be in sectors other than logistics

# 7 EMPLOYMENT LAND SUPPLY

EMPLOYMENT  
LAND SUPPLY



ES

1

2

3

4

5

6

7

8

9

A1

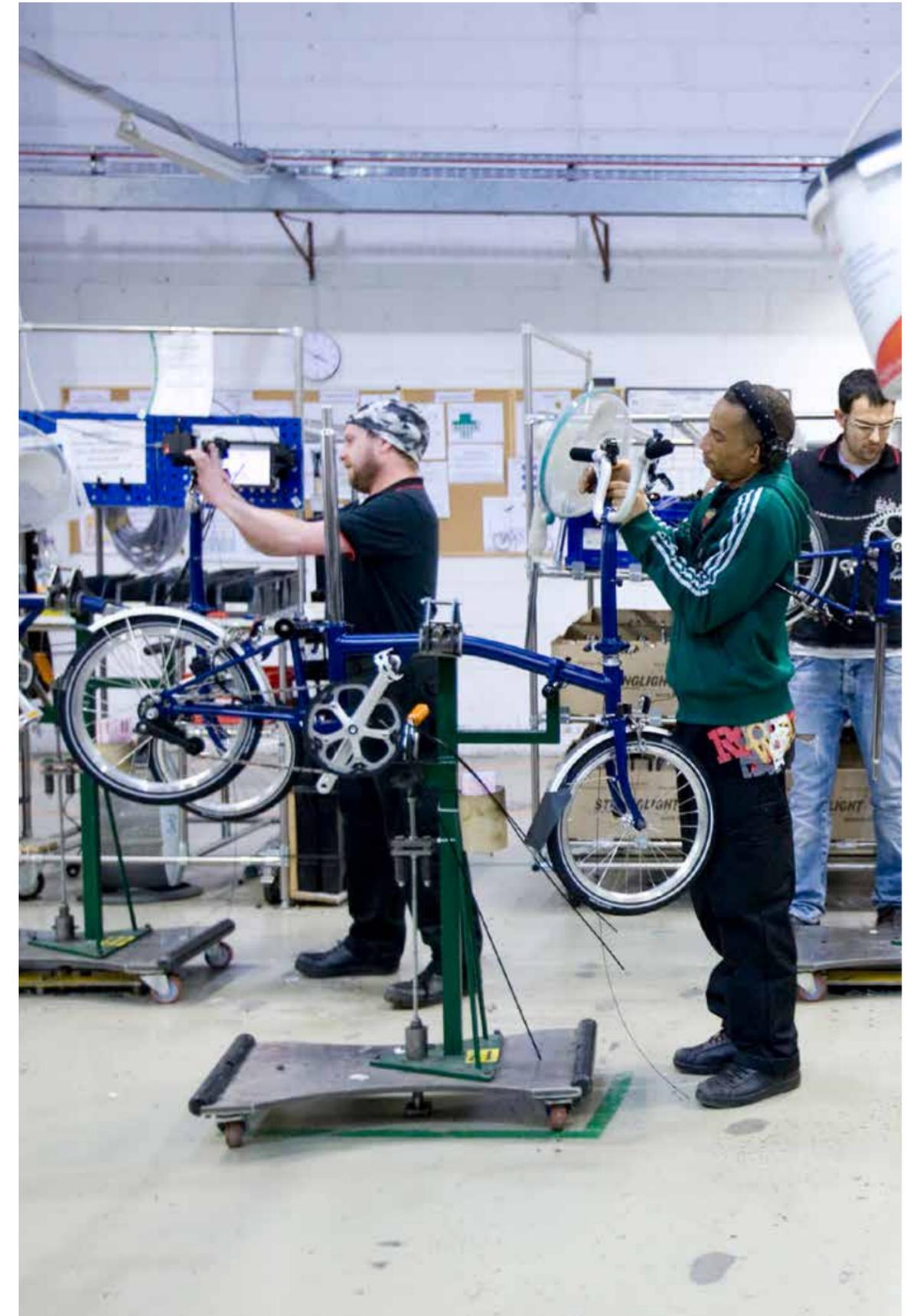
A2

A3

A4

A5

A6



**EMPLOYMENT  
LAND SUPPLY**

**KEY FINDINGS**



The rate of industrial land release over the last five years has been three times greater than the GLA's target.



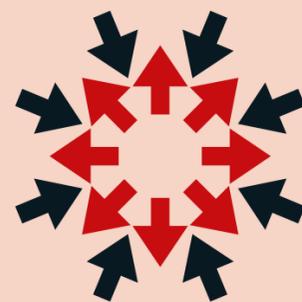
In twelve London Boroughs over four times the targeted amount of land has been released, with some boroughs in Central London releasing over eight times their annual target.



Inner London boroughs account for 61% of London's employees and 40% of London's population and are therefore a key delivery market for urban logistics providers. However there is limited warehousing land in these areas.



If London's pipeline developments are delivered within the London Plan period there will be almost twice the level of release than planned.



Opportunity Areas with an industrial or logistics focus have not been immune to pressures to release land for other uses. To date, industrial land release has not been effectively or strategically managed. This loss must be closely monitored in the absence of a full and comprehensive demand assessment.



While the GLA has undertaken research into industrial land loss, and sets targets to guide the level of loss, these have been evidenced to be ineffectual in practice. An update is needed in order to provide more recent evidence of demand.

**7.1**

This section provides an overview of the industrial land position in London, highlighting recent changes in supply and providing an insight into competing pressures for land across the capital. This draws upon evidence published by the GLA, both of planned release of industrial land over the lifetime of the London Plan as well as recent evidence of the rate of release which has occurred to date.

**7.2**

The evidence shows that actual release has far exceeded targeted rates, with a need to keep a check on this to avoid negative implications on supply chains, meeting customer demand and the environment.

## CURRENT INDUSTRIAL LAND POSITION

### 7.3

The GLA recently published new evidence<sup>113</sup> to update the baseline on industrial land supply in London produced in 2012<sup>114</sup> and estimate the amount of land in industrial use in 2015. This indicates that there was a supply of 6,976ha of industrial land in London in 2015, of which approximately two thirds (65%) was in core industrial use<sup>115</sup>. The greatest amount of land is used for warehousing (32% of total supply) while 25% is used for general industrial. A further quarter (27%) is used for wider industrial uses such as wholesale markets, recycling and transport infrastructure. Only 8% of the industrial land supply is vacant.

#### Industrial land supply 2015

	Hectares	% of total supply
Light industry	258	4%
General industry	1,772	25%
Warehouses	2,244	32%
Self-storage	83	1%
Open storage	196	3%
<b>Total core industrial uses</b>	<b>4,553</b>	<b>65%</b>
Wider industrial uses <sup>116</sup>	1,877	27%
Vacant industrial land	547	8%
<b>Total industrial land</b>	<b>6,976</b>	<b>100%</b>

## DISTRIBUTION BY SUB-REGION

### 7.4

The GLA breaks this data down by local authority and aggregates this to understand trends in the following sub-regions:

#### Central

Camden, City of London, Kensington and Chelsea, Islington, Southwark, Westminster and Lambeth.

#### East

Barking and Dagenham, Bexley, Greenwich, Hackney, Havering, Lewisham, Newham, Redbridge, Tower Hamlets and Waltham Forest.

#### North

Barnet, Enfield and Haringey.

#### South

Bromley, Croydon, Kingston-Upon-Thames, Merton, Richmond-Upon-Thames, Sutton and Wandsworth.

#### West

Brent, Ealing, Hammersmith and Fulham, Harrow, Hillingdon and Hounslow.

<sup>113</sup> GLA (2016) London Industrial Land Supply and Economy Study

<sup>114</sup> GLA (2012) Supplementary Planning Guidance – Land for Industry and Transport

<sup>115</sup> Light industry, general industry, warehouses, self-storage and open storage

<sup>116</sup> Wholesale markets, waste management and recycling, utilities, land for rail (including DLR), land for buses, airport related land and freight, docks, other industrial



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

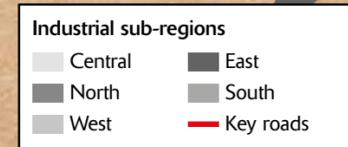
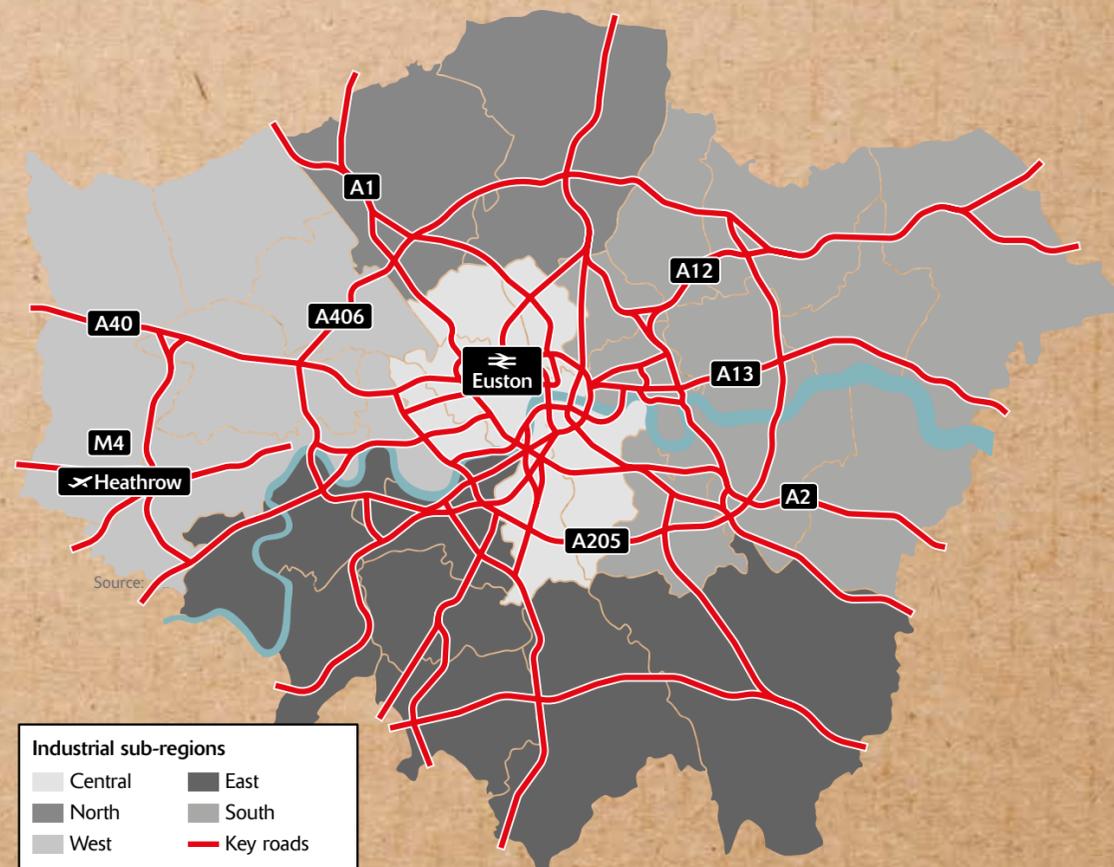
A6

## EMPLOYMENT LAND SUPPLY

### 7.5

The following plan illustrates the extent of each sub-region identified above, and also identifies key transport routes (TfL's red route<sup>117</sup> including key logistics routes of M4, A1, A2, A12, A13, A40, A406 and A205) and infrastructure including Heathrow Airport (international freight and parcel movements) and Euston station (pilot for Last Mile Logistics).

#### Industrial sub-regions

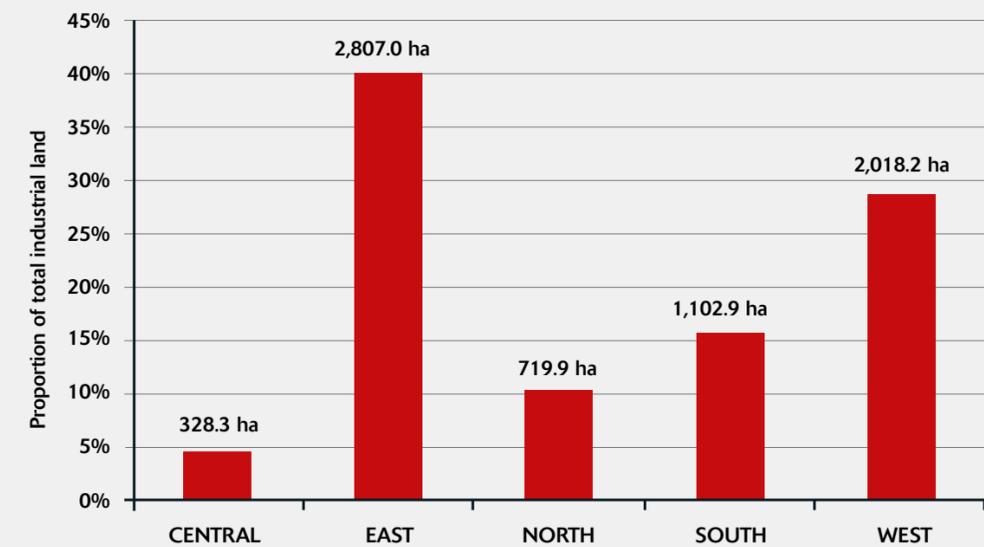


<sup>117</sup> Carries up to 30% of London's traffic

### 7.6

There is a relative concentration of industrial land within the East sub-region, with approximately 2,800ha accommodating 40% of London's industrial land. This is linked to operations in the Lee Valley and traditional locations such as Barking and Dagenham (home to the Ford factory) as well as Bexley (locations such as Belvedere and Erith). The West sub-region also makes a significant contribution to overall supply (just under 30%) the presence of industrial areas such as Park Royal and Heathrow. This contrasts with the Central sub-region where there is a more limited supply of industrial land.

#### Distribution of industrial land by sub-region 2015



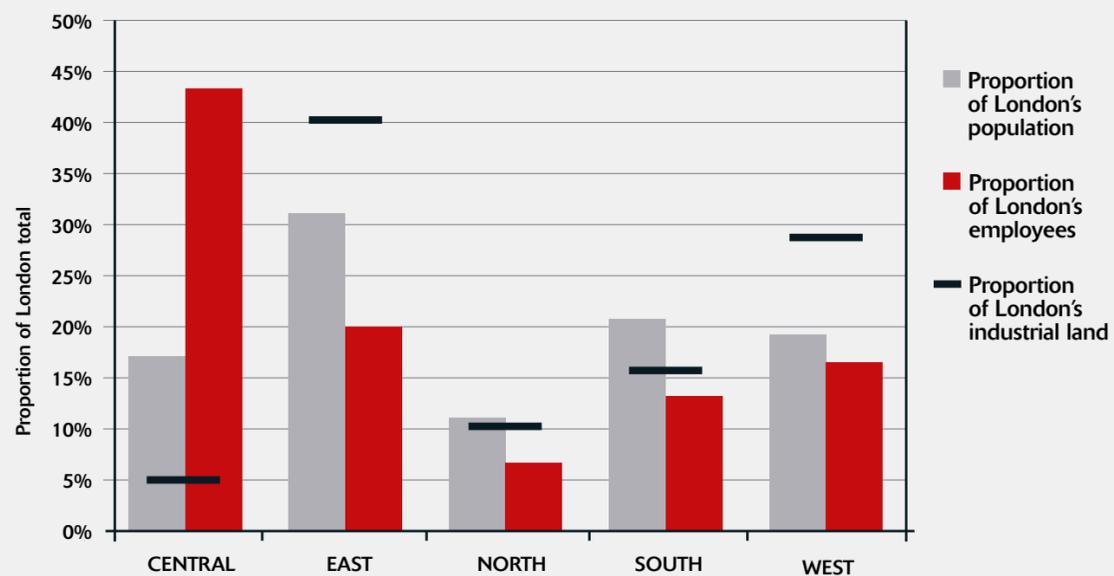
Source: GLA, 2016

### 7.7

The East sub-region contains the greatest proportion of London's industrial land as well as the largest proportion of London's residents. This suggests a relative balance between industrial land and population currently. This contrasts most significantly with the Central sub-region, which has a small supply of industrial land but accommodates a considerably higher proportion of the capital's employees. This suggests an imbalance between land and market destination of urban logistics companies. Last mile delivery in Central areas is becoming increasingly important.

## EMPLOYMENT LAND SUPPLY

Distribution of industrial land, population and employment by sub-region 2015



Source: GLA, 2016

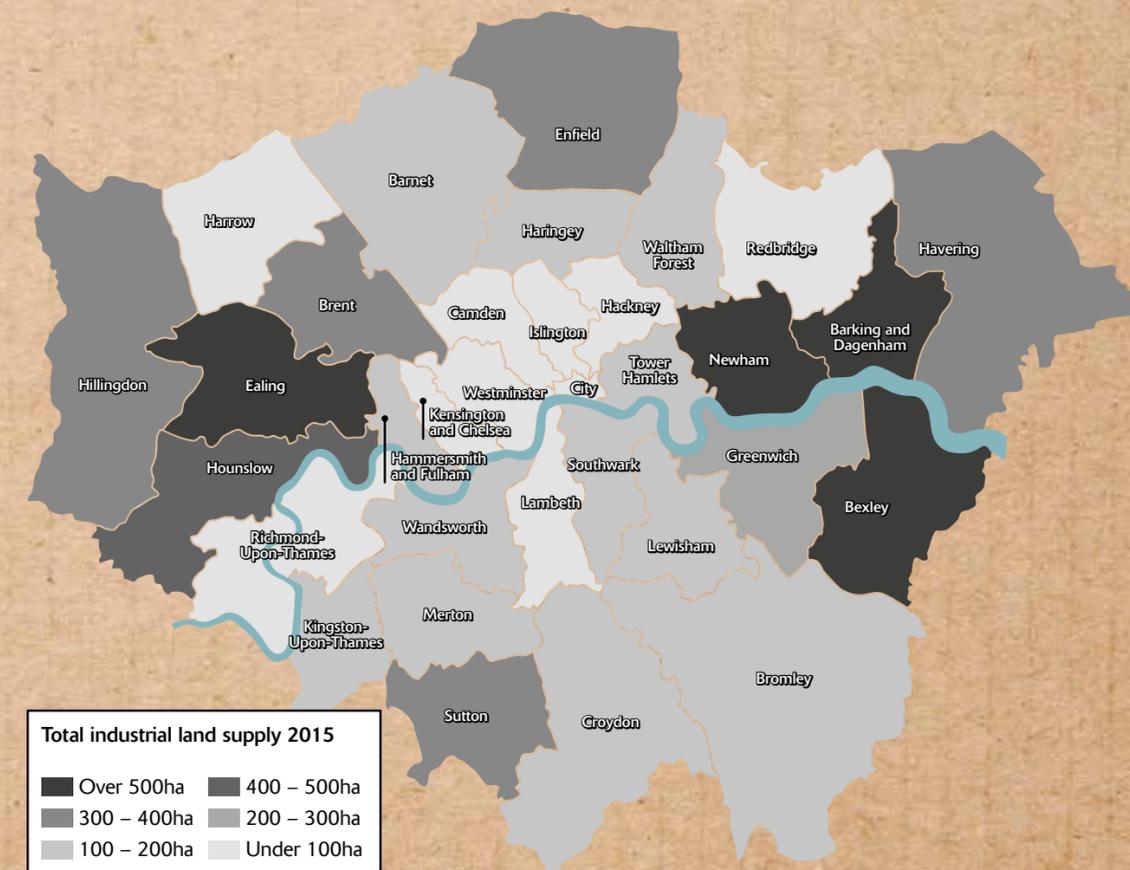
### DISTRIBUTION OF LAND SUPPLY BY BOROUGH

#### 7.8

Industrial land supply can be further considered at borough level, as shown in the following plan. The greatest supply exists to the East and West of Greater London, with Bexley, Barking and Dagenham, Newham and Ealing each containing over 500ha of industrial land and collectively accommodating around 30% of London's total land supply. There is a more limited supply in inner areas, however, with the City of London, Westminster and Kensington and Chelsea each having a supply of under 20ha in 2015, reflecting the dominance of office, governance and residential uses in these boroughs.

<sup>118</sup> Warehouses, self-storage and open storage

Distribution of industrial land by borough 2015



Source: GLA, 2016; Turley, 2016

#### 7.9

Similar trends emerge when assessing the supply of warehousing land<sup>118</sup> in London, as shown in the following plan. The strongest concentration of supply exists in Ealing and Hounslow, reflecting the proximity of key transport infrastructure (see Distribution of Industrial Land by Sub-Region 2015) such as Heathrow and established industrial locations such as Park Royal. The challenge in such locations is the quality and type of supply, with businesses such as Brompton and DHL having to relocate due to lack of available sites and modern premises at the right size and quality to meet their needs. There is a more limited supply of warehousing land in Central locations, with only 19% of supply located in Inner London boroughs. However, these areas account for 61% of London's employees and 40% of London's population and are therefore a key delivery market for urban logistics providers.



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## EMPLOYMENT LAND SUPPLY

Distribution of warehousing land supply by borough 2015



Source: GLA, 2016; Turley, 2016

<sup>119</sup> 1,013ha of vacant industrial land (inc land with vacant buildings) in 2001; 547ha in 2015 (-46%)

## HISTORIC CHANGE

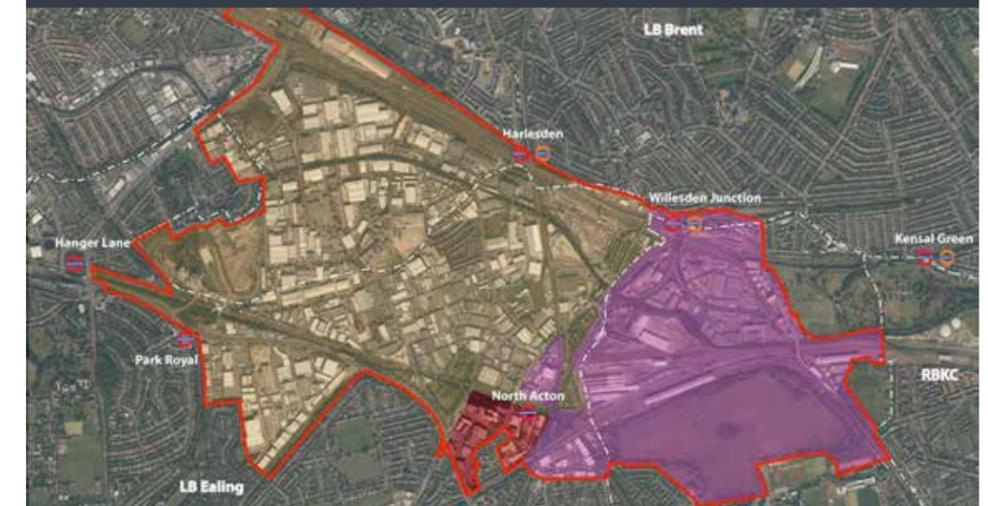
### 7.10

Since 2001, 1,305ha of industrial land has been released to non-industrial uses. This is equivalent to a loss on the scale of two Park Royals over a period of 15 years. Further to this, land in core industrial use represents almost two thirds (61%) of this loss. Vacant land has also fallen by almost half<sup>119</sup> since 2001 as vacant land is developed for industrial and housing uses.

### 7.11

Therefore release of employment land already in use is compounded by the loss of the remaining vacant land available for development for logistics and industrial occupiers. The available supply for these businesses is being compressed.

**SINCE 2001, 1,305HA OF INDUSTRIAL LAND HAS BEEN RELEASED TO NON-INDUSTRIAL USES.**  
**THIS IS EQUIVALENT TO A LOSS ON THE SCALE OF TWO PARK ROYALS OVER A PERIOD OF 15 YEARS.**



**EMPLOYMENT  
LAND SUPPLY**

Industrial land supply 2001 – 2015 (ha)

	Industry	Total core industrial uses	Total industrial uses
2001	2,863	5,350	8,282
2006	2,551	5,117	7,841
2010	2,371	4,977	7,505
2015	2,030	4,553	6,976
<b>Change 2001 – 2015</b>	<b>-833</b>	<b>-797</b>	<b>-1,305</b>
<b>% change</b>	<b>-29%</b>	<b>-15%</b>	<b>-16%</b>
<b>Change 2010 – 2015</b>	<b>-341</b>	<b>-425</b>	<b>-528</b>
<b>% change</b>	<b>-14%</b>	<b>-9%</b>	<b>-7%</b>

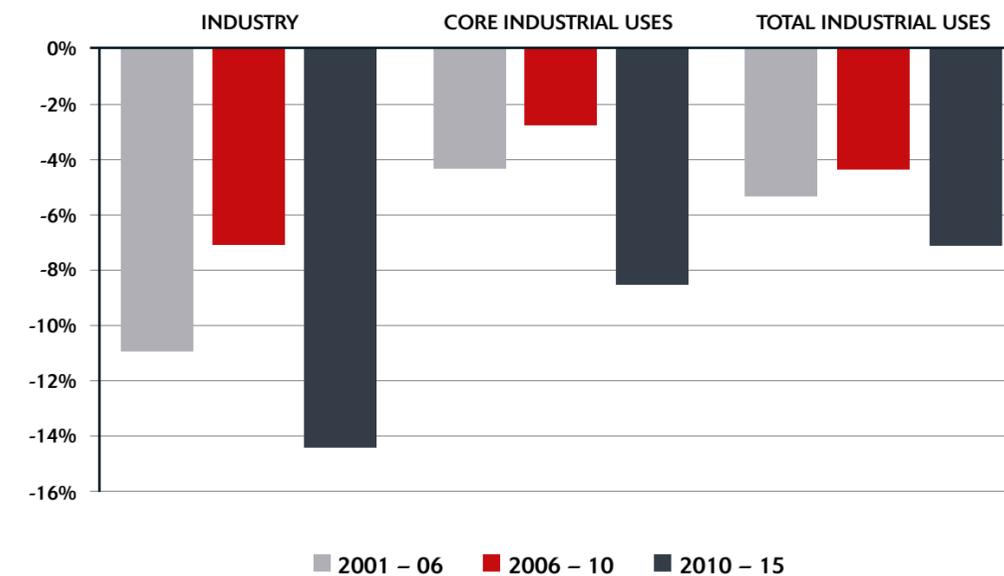
Source: GLA, 2016

**7.12**

Overall, there has been a sustained contraction in the supply of industrial land in London averaging 93ha per annum (2001 – 2015), which has accelerated over the past five years (averaging 106ha per annum, 2010 – 2015) as shown in the following graph. This has resulted in an overall reduction in supply of around 16% between 2001 and 2015 (1 in every 6ha being lost).

**THERE HAS BEEN  
A SUSTAINED  
CONTRACTION  
IN THE SUPPLY  
OF INDUSTRIAL  
LAND IN LONDON  
AVERAGING  
93HA PER ANNUM**

Historic proportionate change in industrial land supply 2001 – 2015

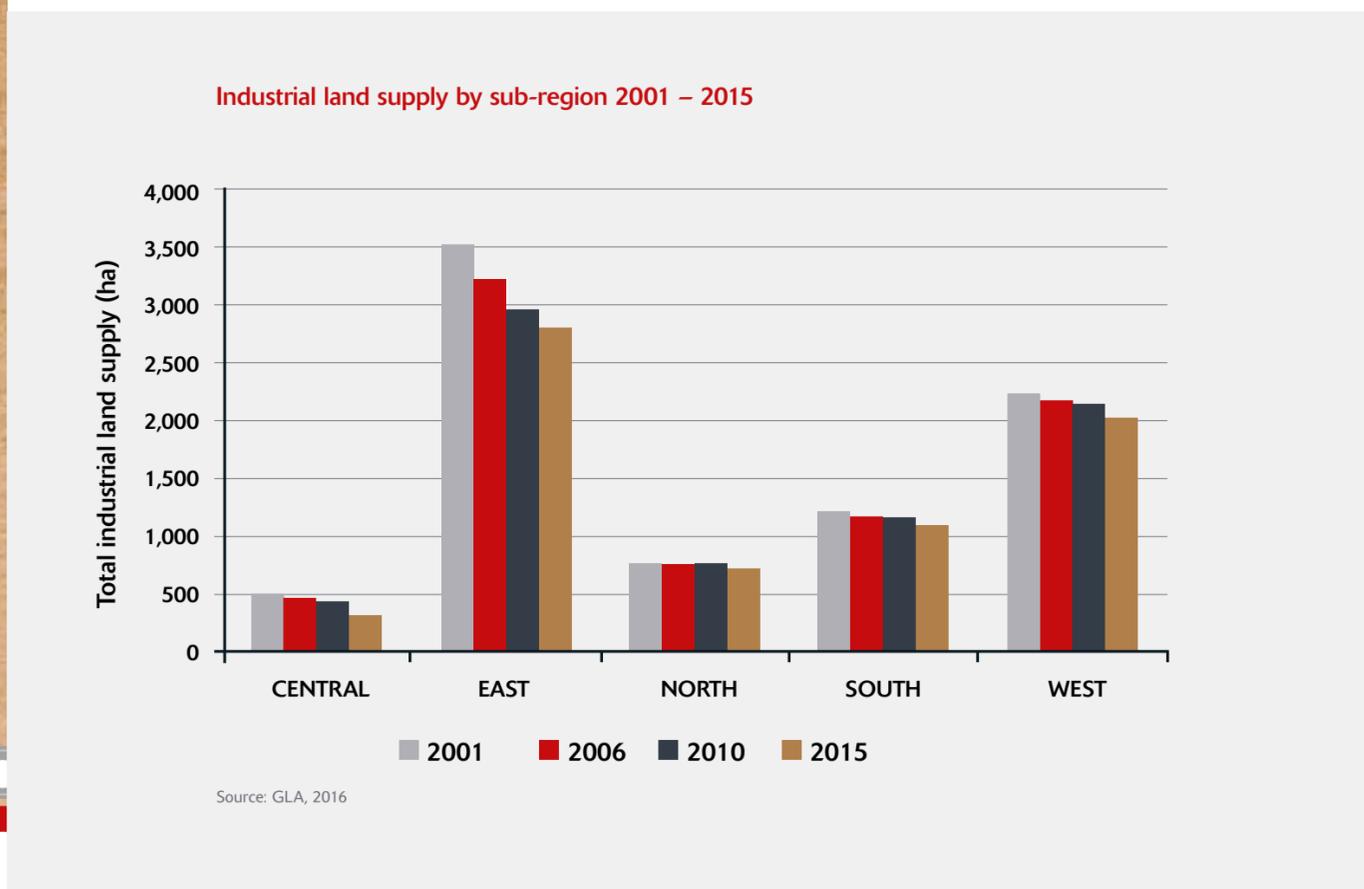


Source: GLA, 2016

**EMPLOYMENT LAND SUPPLY**

**7.13**

This trend has been seen across London, with the supply of industrial land in each subregion contracting since 2001. This is illustrated in the following chart.



**7.14**

The greatest absolute loss in supply was recorded in the East sub-region, which will have been partly fuelled by the redevelopment of land in the Lower Lee Valley for the Queen Elizabeth II Olympic Park, although the rate of change has moderated over more recent years. The trends for losses particularly in East and West London is concerning given the current and future industrial role expected to be played in these locations.

**7.15**

Historic absolute change in industrial land supply by sub-region 2001 – 2015

	2001 – 06	2006 – 10	2010 – 15	2001 – 15
Central	-32	-26	-111	-169
East	-291	-258	-172	-721
North	-12	-3	-48	-63
South	-55	-5	-74	-134
West	-51	-45	-124	-220
London	-440	-337	-528	-1,305

Source: GLA, 2016

**THE GREATEST ABSOLUTE LOSS IN SUPPLY WAS RECORDED IN THE EAST REGION FUELLED BY THE REDEVELOPMENT OF LAND IN THE LOWER LEE VALLEY FOR THE QUEEN ELIZABETH II OLYMPIC PARK**

**7.16**

Proportionately, the greatest contraction in industrial land supply was seen in the Central sub-region, as shown in the above table. The industrial land supply in the Central sub-region shrank by around 34%, with a notable reduction of approximately one quarter over the past five years. Though from a low base, this could have particular implications as inner London will be limited in opportunities to develop last mile logistics locations to respond to growing consumer demand for both volume and expediency of deliveries and returns.



ES

## EMPLOYMENT LAND SUPPLY

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

**THE INDUSTRIAL LAND SUPPLY IN THE CENTRAL SUB-REGION SHRANK BY AROUND 34%, WITH A NOTABLE REDUCTION OF APPROXIMATELY ONE QUARTER OVER THE PAST FIVE YEARS**

Historic proportionate change in industrial land supply by sub-region 2001 – 2015

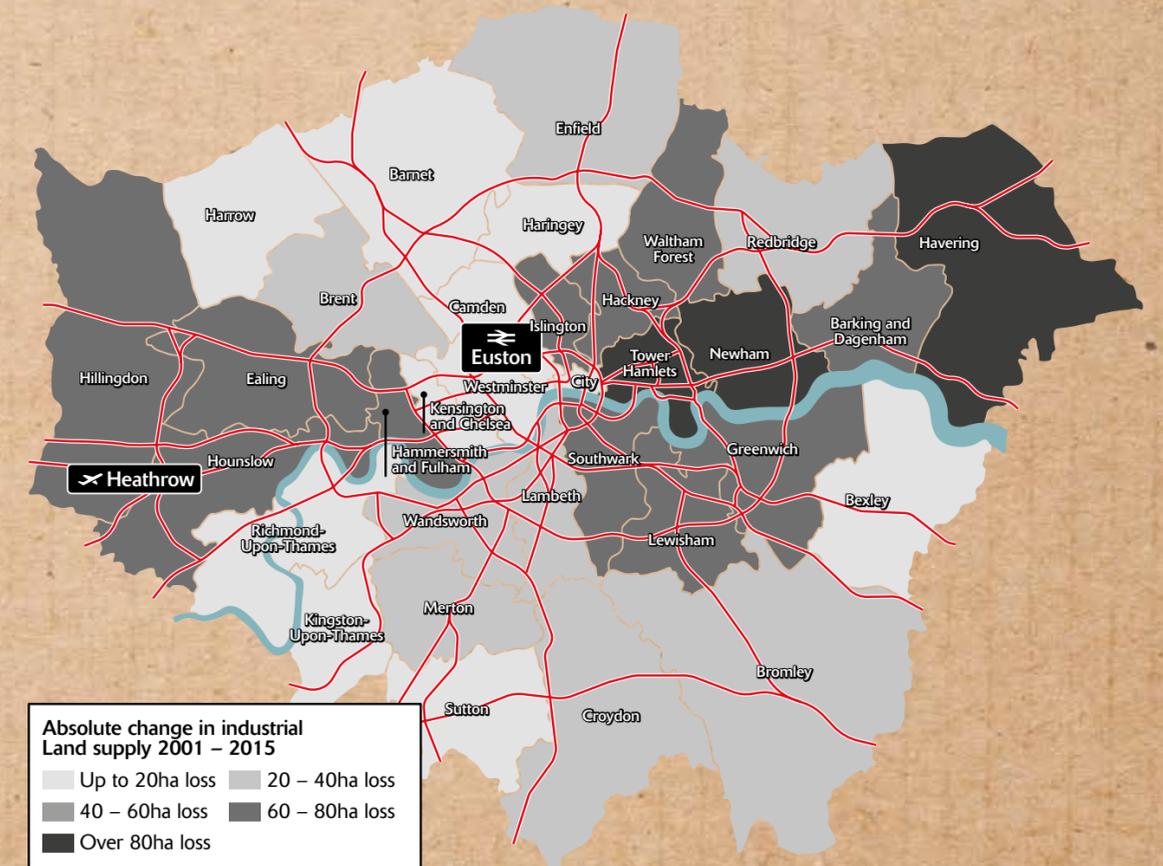
	2001 – 06	2006 – 10	2010 – 15	2001 – 15
Central	-6%	-6%	-25%	-34%
East	-8%	-8%	-6%	-20%
North	-2%	0%	-6%	-8%
South	-4%	0%	-6%	-11%
West	-2%	-4%	-6%	-10%
London	-5%	-4%	-7%	-16%

Source: GLA, 2016

### 7.17

These trends are also reflected when considering historic change at borough level, with the following plan – which overlays key transport infrastructure – highlighting that the greatest losses in industrial land were recorded in Newham, Havering and Tower Hamlets.

Historic Change in Industrial Land Supply by Borough 2001 – 2015



Source: GLA, 2016; Turley, 2016

### 7.18

The majority of boroughs have seen a sustained loss of employment land more recently since 2010, with the greatest absolute loss recorded in Havering (152ha) and sizeable losses also recorded in several inner and western boroughs.



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

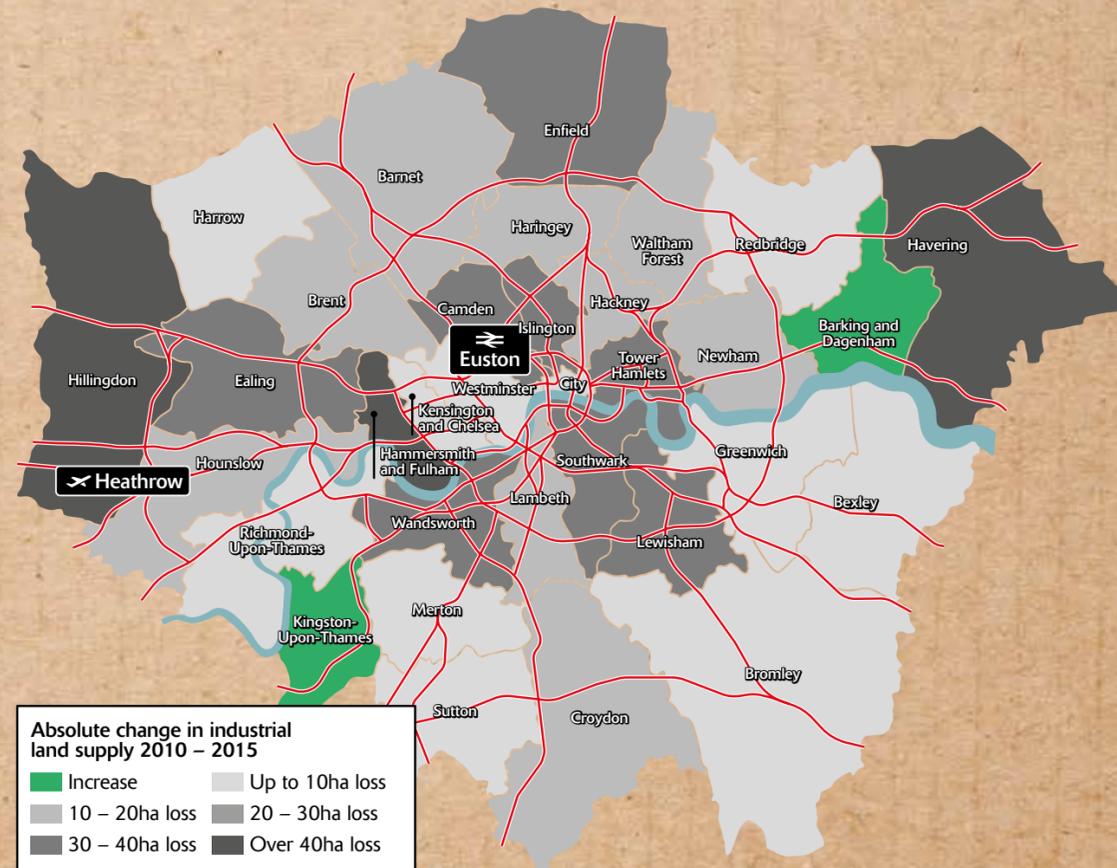
A4

A5

A6

## EMPLOYMENT LAND SUPPLY

### Historic change in industrial land supply by Borough 2010 – 2015



Source: GLA, 2016; Turley, 2016

### TARGETED LOSSES

#### 7.19

The London Plan makes provision for the managed release of surplus industrial land, with a net benchmark for the release of 37ha annually over the plan period from 2011 to 2031 across London<sup>120</sup>. As noted within chapter 5 of this report, there is variable scope for release across London boroughs based on the balance between the supply and demand for industrial land<sup>121</sup>. The GLA identifies the greatest quantum for release in East London and parts of inner West London, with more limited scope in North and outer West London and restricted scope for release elsewhere

### 7.20

The scale of release targeted in each borough is summarised in the following plan, with a managed transfer of industrial land planned in Newham, Greenwich and Bexley. Wandsworth is also expected to release a relatively significant amount of land over the lifetime of the London Plan.

### Annual industrial land release benchmark 2011 – 2031



Source: GLA, 2015; Turley, 2016

<sup>120</sup> GLA (2015) The London Plan – the spatial development strategy for London consolidated with alterations since 2011 (Policy 4.4)

<sup>121</sup> GLA (2012) Supplementary Planning Guidance – Land for Industry and Transport



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

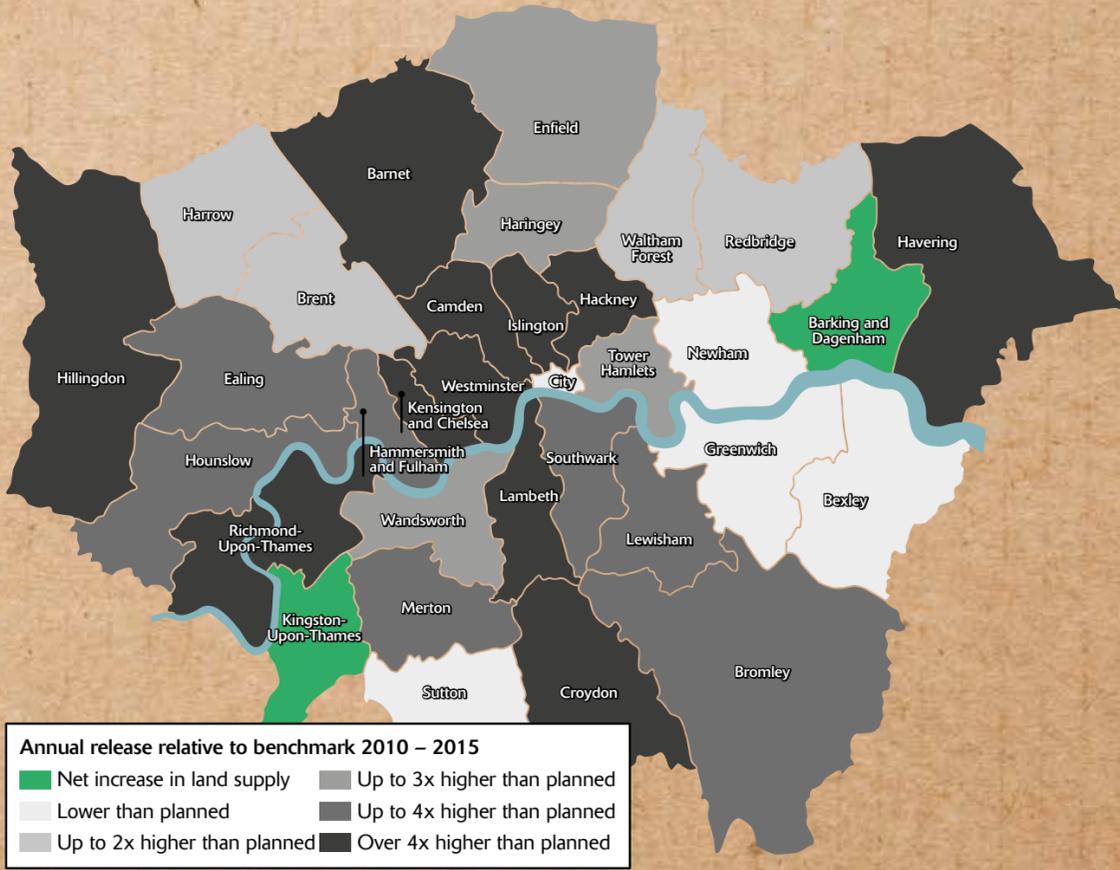
A6

# EMPLOYMENT LAND SUPPLY

## 7.21

The extent to which release has deviated from the planned benchmark varies at a borough level. The following plan calculates the average annual release between 2010 and 2015 and indexes this value to the planned release benchmark. This enables an understanding of the extent to which release has aligned with or surpassed planned targets.

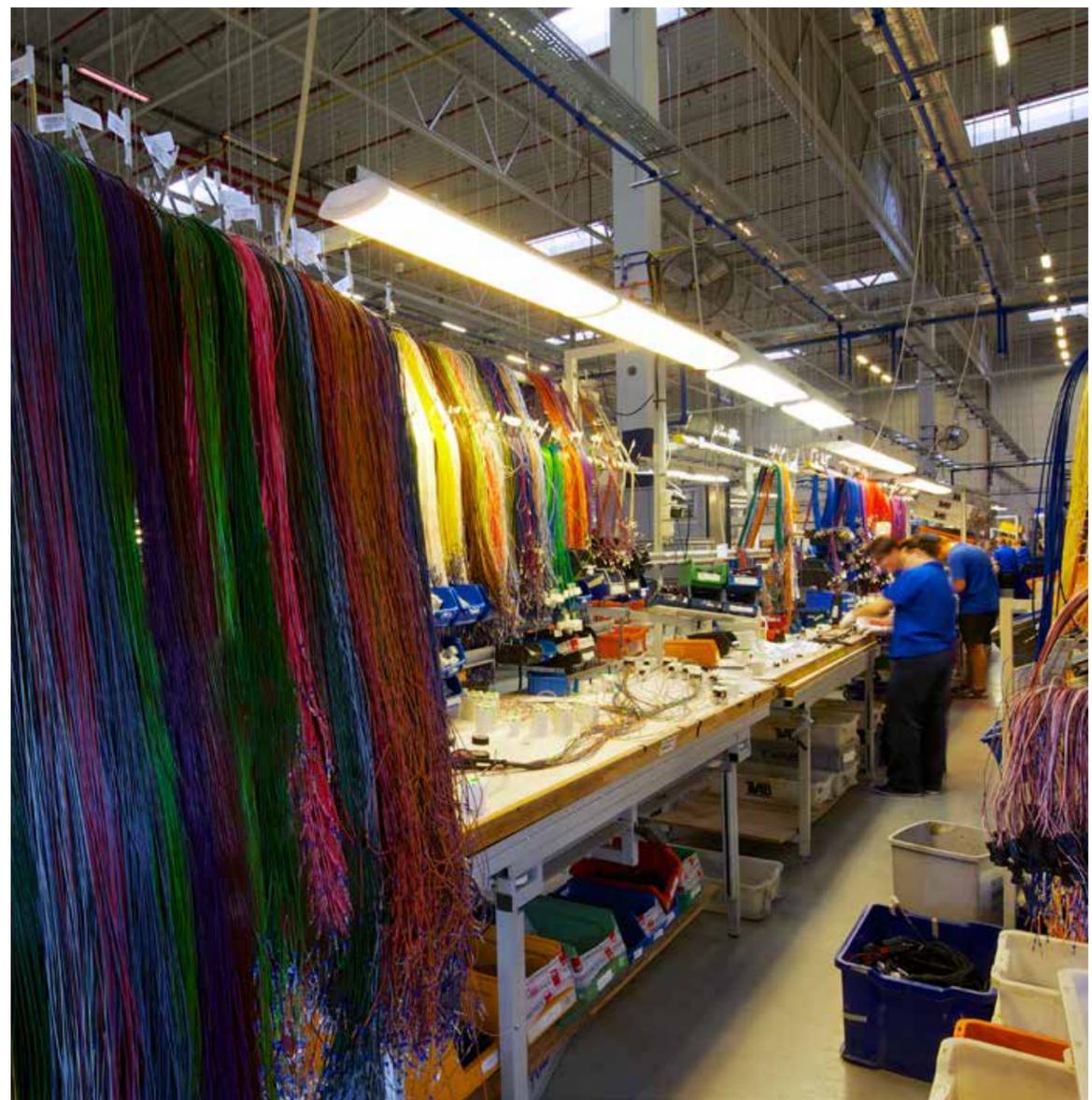
Annual release relative to planned benchmark 2010 – 2015



Source: GLA, 2016; Turley, 2016

## 7.22

Losses in many Central boroughs have exceeded benchmarks, contrasting with the policy position which supports only a limited or restricted release of industrial land in these areas. Losses in West London are also a point for concern given the importance of industrial land and logistics operations in these areas, such as Park Royal, and the priority this is given in policy documents. While East London is an area where significant release is planned, it is evident that industrial land has not been released in some boroughs to the extent planned since 2010. Newham, Greenwich and Bexley experienced releases lower than targeted while Barking and Dagenham shows an increase, possibly due to the presence of the London Sustainable Industries Park in the Borough.



## EMPLOYMENT LAND SUPPLY

### 7.23

The following plan illustrates the amount of industrial land expected in each borough by 2031 if release over the London Plan period occurs in line with planned benchmarks<sup>122</sup>. It is important to recognise that these losses could be further exacerbated through the introduction of light industrial (B1c) to residential conversions as permitted development rights from October 2017, unless London Boroughs proactively manage their industrial land supply through Article 4 direction exemptions.

Planned industrial land supply 2031



Source: GLA, 2016; Turley, 2016

<sup>122</sup> 2010 industrial land supply baseline used as proxy for start of London Plan period (2011)

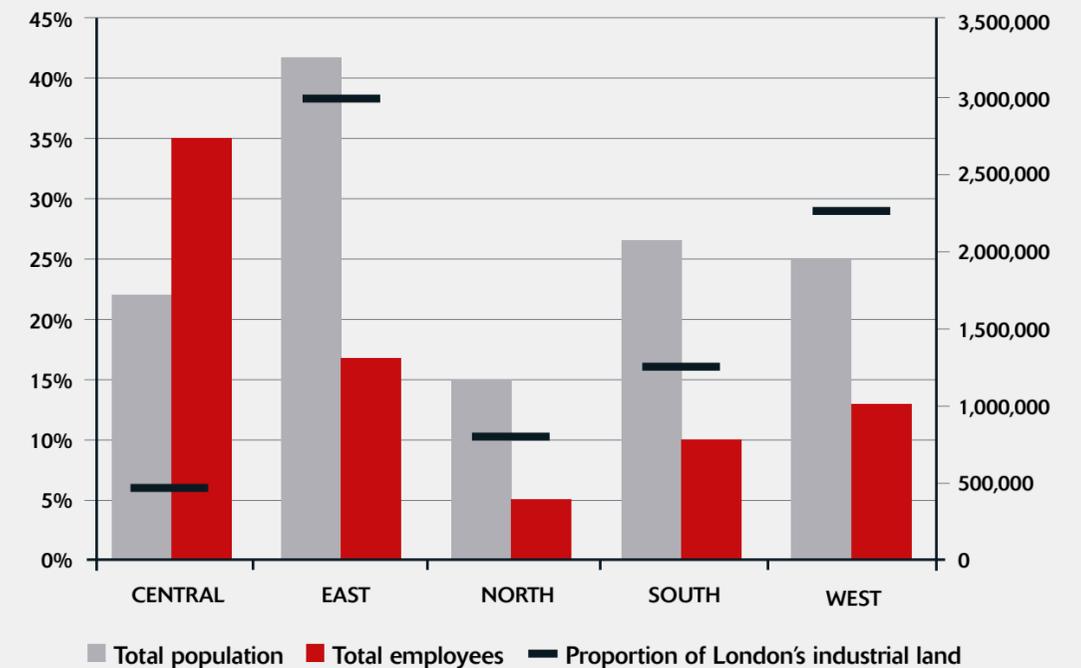
### 7.24

By 2031, the London Plan anticipates that East and West London will remain the main sources of industrial land supply. Ealing is the only borough expected to retain over 500ha of industrial land, becoming the borough with the largest absolute supply following planned loss in Newham, which had the greatest supply in 2010. This reflects the presence of Park Royal in the borough.

### 7.25

The Central sub-region is planned to contain a smaller proportion relative to the future concentration of both population and particularly employment in this area. While the East and West sub-regions appear to have a good balance of the proportion of London's share of industrial land and the population within the corresponding boroughs, in reality these industrial locations will also help to meet the urban logistics demands of populations and businesses in the Central, North and South sub-regions which have a shortage of industrial land compared to population.

Distribution of industrial land (%) compared to volume of population and employment by sub-region 2031



Source: GLA, 2016



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

# EMPLOYMENT LAND SUPPLY

### 7.26

Within the context of this level of planned release, the evidence recently published by the GLA<sup>123</sup> indicates that the recent acceleration in industrial land release has surpassed planned benchmarks. On average, 106ha has been released annually between 2010 and 2015, which is almost three times higher than the benchmark of 37ha per annum. This has resulted in unplanned release of some 528ha of industrial land between 2010 and 2015, surpassing the targeted loss of 188ha over this period. Twelve London boroughs saw releases over four times greater than targeted during this period. In Central London boroughs the rate of release was over eight times greater than planned.

### 7.27

A continuation of this trend would significantly diminish the supply of industrial land in London by 2031. The following chart shows the supply of employment land in 2010 and the planned supply in 2031 ('2031 - target'), based on the scale of release planned by the GLA between 2011 and 2031. This effectively shows how the supply of employment land was planned to diminish over the lifetime of the London Plan.

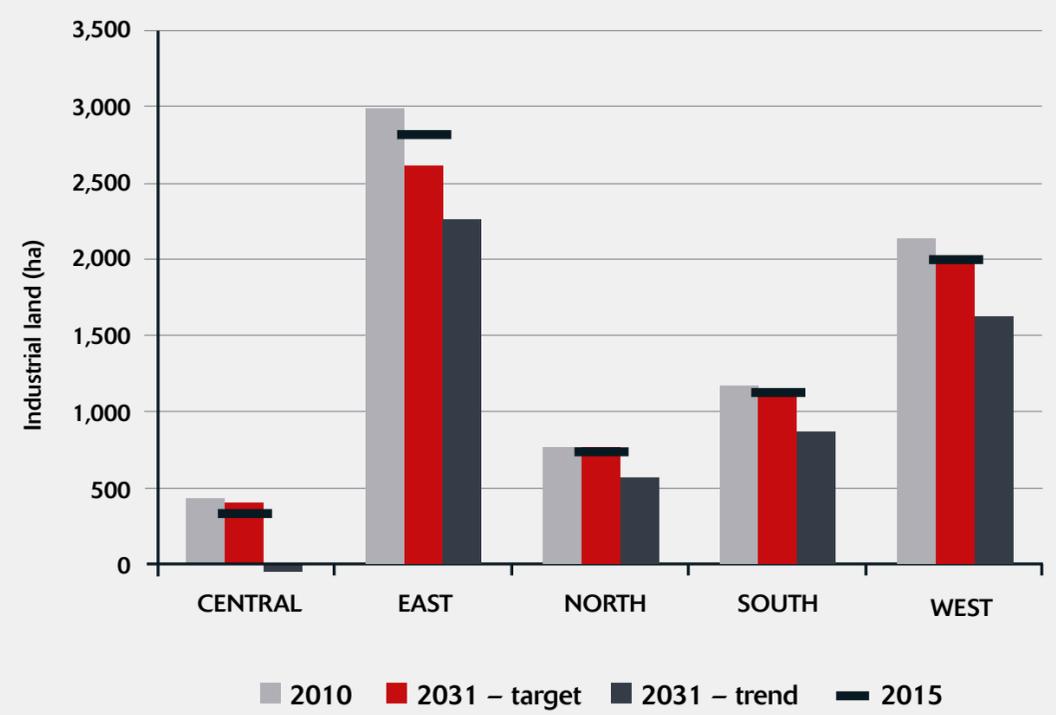
### 7.28

The supply of employment land in 2015 is also shown to illustrate the scale of loss to date in the context of planned loss over the full plan period. This is used to calculate an alternative 2031 figure ('2031 - trend') which shows the potential future supply if trends over the past five years (2010 - 2015) continue. This enables a direct comparison between the targeted and potential supply in 2031.



<sup>123</sup> GLA (2016) London Industrial Land Supply and Economy Study  
<sup>124</sup> Ibid (para 6.8.11)

Current and future (trend based) employment land supply



Source: GLA, 2015; Turley, 2016

### 7.29

The scale of release over the past five years has in many areas resulted in the current supply of industrial land approaching or falling below the levels envisaged for the end of the plan period by the GLA. This is most pronounced in the Central, North and South sub-regions. This demonstrates that this issue requires urgent attention and is an area of policy which is now effectively out-of-date. A continuation of this short-term trend will result in the supply of industrial land in 2031 falling significantly below the levels anticipated by the GLA in all five London sub-regions as shown by the dark grey bars.

### 7.30

Emerging policy and planning permissions suggest a continued significant release of industrial land, and – in describing the current rate of release as 'excessive'<sup>124</sup> – the GLA report shows that a continuation of this trend would lead to the overall SPG target being reached by 2017 rather than 2031 as planned.



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

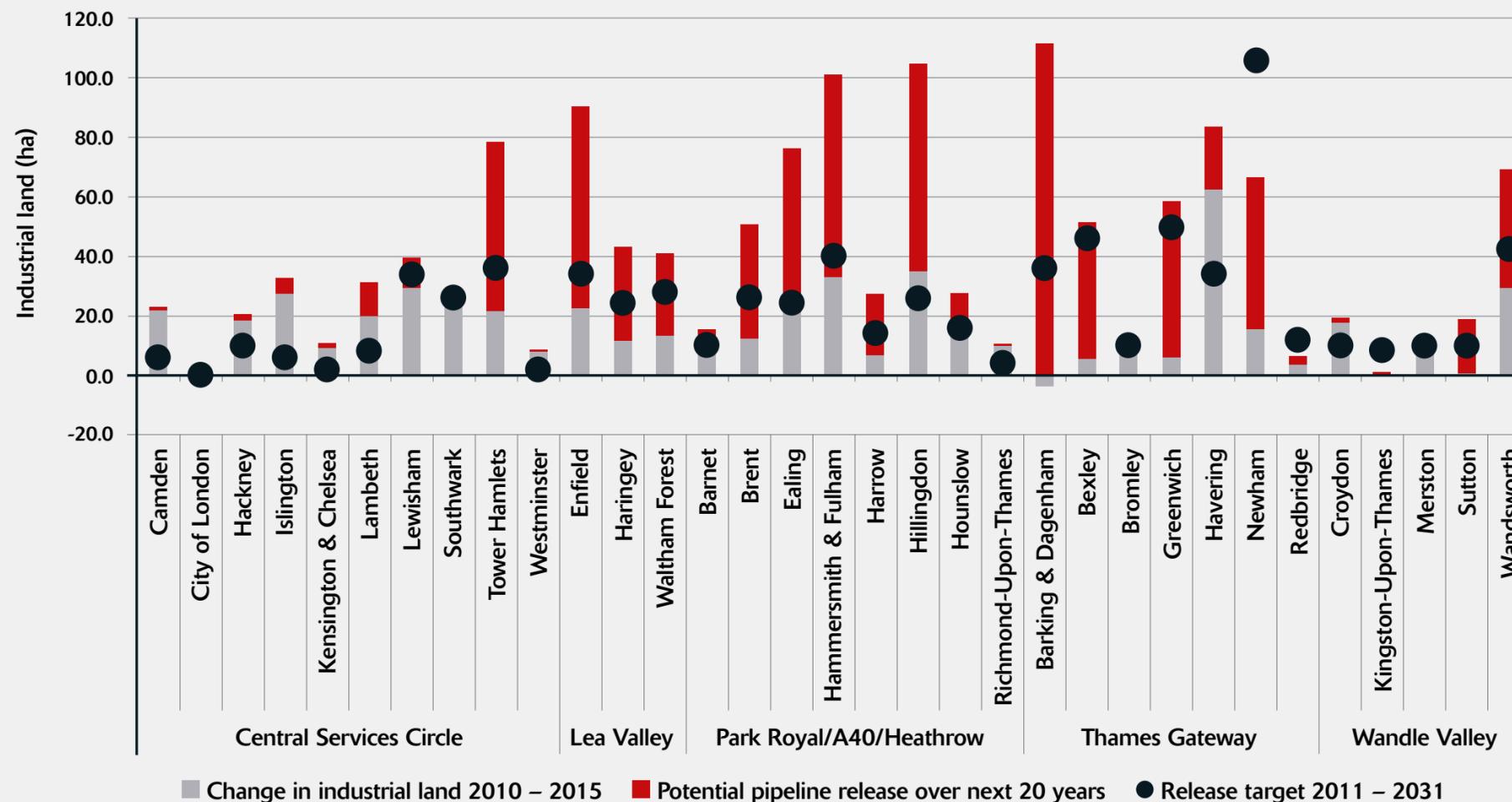
A6

# EMPLOYMENT LAND SUPPLY

## 7.31

Release over the lifetime of the London Plan is therefore likely to significantly exceed the level planned, as illustrated in the following chart using data from the GLA report. This compares the benchmark release target with change to date (2015) and the potential pipeline of release over the next 20 years<sup>125</sup>. This includes developments in the London Development Database (LDD), Planning Frameworks for Opportunity Areas, emerging Local Plans and Housing Zones.

Benchmark release compared to actual and pipeline release by property market area



**ALL EIGHT BOROUGHES IN THE PARK ROYAL/A40 /HEATHROW AREA ARE LIKELY TO EXCEED THEIR TARGETED RELEASE BY 2031**

Source: GLA, 2016 Note: Newham's high release target is not explained by the GLA but is likely due to (1) market evidence suggesting that supply far outstrips demand and (2) release of land in the Lower Lea Valley opportunity area

<sup>125</sup> Ibid (Table 2-10) The GLA study does not apply specific years over which this 20 years falls stating that 'no practical analysis of likely timeframes for this release is possible' (para 2.6.6)

## EMPLOYMENT LAND SUPPLY

### 7.32

The trends highlighted in the chart are therefore concerning. All eight boroughs in the Park Royal/A40/Heathrow area, for example, are likely to exceed their targeted release by 2031. Indeed five are already at the target release level.

### 7.33

The projections include pipeline developments and designations (such as Opportunity Areas), with Hillingdon, Hammersmith and Fulham, Ealing and Brent projected to significantly exceed targeted loss. This is concerning given the importance of industrial activities in areas such as Park Royal as well as other industrial areas in proximity to Heathrow Airport. These substantial losses are also in the context of a supportive policy for industrial uses in Hillingdon for example. There is a clear mismatch between policy and action.

### 7.34

If this pipeline across London is fully developed within the plan period – with losses to date also taken into account – this would result in a supply of circa 6,147ha of industrial land in London, falling from 7,505ha in 2010. This is a loss equivalent to one fifth of the 2010 industrial land figure (twice the target release) and compares to targeted supply in 2031 of 6,700ha. In this instance, industrial land equivalent to the size of Park Royal will have been lost above that set as a target for release.

London industrial land loss 2031 target and pipeline

	Industrial land (ha)	Industrial land loss from 2010 (ha)	Equivalent number of Park Royals lost (713 ha)
2010	7,505	n/a	n/a
2031 target	6,700	805	1
Pipeline loss (20 years)	6,147	1,358	2

Source: Turley, 2016; GLA, 2012; GLA, 2016

<sup>126</sup> Ibid (para 6.8.11)

<sup>127</sup> Ibid (p14)

### 7.35

While the GLA study finds that a continued release of industrial land may be possible, it is made clear that a 'more moderate rate of release is probably more appropriate'<sup>126</sup>, suggesting a need to ensure that the scale of employment land release is kept in check:

It appears likely that at some point, potentially within the life of the current London Plan, there will be a case to switch from releasing industrial land to retaining most of the remaining land.<sup>127</sup>

GLA study

### 7.36

Based on the evidence assessed in this report it is apparent that point has been now reached in certain London boroughs which necessitates a thorough review of the policy governing land release and associated compensatory measures to ensure that London's economy and functionality is protected. This will necessarily involve "tightening" policy where necessary to protect the best and most suitable industrial land, as well as measures to enhance supply and/or compensate for excessive losses.



ES

## EMPLOYMENT LAND SUPPLY

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## OPPORTUNITY AREAS

### 7.37

The London Plan identifies 38 Opportunity Areas, which are the capital's 'major reservoir of brownfield land with significant capacity to accommodate new housing, commercial and other development linked to existing or potential improvements to public transport accessibility'<sup>128</sup>. Opportunity Areas are diverse in size, and require varying levels of public sector intervention and investment to bring forward.

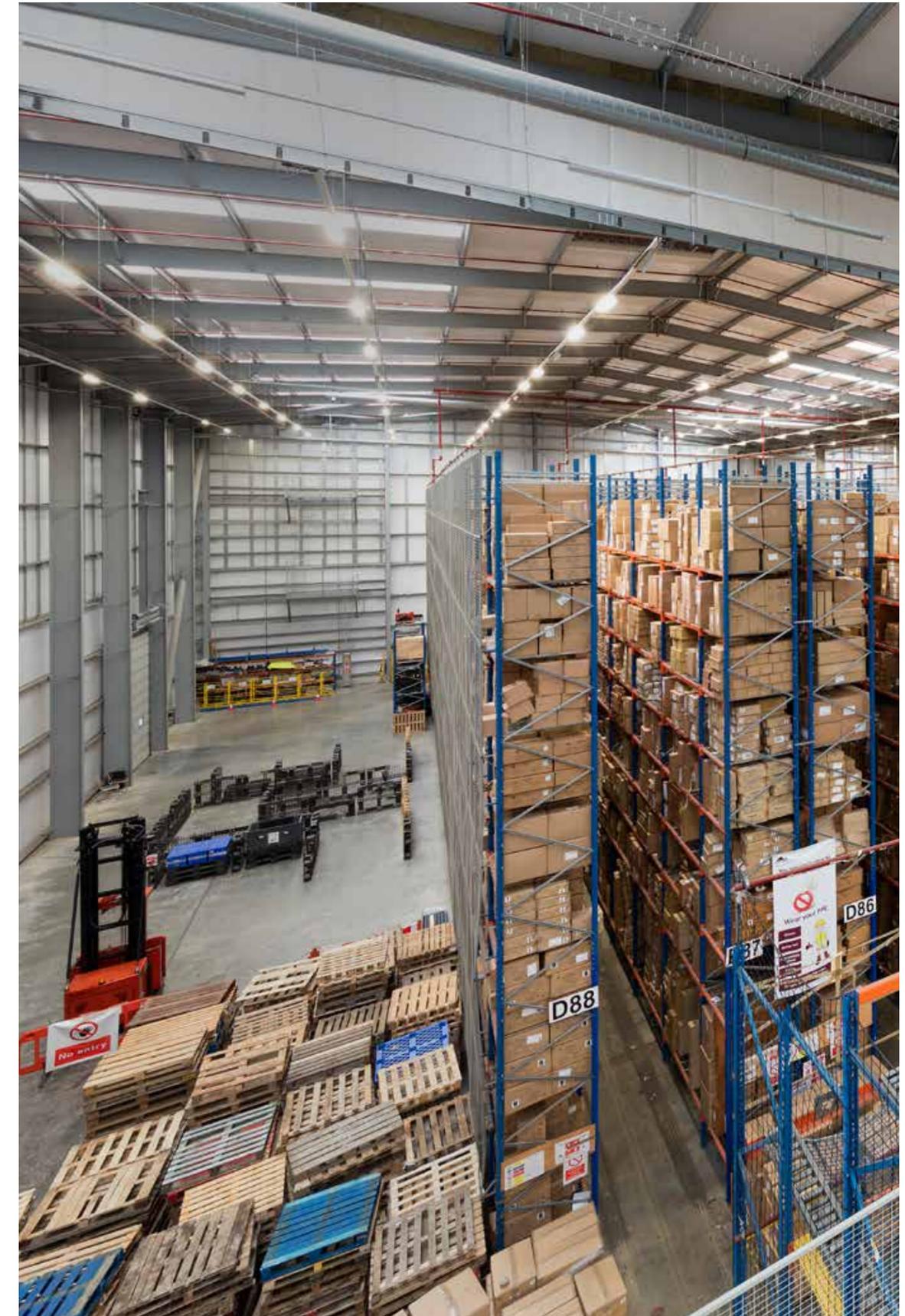
### 7.38

Collectively, the Opportunity Areas can make a significant contribution to the London economy, with an indicative employment capacity for approximately 575,000 jobs in total. They will also assist in housing the considerable population growth expected for the capital. These increases in both jobs and population will enhance the demand for goods and services in these areas. Ensuring urban logistics operators are able to respond to this demand through suitable sites and premises will be key to these locations functioning effectively.

### 7.39

The plan on the following page shows the distribution of Opportunity Areas in London with key transport infrastructure, and specifically highlights those areas expected to either play a logistics function or impact upon the provision of land for logistics. These areas are then summarised in order of size (hectares of land).

<sup>128</sup> GLA (2015) The London Plan – the spatial development strategy for London consolidated with alterations since 2011 (para 2.58)





ES

# EMPLOYMENT LAND SUPPLY

1

2

3

4

5

6

7

8

9

A1

A2

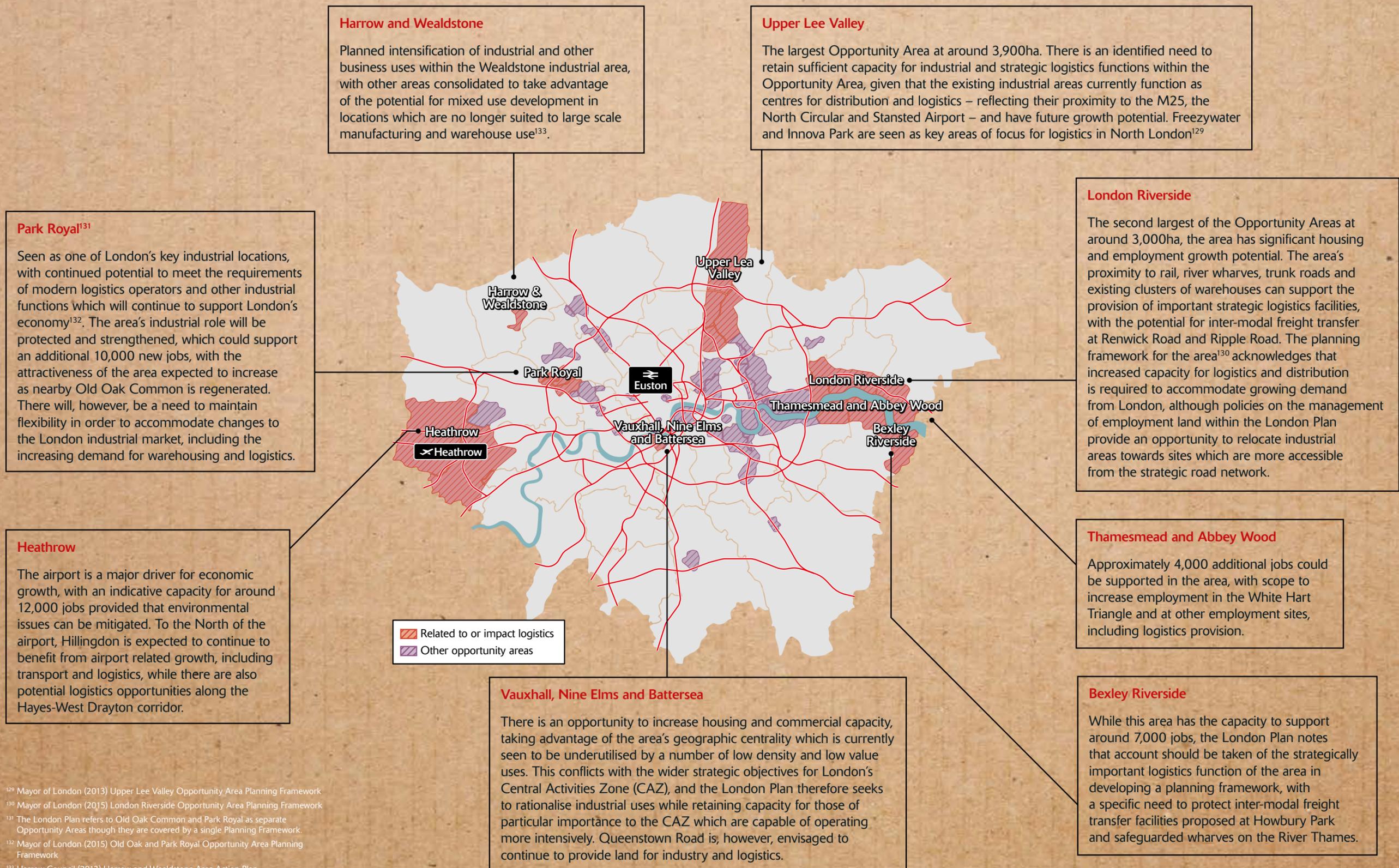
A3

A4

A5

A6

## OPPORTUNITY AREAS



<sup>129</sup> Mayor of London (2013) Upper Lee Valley Opportunity Area Planning Framework  
<sup>130</sup> Mayor of London (2015) London Riverside Opportunity Area Planning Framework  
<sup>131</sup> The London Plan refers to Old Oak Common and Park Royal as separate Opportunity Areas though they are covered by a single Planning Framework.  
<sup>132</sup> Mayor of London (2015) Old Oak and Park Royal Opportunity Area Planning Framework  
<sup>133</sup> Harrow Council (2013) Harrow and Wealdstone Area Action Plan

## EMPLOYMENT LAND SUPPLY

### 7.40

These locations will be even more important in the context of wider industrial land release. The table opposite shows each of the Opportunity Areas identified above in the context of the total supply of industrial land in each corresponding borough, the amount of land released as well as the ongoing target for release. Where Opportunity Areas span multiple boroughs, borough level figures are aggregated.

### Opportunity areas and industrial land release

Opportunity area	Borough(s)	Industrial land released 2010 – 2015	Industrial land released per annum 2010 – 2015	Industrial land annual release benchmark	Potential annual pipeline release (20 years)
Upper Lee Valley	Enfield, Hackney, Haringey, Waltham Forest	-66ha	-13ha	-5ha	-6ha
London Riverside	Barking and Dagenham, Havering, Newham	-75ha	-15ha	-9ha	-9ha
Bexley Riverside	Bexley	-5ha	-1ha	-2ha	-2ha
Thamesmead and Abbey Wood	Bexley, Greenwich	-5ha	-1ha	-11ha	-5ha
Park Royal	Brent, Ealing	-35ha	-7ha	-3ha	-5ha
Heathrow	Hillingdon, Hounslow	-49ha	-10ha	-2ha	-4ha
Vauxhall, Nine Elms and Battersea	Lambeth, Wandsworth	-49ha	-10ha	-3ha	-3ha
Harrow and Wealdstone	Harrow	-7ha	-1ha	-1ha	-1ha

Source: GLA, Turley

### 7.41

Bexley Riverside and Thamesmead and Abbey Wood are the only Opportunity Areas related to or impacting upon logistics where the scale of industrial land release in the boroughs has fallen short of planned release. The other Opportunity Areas are situated in areas where more industrial land than planned has been lost to other uses, with this particularly evident in Heathrow and Vauxhall, Nine Elms and Battersea.

**OPPORTUNITY COSTS OF THE CURRENT  
APPROACH TO LAND RELEASE**

**7.42**

As highlighted earlier, the London Plan makes provision for the release of 37ha of existing industrial land per annum. This loss of industrial land could equate to circa 3,300 jobs per annum which could have potentially been accommodated based on the 2015 Employment Density Guide<sup>134</sup>. If the current rate of loss continues, this could result in the foregoing of 7,800 jobs per annum or 3,000 businesses annually<sup>135</sup>.

**7.43**

The GLA expects there to be some rationalisation of industrial land, with occupiers able to intensify their land use. The recently published GLA study<sup>136</sup> demonstrates evidence of increasing numbers of industrial employees despite a decreasing provision of industrial land as highlighted by the following quotation:

**“In London industrial land stock has decreased by 7%, while the number of industrial workers has increased by 4%. This suggests that use of industrial land is intensifying.”<sup>137</sup>**

**7.44**

This intensification is a result of the operational model of some businesses which are able to use shift work and increase driver numbers. This results in an increased employment density for these businesses meaning that jobs may increase even as industrial land decreases. However this does not mean that land is not required in the same quantum, rather that employment is able to increase due to, and in response to, enabling technologies. If industrial land is not available in the right locations, this will stifle the logistics sector and curtail its potential to meet business and consumer needs.

**7.45**

We anticipate a limit to how far land can be rationalised without a disproportionate effect on industrial and logistics uses. Some activities are less able to adapt to limits on land availability and there may be a choking off of development potential and business growth where businesses are not able to expand their premises or relocate to suitable locations which meet their needs. Our case studies, particularly those incorporating warehousing for storage, indicated that their existing land use will be outgrown within the next few years and that their current configuration of floorspace would be difficult to further adapt to achieve space savings or create additional capacity. They also indicated the importance of combined uses in one location i.e. warehouse space with ancillary office. Such businesses would not function effectively if these uses had to be split across separate sites due to lack of available premises or move on space.

**7.46**

The location of land losses is also important. While businesses are able to respond and become more efficient in challenging circumstances, the way in which logistics operations are changing and the market to which they are responding, means they are having to respond to shorter delivery times. Proximity to market and transport accessibility are therefore ever more paramount. Our case studies highlighted the importance of a London location and that locations outside of the capital (DHL, Ocado and John Lewis Partnership) would not be practicable to their business operation given the need for proximity to market, be it consumer or business based. Indeed, Ocado have been seeking sites for last mile delivery in inner London and have to date been unsuccessful in finding a suitable, available site.

**7.47**

Assuming that losses of industrial land can be met by sites outside of London is not only misleading with regards to the realities of operating a business with a London focused market (see Chapter 2), but also overlooks the fact that many local authorities outside of London are facing equally challenging land supply issues for housing and employment. Alternative solutions need to be sought which provide compensatory land to counterbalance unsustainable land losses, while also encouraging intensification of the use of existing land supply where this is commercially feasible.

**7.48**

The pressures that a lack of suitable sites and premises places on logistics and other operators also have potential environmental consequences. If logistic centres are required to look for sites further away from the population centre they serve, these emissions will increase. For instance, a fifty mile round trip will produce over twice as much CO<sub>2</sub> emissions as the current 20 mile round trip currently made by vans at Origin Business Park into Central London.

**ASSUMING  
THAT LOSSES  
OF INDUSTRIAL  
LAND CAN BE  
MET BY SITES  
OUTSIDE OF  
LONDON  
IS MISLEADING  
WITH REGARDS  
TO THE  
REALITIES OF  
OPERATING A  
BUSINESS**

<sup>134</sup> HCA (2015) Employment Density Guide 3rd Edition

<sup>135</sup> Based on the average number of employees per industrial business in London, as evidenced using data from UK Business Counts (2015).

<sup>136</sup> GLA (2016) London Industrial Land Supply and Economy Study

<sup>137</sup> Ibid – Page 146



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

# EMPLOYMENT LAND SUPPLY



## WHAT THIS MEANS

### 7.49

To date, industrial land release has not been effectively or strategically managed. The London Plan's land release targets have been breached without any compensatory measures in place to redress an imbalance between supply and demand.

### 7.50

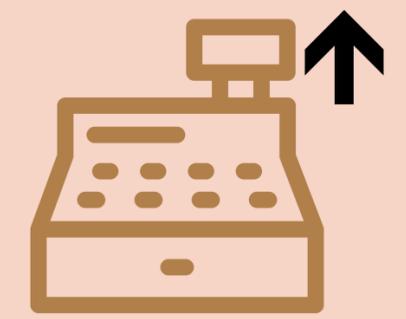
There has been some evidence of building and site adaptation solutions and the intensification of existing sites in particular, however this is not a long-term solution nor suitable for all logistics related operations. Adapting and intensifying sites will only partially cater to the burgeoning demand for logistics services that the capital's growing population is creating. This requires a more comprehensive solution to be devised whereby excess land losses can be offset by new allocations or land re-designations in suitable locations. There is a need for an improved mechanism for protecting the best industrial land and policy must positively support the intensification of uses on existing sites where this is practically and commercially achievable.

# 8 MEETING FUTURE NEED

## KEY FINDINGS



Online sales are projected to continue to grow and will have a direct impact on urban logistics demand.



Retail employment growth is projected to be equivalent to around one in every 25-35 new residents. E-commerce will continue to represent a growing proportion of retail activities.

### +80,000 RESIDENTS

Key growth locations are likely to be Tower Hamlets, Redbridge, Newham and Barnet where population growth will be over 80,000 additional residents between 2011 and 2031 creating a significant increase in the market for online shopping and other needs that drive demand for logistics. This will require an urban logistics response.



Between 42ha and 257ha of industrial land is estimated to be required to 2031 to support jobs growth in logistics. This is a minimum range given it does not consider operations not formally included within the logistics data, such as retail and e-commerce firms operating their own logistics components. This is in the context of the quantum of vacant land in London reducing by half between 2001 and 2015.

## MEETING FUTURE NEED

### 8.1

Without sufficient land, urban logistics and the multitude of sectors and consumers it supports, will suffer: anticipated growth rates will not be achieved and the London economy will not function efficiently if solutions are not found and implemented.

### 8.2

There is currently no published and recent GLA research into occupier or industrial land demand for London and therefore comparative analysis of demand and supply factors is challenging.

### 8.3

In the absence of published GLA evidence, this chapter explores a range of factors which influence the demand for industrial land including productivity and the employment requirements of logistics operators. Following this review the implications for industrial land demand are then examined. However, this is by no means a full assessment. Any assessment undertaken by the GLA to establish demand would be expected to consider employment numbers, growth trajectories, operating requirements and locational needs in a holistic and all-encompassing assessment.

## SECTOR GROWTH

### NATIONAL TRENDS

#### 8.4

Logistics is an important sector for the UK economy and is continuing to grow in response to changes in the way we demand goods and services. The warehousing and storage sector is expected to maintain revenue growth of 4.2% on average per annum over the period from 2016 to 2021. Postal and courier activities are expected to see a particularly high growth in the immediate term, equating to 4.1% in 2018 and 4.8% in 2019.



Postal and courier activities

#### 8.5

A key future driver for such growth is retail, and e-commerce in particular. Higher levels of average annual growth are anticipated:

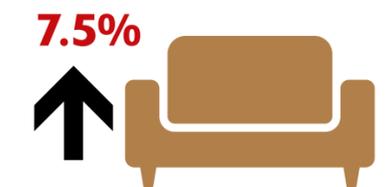
- E-commerce and online auctions (10.3%)
- Online women's clothing retailing (7.7%)
- Online home furnishing retailing (7.5%)



E-commerce and online auctions



Online women's clothing



Online home furnishing

UK online sales grew by 16% in 2015 and are forecast to continue to grow around 15% in 2016.

This growth will have clear repercussions for logistics operations and the demand for land and premises to support these growing sectors.

As London's population rises to over 10 million by 2031<sup>138</sup> and to 13 million by 2050 the role of logistics will become ever more crucial.

<sup>138</sup> ONS also report that the population of London grew at twice the rate of the UK as a whole between 2011 and 2015. Population growth in the capital could be higher than estimated over the next decade. <https://www.theguardian.com/uk-news/2016/oct/12/london-population-growth-twice-that-of-uk-officialfigures-show>

**MEETING  
FUTURE NEED**

**8.6**

Other key sectors which occupy industrial land and which have significant logistics functions, such as those related to television and film production, are also expected to experience growth. Growth in this sector is partly driven by government support as well as a growth in US investment. This will in turn spur on demand for industrial land and co-location by associated sectors such as audio visual suppliers as well as media production businesses. The case studies included within this report indicate that the television and film industry is growing.

**8.7**

Further information on the projected performance of industrial sectors with a logistics component and the drivers for this change, is contained in the Appendix to this report.



**LONDON GROWTH**

**8.8**

Retail in London is projected to grow by 58,000 jobs (14%) over the period from 2011 – 2031<sup>139</sup> and will be a key driver of growth for urban logistics operations. As previously identified, retail operators are increasingly providing logistics requirements in-house. This growth in retail will therefore have notable repercussions on the need for logistics space. Proximity to urban concentrations will be paramount in order to serve demand for fast-moving consumer goods<sup>140</sup> and deliver the last mile solutions which accompany these.

**8.9**

The transportation and storage sector is one of several which can benefit from wider trends within the logistics industry, where new opportunities are expected to arise from growth in online retailing and a greater demand for fast-moving consumer goods<sup>141</sup>. There is, however, an acknowledged shortage of quality warehouse space, with capacity in prime locations expected to be particularly scarce over the coming years<sup>142</sup>. This, accompanied with the recent and pipeline loss in industrial land will create problems in the industry's response to growing consumer demands in both volume and expediency of goods.

**RETAIL IN  
LONDON IS  
PROJECTED TO  
GROW BY 58,000  
JOBS (14%)  
OVER THE  
PERIOD FROM  
2011 – 2031**



<sup>139</sup> GLA (2015) Employment Projections  
<sup>140</sup> Ibisworld (2016) Warehousing and Storage in the UK Industry Report  
<sup>141</sup> Ibid  
<sup>142</sup> Ibid



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## MEETING FUTURE NEED

### ESTIMATING DEMAND

#### 8.10

The forecast creation of 11,000 transportation and storage jobs by the GLA is likely to include significant growth in logistics employment, with data showing that approximately one in three jobs in the sector in London is related to logistics<sup>143</sup>. A larger growth in transportation and storage and therefore logistics could also occur over the plan period, with the latest Experian forecasts showing that 67,000 additional transportation and storage jobs (converted to 22,445 logistics jobs) will be created over the period from 2011 to 2031. We consider this to be more realistic given the recent growth in logistics employment of over 2,000 employees a year.

#### 8.11

It is important to recognise that this is only a forecast, however, which is reliant upon the provision of suitable infrastructure if it is to be achieved. The provision of sufficient land is particularly important, with an estimated need for an additional 42ha of land to support the creation of 3,320 additional logistics jobs projected by the GLA if this sectoral split is retained over the plan period. This increases to circa 257ha if the higher levels of job growth forecast by Experian are to be achieved.

#### 8.12

This is summarised in the following table, but represents a minimum figure, given that it does not capture job creation in other sectors – such as retail – which drive demand for logistics space, and does not reflect the in-house logistics operations of retailers which is becoming increasingly common. This also makes no allowance for market choice and flexibility, which are often critical to the effective operation of land markets. In undertaking a full assessment of demand the GLA will need to ensure such methods are taken into account. However a broader analysis, based not only on employment projections needs to be considered, given that the relationship between employment and land requirements is not always linear.

**67,000 ADDITIONAL TRANSPORTATION AND STORAGE JOBS WILL BE CREATED OVER THE PERIOD FROM 2011 TO 2031**



#### Land required to support projected growth in transportation and storage industry 2011 – 2031

	Source	GLA	Experian
A Total jobs in transport and storage	GLA/Experian	11,000	67,000
B Jobs requiring logistics space	BRES <sup>144</sup>	3,685	22,445
C Conversion to full-time equivalent (FTE)	APS <sup>145</sup>	3,320	20,222
D Employment density (sq m per FTE)	HCA <sup>146</sup>	74 sq m	74 sq m
E Floorspace required (sq m, GEA)	C x D	244,019 sq m	1,486,300 sq m
F Plot ratio (sq m per ha)	URS <sup>147</sup>	6,800	6,800
G Net developable area (ha)	E / F	36ha	219ha
H Land required with buffer <sup>148</sup>	G / 0.85	42ha	257ha

Source: Turley, 2016; ONS, 2015; HCA, 2015; URS, 2010; GLA, 2015

#### 8.13

This estimated requirement for a minimum of 42ha to 257ha of additional land to accommodate logistics employment growth is in the context of a targeted loss of 733ha of industrial land over the 2011 – 2031 time period and 528ha already lost between 2010 and 2015. As explored previously, the pipeline of release over the next 20 years is expected to be considerable.

#### 8.14

In addition, there are only 547ha of vacant industrial land. Such land is likely to be prioritised for release by developers of other uses (half of all vacant land in 2001 was lost to other uses by 2015) such as housing due to the lower costs of redevelopment compared to sites with existing buildings. Once a site is released for housing this is not easily reversible. There is a risk therefore that the industrial land required to accommodate this growth will not be provided, thereby restricting this growth from being realised. This highlights a need to secure additional land for logistics use in suitable locations to meet the needs of the industry.

<sup>143</sup> 2014 Business Register and Employment Survey (BRES)

<sup>144</sup> 33.5% of transport and storage jobs in London are in sectors related to logistics, based on Business Register and Employment Survey (BRES)

<sup>145</sup> ONS (2015) Annual Population Survey – workplace analysis (October 2014 – September 2015) – 80% of people working in London are in full-time employment, and this is assumed to be sustained throughout projection period. 20% of jobs are part-time, but are converted to a full-time equivalent (FTE) on the basis that 2 part time jobs = 1 FTE job

<sup>146</sup> HCA (2015) Employment Density Guide (3rd Edition) – average between regional distribution centre (77 sq m per FTE) and ‘final mile’ distribution centre (70 sq m per FTE) = 74 sq m per FTE

<sup>147</sup> URS (2010) London’s Industrial Land Baseline – latest published GLA evidence on plot ratios in London

<sup>148</sup> Buffer applied to convert to gross developable area – assumed that net developable area is 85% of gross developable area

**MEETING FUTURE NEED**

**OPTIMUM LOCATIONS FOR LOGISTICS OPERATIONS**

**8.15**

The optimum locations for urban logistics will continue to be those proximate to large concentrations of people living and working. It will be in these locations that urban logistics deliveries are most frequent. This will be direct to the consumer through personal deliveries or via shops, hotels, restaurants and workplaces. Where population and employment growth occurs this will in turn drive growth in urban logistics deliveries. The geographies of demand will therefore influence the locations in which urban logistics operators will need to locate and access, either from a site within the area or from nearby via accessible transport routes.



**SPATIAL PATTERN OF JOB GROWTH**

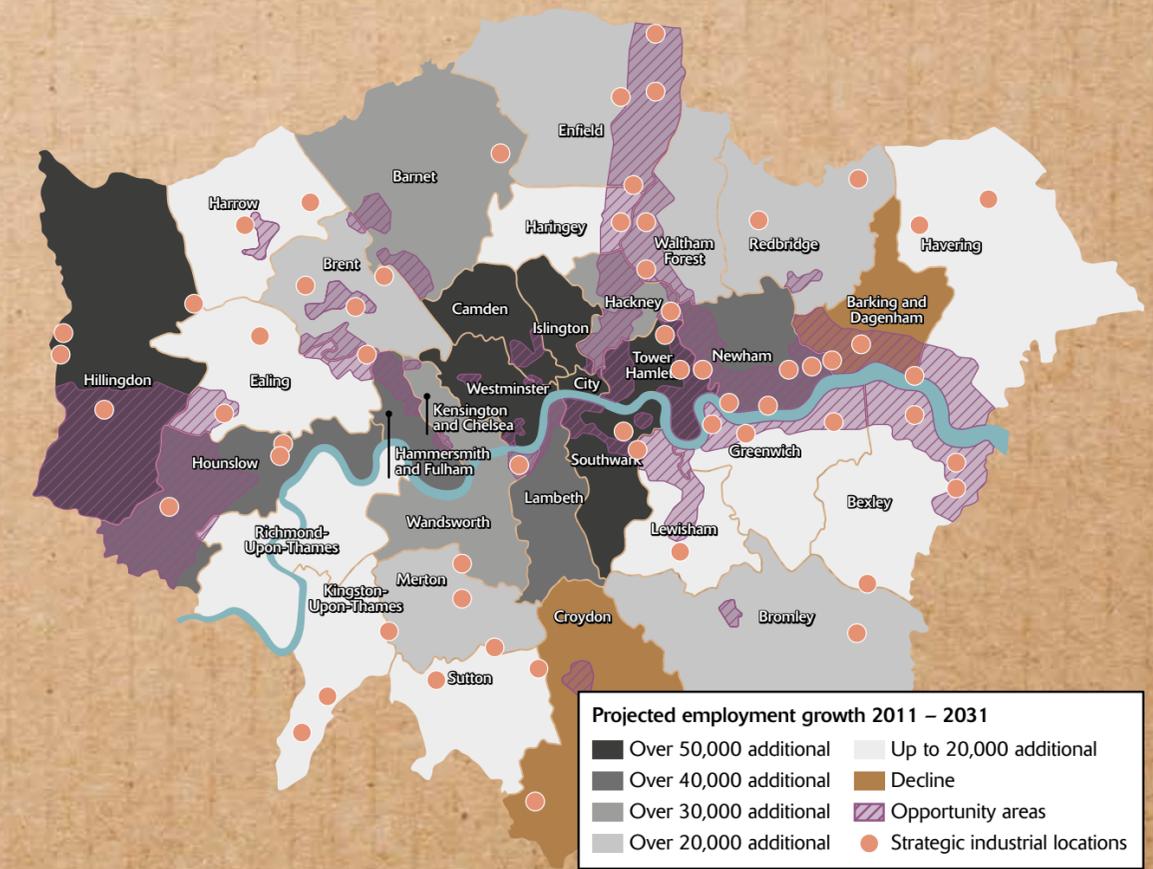
**8.16**

The 2015 employment projections published by GLA Economics<sup>149</sup> estimate that total employment in London could increase by approximately 1.325 million (27%) over the lifetime of the London Plan from 2011 to 2031. This represents average growth of approximately 66,250 jobs per annum.

**8.17**

The greatest employment growth is projected across Central London which has a very low concentration of industrial land. Hillingdon and Hounslow are also expected to see a sizeable growth in employment which corresponds to the large Opportunity Area allocation.

Distribution of projected employment growth 2011 – 2031



Source: GLA, 2015

<sup>149</sup> GLA Economics (2015) GLA Employment Projections by borough



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## MEETING FUTURE NEED

### SPATIAL PATTERN OF CONSUMER GROWTH

#### 8.18

Evidence published by the GLA<sup>150</sup> notes that there is likely to be a positive correlation between population growth and the scale of various industrial activities, particularly where industries directly serve the population. The report states that:

London...appears to be heading towards a situation in which most of its activities located in industrial areas will be associated with servicing the rest of London's economy and population.<sup>151</sup>

GLA Report

#### 8.19

The sector would be expected to grow if the economy of London continues to expand, given its interrelated nature<sup>152</sup>. The locational requirements of warehousing and distribution are acknowledged within the GLA evidence, with a recognition that operators require locations close to their markets to support just-in-time logistics, online retailing fulfilment and sustainable last mile distribution.

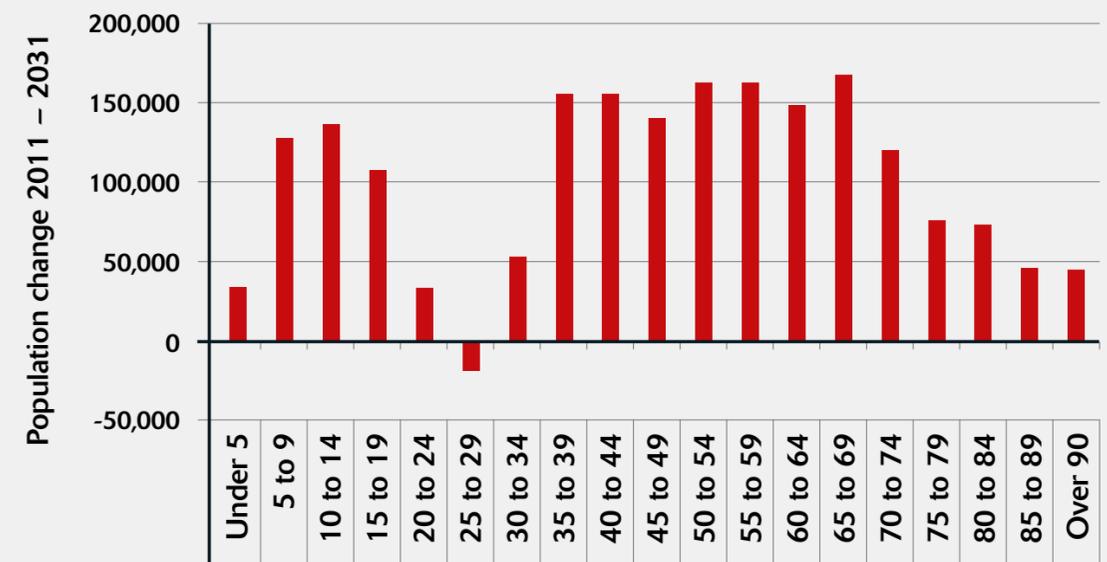
#### 8.20

The case studies compiled for this report indicate that proximity to consumer is one of three primary location decision factors and is perhaps the most important of these. Ocado for example, base their location decisions on population concentrations and areas of growth. With insufficient land available to locate and operate their customer fulfilment centres ('spokes') they, and other online food retailers, will not be able to meet the need of the consumer effectively and efficiently.

#### 8.21

The latest (2014) demographic projections published by the GLA<sup>153</sup> show that a continuation of short-term trends would increase the population of London by some 1.9 million persons over the period from 2011 to 2031, representing population growth of around 23% or an increase of 95,000 residents per annum. As shown in the following graph, growth is projected across almost all age groups, with the exception of those aged 25 to 29. Growth in older age groups is important as this group is expected to become increasingly technology savvy and a growth market for online retail.

Projected change in population by age 2011 – 2031



Source: GLA, 2015

<sup>150</sup> GLA (2016) London Industrial Land Supply and Economy Study

<sup>151</sup> Ibid (para 6.8.12)

<sup>152</sup> Ibid (para 6.5.2)

<sup>153</sup> GLA (2015) 2014 round of demographic projections – local authority population projections (short-term migration scenario)

**MEETING FUTURE NEED**

**8.22**

Evidence from Pitney Bowes<sup>154</sup> suggests that the average London resident spends £6,150 on retail goods (convenience and comparison) each year. On this basis, an additional 95,000 people residing in London each year are expected to generate £584.2 million in retail expenditure per year. Between 2011 and 2031, the 1.9 million additional residents projected by the GLA have the potential to generate an additional £11.7 billion in retail expenditure every year. An increasing proportion of this expenditure is likely to be spent online as retailers roll out omni-channel points of sale and the population becomes increasingly digitally enabled, requiring increased customer deliveries. The increase in population and the resulting retail expenditure will create additional demand for retail goods and services in turn affecting the urban logistics sector and requiring more products to be moved from a greater volume of warehouse floorspace.

**8.23**

In terms of understanding the relationship between population growth and growth in logistics, the GLA projections indicate that one additional transport and storage job will be created for every 175 additional residents over the period from 2011 to 2031. Further to this, the projections indicate that one additional retail job will be created for every 35 additional residents over the period 2011 to 2031. This will likewise lead to the need for a logistics response.

**8.24**

It is also useful to note that Experian projections<sup>155</sup> indicate much higher growth, equivalent to one additional transport and storage job for every 30 additional residents and one additional retail job for every 25 additional residents.

**8.25**

It is not a question of purely providing homes at the expense of the services which are needed to meet the needs of the population, but in providing for the full range of needs. The movement of goods and services to and from (returns) residents and businesses is a core part of London's functioning and helps to make it a successful global city. A lack of land to support this growth in line with population change will negatively impact on the sector's ability to respond to population demands.

**AN ADDITIONAL 95,000 PEOPLE RESIDING IN LONDON ARE EXPECTED TO GENERATE £584.2 MILLION IN RETAIL EXPENDITURE PER YEAR**

**LONDON RESIDENTS SPENDS £6,150 ON RETAIL GOODS EACH YEAR**

**BETWEEN 2011 AND 2031, THE 1.9 MILLION ADDITIONAL RESIDENTS HAVE THE POTENTIAL TO GENERATE AN ADDITIONAL £11.7 BILLION IN RETAIL EXPENDITURE EVERY YEAR**



**ONE ADDITIONAL TRANSPORT AND STORAGE JOB WILL BE CREATED FOR EVERY 175 ADDITIONAL RESIDENTS**

<sup>154</sup> Oxford Economics, via Pitney Bowes (2016) Consumer Retail Expenditure estimates

<sup>155</sup> Experian (September 2016) UK Local Market Forecast Quarterly



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

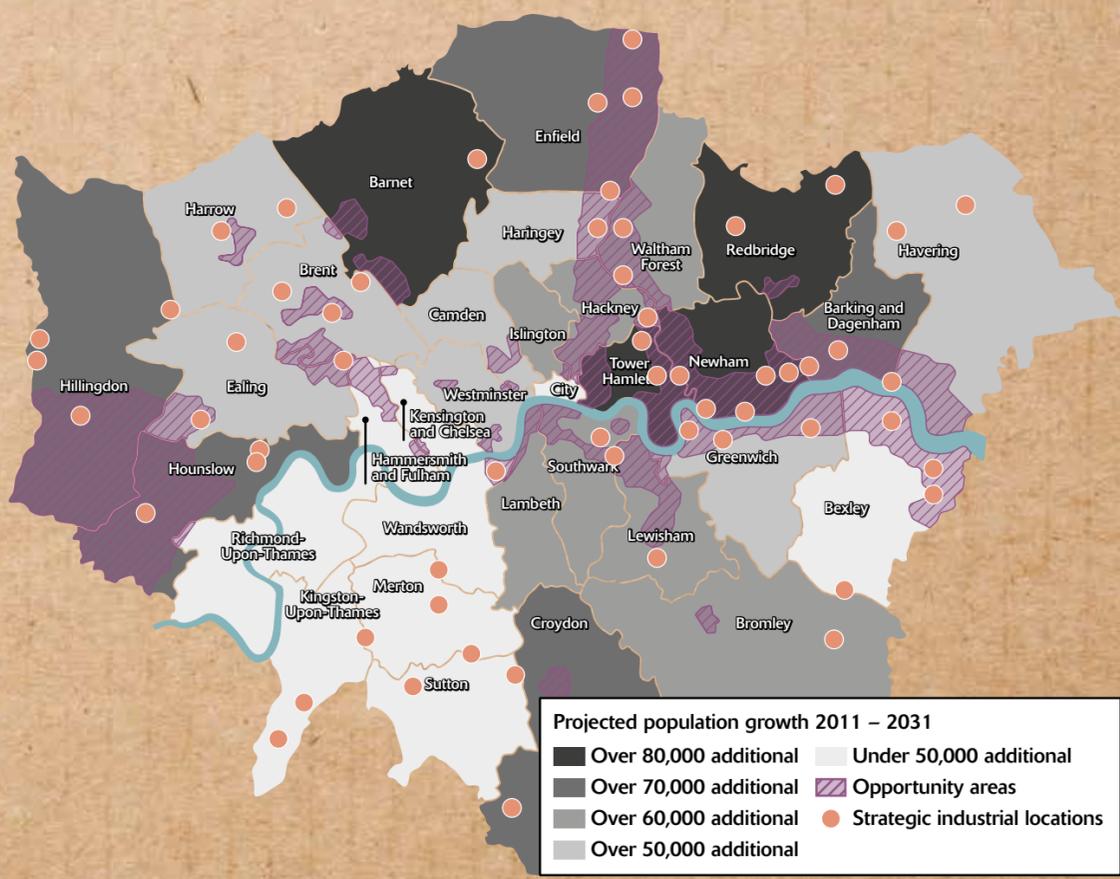
A6

# MEETING FUTURE NEED

## 8.26

The following plan shows the distribution of growth across London, in order to identify areas where consumer growth could influence industrial locations especially in light of the aforementioned requirement for proximity to the customer market. Opportunity Areas and Strategic Industrial Locations (SIL) identified in the London Plan are also overlaid in order to demonstrate the appropriateness of these locations to respond to future consumer growth.

Distribution of projected population growth 2011 – 2031



Source: GLA, 2015

## 8.27

The largest population growth (over 80,000 residents between 2011 and 2031) is projected in Tower Hamlets, Redbridge, Newham and Barnet, with the latter relatively poorly served by large or logistics focused Opportunity Areas and SILs. These areas should arguably be a key focus for urban logistics solutions in responding to growth in demand as a result of the scale of projected population increase. Much of the growth projected in East London is proximate to the large Opportunity Areas in the Thames Gateway and could therefore be more readily fulfilled in terms of customer demands from local logistics centres. More limited population growth is anticipated in South West London. This is also an area identified by the GLA as having limited scope for industrial land release. Mixed-use solutions such as co-location of industrial and residential sites may therefore be necessary.

# THE LARGEST POPULATION GROWTH IS PROJECTED IN TOWER HAMLETS, REDBRIDGE, NEWHAM AND BARNET



**MEETING  
FUTURE NEED**

**COMPARING INDUSTRIAL LAND SUPPLY  
AND LOGISTICS GROWTH DEMANDS**

**8.28**

In bringing the analysis together, we have considered the location of industrial land<sup>156</sup>, targeted and actual release against the projected population and employment change by borough. This highlights a range of findings in addition to those presented above including the following:

- Tower Hamlets is expected to see the largest absolute growth in both employment and population. From 2011 – 2031 it is targeted to lose 19% of its industrial land (35ha). To 2015 a total of 21ha had already been lost
- Inner West London (Kensington and Chelsea, Hammersmith and Fulham and Wandsworth) is projected to see a comparatively limited level of population growth, despite sizeable employment growth projected. Across the three boroughs, the supply of industrial land is expected to contract by around 22% over the lifetime of the London Plan to 2031
- A modest decline in employment is projected in Barking and Dagenham, despite a projected population growth which ranks amongst the highest in London. The borough is also planned to see a significant release of industrial land, albeit from a relatively high baseline position
- The greatest proportionate release of industrial land is planned in Lewisham, with the supply of land in the borough expected to reduce by around one quarter between 2011 and 2031. Approximately 16,000 additional jobs are expected to be created over the same period, however, with the borough also expected to accommodate an additional 65,000 residents

**8.29**

Data for each borough is provided in the Industrial Land Supply 2001 – 2015 (ha) table at 7.12.

<sup>156</sup> 2010 industrial land baseline – GLA (2012) Supplementary Planning Guidance – Land for Industry and Transport

**WHAT THIS MEANS**

**8.30**

The pattern of industrial land supply across London varies by borough. Similarly the demand factors which will lead to growing demand for urban logistics solutions exhibit a far from uniform pattern across London boroughs. The analysis undertaken has shown that there is not a perfect “fit” between supply and demand factors and in some cases there is a misalignment between Opportunity Areas and SILs (as potential sources of land for logistics) and the loci of population and employment growth. Ensuring a fit for purpose portfolio of sites and premises in locations which better reflect where growth in market demand is likely to occur will be a crucial starting point in ensuring a London relevant response.



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

# MEETING FUTURE NEED

## INDUSTRIAL LAND SUPPLY IN THE CONTEXT OF PROJECTED POPULATION AND EMPLOYMENT GROWTH

	Total Industrial land supply 2010 (ha)	Total targeted loss in industrial land 2011 – 2031	Targeted annual loss of industrial land 2011 – 2031 (ha)	Annual actual loss of industrial land 2010 – 2015 (ha)	Annual potential pipeline loss of industrial land (ha) – (20 years)	Projected employment growth 2011 – 2031	% employment growth 2011 – 2031	Projected population growth 2011 – 2031	% population growth 2011 – 2031
Barking and Dagenham	475	7%	-2	+1	-6	-1,000	-2%	72,000	38%
Barnet	115	9%	-1	-3	0	32,000	23%	101,000	28%
Bexley	528	9%	-2	-1	-2	11,000	15%	39,000	17%
Brent	411	6%	-1	-2	-2	27,000	24%	59,000	19%
Bromley	136	7%	-1	-1	0	23,000	20%	64,000	21%
Camden	61	8%	0	-4	0	77,000	24%	56,000	19%
City of London	5	0%	0	0	0	93,000	22%	3,000	47%
Croydon	180	5%	-1	-4	0	-19,000	-14%	75,000	20%
Ealing	534	4%	-1	-4	-3	16,000	11%	58,000	17%
Enfield	486	7%	-2	-5	-3	21,000	20%	75,000	24%
Greenwich	240	21%	-3	-1	-3	16,000	20%	59,000	23%
Hackney	74	14%	-1	14	0	34,000	31%	66,000	27%
Hammersmith and Fulham	172	23%	-2	-7	-3	42,000	30%	16,000	9%
Haringey	167	14%	-1	-2	-2	14,000	19%	58,000	23%
Harrow	71	20%	-1	-1	-1	16,000	22%	51,000	21%
Havering	510	7%	-2	-13	-1	14,000	18%	53,000	22%
Hillingdon	430	6%	-1	-7	-3	58,000	29%	78,000	28%

Continued overleaf



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

# MEETING FUTURE NEED

## INDUSTRIAL LAND SUPPLY IN THE CONTEXT OF PROJECTED POPULATION AND EMPLOYMENT GROWTH

	Total Industrial land supply 2010 (ha)	Total targeted loss in industrial land 2011 – 2031	Targeted annual loss of industrial land 2011 – 2031 (ha)	Annual actual loss of industrial land 2010 – 2015 (ha)	Annual potential pipeline loss of industrial land (ha) – (20 years)	Projected employment growth 2011 – 2031	% employment growth 2011 – 2031	Projected population growth 2011 – 2031	% population growth 2011 – 2031
Hounslow	496	3%	-1	-3	-1	46,000	32%	70,000	27%
Islington	70	7%	0	-5	0	86,000	44%	60,000	29%
Kensington and Chelsea	28	7%	0	-2	0	32,000	24%	4,000	2%
Kingston-Upon-Thames	116	6%	0	0	0	7,000	9%	36,000	23%
Lambeth	96	8%	0	-4	-1	48,000	33%	61,000	20%
Lewisham	135	25%	2	-6	-1	16,000	22%	65,000	23%
Merton	177	5%	-1	-2	0	29,000	35%	39,000	19%
Newham	563	19%	-5	-3	-3	45,000	53%	92,000	30%
Redbridge	72	15%	-1	-1	0	22,000	30%	84,000	30%
Richmond-Upon-Thames	48	8%	0	-2	0	14,000	15%	39,000	21%
Southwark	170	15%	-1	-5	0	113,000	48%	64,000	22%
Sutton	334	3%	-1	0	-1	5,000	7%	48,000	25%
Tower Hamlets	180	19%	-2	-4	-3	185,000	75%	103,000	40%
Waltham Forest	214	13%	-1	-3	-1	24,000	34%	66,000	25%
Wandsworth	179	23%	-2	-6	-2	31,000	26%	48,000	15%
Westminster	19	5%	0	-2	0	150,000	23%	59,000	27%
<b>London</b>	<b>7,493</b>	<b>10%</b>	<b>-35%</b>	<b>-106%</b>	<b>-41</b>	<b>1,327,000</b>	<b>27%</b>	<b>1,921,000</b>	<b>23%</b>

9

# A WAY FORWARD

A WAY FORWARD



ES

1

2

3

4

5

6

7

8

9

A1

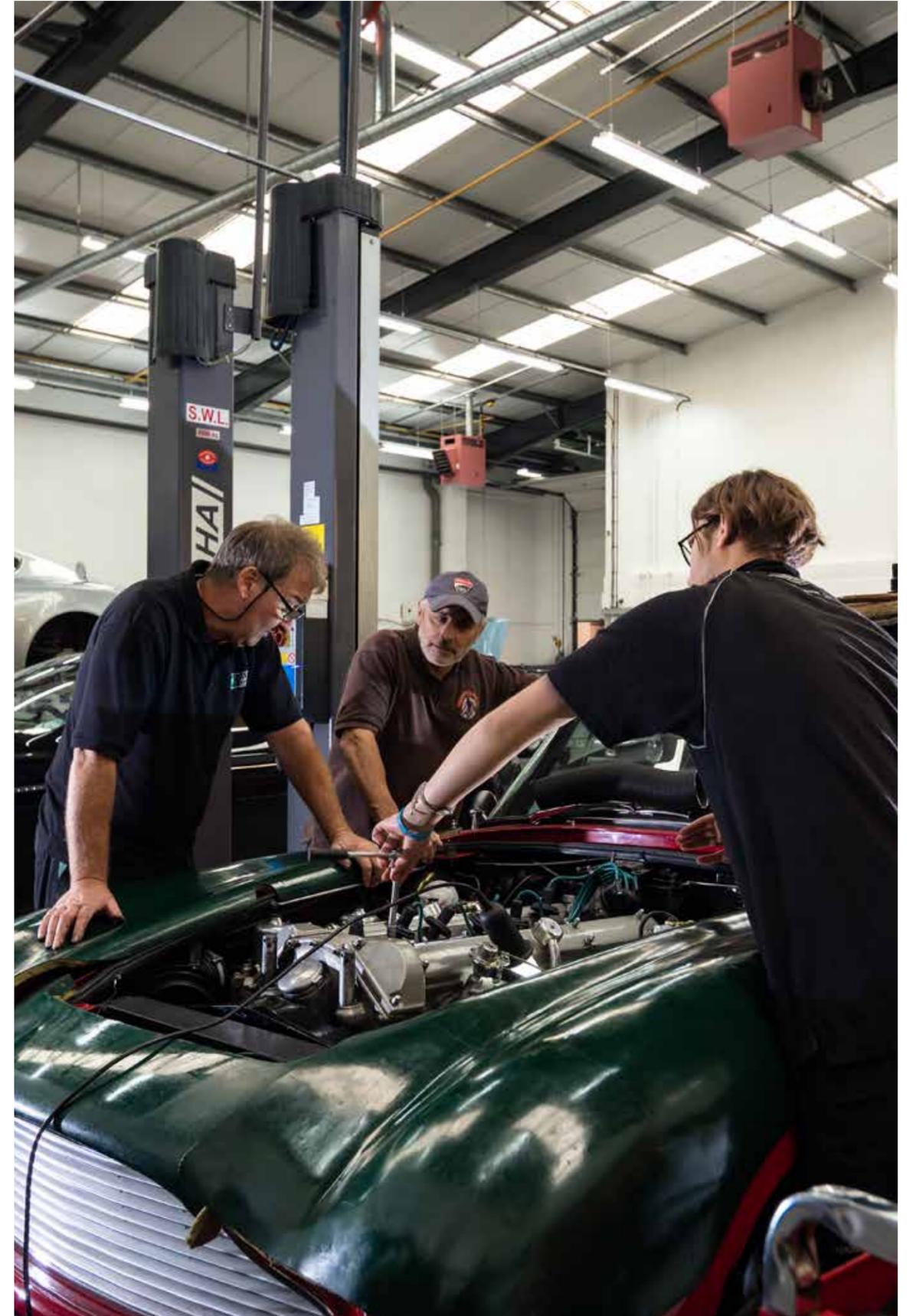
A2

A3

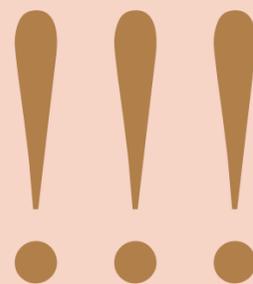
A4

A5

A6



## KEY FINDINGS



There is an urgent need to act to prevent the serious limitation of urban logistics in London, to the detriment of residents and businesses.



There are opportunities for both the industry and Government to respond now.



A full review of strategic industrial land is required, coupled with a comprehensive assessment of demand. These should lead to an informed review of policy designations of industrial land, also recognising the requirements for last mile solutions which could be developed in more Central locations as part of the urban mix. Densification of uses could also be considered where this is practical for operators and developers.



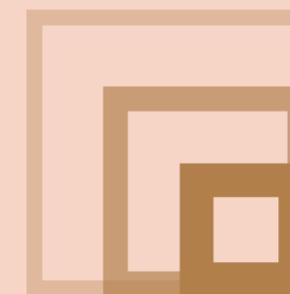
There is need for an industrial and logistics sounding board, chaired by the GLA, to ensure a prominent voice for the industry within London.



In considering the location of industrial land provision the specific requirements of urban logistics operators should be fully acknowledged and represented through policy. Pushing industrial sites further out of London is unlikely to be a beneficial response for the majority of urban logistics providers.



The GLA needs to bring together the other agencies such as TfL and local boroughs to support the industry in the rolling out of solutions that continue to encourage and incentivise environmental improvements.



The real estate sector also has a role to play in responding to the challenges of reduced land and premises.



ES

## A WAY FORWARD

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

### 9.1

The market is moving at a pace which is faster than the evolution of planning policy for London. The scope and scale of demand arising from the urban logistics sector arguably was not foreseen when the London Plan was being developed and the resultant policies are now conspicuously ill-tuned to protect and respond to the needs of the market. This warrants an urgent review of policy to make sure that opportunities are not lost and that the capital can continue to function efficiently.

## HOW CAN WE WORK TOGETHER TO SUPPORT URBAN LOGISTICS?

### 9.2

There are a number of positive and proactive actions which can be taken to support the urban logistics industry in London. Some require a direct policy response, others a coordinated effort across the logistics sector. Others can be spearheaded by market leaders in industrial development who are able to instigate substantial bottom up change through the individual schemes that they are involved in and can shape. All of these approaches should be encouraged and are necessary to create the right conditions for urban logistics to support London's continued success.

### RECOMMENDATIONS FOR THE PUBLIC SECTOR

### 9.3

Following, we set out a number of recommendations which will help to ensure that the logistics sector, and other occupiers of London's industrial land who are paramount to the city's continued success as a world capital, are supported in their operations and their ability to continue to grow and respond to the rising pressures of a demanding market. As London continues to expand its population and jobs and achieve ambitions on a grand scale, delivery of these recommendations will ensure that the city is not only able to continue to function but is able to flourish.

### 9.4

If adopted these recommendations will enable the development of a new London Plan which acknowledges the importance of the urban logistics sector and sets clear policy to protect and enhance this role.

## RECOMMENDATION 1

### STRATEGIC AND PLAN MAKING – REVIEW OF STRATEGIC INDUSTRIAL LAND

### 9.5

There should be a London-wide review of existing allocated Strategic Industrial Land and Policy 2.17 (Strategic Industrial Locations) of the London Plan. This would ensure that planning does not take place in a piecemeal fashion. It would consider the needs of the industrial and logistics sector, review current locations and identify potentially inappropriate locations and sites for today's urban logistics providers, which may be better suited for alternative uses.

### 9.6

The review should consider:

- The quantum of industrial land that is available
- Whether sites are in the right locations
- The quality of space and land available
- The rate at which industrial land is being lost to other uses, particularly high quality larger sites and those in key industrial locations
- Whether the right sites are being retained
- Where new locations are needed; and
- wLand ownership

### 9.7

The review would result in a robust supply of protected Strategic Industrial Land with the ability to meet the needs of the sector, with the ability to meet the needs of the sector. At the same time it would also identify sites that would be better used to deliver for London's other needs.

### 9.8

As well as a London-wide piece to identify strategic need and locations, London boroughs should be required to assess local industrial sites in a similar way.



ES

## A WAY FORWARD

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## RECOMMENDATION 2

### PRODUCTION OF A FULL AND COMPREHENSIVE DEMAND ASSESSMENT

#### 9.9

It is important that supply is not considered in isolation, but that a full and comprehensive review of the quantum of future demand is undertaken. This should inform the above exercise and London Plan policies relating to supply of industrial land and its release, as well as targets for release set out in associated Supplementary Planning Guidance.

#### 9.10

The assessment should be carried out in accordance with NPPF guidance on the production of employment land assessments. However, in some regards the NPPF falls short of ensuring a holistic approach to industrial land supply, and further refinement of this should be considered<sup>157</sup> such as:

- The space requirements (ha) of urban logistics and industrial operators, including consideration of appropriate employment densities as well as plot ratios to account for parking for delivery vans and shift work
- How the urban logistics market will grow in size (employees, businesses) over the next 10-20 years, including consideration of the relationship to population size and other businesses
- Locational requirements of urban logistics firms. This should include consultation with urban logistics firms and related stakeholders to understand the full range of requirements; there is not a one-size-fits-all solution, with larger logistics operators and local businesses having differing needs
- Regular updates (such as every 2 years) to ensure the demand assessment remains up to date and reflects market changes

#### 9.11

London Boroughs should also be required to undertake an analysis for local industrial needs, alongside a more strategic review at the London level.

## RECOMMENDATION 3

### REVIEW OF POLICY DESIGNATION

#### 9.12

Strategic Industrial Locations across Opportunity Areas should be reviewed. Where these are retained they should be afforded strong policy protection. Opportunities for new designations should be considered. These should be in locations which are fit for purpose and reflect the most meaningful locations for urban logistics operators and industrial occupiers, taking into account the locational requirements of the sector. Proximity to housing development should not be a negating factor; mixed-use schemes are demonstrating that combined land use solutions are possible. The GLA could also consider designation of new Industrial Opportunity Areas in appropriate locations, either in their own right or as part of wider existing Opportunity Areas. The first such classification could be Park Royal, given its existing prominence as an industrial area and its location within the Old Oak Park Royal Opportunity Area.

#### 9.13

The industrial sector has changed considerably over the last decade, which has seen a significant growth in the urban logistics sector. Urban logistics operators have specific requirements which should be acknowledged within policy wording and supporting text to promote urban logistics in Strategic Industrial Locations across London.

#### 9.14

To ensure sufficient supply, a policy approach which seeks to protect the right land in the right locations for industrial and logistics uses should be employed by the GLA and London Boroughs with opportunities to consider land assembly, for example through compulsory purchase, where land ownerships are piecemeal.

<sup>157</sup> Turley (2016) Return to the Land That Time Forgot



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## A WAY FORWARD

### RECOMMENDATION 4

#### ACKNOWLEDGING AND RESPONDING TO LAST MILE REQUIREMENTS

##### 9.15

As well as specific locations for industrial and logistics businesses, there must be consideration of the needs of last mile operators. Small scale distribution centres, consolidation centres and customer pick up points (such as Doddle) are a vital component in the final stage of delivery. A review of those boroughs with significant population growth (for example, over 80,000 in 2011 – 2031) should be undertaken to ensure suitable logistics space is provided to serve businesses and residents. Further to this, ensuring effective delivery points within new build developments such as residential, commercial and leisure/retail is fundamental in ensuring that deliveries can reach the door or desk in accordance with demand.

### RECOMMENDATION 5

#### RECOGNISE THE LOCATIONAL IMPERATIVE OF URBAN LOGISTICS OPERATORS IN ESTABLISHING INDUSTRIAL LOCATIONS

##### 9.16

In allocating industrial locations it is not appropriate to simply designate locations outside of London. This will create challenges for urban logistics companies due to their reliance on proximity to their customer market. They will be less efficiently able to respond to the demands placed on their services. Further to this, many local authorities neighbouring London are already in challenging situations trying to identify sufficient land for their own employment and housing needs.

##### 9.17

In identifying new locations for industrial land the following must be considered:

- Locations of population growth
- Locations of business growth
- The locational requirements of urban logistics companies including distance to market and access to good transport routes
- The site specification requirements of urban logistics companies
- The demands for employment and housing land from within local authorities neighbouring London

<sup>157</sup> Turley (2016) Return to the Land That Time Forgot



ES

## A WAY FORWARD

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## RECOMMENDATION 6

### PLANNING DECISIONS AND DEVELOPMENT CONTROL

#### 9.18

Development control has a vital role to play in ensuring the best use is made of the space or land available. This will be critical to the success of the sector due to the practical nature of development control as an enabler for development. Policy should seek to allow sufficient flexibility for alterations, and local authorities should be flexible enough in their approach to development control, supporting changes to planning permission (Section 96a and Section 73) and intensification of uses where these are needed to support occupier requirements.

#### 9.19

Occupiers' technical and operational needs may require flexibility in policy and/or planning permissions. This should be ensured for:

- Parking – to allow for shift changeovers, increased staff numbers and visitors
- Operations – need for 24/7 access and servicing
- Lorry/van parking (inside and outside buildings) – this is particularly important where HGVs and LGVs are required to carry out logistics operations. These are separate from requirements for staff parking
- Floorspace – flexibility regarding subdivision and amalgamation of units, as well as the installation of mezzanines
- Uses – need for flexibility across B1/B2/B8 uses. This may include, for example, the ability to deliver to a small pickup point (such as a Duddle) in a high street location which may be designated for B1/A1 uses
- Innovation and workshop (maker space) units – support for start-up units alongside more established users
- Supporting uses and enabling development – both ancillary within buildings and within estates e.g. hotels. This is often important to ensure that developments can be brought forward as well as delivering appropriate amenity provision to businesses and their employees
- Supporting infrastructure – such as power and broadband/fire connectivity
- Delivery bays – new commercial buildings, including retail, hotels and offices, should include sufficient loading bays for deliveries
- Offices – up to 50% of the floorspace for flexible uses such as R&D or to support businesses that want to consolidate their office/HQ and industrial operations

## RECOMMENDATION 7

### IMPLEMENTING A REQUIREMENT FOR REPLACEMENT OF LOSSES ABOVE TARGET

#### 9.20

The rate of industrial land release in recent years above the targeted rate indicates that appropriate measures need to be brought in to keep the rate of release in check and to hold local authorities to account.

#### 9.21

There should be a clear requirement for local authorities to ensure replacement of industrial land lost where this exceeds their annual target. This should be in locations suited to such uses and should reflect the specific function of urban logistics operators and industrial occupiers.

#### 9.22

This approach would help to ensure that local authorities took ownership of the industrial land policies set at both borough level and through the London Plan to ensure that local policies are not only fit for purpose but are implemented and adhered to.

## RECOMMENDATION 8

### REFINING POLICY TO ENABLE INTENSIFICATION OF INDUSTRIAL USES MORE READILY

#### 9.23

In some, though not all, instances there will be the potential to intensify industrial uses through inclusion of mezzanines, mixed-use and stacking. Flexibility should be included within London Plan policy and encouraged where considered practical by operators. This will enable the industrial land available to be developed to its full potential.

## RECOMMENDATION 9

### ENSURING THAT LONDON'S INFRASTRUCTURE SUPPORTS THE INDUSTRY'S ADOPTION OF ENVIRONMENTAL TECHNOLOGIES

#### 9.24

While the industry is already driving innovation, the wider scale adoption of this can be limited where physical infrastructure across London is not supportive. The GLA should work with the logistics sector to roll out initiatives that support the uptake of innovations such as last mile logistic solutions, consolidation centres and use of electric commercial vehicles. Such initiatives and technologies are likely to require financial and policy support.

## RECOMMENDATION 10

### PROVIDING A LONG TERM VOICE FOR THE INDUSTRY WITHIN LONDON POLICY MAKING

#### 9.25

A GLA Logistics and Industrial Sounding Board should be established to give a more prominent voice to the industry in London and ensure the needs of urban logistics and industrial businesses are taken into consideration in the planning of Opportunity Areas and other activities which affect industrial land provision across the capital. This should include key urban logistics operators as well as some more local providers.

# APPENDIX

## APPENDIX 1

### APPENDIX 1: GLOSSARY OF TERMS

### APPENDIX 2: CASE STUDIES

### APPENDIX 3: CASE STUDY CONSULTATION

### APPENDIX 4: RESEARCH APPROACH

### APPENDIX 5: TRENDS IN EMISSIONS IN LONDON

### APPENDIX 6: FORECAST CHANGE BY SECTOR

## APPENDIX 1: GLOSSARY OF TERMS

### CENTRAL FULFILMENT CENTRE

Distribution warehouse from which a number of smaller hub warehouses are supplied items. This can also be referred to as a national distribution centre or regional distribution centre.

### CLICK AND COLLECT

Consumers place an order for a good online and collect from a local store or alternative pick up point.

### CONSOLIDATION CENTRES

A building at which number of individual deliveries from a variety of firms are amalgamated into fewer vans on the edge of a city before being transported to the shop or business they are destined for.

### CROSS DOCK

A building with loading bays on both sides to enable goods to be unloaded and loaded simultaneously.

### DISRUPTIVE TECHNOLOGY

The way in which technological progression challenges the status quo and demands the world to work in alternative ways. Online shopping and phone applications are one such example.

### GROSS VALUE ADDED

A measure of the value of output created (i.e. turnover) net of inputs purchased and used to produce a good or service (i.e. production of output). It provides a key measure of economic productivity.

### HUB AND SPOKE

Depots (spokes) serving a sub-region of the London market are provided with goods from a larger hub location outside of the capital.

### LAST MILE SOLUTIONS

The final stage of delivery to consumer or store.

### REVERSE LOGISTICS

Vans are filled in the back haul journey with waste products.

### RETURNS PROCESSING

Vans are filled in the back haul journey returns from online customers which can then be centrally located, cleaned and repackaged for sale before being delivered back to the store or depot.

### URBAN LOGISTICS

The movement of goods (and possibly services) particularly in the city context. This can include deliveries to businesses (for example supply chains) and individuals (for example online shopping).

## APPENDIX 2: CASE STUDIES

To provide a real life angle to the research, Turley engaged with eight businesses who occupy industrial land in London. One to one discussions were held to understand their business, their logistics operations within the London market, and their land and space requirements. The discussions followed a set of questions to generate a case study for each organisation (see Appendix). The companies are as follows:



**OCADO**  
Online food retailer



**JOHN LEWIS PARTNERSHIP**  
Department store with significant online presence



**DHL**  
Courier and international parcel delivery



**DB GROUP**  
Third party logistics (3PL) and rail freight



**BROMPTON BICYCLE LTD**  
Bicycle manufacturers



**MX1 (PREVIOUSLY RR MEDIA)**  
Digital and media content editing



**FARLEY GROUP**  
Props for film and television

## OCADO

### OCADO BEGAN IN 2000 AS A THREE-PERSON START-UP AND COMMENCED TRADING AS A BUSINESS IN 2002 THROUGH A PARTNERSHIP WITH WAITROSE.

As an online grocery retailer, the company is technology driven. It operates with online-only sales, tech-based van packing and routing, all of which is developed in-house. As a result, the company's operating model is based on efficiency through innovation, priding itself on its forward thinking retail operations in the logistics market. Ocado's approach to skills, training, sustainability and technology, demonstrates a progressive company prioritising meeting customer needs efficiently.

Ocado has 50,000 items available to buy on its website, as well as a number of destination sites such as Fetch (pet supplies) and Sizzle (kitchen store). London is key to the business and accounts for around 40% of Ocado's market, with Knightsbridge alone generating 5% of all London orders within just two postcodes.

The company is part of the delivery supply chain for Waitrose, Morrison's, a number of multinational companies and independent suppliers.

### SITE AND PREMISES

Ocado's head office is in Hatfield, Hertfordshire. The premises consist of two four-storey office buildings. The company operates a hub and spoke model. Proximity to the customer is key: the hub and spoke model enables closer proximity to market to be achieved which is vital for the business to deliver within one hour delivery windows.

#### Hubs

The company's three hubs, or Central fulfilment centres (CFCs), are located in Hatfield, Hertfordshire; Andover, Hampshire; and Dordon, Warwickshire. Ocado has recently signed a deal for a fourth in Erith, Bexley in outer London.

#### Spokes

The CFCs deliver to 17 spoke buildings each with a 1-1.5 hour customer delivery radius. Five of these spokes are located in London (Dagenham, Enfield, Park Royal, Ruislip and Wimbledon) with a further two also serving the London market (Weybridge and Dartford). Spokes tend to require sites of 2 acres to accommodate a 30,000 sq ft unit. To enhance their last mile response further, Ocado are seeking sites in inner London. However, they have not yet managed to identify a suitable site to meet their needs, despite looking to maximise the use of space on smaller sites of 1.5 acres.

## APPENDIX 2



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

APPENDIX 2



The latest and largest of Ocado’s spoke sites is at Origin, Park Royal which serves the West London market. Its 69,000 sq ft building hosts a temperature controlled, cross-dock facility which enables deliveries from the CFC to be transferred from HGVs to vans for home deliveries. The site has approximately 100 van movements twice a day (200 in total).

Spoke locations are identified based on future (1-2 years) market growth predictions by postcode. These then need to be matched to site and space availability. Proximity to concentrations of population is crucial and this can mean that it is hard to identify suitable sites.

Ocado took space at Origin when its Westfield lease came to an end. As a result of working with SEGRO, Ocado now has bespoke internal areas to fit with its own trailer sizes, which include double deck trailers, within the Origin scheme.

Ocado plans to increase its range of online destination sites linked to its main website as well as to increase its international offer. As part of the company’s growth, they will continue to explore technological applications including robotics for picking orders. Growth will also require additional premises.

However, securing fit for purpose sites and premises is a fundamental barrier in being able to realise these growth ambitions. Without the right sites in the right locations, Ocado will not be able to meet growing demands in online retail. While it typically requires sites of 2 acres to deliver 50,000 sq ft units, it is looking at maximising use of space in more tightly bound sites and could deliver in Central locations on sites of 1.5 acres, with units at 40,000 sq ft. Eave heights can also be reduced (Origin for example is 13.5m tall but only up to 4m is needed) or used more creatively.

SUSTAINABILITY

Ocado’s online service is supported by efficient buildings and an efficient system of deliveries.

Buildings

- New developments such as Origin and Stockley have been constructed to achieve a BREEAM ‘Excellent’ rating. Ocado has found this type of construction and certification leads to lower energy costs and reduced maintenance issues
- Both sites incorporate solar photo voltaic systems (solar panels), providing renewable energy on site and resulting in reduced energy costs and carbon emissions

Deliveries

- Double decker trailers are used to deliver from the CFCs to spoke sites, combining multiple loads and enabling a number of vehicles to be removed from the roads
- Spoke locations give excellent access to its customers in London. Each van holds deliveries for potentially up to 25 customers and travels no more than 30 miles a day, thereby generating sustainability benefits from reduced cars on the road. For example one van can replace the supermarket trips of 25 customers. This is equivalent to 1.2 miles travelled per customer order, meaning that an average customer would have to travel less than 0.6 miles<sup>158</sup> to the supermarket for car journeys to be as environmentally efficient. This compares to a study which evidenced that the average Briton travels 2.4 miles a week for supermarket basics such as bread and milk and that 78% of Londoners drive to do their supermarket shop<sup>159</sup>. Further evidence suggests 6.4 miles per customer<sup>160</sup>. For details on potential carbon savings see below
- Ocado are trialling start-stop vans in Origin with a view to rolling this system out across the company

**ONE VAN CAN REPLACE THE SUPERMARKET TRIPS OF 25 CUSTOMERS.**

<sup>158</sup> Outward and return journeys equating to 1.2 miles

<sup>159</sup> Future Foundation (2007) Shopping Miles

<sup>160</sup> Shopping Trip of Home Delivery Focus Logistics (2009) Dr Julia B Edwards and Professor Alan C McKinnon

- ES
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2
- A3
- A4
- A5
- A6

APPENDIX 2

- ES
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2
- A3
- A4
- A5
- A6

POTENTIAL CARBON SAVINGS

The use of consolidated deliveries can offer significant carbon savings with a number of deliveries made per trip. As noted above, from the Origin site, Ocado completes 200 van trips per day with 25 deliveries per trip. Were those deliveries to be completed by individual shoppers using private motor vehicles, this would create a significant increase in emissions, equivalent to a potential 72% reduction, as demonstrated in the table below.

	Consolidated deliveries	Individual shopping trip
Average distance per trip (this includes distance travelled to/between multiple drop offs) <sup>161</sup>	30 miles	6.4 miles
Deliveries per trip	25	1
Total emissions (22 customers) (kg CO <sub>2</sub> )	14 <sup>162</sup>	2 <sup>163</sup>
Emissions per customer (kg CO <sub>2</sub> )	0.6	1.97
Reduction in emissions through consolidated deliveries	72%	

WORKFORCE

From its beginnings in 2000, Ocado now has over 10,000 employees with around 2,000 being London focused, including 1,000 Full Time Equivalents (FTEs) in Hatfield. For each van at a spoke site, there are 2.5 FTE employees. With 100 vans at Origin, this equates to 250 FTEs. The majority of these (90%) are Customer Service Technicians, responsible for delivering goods direct to the customer. A further 5% are technicians and loaders who are permanently on site and the remaining 5% are involved in site management. All picking, packing, loading and automation is carried out at the CFCs.

Ocado aims for 'operational excellence' and provides bespoke training to all staff. Training includes five week training for drivers with six and twelve month refresher courses. Project management (Prince 2) training is provided at management levels. All employees have the opportunity to progress and work in different departments.

<sup>161</sup> Shopping Trip of Home Delivery Focus Logistics (2009), Dr Julia B Edwards and Professor Alan C McKinnon

<sup>162</sup> Defra Emissions Factors 2015 – Delivery vehicle emissions (Van Class III (1.74 to 3.5 tonnes) Diesel)

<sup>163</sup> Defra Emissions Factors 2015 – Average car emissions





ES

APPENDIX 2

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## JOHN LEWIS PARTNERSHIP

**THE JOHN LEWIS PARTNERSHIP (JOHN LEWIS) WAS FOUNDED IN 1920 BY JOHN SPEDAN LEWIS. FROM ITS ORIGINS AS A DRAPERY SHOP ON OXFORD STREET (WHICH IS NOW THE COMPANY'S FLAGSHIP STORE)**

The company looks very different in 2016. It has over 90,000 Partners (employees) across 48 John Lewis stores and over 300 Waitrose supermarkets and is the largest omni-channel retailer in the UK, with a substantial online retail presence offering over 280,000 products.

Around half of the company's deliveries serve online demand, equivalent to £1.5bn of sales in 2015-2016. This shift has required substantial investment in technology and automation as well as a new dotcom fulfilment centre, national distribution centre and adaptations to its distribution network in the last year.

### SITES AND PREMISES

John Lewis has 10 national distribution centres including Magna Park (developed by IDI Gazeley) Milton Keynes and Northampton. These are located on strategic transport routes to aid efficient delivery to stores and customers across the country. The 10 centres are split by product type (small, cage (medium) and large) as opposed to operating on a regional basis. The centres distribute to stores on most days of the week, as well as service the online business and send large and heavy items to the company's 23 UK customer hubs which they lease and manage. John Lewis use third party logistics companies such as Hermes, DPD and Royal Mail to deliver to carrier depots, Waitrose supermarkets and John Lewis branches for Click and Collect. The company also operates its own 'Green Fleet' vehicles.

The customer hubs deliver products which require two-man deliveries such as white goods and furniture. This operation has shifted from a delivery-only model to offering 70 different services including installation, collection, assembly, carpet fitting and collation of gift list orders. This is a market differentiator for John Lewis.

Customer hubs are chosen based on three key factors reflecting the operation of the business:

- **Delivery factors** – fuel costs, van fleet and proximity to market
- **Employee factors** – salaries and labour force availability
- **Premises** – site size, rents and other premises costs such as heating



Origin is John Lewis' largest and busiest customer hub, catering for 15% of the company's UK demand. It is one of four customer hubs each serving a quadrant of London – Origin (West),

Enfield (North), Dartford (East) and Weybridge (South). The purpose built building is 108,000 sq ft including offices and a 60,000 sq ft mezzanine used for photographing products for online content. The eight acre site also includes a full size replica of a house in which Partners are trained in a real life setting.

Before moving to Origin, John Lewis Partnership had a 360,000 sq ft operation in Kendal Avenue, Park Royal but on termination of the lease the company sought to move all activities under one roof. The lack of supply in West London meant that it was difficult to find a site for the Origin operations and through the move John Lewis relocated non London-essential costs out of London, such as national distribution centre roles and fashion distribution elements.

Around 12-15 deliveries from third party providers (including Hermes, DPD and Royal Mail) arrive at Origin each day from the distribution centre network on HGVs, over a 24 hour period. These deliveries, containing everything from NutriBullets (one is sold every 4 minutes to John Lewis customers) to shoes are then shipped direct to customers. Origin has 50 plus routes a day to customers on 7.5 tonne lorries between 6am-2pm and 2pm-10pm. Other customer delivery hubs operate at half this level, reflecting the importance of the Origin location in the company's distribution network. Deliveries to stores are made straight from the national distribution centre.

John Lewis builds its future network capacity based on a five year cycle. There are no plans presently for London growth in advance of this, however the company has recently entered into a joint venture with Clipper Logistics for Click and Collect deliveries to Waitrose.

APPENDIX 2

SUSTAINABILITY

The company takes environmental sustainability very seriously and has made a number of investments to further reduce its impact.

Buildings

- In 2015, the company updated its Responsible Development Framework. This reflects emerging trends and further embeds the framework within the design and construction process for new construction projects, refurbishments and minor capital works
- John Lewis' premises at Origin are BREEAM rated and include rain water harvesting, solar thermal cells and low global warming refrigeration

Deliveries

- It is involved in a number of research initiatives that aim to improve road freight efficiency and reduce environmental impact including:
- Development of fleet aerodynamics that has resulted in a 7% reduction in CO<sub>2</sub> emissions
  - The company is researching benefits associated with Low Energy B2B Delivery Vehicles (Hybrids) in urban environments with the aim of reducing energy consumption by 20-30%

POTENTIAL CARBON SAVINGS

Carbon savings associated with use of hybrids were estimated, using the conservative emissions reduction of 20%<sup>164</sup>. The table below evaluates the emissions from the Origin Business Park site assuming 8 deliveries per round trip of 50 miles<sup>165</sup> in order to demonstrate the potential reduction in daily emissions which could be achieved. Assuming deliveries take place every day (except Sundays) the use of hybrid vehicles at the Origin site could save over 150 tonnes of carbon each year.

	Consolidated deliveries	Individual shopping trip
Delivery routes per day	50	
Total daily deliveries	400	
Total Carbon Emissions (kg CO <sub>2</sub> /day)	2,500	1,800
Carbon Emissions per Delivery (kg CO <sub>2</sub> /delivery)	5.6	4.5
Carbon savings per year (kg CO <sub>2</sub> )	153,000	

WORKFORCE

200 FTE Partners work on site at Origin, including delivery staff, installation roles, engineers, administration and warehouse staff. Engineers and installers account for 130 of these positions, with numbers doubling during the peak periods of Christmas and summer clearance. The range of services offered by customer hubs requires a broad range of skills and the company has invested heavily in training, providing Partners with bespoke development programmes as well as an annual assessment and career structure for progression as skills develop. John Lewis also supports trainee installers in apprenticeship roles at two thirds of their customer delivery hubs. Thirty individuals were in receipt of this training at the time of the case study interview. After two years, these individuals move into the installer role.

<sup>164</sup> [http://www.volvotrucks.com/SiteCollectionDocuments/VTC/Corporate/About%20us/Environment-2012/Volvo\\_FE\\_Hybrid\\_EN\\_Printable.pdf](http://www.volvotrucks.com/SiteCollectionDocuments/VTC/Corporate/About%20us/Environment-2012/Volvo_FE_Hybrid_EN_Printable.pdf)  
<sup>165</sup> Shopping Trip of Home Delivery Focus Logistics (2009), Dr Julia B Edwards and Professor Alan C McKinnon

- ES
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2
- A3
- A4
- A5
- A6



ES

APPENDIX 2

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

DHL

**DHL IS A GLOBAL PARCEL DELIVERY AND COURIER SERVICE, OPERATING ACROSS THE UK AND INTERNATIONALLY.**

The company has adapted to the rise in UK online retail which they predict will grow from 8% of their trade in Europe in 2014 to 40% in 2025<sup>166</sup>. To position themselves for this growth it is reported that they have invested £156m in sorting and aircraft land facilities in the East Midlands and at Heathrow.

The business consists of three aspects:

- **International parcel delivery** – delivery of small, high value parcels to the company's major distribution centre at Heathrow (and East Midlands) for international deliveries. Proximity to clients in the city as well as Heathrow is a fundamental component of this service to ensure that deliveries make flight times. This element of the business is growing by circa 20% a year in value terms, driven by growth in e-commerce
- **Supply chain delivery** – deliveries for specific client companies including Heathrow Airport (catering), Olympic Delivery Authority, Net-a-Porter and Argos. Global forwarding – a national network with its Head Office in Hayes

DHL's UK markets include national and international businesses, transport hubs (Heathrow Airport, Euston station and East Midlands Airport), Royal Mail, NHS and retailers.



SITES AND PREMISES

While the supply chain element of the business can be located outside of London, the time critical components of the business cannot due to the need for proximity to the London market. This includes the international parcel delivery and chilled food/catering aspects. Ideal locations for global forwarding and supply chain operations are close to motorway networks as well as inside the M25 for last mile delivery.

The international parcel delivery element of DHL is relocating from its site in Vauxhall due to the Vauxhall Nine Elms Battersea development. The company has secured a new site at Lewisham after six years of searching for one that was suitable and met its requirements. However, due to a lack of suitable land supply, DHL has had to opt for a site which is only half the size needed, meaning deliveries have to be staggered to maximise use of space, and so are continuing to search for an additional site to use in conjunction with that at Lewisham.

Location is of critical importance for this element of the business. Distance from Heathrow limits the time DHL can pick up parcels in London for delivery to ensure they make the flight time. This also means that suitable locations are limited.

In its search for suitable "sister" sites to their facility in Lewisham, DHL considers a 30,000 – 50,000 sq ft warehouse to be ideal. However, with limited sites available in the right locations of Wandsworth and Vauxhall, DHL is seeking buildings of 5,000 sq ft or above.

DHL also has concerns with regards to capacity at its site at Park Royal. While it had anticipated that it would meet their needs for 10 years, the rate of growth in e-commerce has meant that it has outgrown it within two years. The company continues to seek suitable locations close to the centre of London. This does not include requirements of specific customers. Suitable site availability is clearly an issue of great importance to DHL as it responds to growing consumer and business demand.

As a result, DHL is considering development of basements or stacked buildings in Central London locations. This would require smaller vehicles and would need to be located near to tube and national rail stations as staff parking would be limited.

In terms of the future, DHL is investigating the possibility of running a retail consolidation centre at Waterloo. A number of consolidation centres would be needed for Central London in addition to the Regent Street consolidation centre at Enfield.

The company is also looking at developing multi-user consolidation centres with cross-dock facilities in East and North London. This enables products to be stored in cheaper locations. Key areas would be Park Royal, Enfield, Barking, Dartford and Croydon. However, it notes that finding suitable space is difficult, particularly in North London; a consolidation centre would require a building of 150,000 sq ft and a large yard. Their equivalent size building at Heathrow is on an 11 acre site.

<sup>166</sup> Financial Times (29 June 2014) DHL plans £156m investment in the UK: Parcel delivery group seeks to address rise in global e-tailing

APPENDIX 2

- ES
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2
- A3
- A4
- A5
- A6

**SUSTAINABILITY**

DHL has committed to improving its carbon efficiency by 30% by 2020 and believes that sustainability orientated business policies contribute to long-term value creation.

**Buildings**

As part of the company’s commitment to environmental sustainability, in 2013 DHL enhanced its energy efficiency standards for newly constructed, newly leased and renovated facilities. Its sustainability standards relate to design, building materials and equipment.

This includes energy efficiency specifications for the installation of energy saving, eco-friendly LED or T5 lighting, intelligent control technologies, sensors and dimmers.

The company’s new premises at Lewisham are rated BREEAM ‘Very Good’.

DHL operates a Go Green Policy at all its premises and a campaign to promote energy conservation awareness among employees is currently underway.

**Deliveries**

- The company believes that new logistics concepts are needed to avoid congestion, pollution, low supply chain reliability and growing costs
- It is carrying out research at the corporate level with the aim of improving aerodynamics in trucks, with the potential for 20% better fuel efficiency
- It is also trialling lightweight materials in order to reduce fuel consumption, increase truck capacity and lead to fewer trucks on the road
- Electric vehicles are used where possible, including one operated at the Lewisham site

**POTENTIAL CARBON SAVINGS**

With difficulties in finding sites in Central London logistics companies are forced to split services or locate outside of the M25. The table below demonstrates the significant increase in emissions this could cause for a company such as DHL. Based on the location of the DHL Lewisham site, the daily emissions associated with vehicles trip from the site have been estimated. These trips are based on assumptions associated with a 50 mile round trip<sup>167</sup>. Should an organisation such as DHL be forced to locate further out from the city, the trip distance would obviously increase. In our calculations we have used a hypothetical logistics centre based a further 12.5 miles away – resulting in an increase of 25 miles per round trip.

Assuming deliveries take place every day (except Sundays) the hypothetical relocation of the Lewisham logistics centre outside of the M25 could potentially result in an increase in annual emissions of approximately 470 tonnes per year.

	Lewisham logistics centre	Logistics centre additional 25 miles (round trip) outside M25
Delivery trips per day	120	
Average round trip	50	75
Total emissions (kg CO <sub>2</sub> /day) <sup>168</sup>	2,747	4,121
Daily increase in emissions	33%	
Carbon emissions increase per year (tonnes)	467	

**WORKFORCE**

The Central DHL function includes occupations in engineering and technical positions. A range of training is provided including health and safety, driver competence and ‘safe urban deliveries’ along with other courses under the continuing professional development (CPD) banner.

The Lewisham site itself directly supports 60 drivers as well as operations managers, administrative positions and sales staff. Agency drivers are used during peak periods such as Christmas.

<sup>167</sup> Shopping Trip of Home Delivery Focus Logistics (2009), Dr Julia B Edwards and Professor Alan C McKinnon

<sup>168</sup> Defra Emissions Factors 2015 – Delivery vehicle emissions (Van Class III(1.74 to 3.5 tonnes) Diesel)



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

APPENDIX 2

DB GROUP

DB GROUP HAS THREE COMPONENTS TO ITS UK OFFER COMPRISING:

- **DB Schenker Logistics** – an international logistics operator
- **DB Cargo UK** – the largest rail freight haulier in the UK with a market share of over 50%
- **Arriva** – passenger transport including trains and buses

DB Schenker Logistics offers global air and ocean freight as well as logistics solutions and global supply chain management. Its market focus is upon automotive, high-tech, consumer goods, trade fair forwarding, special transports and services for major sporting events (including the 2014 Commonwealth Games in Glasgow). The company employ 64,000 people and generate revenues of 14.9bn Euros.

DB Cargo UK provides links to European rail freight and is the largest freight customer of Euro-tunnel. It celebrated the first freight train arriving from China, into London Borough of Barking and Dagenham, in January 2017<sup>169</sup>. It employs 3,175 people and had a revenue of 633 million Euros in 2013<sup>170</sup>.

SITES AND PREMISES

DB companies own thousands of acres of land across the country, primarily in historically industrial areas of the UK which require rail links to raw materials, energy and goods to and from factories and steel works. DB Cargo for example owns 2,500 acres of land in the UK.

DB Schenker's Logistics UK head office is in Heathrow where they occupy a 120,000 sq ft unit including a 20,000 sq ft office space. This supports the air freight service through transport of Boeing and Rolls Royce aircraft components as well as international goods movements such as fashion items. The rise in high end consumer goods is leading to growth in this area of the business. This is a particularly acute trend in London.

The company also transports some specialist retail items such as Joseph Joseph kitchen items, though these are transported into London from their stock holding facility in Tamworth due to cheaper premises and labour costs. It is presently building a larger warehouse of 300,000 sq ft to create a new distribution centre for the Midlands.

DB Cargo has a number of sites in and around London including Bow (Tower Hamlets), Cricklewood, Acton, Hither Green and Willesden. It occupies a 40 acre site in Barking which is in the process of development for rail freight activities. Some other of its sites are currently facing competing pressures from other land uses.

SUSTAINABILITY

DB Group considers itself an environmental pioneer and aspires to lead the way in the environmental protection movement. It wants to become the leading green logistics service provider and prove that CO<sub>2</sub> emissions can be reduced as transport demand grows. It is also looking at increasing its material and resource protection activities. The Group has set out a number of targets and actions in its document 'Deutsche Bahn: Becoming an eco-pioneer'<sup>171</sup> which includes the following:

- Reduce specific CO<sub>2</sub> emissions by 30% between 2006 and 2020. Cut rail noise in half as compared to 2000
- Increase share of renewables used by its own carriers to 45% by 2020
- Train drivers in energy-efficient driving which has been shown to cut energy consumption by 10%
- Transform trains' kinetic energy into electricity
- Development of carbon-neutral logistics warehouses

WORKFORCE

DB Schenker Logistics' operation at Heathrow employees 130 people across a range of occupations. Approximately 70-80 of these positions are office based including administrative, customer focused and managerial roles. Training is provided in house and includes sponsorship for MBAs via distance learning.

<sup>169</sup> DB Cargo is responsible for the Duisburg to London section.

<sup>170</sup> [http://www.dbschenker.com/ho-en/about\\_dbschenker\\_new/db\\_schenker\\_rail/profile.html](http://www.dbschenker.com/ho-en/about_dbschenker_new/db_schenker_rail/profile.html)

<sup>171</sup> [http://www.deutschebahn.com/file/en/11887552/ofz2hZ3AR2W2\\_XGZ0OZINpDgSN4/9680458/data/ecopi\\_oeer\\_broschure.pdf](http://www.deutschebahn.com/file/en/11887552/ofz2hZ3AR2W2_XGZ0OZINpDgSN4/9680458/data/ecopi_oeer_broschure.pdf)



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

APPENDIX 2

**BROMPTON BICYCLE LTD**

**BROMPTON DESIGNS AND BUILDS THE UNIQUE BROMPTON FOLDING BIKE.**

The immediately recognisable folding bike is its main product, around which it has developed support products including bike accessories, as well as Brompton Bike Hire and shops. Each bike is hand brazed by skilled crafts people at the London factory in Greenford. The company’s history is intrinsically linked with London and this gives it daily inspiration to continue evolving and fine-tuning the bike’s design for the city context. Its product is a modern and positive example of the wide range of uses within industrial premises.

In 2015, Brompton produced 45,000 bikes, the majority of which were sold in London (10%) and exported to over 45 countries in the overseas market (80%) (supporting upwards of £30m per year). The company is a home grown success story and has seen year on year growth. It expects to produce 44,000 bikes in 2016 (10% growth) and has ongoing ambitions for 20% output growth per annum. The USA and Far East are major growth markets. The company also intends to launch a Brompton Electric Bike in 2017.

**Site and Property**

The Brompton factory is located in Greenford, South West London. The company’s website includes video footage of bicycles being made inside the workshop<sup>172</sup>. Brompton moved into this space in February 2016 after searching for eight years for premises that would suit its growth aspirations and the need to be close to its skilled workforce and the primary market of London.

The company has seen considerable growth in recent years. This, coupled with a lack of available or appropriate premises, has resulted in the Greenford factory being its fourth since 1988. Previously the company was forced to split operations across a number of premises, meaning that output and productivity may have been somewhat constrained. It would like to purchase similar premises in Greenford but do not believe this is realistic due to limited industrial land supply in West London. Brompton’s operations and logistics movements lend themselves to mixed-use given that they are unlikely to impinge on neighbouring uses or even residents.

Brompton has now streamlined and unified its processes in order to further this growth. The new site, at 86,000 sq ft, is nearly twice the size of its previous four operational locations and is large enough to house all processes of the business in one facility. The unified site has enabled the company to improve efficiency, increase production and bring together its 240 staff under one roof. Brompton has installed a mezzanine which gives it the capacity to house its 150 production staff.



The Brompton business model is based on a product that increases people’s sense of independence and freedom. Being close to the global city of London where the bike supports multi-modal transport is important to the business. Coupled with the capital being a key part of the company history and brand, a London location is an essential requirement for Brompton. The close link with London adds value to the brand and according to the company has a positive effect on the bottom line. Many of Brompton’s overseas distributors have stated they see value in the London location as it is synonymous with the brand.

Brompton’s premises in Greenford were chosen as it meets requirements and has the potential for expansion when needed. The factory also needed to be accessible to ports in the South East of England for overseas exports.

The factory has 10 dock levelling bays which facilitate approximately 40 van movements per day, five days a week. Vans operate between 7am and 4:30pm for distribution to ports, the Brompton Shop (Brompton Junction in Covent Garden, Central London), Brompton Bike Hire and suppliers and distributors for online sales.

The company has a fifteen year contract at Greenford and has the capacity to increase production to 150,000 bikes a year. Brompton has installed a state of the art powder coating facility in order to give greater flexibility and the ability to take standard painting lead times down from 7 days to 2 days and quick turns (replacements) to next day.

<sup>172</sup> <https://www.brompton.com/>

**APPENDIX 2**

- ES
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2**
- A3
- A4
- A5
- A6

**SUSTAINABILITY**

Brompton’s business model is based on supporting multi-modal transport in urban areas. Its bikes can be used to cycle to a station before being folded by the commuter and carried onto a tube or train. From the destination station, the commuter then unfolds the bike and cycles to their ultimate destination. The sustainability impact is therefore far reaching in that it improves the health and wellbeing of cyclists while removing the need for private vehicles for short journeys and this consequently reduces emissions.

**Buildings**

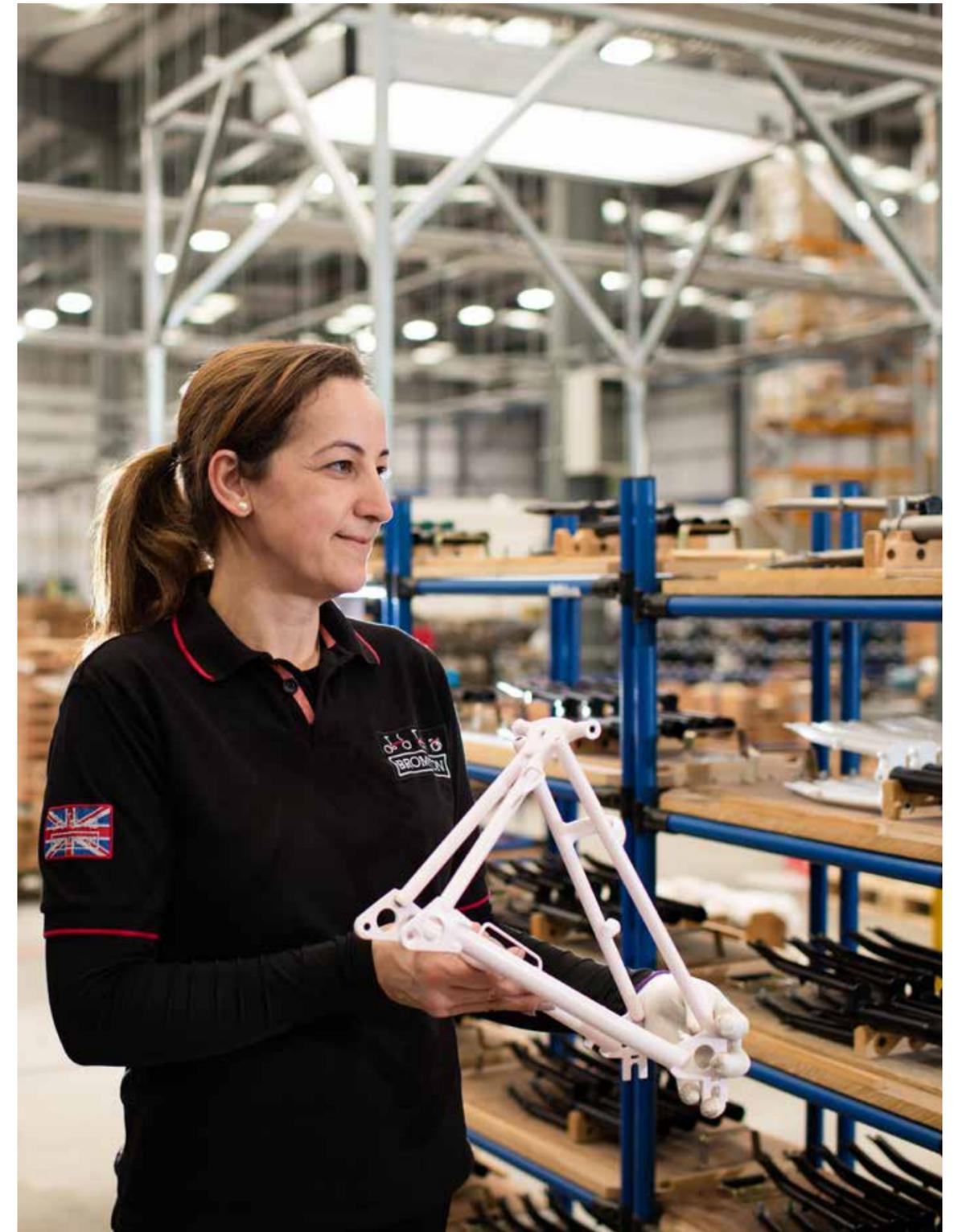
- The factory building is designed to be energy efficient and radiant heaters are installed on the shop floor, these only heat the person working in the immediate area. This results in less waste heat (due to high ceilings). The server room and office space are also the only areas with air conditioning installed
- The plant is eco-friendly using a pre-treatment that is based on silanes and contains no heavy metals

**Transport**

- At Greenford, there are eight low emission electric vehicle charging points. These are becoming more popular with staff and are well utilised on a daily basis
- Understandably the company has a strong and sustainable transport focus for its workforce. It offers a 60% discount on Brompton bikes as well as free servicing. As a result it is estimated that over 70 people cycle to the factory on Brompton bikes alone

**WORKFORCE**

Of the 240 employees on site, all are employed full time. In total there are 150 production staff with a further 17 designers along with sales, marketing and finance positions. Brompton employs a workforce skilled in areas necessary to design and build a folding bike including mechanics and braziers. Braziers undergo training on site over an 18 month period.





ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

APPENDIX 2

**MX1 (PREVIOUSLY RR MEDIA)**

**MX1 IS A BROADCAST AND MEDIA SOLUTIONS COMPANY PROVIDING CONTENT, EDITING AND ONLINE PLATFORMS TO THE TELEVISION (TV) AND FILM INDUSTRY.**

This international company distributes more than 2,500 TV channels, delivers over 8,000 hours of online video streaming and more than 500 hours of sports and live events. They work with leading media businesses globally to ‘transform content into the ultimate viewer experience’. MX1 has 16 offices and six media centres worldwide, including a media centre in Ealing.

This case study focuses on the UK element of the business which was previously known as RR Media, before acquisition in 2016. In the UK the company operates within a growing market and provides content management for platforms such as Netflix and iTunes for customers ranging from ITV, Channel 4, MTV, the BBC and National Geographic. The company has grown in the last year and anticipates continued growth in the medium term due to the rise in smart television platforms and online content.

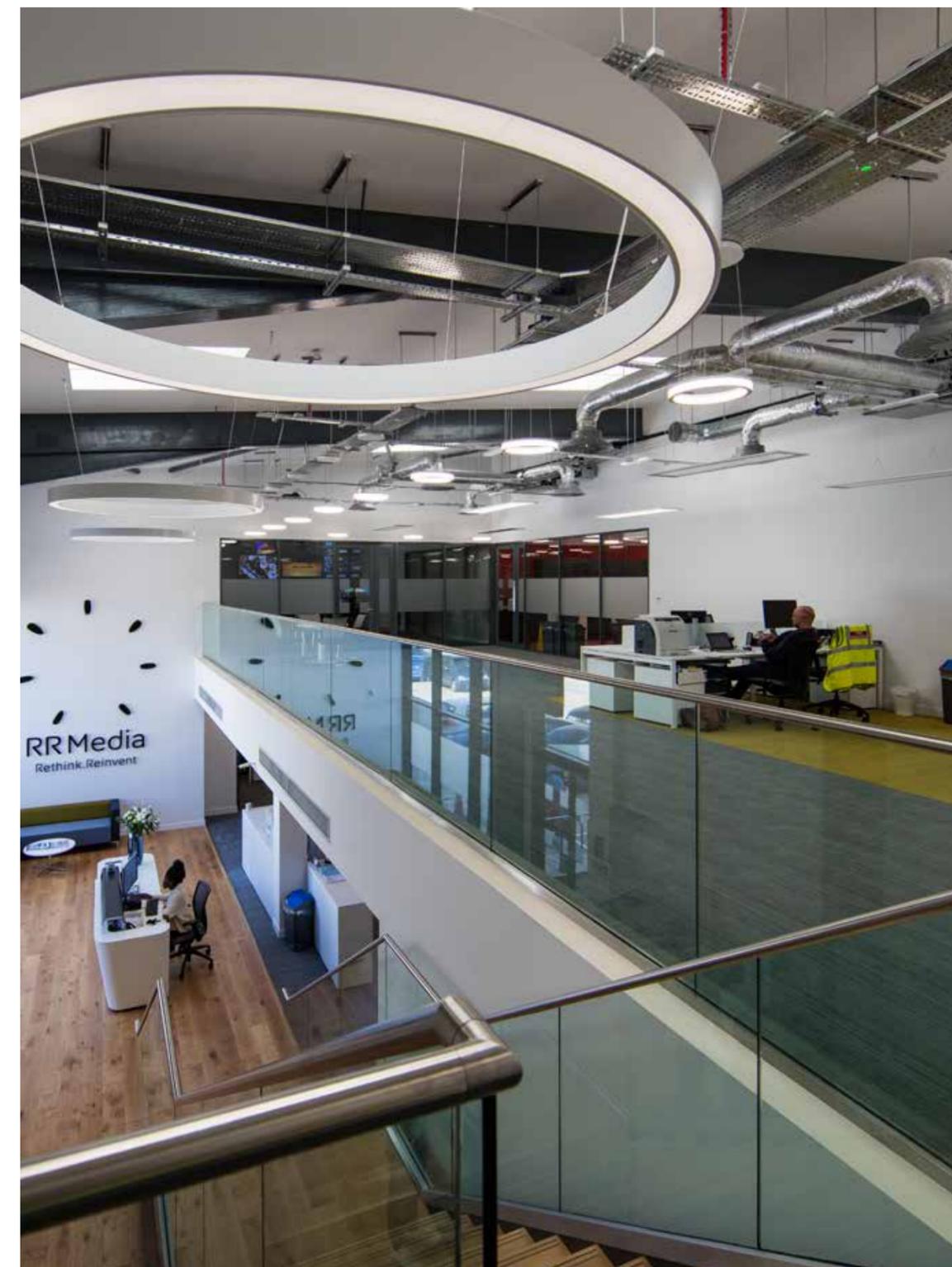
**SITES AND PREMISES**

The company’s European Media Centre operates from a 1,400 sq m premises in Victoria Industrial Estate in Acton, Ealing. It moved from another premises on the estate in 2015 to accommodate for growth. While it has some capacity to grow in the current premises, MX1 anticipates using this within one year and has identified a need to move within the area in five years’ time to meet its growth needs.

The choice of location reflects historic requirements for proximity to production studios at Elstree and Ealing. MX1 wishes to remain in this area given the historic clustering of businesses in this area and in order to retain its workforce.

**WORKFORCE**

There are 60 employees, predominately full time (95%), at the European Media Centre. There are also a small number of part time, short term contractors to respond to specific workloads at busy periods. Around half of employees are engaged in mid-level operations such as content management and editing, and 50% in administration, sales and finance occupations. While the company occupies an industrial unit it is therefore very much used as an operational sales and office space.





ES

APPENDIX 2

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

**FARLEY GROUP**

**FARLEY GROUP PROVIDES PERIOD PROPS FOR FILMS, TELEVISION AND THEATRE SETS.**

It is a family business which has been running for 53 years. Two thirds of the company’s turnover is related to the film industry. It has provided props for James Bond films as well as for film premieres and parties.

The company is one of around 60 prop hire companies in the UK, each specialising in different areas such as period, modern and medical.

The market for the company has changed enormously with the rise of the internet. It is able to put its entire stock online and respond to queries by email as opposed to clients visiting the showroom.

**SITE AND PREMISES**

The company began in Bloomsbury and moved to West London due to expansion and proximity to its core clients at the time such as the BBC, Pinewood, Shepperton and Leavesden studios.

Its location in West London also provides proximity to theatres in the West End and related businesses. They are part of a cluster in West London with over 30 hire companies currently located at Park Royal. The company’s catchment is within the M25.

Farley Group occupies a 100,000 sq ft unit, including a mezzanine. This incorporates a showroom, warehouse and office space. It has recently expanded into additional buildings to create 25% more space than previously occupied. It also has three buildings which are used as workshop space, near Hanger Lane.

The company has 20-30 lorry movements a day to Pinewood, Shepperton and Leavesden studios as well as some trips into Central London. Approximately two thirds of trips are HGVs and one third are Luton vans.

Farley Group reports that the loss of industrial land would negatively affect the industry and its capacity to serve its client base in West and Central London. Farley Group also considers infrastructure provision to be important; there is a need for investment in the road network around Park Royal to increase capacity and ensure that businesses can effectively serve customer markets.

**SUSTAINABILITY**

Farley Group has solar panels and low energy LED lighting within its West London premises.

**WORKFORCE**

The company employs 30 full time staff. Roles include directors, managers, accounts staff, sales staff, dispatchers and restoration staff. Training is provided in-house and individuals are often recruited with existing skills such as auctioneering and restoration diplomas. The company has a high level of staff retention and long service.

**FURTHER READING**

For further reading also see the UKWA Feeding London report, published in 2016.





ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

### APPENDIX 3

## RESEARCH STUDY INTO LONDON'S LOGISTICS CHALLENGE

### HOW YOU CAN HELP

We would like to discuss aspects of your business to understand the economic contribution and environmental sustainability along with associated mitigation and innovations.

In particular we are interested in your site and premises requirements, the structure and qualities of your workforce, the relationships you have with the local area through workforce residence and supply chains, your sustainability credentials, the technologies you deploy within your business activities and any growth aspirations.

### THE QUESTIONS

We set out the questions we would like to cover with you overleaf. We will talk through these questions but you may wish to review them in advance.

You may need to obtain some information from colleagues. For quantified information, where you do not know the exact information then please use your best guess to give an indicative figure.

Your answers will be used to create a case study for your business/site. Please let us know if any of the information you share with us is commercially sensitive and we will treat it in confidence.

### YOUR BUSINESS

1. What is the nature of your business and what specific activities are undertaken on this site or in relation to this site?
2. Has your business experienced any impact as a result of changes to distribution models and internet shopping? What impact do you foresee for the future and how are you preparing for this?
3. Does your business use any specific technologies within its activities? E.g. high tech JIT models; GPS delivery systems; picker/packer technologies; automated delivery vehicle cooling/heating?
4. Can you provide details of any renewables you have on site?
5. Do you have a Green Travel Plan?
6. Are you investing in/plan to invest in low carbon commercial vehicles (electric vehicles or hybrid). If so, can you please provide any case studies or examples of best practice?
7. Do you have commercial EV chargers on your sites?
8. In relation to air quality, how are your delivery plans aiming to mitigate impacts of emissions i.e. low carbon vehicles, delivery strategies?

### YOUR SITE/PROPERTY

1. Why did you choose to locate in this area/at this site?
2. What is the floorspace area (sq m) of the built development? This should include floors and mezzanines in addition to ground floor. How is this split into warehouse, office and other uses?
3. What is the total area of the site (sq m or ha) including non-built areas such as loading bays and car parking?
4. How many lorry movements do you have a day? What are the main times for this?
5. How many people do you employ? How is this split into warehouse, office, other uses and drivers?
6. What is the split between full and part time jobs? Does this vary by role?
7. What is the occupational/skills profile of your workforce? Do you have any advanced technical/engineering occupations?
8. Do you offer any training and/or apprenticeships and/or local employment recruitment/training initiatives? How does this benefit your business?

### SUSTAINABILITY OF YOUR BUSINESS

1. What, if any, are your drivers for operational efficiency of buildings?
2. Can you please provide any information on your operational energy per annum?
3. Where do your employees live? What proportion live in the local authority area, within 10 miles or in London?

### APPENDIX 3 APPENDIX 4

#### SUPPLY CHAINS & MARKETS

20. What is your supply chain profile? What proportion of your purchases are for goods and services from local businesses?
21. What is the market for your goods? What percent of your goods do you sell within London?
22. How do you see your market changing in the next 5, 10, 20 years? How are you responding to this?

#### GROWTH AMBITIONS AND BARRIERS

23. Do you have any growth aspirations (short or long term) for the site, within the local area or nationally? How do these aspirations fit with your wider business strategy?
24. How do you anticipate your business to grow in the next 5, 10, 20 years? E.g. percent increase in turnover/percent increase in employees
25. How will lack of land supply affect your ability to grow? Do you have any direct experience of limited land supply affecting your business? E.g. inability to expand premises, limited sites available on which to locate?
26. What will be your requirement for sites and premises in the future? What locations (specific locations or locational characteristics) will you be looking for?
27. Are you looking at logistic solutions such as stacked industrial and or consolidation centres? If so, can you please provide some detail?

#### PERCEPTIONS OF YOUR BUSINESS/THE SECTOR

28. Have you provided a design response to public perception of logistics/distribution centres? If so, can you please provide any mitigation carried out through design/construction/operation in relation to noise/acoustic/AQ/aesthetics/distribution patterns/lorry movements?

#### OTHER

29. Are you able to provide any site plans and/or images (high resolution) which you would like to be included alongside your case study within the final report?
30. Have you carried out any research into the economic (or other) contribution of your business which may be of use to the study? Would you be willing to share this with us?

The research has been undertaken using both desk based and primary research. This has enabled assessment of quantified data as well as a more qualitative review of the role of the sector both economically and environmentally. The approach taken is outlined below.

#### DESK BASED ANALYSIS

#### GEOGRAPHICAL FOCUS

The study focuses on London as a whole and draws on specific examples across the capital in the consideration of industrial land, for example targeted releases as well as Opportunity Areas.

Opportunity Areas are defined as 'The capital's major reservoir of brownfield land with significant capacity to accommodate new housing, commercial and other development linked to existing or potential improvements to public transport accessibility. Typically they can accommodate at least 5,000 jobs or 2,500 new homes or a combination of the two, along with other supporting facilities and infrastructure'<sup>173</sup>.

Five example boroughs are also used to illustrate various points including a look at the policy approach. These boroughs are:

- Barking and Dagenham
- Ealing
- Enfield
- Hillingdon
- Westminster

They were chosen due to their role in provision of industrial land or, in the case of Westminster, their limited role in this regard. The boroughs and their relation to Opportunity Areas – particularly those relating to or impacting upon logistics – and Strategic Industrial Areas are shown in the plan on the following page.

<sup>173</sup> <http://www.futureoflondon.org.uk/2015/02/13/londons-opportunity-areas/>

## APPENDIX 4: RESEARCH APPROACH



ES

### APPENDIX 4

1

2

3

4

5

6

7

8

9

A1

A2

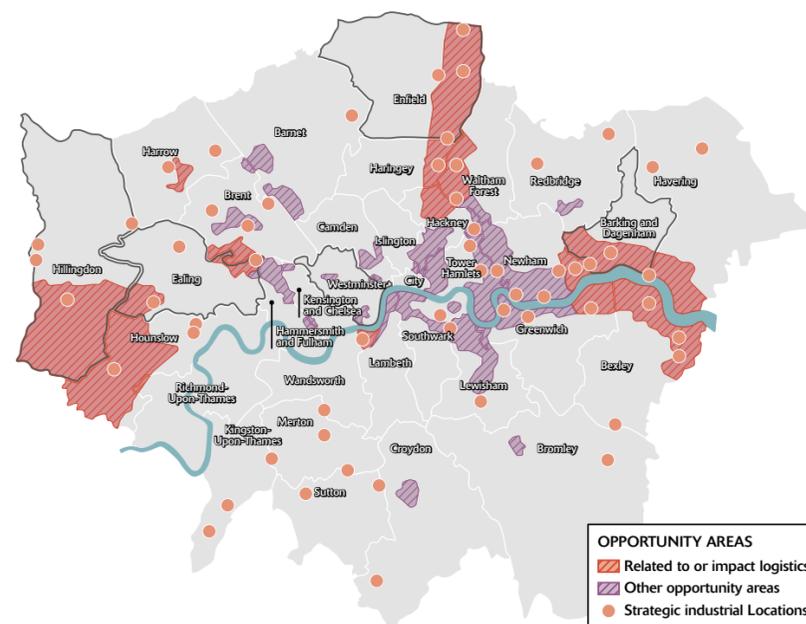
A3

A4

A5

A6

### Opportunity areas, strategic industrial locations and case study Boroughs



### DATA SOURCES

A range of data sources and indicators were used<sup>174</sup> to analyse the logistics industry in London, including the following:

- ONS (2015) Business Register and Employment Survey (BRES)
- ONS (2015) Annual Survey of Hours and Earnings (ASHE)
- ONS (2015) UK Business Counts
- ONS (October 2015) Supply and Use Tables 1997–2013
- ONS (2011) Census 2011
- GLA Economics (2015) Employment Projections
- GLA (2014) Population Projections
- Experian (2016) UK Local Market Forecasts
- Valuation Office Agency (2012) Business Floorspace
- Key policy documents identified throughout, including the National Planning Policy Framework (NPPF) (2012) and the 2015 London Plan
- GLA (2012) Supplementary Planning Guidance – Land for Industry and Transport
- GLA (2016) London Industrial Land Supply and Economy Study
- IbisWorld (2015) UK Industry Reports

### SECTOR DEFINITION

For the purposes of assessing data which is based on Standard Industrial Classifications (SIC codes) as collected by the Office for National Statistics (ONS), the following sectors were identified as being direct logistics activities<sup>175</sup>.

#### Warehousing and support activities for transportation – 2007 SIC 52

- Warehousing and Storage – SIC 52.1
- Rail Freight Terminals – SIC 52.211
- Cargo Handling – SIC 52.24
- Other Transport Support Activities – SIC 52.29

#### Freight Rail Transport – SIC 49.2

#### Freight Transport by Road – SIC 49.41

#### Sea and coastal freight water transport – SIC 50.2

#### Inland freight water transport – SIC 50.4

#### Freight air transport – SIC 51.21

#### Postal and Courier – SIC 53

This applies to BRES data, GLA Economics data (which uses combined SIC codes) and IbisWorld reports.

We also identified sectors which, though not formally logistics activities, include an element of logistics within their operations<sup>176</sup>. These sectors both affect and are affected by change in the logistics sector. Likewise they occupy industrial land and contribute to the economic vibrancy of London as a world city. They will similarly be affected by losses to such land in the capital. Throughout the report we refer to these as 'related sectors'.

<sup>174</sup> The latest data sets available at the time of writing were used

<sup>175</sup> This provides consistency with the sectors used in the BPF (December 2015) Delivering the Goods report produced by Turley

<sup>176</sup> This is not an exclusive list

## APPENDIX 4: RESEARCH APPROACH

### APPENDIX 4

#### Manufacturing – SIC 10 – SIC 33:

- Manufacturing Food and Drink – SIC 10 – 11
  - Bread and Bakery – SIC 10.71
  - Chocolate and Confectionery – SIC 10.82
  - Fruit and Vegetables – SIC 10.39
  - Soft Drinks – SIC 11.071
  - Meat Processing – SIC 10.11
  - Poultry Processing – SIC 10.12
  - Yoghurt and Dairy – SIC 10.519
- Consumer Electronics Manufacturing – SIC 26.4
- Manufacture of Electrical Equipment – SIC 27

#### Wholesale and Retail Trade – SIC 45 – SIC 47

- Wholesale and Retail Trade and Repair of Motor Vehicles and Motorcycles – SIC 45
- Wholesale Trade, except of motor vehicles and motorcycles – SIC 46
  - Electronic and Telecommunications Consumer Wholesaling – SIC 46.52
- Retail Trade, except of motor vehicles and motorcycles – SIC 47
  - Supermarkets – SIC 47.11
  - Clothing Retailing – SIC 47.71
  - E-Commerce and Online Auctions – SIC 47.91
  - Online Women's Clothing Retailing – SIC 47.91
  - Online Home Furnishing Retailing – SIC 47.91

#### Information and Communication – SIC 58 – SIC 63

- Motion Picture, Video and Television Programme Production, Sound Recording and Music Publishing Activities – SIC 59
  - Motion Picture Production – SIC 59.111
  - Television Programme Production – SIC 59.113
- Programming and Broadcasting Activities – SIC 60
- Telecommunications – SIC 61

#### ASSUMPTIONS

A number of assumptions have been used in analysing the data, drawing on industry standards and government guidance. This includes:

- HCA (2015) Employment Density Guide 3rd Edition
- URS Corporation Limited/DTZ (2010) London's Industrial Land Baseline

## APPENDIX 4: RESEARCH APPROACH



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

### APPENDIX 4

#### CASE STUDIES

Eight case studies were produced. These provide a more in-depth look at the operations of logistics, and related companies, the role they play in the London economy, their environmental sustainability credentials and growth aspirations.

The case studies were identified by SEGRO and agreed with Turley based on a set of criteria covering the type of business, location, logistics activities, scale and sustainability factors. The case studies are:



#### Significant logistics component

##### OCADO

Online food retailer



##### JOHN LEWIS PARTNERSHIP

Department store with significant online presence



##### DHL

Courier and international parcel delivery



##### DB GROUP

Third party logistics (3PL) and rail freight



#### Other occupiers of industrial premises

##### BROMPTON BICYCLE LTD

Bicycle manufacturers



##### MX1 (PREVIOUSLY RR MEDIA)

Digital and media content editing



##### FARLEY GROUP

Props for film and television

The findings from the case studies have been used to supplement the data findings throughout the report. Each case study is written up separately within the Appendix.

A consultation pro-forma was used to guide face to face and telephone discussions with case study contacts. This provided consistency in collection of information. The pro-forma is included as an Appendix.

#### CAVEATS AND LIMITATIONS

As with all research and analysis there are a number of data caveats and methodological considerations:

- SIC codes limit analysis along designated data lines as defined by ONS. However this does enable alignment with other studies. Case study information has also been included to supplement this information
- Of particular importance to this study is that SIC codes do not enable all logistics elements to be captured within the statistical analysis. This especially refers to retail including e-commerce which include substantial logistics components but which are classed as retail as opposed to logistics. It is not possible to identify the level of employment engaged in logistics activities as a result of this
- The case studies reflect only a small number of businesses which contribute to the London economy but which face pressure for land and premises from competing uses such as housing. Understanding the needs of these businesses will be important in the GLA's study of industrial land demand and should be understood as fully as possible given the nuances

## APPENDIX 5: TRENDS IN EMISSIONS IN LONDON



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

### APPENDIX 5

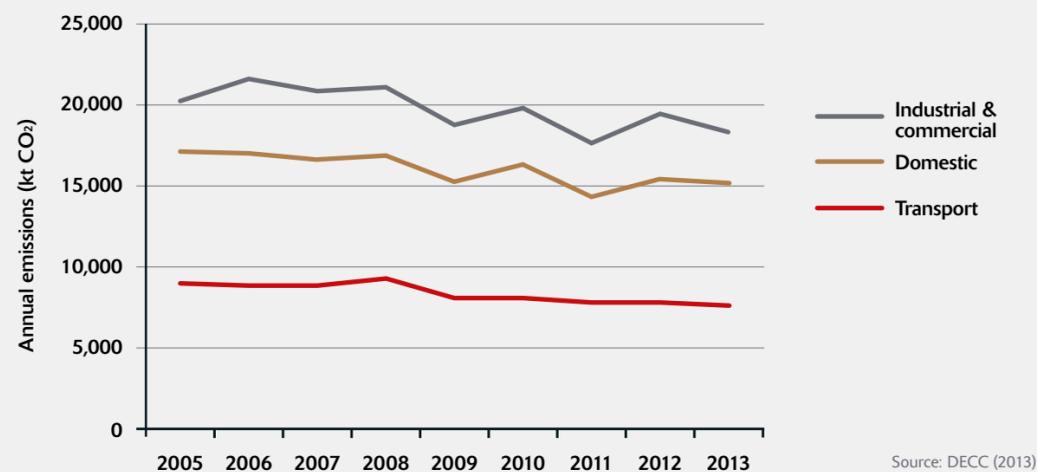
The following data demonstrates that while logistics vehicles do generate emissions, they are far from being the largest polluters. The table highlights percentages of emissions related to Nitrous Oxide (NOx) and Particulate Matter (PM) and Carbon Dioxide CO<sub>2</sub> which have been identified as the principal air-quality pollutant emissions from petrol, diesel, and alternative-fuel engines. The European Union Ambient Air Quality Directive sets maximum permissible levels for roadside concentrations of pollutants thought to be harmful to human health and the environment.

London CO<sub>2</sub> emissions by industry type (kilo-tonne (kt) CO<sub>2</sub>, 2005 – 2013)

	CO <sub>2</sub>	NOx	PM10
% of total emissions due to transport industry	21%	63%	52%
% of London's total emissions due to HGV & LGV	4%	10%	6%

Another positive story from the transport industry is that between 2005 and 2013, emissions from the transport sector have decreased by over 15%. Again this decrease can be considered significant when compared to trajectories of other industries.

London CO<sub>2</sub> emissions by industry type (kilo-tonne (kt) CO<sub>2</sub>, 2005 – 2013)



This positive trend is reinforced by analysis conducted by the Environmental Research Group at King's College<sup>177</sup> which shows the trends in London from 2008 to 2013 in:

- NOx roadside sites show a downward trend of 1.25% per year, equating to a total reduction over the six year period of 7.5%
- NO2 roadside sites show a downward trend of 2.1% per year, equating to a total reduction over the six year period of 12.6%
- PM10 roadside sites show a downward trend of 1.4% per year, equating to a total reduction over the six year period of 8.4%
- PM10 background sites a downward trend of 0.65% per year, equating to a total reduction over the six year period of 3.9%
- PM2.5 roadside and background sites show a downward trend of 2.2% per year equating to a total reduction over the six year period of 13.2%

<sup>177</sup> <http://www.kcl.ac.uk/lsm/research/divisions/aes/research/ERG/modelling/Emissions-Inventory.aspx>

# APPENDIX 6: FORECAST CHANGE BY SECTOR

## IBISWORLD INDUSTRY REPORTS FORECAST CHANGE BY SECTOR

### APPENDIX 6

Sector	Forecast change	
Logistics sub-sectors		
<b>Warehousing &amp; storage</b>	<p>Expect to see industry growth of 4.2% per annum from 2016 – 2021.</p> <p>Buoyant UK freight volumes and a strengthening international trade should support industry growth.</p>	<p>Expected growth in the level of goods imported and exported will increase demand for warehousing and storage.</p> <p>Online retailing is changing the focus of many industry operators that are involved in the distribution network. The increased shipping of goods means that more goods in transit will require storage, providing an opportunity for industry operators.</p> <p>Manufacturers are a leading market for warehouse operators. Increased manufacturing activity means that more goods need to be stored and distributed, however, industrial production is forecast to decline.</p> <p>The main challenge facing the industry is the shortage of capacity of good quality and inexpensive warehouse space.</p>
<b>Freight road transport</b>	<p>Expect to see industry growth of 1.2% per annum from 2016 – 2021.</p> <p>Positive economic trends, increased international trade and the growth of online retailing are expected to push up the volume of goods moved around Britain.</p>	<p>Fuel is the industry's largest cost and changes in fuel prices can have a significant effect on the viability of a road transport business.</p> <p>An increase in real private consumption expenditure generally influences a rise in demand for the industry's services.</p> <p>The level of business confidence affects businesses' decisions over inventory levels. The volume of new stock ordered then influences demand for road freight services. When business confidence is high, businesses are more likely to increase their stock levels, boosting demand for road freight services.</p> <p>Manufacturing also influences the industry. When manufacturing production levels pick up, demand for road freight transport is also likely to rise.</p>
<b>Freight rail transport</b>	<p>Expect to see industry growth of 2.9% per annum from 2016 – 2021.</p> <p>As a result of Government investment in the Strategic Rail Freight Network and support for rail freight over other methods, the industry is expected to be in a good position to take a larger share of the growing market.</p> <p>Trade is expected to rise strongly, leading to more freight moving around the UK.</p>	<p>An increase in fuel prices makes it more expensive for freight rail firms to operate. However, since rail freight is more fuel-efficient than road freight, rising fuel prices can also make rail freight more competitive.</p> <p>The level of business confidence influences firms' decisions about how much inventory to hold and when to order new stock. These decisions then affect demand for rail freight services.</p> <p>Electricity producers are one of the largest markets for the industry's services because they need coal to be transported to power stations. Demand from electricity producers is expected to increase.</p>

Sector	Forecast change	
Logistics Sub-Sectors		
<b>Postal and courier</b>	<p>Expect to see industry growth of 3.4% per annum from 2016 – 2021.</p> <p>Following the full privatisation of Royal Mail in October 2015, the outlook for the industry remains uncertain, although further modernisation and efficiency improvements are likely to occur.</p>	<p>Since Royal Mail no longer holds a monopoly in the industry, it will continue to face competition from other licensed and non-licensed postal service providers and couriers.</p> <p>An increase in computer literacy and subsequent increases in total online expenditure is expected to continue growing strongly, providing an opportunity for postal and courier services.</p> <p>Increases in business confidence boosts demand for courier services from a range of sectors, including health care, financial services and retail.</p> <p>Increases in consumer confidence and higher household disposable income leading to higher demand for goods at the retail level and as a result for parcel delivery services.</p>
Related sectors		
<b>Supermarkets</b>	<p>Expect to see industry growth of 0.9% per annum from 2016 – 2021.</p> <p>Likely to be a rise in the number of discount supermarkets.</p> <p>Businesses will continue to focus on limiting costs by consolidating, selling online, expanding their estates of mini-supermarkets and exercising more control over supply chains.</p>	<p>Increased demand for e-commerce and online auctions is likely to affect supermarket performance negatively, as online retailers can operate with lower overheads.</p> <p>Competition from department stores is expected to increase with the industry increasingly competing in the same market as supermarkets.</p> <p>Consumer habits shifting to more online shopping and more 'top-up' shopping in convenience stores and small-format supermarkets.</p> <p>Population increase is likely to have a direct effect on the amount of money spent on supermarket food.</p>
<b>Clothing retailing</b>	<p>Expect to see industry growth of 1.4% per annum from 2016 – 2021.</p> <p>Online operations are expected to be the main driver of growth.</p> <p>Increasing competition is likely to force some retailers out of the market and the expanding role of online operations is forecast to result in the closure of bricks-and-mortar establishments.</p>	<p>Growth in real private consumption expenditure is associated with higher retail sales. Demand from department stores is used as a proxy for the performance of the industry's key competitors. Department stores have a strong position in clothing sales and compete with industry operators to attract customers.</p> <p>There is generally a positive correlation between consumer confidence and household expenditure. When consumer confidence is high, household expenditure grows and household spending is likely to increase.</p> <p>A large proportion of clothing sold in the UK is manufactured overseas and so the industry is sensitive to fluctuations in the exchange rate. Cotton prices affect retailers' purchase costs.</p>

- ES
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A1
- A2
- A3
- A4
- A5
- A6**

## APPENDIX 6: FORECAST CHANGE BY SECTOR

### IBISWORLD INDUSTRY REPORTS FORECAST CHANGE BY SECTOR

Sector	Forecast change	
Related sectors		
<b>E-commerce and online auctions</b>	<p>Expect to see industry growth of 10.3% per annum from 2016 – 2021.</p> <p>Technological advances are likely to make shopping online even easier and speed up the purchasing process.</p>	<p>Higher levels of internet access and smartphone adoption are likely to assist the industry and result in more industry-related purchases being made.</p> <p>The customer base is likely to become broader as an increasing share of the population becomes more comfortable using the internet for shopping.</p> <p>An increase in real private consumption expenditure benefits industry operators by raising demand for goods bought online.</p> <p>A rise in total online expenditure will lead to an increase in e-commerce. But the industry competes with high-street retailers with online operations for this expenditure.</p>
<b>Online women's clothing</b>	<p>Expect to see industry growth of 7.5% per annum from 2016 – 2021.</p>	<p>Increased residential construction and activity in the housing market is anticipated to lead to greater demand for home furnishings.</p> <p>Higher levels of internet access give consumers the option to buy goods online and so bode well for the industry.</p> <p>A strengthening economy, increase in real disposable incomes and strong demand for high-quality and customisable home-furnishing products is forecast to support industry growth.</p> <p>However, growth is likely to be dampened by approaching saturation in the online market and increased levels of competition.</p>
<b>Manufacturing food and drink</b>	<p>Bread and Bakery: 0.9% growth per annum 2016 – 2021.</p> <p>Chocolate and Confectionery: 1.3% growth per annum 2016 – 2021.</p> <p>Fruit and Vegetables: 1.6% growth per annum 2016 – 2021.</p> <p>Soft Drinks: 1.5% growth per annum 2016 – 2021.</p> <p>Meat Processing: 1.2% growth per annum 2016 – 2021.</p> <p>Poultry Meat Processing: 2.5% growth per annum 2016 – 2021.</p> <p>Yoghurt and Other Dairy: 1.5% growth per annum 2016 – 2021.</p>	<p>Demand from supermarkets is a primary determinant of the industry's success.</p> <p>Supermarkets have a powerful effect on industry revenue through the competitive approach they take to attracting customers.</p> <p>Health consciousness and the growing concern over rising obesity levels is influencing the levels of demand for various industry products.</p> <p>Disposable income levels affect sales and in turn the manufacturing of food and beverages. Real household disposable income is forecast to rise presenting an opportunity for growth.</p> <p>The domestic price of food and drink products and ingredients has a significant effect on producers' income and consumer demand.</p> <p>The real effective exchange rate influences the level of competition UK operators face by affecting the cost of imported inputs. Industrial electricity prices can be important for operators that manufacture products in big electricity-consuming factories. These companies have the means and incentive to move production to countries where operating costs are lower, posing a threat to the industry in the UK.</p>

Sector	Forecast change	
Related sectors		
<b>Electronic and telecommunications consumer wholesaling</b>	<p>Expect to see industry growth of 2.7% per annum from 2016 – 2021.</p> <p>Stable economic conditions, technological improvements and the introduction of new products should facilitate stronger demand from consumers and businesses alike.</p>	<p>Technological advances and IT adoption will be the main drivers of growth over the next five years. As increasing numbers of households and businesses become reliant on the latest technological advances, demand for new equipment tends to grow.</p> <p>Demand from computer and peripheral equipment manufacturing and radio broadcasting drives a significant portion of industry revenue. Although these industries are expected to decline.</p> <p>Higher levels of disposable income encourage households to spend more money on goods and services, particularly discretionary items such as electronics.</p>
<b>Consumer electronics manufacturing</b>	<p>Expect to see industry decline of 2.2% per annum from 2016 – 2021.</p> <p>Local manufacturers are anticipated to lose further market share in the United Kingdom and in global markets to overseas manufacturers with lower labour costs.</p>	<p>As consumer confidence and real household disposable income rises, so does demand for and spend on consumer electronics at the retail level. Although consumer electronics are projected to become cheaper as global demand and production volumes rise and competition drives innovation.</p> <p>UK manufacturers are facing tough competition from manufacturers located in countries with lower labour costs.</p>

Source: IBISWorld, 2016



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6

## APPENDIX 6



ES

1

2

3

4

5

6

7

8

9

A1

A2

A3

A4

A5

A6



SEGRO

KEEP LONDON WORKING.LONDON

---

## **A2. 'FUTURE OF FREIGHT' INTERIM REPORT**

# FUTURE OF FREIGHT

---

Interim report

NATIONAL  
INFRASTRUCTURE  
COMMISSION

---

December 2018

# Contents

---

Foreword	3
In brief	4
Executive summary	5
1. The case for change	9
2. Regulatory certainty to drive change	17
3. The forgotten element of spatial planning	21
4. Data for informed decision making	27
5. Towards a coordinated approach	32
End notes	35

# Foreword

---

At the core of the modern way of living, working and doing business is the understanding that we can have anything we need or want – clothes, food, widgets – from anywhere in the world, delivered to our doorstep, corner shop or assembly line in weeks, days or even hours, often at a cost so low that we barely give it a moment's thought.

The fact that the freight system rises to the challenge and gets goods from A to B, all year round, on time or just in time, mostly unnoticed by the public, is something of a modern marvel.

Over the past year the Commission has been undertaking the freight study, investigating how the freight system should respond to the challenges of carbon and emissions, congestion and technology, while remaining commercially efficient and continuing to satisfy consumer expectations.

The UK's freight system is one of the best in the world, but there is a major problem. The negative impacts of freight – carbon emissions, poor air quality and congestion – need immediate focus and coordinated action. We should not accept that the challenge of cleaning up freight is something for another time.

We set out our interim findings from the continuing study in this report, considering how regulation and land use planning affect and shape freight.

This report is a staging post. In the final phase of this study we will outline how infrastructure, emerging technologies and innovative approaches can be used to manage the impacts of emissions and congestion associated with freight, to create a sustainable freight future.

We are grateful to the many organisations and individuals who have engaged with the Commission's work so far, and for the constructive engagement from all parts of the industry. We look forward to continuing the conversation as we prepare our recommendations.



**Sir John Armitt CBE**  
Chair, National  
Infrastructure Commission



**Bridget Rosewell OBE**  
Commissioner, National  
Infrastructure Commission



**Andy Green**  
Commissioner, National  
Infrastructure Commission

# In brief

---

**The UK's freight system is one of the best in the world, providing a high quality, low cost service to businesses and consumers. But cost is not the only measure of performance. Freight also produces negative by-products such as congestion, carbon emissions and particulate matter. Left unchecked, these cause harm to society and are a drag on the UK's prosperity.**

The Commission's central finding is that without action, freight's contribution towards congestion and carbon emissions will remain problematic. Acceleration of technological advancements and clear, firm, long term targets will be key to tackling this. A more coordinated approach within and between different tiers of government, based on better data, will be crucial to getting this right.

## Regulatory certainty to drive change

A sustainable freight system will require change and innovation. Regulations can play a key role in driving that change, and should be designed to actively encourage innovation at pace. In particular, providing early clarity and commitment on long term objectives and the regulatory changes needed to achieve them will be essential in giving the freight industry the imperative and confidence to take action.

## The forgotten element of spatial planning

An absolute focus on delivering homes without consideration of how freight will service growth will be of detriment to both housing and freight. Without better recognition of the value of freight in planning, the freight system will encounter more pinch points, restricting its capacity to operate efficiently and deliver goods in the most sustainable way possible.

## Data for informed decision making

Data is a fundamental requirement of good policy making, but the quality of freight data available to policy makers is mixed and, in places, almost non-existent. Policy makers need better data for freight if they are to produce outcomes that work for freight and society.

The Commission will discuss the areas outlined in this report further with stakeholders in the coming months, to help inform the freight study's final report into how to deliver a sustainable, low carbon freight system.

# Executive summary

---

**In November 2017, the Chancellor asked the National Infrastructure Commission to provide the government with advice on the actions it should consider to support an efficient and low carbon freight system over the next 30 years, including the approaches needed to help manage the impacts of emissions and congestion associated with freight.**

Over the past year, the Commission has sought to understand the UK's freight system, including its challenges and benefits, and the national policy context. In doing so, it has engaged with stakeholders across the whole of the freight system, including operators, customers and regulators as well as national and local policy makers. This engagement has been informed by the 71 responses received to the study's Call for Evidence.

This interim report focuses on the levers that government can use to influence the freight system and how they could be better coordinated to deliver a sustainable freight system that is fit for the future.

**The Commission's central finding is that without action, freight's contribution towards congestion and carbon emissions will remain problematic. Acceleration of technological advancements and clear, firm, long term targets will be key to tackling this. A more coordinated approach within and between different tiers of government, based on better data, will be crucial to getting this right.**

The findings and concepts in this report will be tested further with industry, local authorities, government and other stakeholders to help inform the Commission's final report, which will include recommendations on how policy, infrastructure and technology can be collectively harnessed to manage freight congestion and reduce harmful emissions.

## The case for change

Freight is the lifeblood of the UK's economy and society. It operates around the clock, 365 days a year, using all modes of transport to enable everyday life. The UK has one of the most efficient freight systems in the world,<sup>1\*</sup> moving an estimated 1.6 billion tonnes of goods in 2016.<sup>2</sup> Imports move through our sea and air ports before being transported to central distribution hubs and then to edge of town distribution centres, before final delivery to the end user – all to meet the needs and wants of businesses and consumers.

\* The World Bank's Logistics Performance Index (LPI) analyses the efficiency of a country's logistics performance using several quality indicators, including the efficiency of customs and border management clearance; the quality of trade and transport related infrastructure; and the competence and quality of logistics services. The UK has an LPI of 3.99, the 9<sup>th</sup> highest score. Germany has the highest LPI score of 4.20.

However, despite gradual improvements in vehicle efficiency, freight still creates harmful emissions. Heavy Goods Vehicles (HGVs) and Light Goods Vehicles (LGVs – vans) only constitute 21 per cent of the total vehicle mileage in the UK, but cause 31 per cent of the UK's greenhouse gas emissions from transport and 30 per cent of nitrogen oxide (NOx) pollution from transport.<sup>3</sup> HGVs comprise 25 per cent of road use on motorways<sup>7</sup> and although, in total, freight is a much smaller component of urban traffic, it is a considerable proportion of traffic in London at peak times, with HGVs and LGVs making up a third of traffic entering the Congestion Charge Zone in the morning peak.<sup>4 5</sup>

A highly competitive marketplace and tight profit margins already provide incentives for the freight industry to drive out excess cost from operations. However, the incentives to reduce environmental impacts and other harmful effects are limited. Left to industry alone, these will not be prioritised or fully addressed.

The freight system is at a crossroads, on the cusp of major technological change. Significant advances towards clean fuels, data availability, automation, and artificial intelligence could all rapidly change the costs and the by-products of freight. With technology and innovation on heavy vehicles developing more slowly than for lighter vehicles, there remains a great deal of uncertainty over which technologies will prevail in the coming years. However, ambitious and determined action, coordinated across government, could help accelerate freight towards a zero carbon and congestion neutral future.

The terms of reference for this study make clear that matters relating to border controls and customs, and the UK's exit from the EU, are out of scope. However, the international nature of freight and the fact that in 2016 over half of the international tonnage handled in the UK relates to trade with the EU means that freight – at least in the short term – will be affected in some way by Brexit.<sup>6</sup> The Commission's freight study looks ahead towards 2050, and therefore does not cover the immediate aftermath and early years after Brexit. In the longer term, demand for freight will still present issues that need to be tackled regardless of the UK-EU relationship, and action will still be required.

## Regulatory certainty to drive change

Enabling a low emissions freight system that manages its impacts on congestion will require change and innovation. It is important that regulations encourage developments in operations and technology and drive change for the better. Providing clear outcome based targets, greater regulatory certainty and space for innovation into the medium and long term can help ensure compliance and deliver change faster. Supporting technological development through initiatives like trials of lorry platooning and dispensations to enable real world testing of self-driving

<sup>7</sup> Figure calculated by multiplying the number of miles by each vehicle type (as outlined in the Department for Transport's statistics table TRA0104) by the equivalent amount of passenger car units (PCUs), totalling 80.53bn miles. HGVs equate to 2.5 PCUs, resulting in 19.75bn miles equivalent – 24.52% of the total vehicle miles by PCU equivalent, expressed as a measure of road use

vehicles are both positive steps towards helping change occur – but a piecemeal response will not encourage change at pace.

Future objectives, standards and rules need early communication and stable commitment to provide the freight industry with the confidence to invest in change. Whilst local areas need to develop solutions to tackle their specific issues, harmonisation and clarity are important for freight planning and effective operation. Greater Manchester and West Midlands Combined Authorities' liaison on their respective upcoming Clean Air Zones is an example of good practice, but more needs to be done across all areas of regulation.

## The forgotten element of spatial planning

Growing demand for faster, cheaper, and more convenient deliveries means planning for freight is ever more important. Delivery of new houses naturally remains the priority for local areas. Yet, whilst certain essential services required for balanced and sustainable communities – such as schools and medical centres – are planned for, freight is overlooked. National policy for planning and development has only two references to freight, and local authorities rarely have the resources or expertise to properly consider freight in their areas.

Areas of London are now suffering the consequences of failing to plan, with demand for freight sites significantly outstripping supply. Active policies to protect space for freight and innovative approaches to land use such as multi storey logistics must now be deployed. Other land constrained towns and cities are not yet in the same situation, but without action now they risk facing the same problems.

Failing to plan and protect land for freight can result in logistics operators 'sprawling' further from the centres of towns and cities, moving further from their end customers and increasing delivery mileage, emissions and congestion. Although the issue lies mostly at the local level, solutions through national frameworks could help head off future problems.

## Data for informed decision making

Without up to date and reliable data it is difficult to understand the freight system and the effectiveness of potential interventions. Detailed freight data (particularly the routes operators take) is usually not available to policy makers, and where it is, quality is mixed. Surveys by the Office of Rail and Road (ORR) and Department for Transport (DfT) provide some insight into industry behaviour, but this is only a partial picture.

With LGV traffic growing faster than any other type of vehicles, understanding van operator behaviour is crucial.<sup>7</sup> However, up-to-date data is almost non-existent. New LGV surveys would provide a useful snapshot, but the lack of movement data means it is difficult to understand issues in detail. Through the utilisation of new technologies such as mobile data and intelligent Automatic Number Plate Recognition (ANPR), there are opportunities to capture movement data quickly and

at scale – helping to provide local areas with relevant information that can be used to deliver informed policy choices.

## Next steps

This interim report outlines what the Commission believes are the issues that create operational or environmental impacts or slow progress towards efficiency in the UK's freight system. Delivering the right regulatory environment, certainty, and ensuring proper planning of freight are fundamental aspects of enabling lasting change. The Commission will explore these areas further, alongside wider work on future freight demand, the drivers of efficiency, alternative fuels, and congestion management, to produce a final report outlining the action that government and industry will need to take to deliver a clean, competitive and adaptive freight system that works for the future.

# 1 The case for change

---

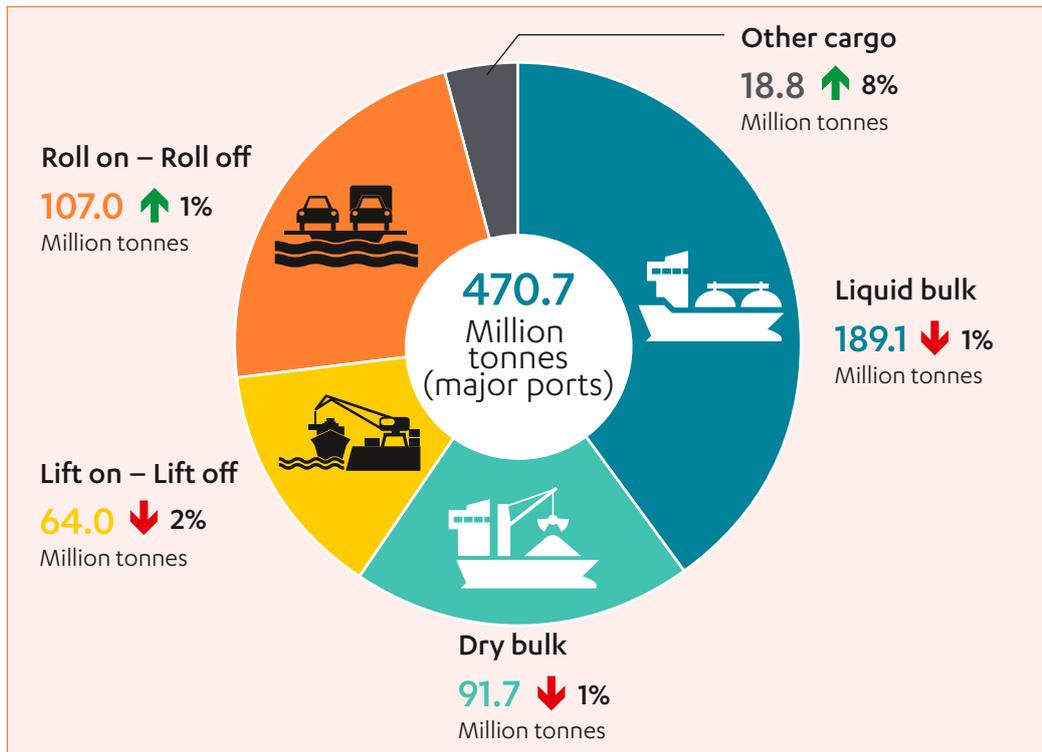
Despite being cost efficient, freight activity has a range of negative consequences. All major forms of freight create harmful emissions that reduce air quality and contribute towards climate change. Freight contributes to congestion, and congestion affects the quality of freight services to customers. There is unlikely to be a single approach to reducing the harmful effects from the freight system. However, emerging technologies and alternative fuels could play a substantial role in reducing emissions and it is likely that a mixture of policy and disruptive technology will help in reducing other unwanted by-products.

## The freight system

Freight traditionally refers to the movement of goods from one location to another; it is a derived demand, meaning that it is a consequence of demand for other goods, rather than one required for its own sake. However, this study examines the ‘system’ of freight in the UK. By doing so, the scope has looked beyond the transport of goods to include how it interacts with a broader set of processes relating to supply chains and logistics, including coordination, management and storage.

Freight is an international business with supply chains spanning the globe. It is a complex network serving a range of markets simultaneously, with ships and planes often loading and unloading at multiple destinations during their journey to maximise the efficiency of the vessels and aircraft.

The UK’s coastal ports are the principal gateway to our economy, handling 95 per cent of the country’s imports and exports by weight in 2017 and the vast majority of the UK’s international road freight. The weight of freight handled by UK ports peaked in 2005 at 585 million tonnes before declining to 481 million tonnes in 2017,<sup>8</sup> due mainly to the reduction in the movements of fossil fuels, particularly North Sea oil and gas exports.

**Figure 1: UK major port freight, by cargo type (2017)<sup>9</sup>**

Air freight transports less than one per cent of UK trade by tonnage but represents approximately 40 per cent of UK trade by value with non-EU countries.<sup>10</sup> Almost 70 per cent of air freight by weight travels in the ‘belly holds’ of passenger jets, rather than in dedicated freight aircraft.<sup>11</sup> This means that freight movements tend to be concentrated at the airports with the greatest number of long haul passenger flights. As such, Heathrow is the UK’s hub for air freight movement, with around 86 per cent of UK belly hold air freight passing through it, which accounts for 65 per cent of all air freight in the UK.<sup>12 13</sup> East Midlands and Stansted Airports are the UK’s hubs for dedicated freight aircraft.

Although there is international rail freight travelling between the UK and continental Europe (with around 4.5 per cent of international goods by weight flowing through the Channel Tunnel, in HGVs and containers),<sup>14</sup> it is currently a small flow overall.

## Tackling international problems

Both air and sea freight emit greenhouse gases (GHG) in significant quantities. In 2011 shipping produced around three per cent of global CO<sub>2</sub> emissions and 2.1 per cent of UK GHG emissions, and aviation’s emissions were over two per cent of global GHG emissions and 5.9 per cent of UK GHG emissions.<sup>15 16</sup> It is clear that emissions must be reduced from these sources. However, the vast majority of emissions from air and sea relate to international voyages.

It is difficult to understand the precise environmental impacts of freight. For aviation, this is because so much freight is carried in the belly holds of passenger aircraft

and it is difficult to apportion the emissions between passenger travel and freight transport.<sup>17</sup> For ships, the relative impacts of emissions on the UK from shipping is greater than across other areas of Europe because of the UK's proximity to major shipping lanes.<sup>18</sup>

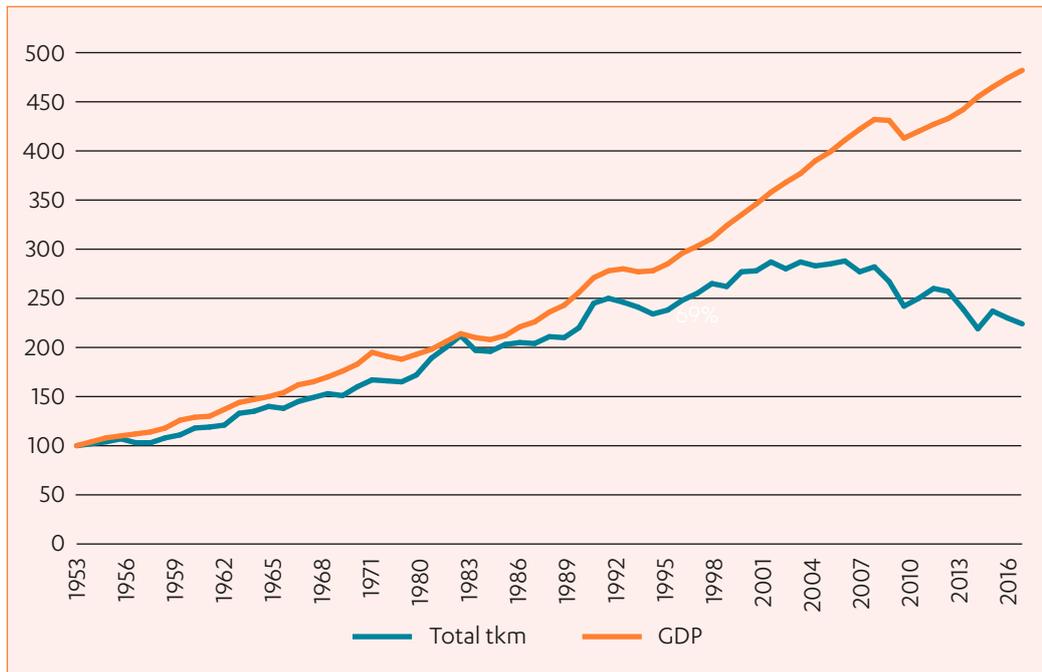
Although this study recognises the importance of these modes to the UK's freight system and the negative by-products they produce, unilateral action from the UK is unlikely to be as effective as work through multilateral forums such as the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO), where agreements such as halving shipping emissions by 2050, and the Carbon Offsetting and Reduction Scheme for International Aviation, have already been achieved. The Commission's focus is therefore on domestic modes of freight transport, where the UK government has ultimate competence and responsibility.

## Domestic freight

In 2016, an estimated 1,472 million tonnes of goods were moved by road and rail freight in the UK.<sup>19</sup> The UK's freight and logistics sector comprises around 195,000 enterprises, employing 2.5 million people and contributing £121 billion gross value added (GVA) to the economy.<sup>20</sup>

The quantity of freight transported in the UK has increased over time, with distance travelled increasing more quickly than the volume of goods transported. Since the mid 1990s, the growth in total tonne kilometres\* has been at a lower rate than Gross Domestic Product (GDP), showing a decoupling of UK GDP and the intensity of freight activity.<sup>21</sup>

\* Tonne kilometres, abbreviated as tkm, is a measure of freight transport which represents the transport of one tonne of goods (including packaging and tare weights of intermodal transport units) by a given transport mode (road, rail, air, sea, inland waterways, pipeline etc.) over a distance of one kilometre. It is calculated by multiplying the weight of goods carried by the distance carried.

Figure 2: UK GDP and tonne kilometres, 1953–2015 (indexed, 1953=100)<sup>22</sup>

The majority of freight within the UK is moved by road, equating to more than three quarters of goods moved. In 2017 HGVs moved 147 billion tonne kilometres of goods.<sup>23</sup> HGVs only constitute five per cent of the total vehicle mileage in Great Britain but they contributed 16 per cent of the UK's greenhouse gas emissions from transport in 2014.<sup>24</sup> LGVs have been the fastest growing source of road transport demand in percentage terms, with van kilometres rising by 67 per cent in the past 20 years (car and HGV kilometres have increased by 12 per cent and two per cent respectively).<sup>25</sup> LGVs travel 15 per cent of total vehicle miles and emit 16 per cent of transport greenhouse gas emissions.

Long haul distribution§ only involves around 18 per cent of all HGVs, but accounts for most road freight mileage and contributes between 44 and 46 per cent of HGV greenhouse gas emissions. Regional distribution¶ involves 29 per cent of HGVs, contributing between 24 and 45 per cent of HGV greenhouse gas emissions.<sup>26</sup> These tasks tend to use the largest vehicles and it is therefore unsurprising that they are the largest emitters.\*\* However, their disproportionate contribution to emissions (considering HGVs only make up five per cent of total GB vehicle miles) also means that there could be a substantial opportunity to decarbonise and reduce the harmful impacts of these activities.

Urban freight, sometimes referred to as the last mile of freight, is the most labour intensive and least efficient part of the supply chain.<sup>27 28</sup> Almost all urban freight travels by road, mostly (but not exclusively) in HGVs and LGVs.<sup>29</sup> Only around six per

§ Long haul: Delivery to national and international sites (mainly highway operation and a small share of regional roads).

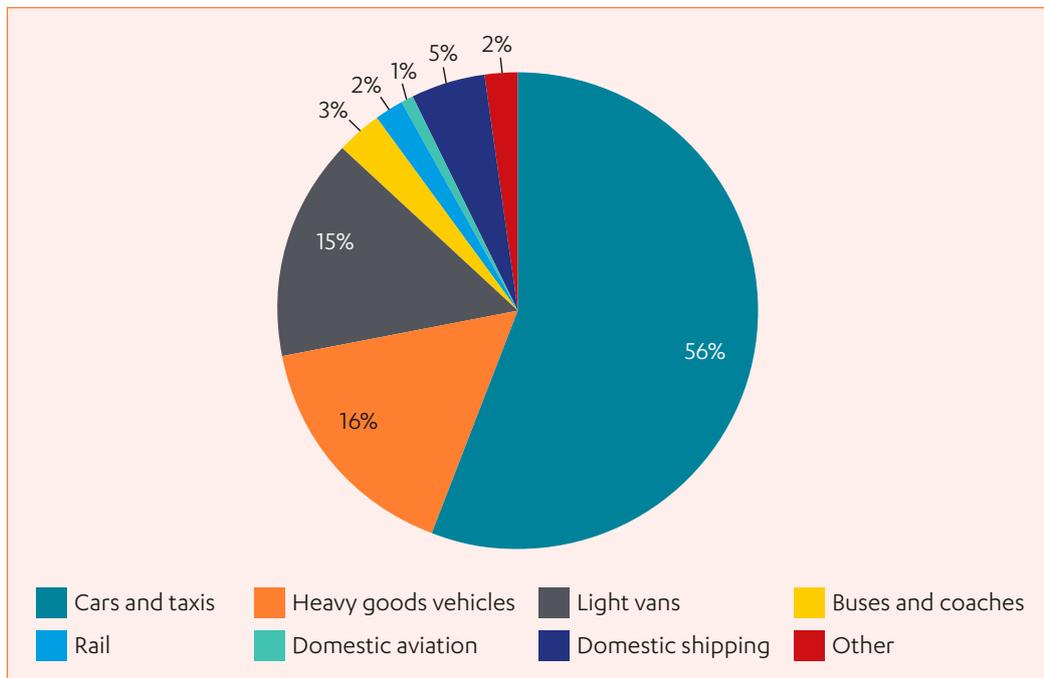
¶ Regional: Delivery of consumer goods from a central warehouse to local stores (inner-city, suburban, regional and also rural and mountainous roads).

\*\* The remaining 53 per cent of HGVs are involved in construction (22 per cent of HGVs, 15-16 per cent of HGV emissions), urban delivery (21 per cent of HGVs, 10-12 per cent of HGV emissions) and municipal utility activities (10 per cent of HGVs, four per cent of HGV emissions).

cent of total freight kilometres in 2016 were for urban distribution, however this is where around 30 per cent of logistics costs are incurred and where levels of CO<sub>2</sub> per tonne moved are highest.<sup>30 31</sup> Given the concentrated harmful effects, high cost and inefficiency of urban freight relative to the rest of the supply chain, it is an area where emerging technologies could deliver significant change over the coming decades.

Rail freight moves nine per cent of goods in the UK, with 17.2 billion net tonne kilometres of freight moved on the railways in 2016.<sup>32</sup> Since 2013/14 rail freight volumes and revenues have been affected by the sharp and rapid fall in demand for the haulage of coal for electricity generation, making these the lowest volumes since the late 1990s. However, rail is inherently more energy efficient. Per tonne kilometre, rail emits only about a quarter of the CO<sub>2</sub> than that of road freight.

**Figure 3: Domestic UK transport greenhouse gas emissions by transport mode (2016)<sup>33</sup>**



In addition to greenhouse gas emissions, freight traffic also contributes to poor air quality, which is particularly concentrated in urban areas. 13 per cent of nitrogen oxide (NO<sub>x</sub>) pollution from road transport sources came from HGVs and 32 per cent from LGVs. In 2016, HGV and LGV tailpipe emissions together accounted for 11 per cent of PM<sub>10</sub> and 17 per cent of PM<sub>2.5</sub> pollution from road transport.<sup>34</sup>

Emissions from road freight – greenhouse gases, NO<sub>x</sub>, and particulates – are all expected to fall over the next five to six years mainly because of improvements in engine technology such as EURO VI compliant engines and better fuel efficiency.<sup>35</sup> The Government’s Road to Zero strategy outlines a number of schemes that aim to further reduce road freight emissions – such as a voluntary 15 per cent reduction of greenhouse gas emissions by 2025, research projects with Highways England assessing the opportunities for zero emissions technologies for HGVs, and potential reform to Vehicle Excise Duty (VED) to encourage uptake of the cleanest vans.<sup>36</sup>

According to the Committee on Climate Change's assessment, further policy action is needed to meet the 4th and 5th carbon budgets (2023-2032). Although sector specific targets have not been included, it is clear that there remains a policy gap on achieving emissions reductions on freight.<sup>37</sup> To date, firm targets or plans that achieve either these budgets or zero emissions from freight do not exist. Voluntary targets provide limited impetus for change and no long term clarity. Reducing operating costs of electric vans does not tackle issues of capital costs such as installation of charging systems at depots. Whilst there is government ambition to reduce carbon emissions from rail, the pathway to a zero emission future remains unclear. Without determined and ambitious action from government, change will be slow.

Whilst there is unlikely to be a single approach to reducing the environmental impacts of the freight system as a whole, it is almost certain that technology will be a significant aspect of the solution. In certain areas there is greater clarity and certainty over decarbonisation. The transition to electric power has already started for LGVs, with some firms proving that it is possible to solely use electric vans. By contrast, the options for decarbonising heavier vehicles remain much more open – electrification and hydrogen are both potentially viable solutions. Different measures will be more applicable to specific sectors, locations and components of the freight system.

The Commission will make specific recommendations on how technology and alternative fuels can be harnessed to reduce the environmental impacts of domestic freight transport in the study's final report in spring 2019.

## Congestion

Freight transport both contributes to congestion and is a victim of it. Congestion tends to occur at pinch points on road and rail networks, particularly where long distance traffic meets local traffic and around major interchanges such as ports and airports. Freight is a significant component of road traffic generally and its contribution is magnified by slower speeds, longer braking distances and involvement in a disproportionate percentage of incidents.<sup>38</sup>

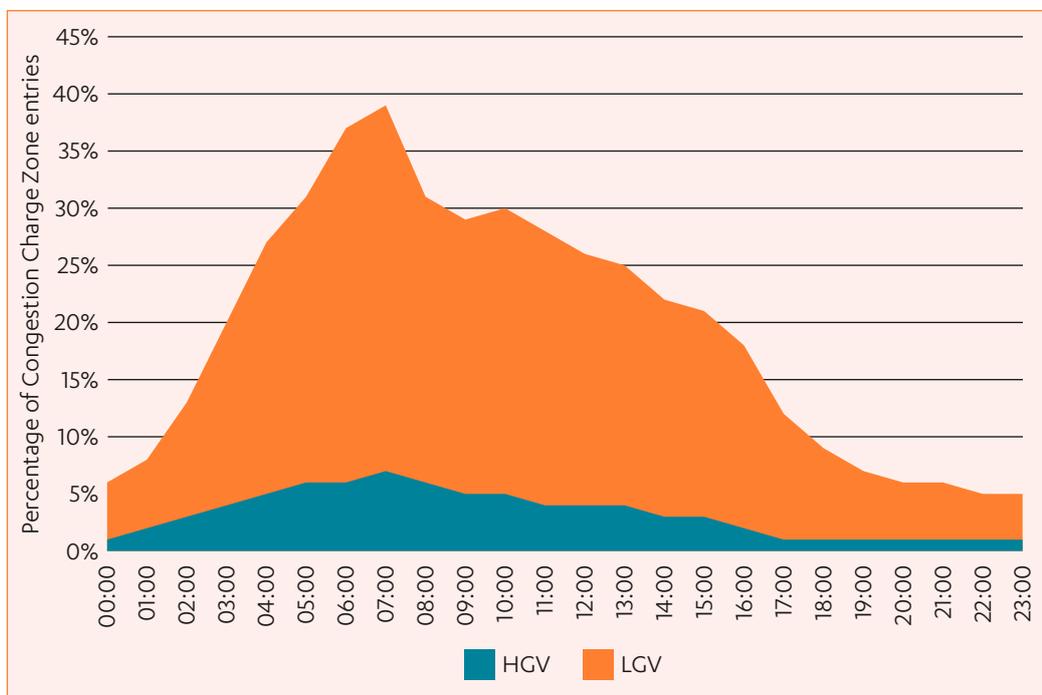
Freight congestion cannot be considered in isolation from general congestion and the wider demand for road and rail space. Freight's specific contribution to road congestion is complex. HGVs are disproportionately concentrated on the Strategic Road Network (SRN). Only five per cent of all vehicle miles were completed by HGVs in Great Britain in 2017, but this percentage increases to 11 per cent of mileage on motorways and nine per cent of mileage on urban and rural A roads.<sup>39</sup> Once translated into road capacity, HGVs occupy space equivalent to 2.5 Passenger Car Units (PCUs). Using this measure, HGVs account for 12 per cent of traffic across all roads in Great Britain, 25 per cent of traffic on motorways, and 19 per cent of traffic on urban and rural highways.<sup>††40</sup> There is limited evidence to suggest that HGVs are a significant contributor to congestion and, given the ratio of cars to HGVs on the

<sup>††</sup> This uses 2017 road traffic estimates and multiplies them by 2.5 to convert them to Passenger Car Unit (PCU) equivalents, as is done for the purposes of traffic modelling.

UK's roads, it is likely that congestion caused by the insufficient capacity of a route is at least as much, if not more so, due to the volume of cars as HGVs.<sup>41</sup>

By contrast, HGVs are a small component of urban traffic, making up only two per cent of vehicle miles, or four per cent of traffic (again, as measured by counting each HGV as 2.5 cars), on urban roads. However, HGVs, and in many cases LGVs, have a disproportionate effect on urban congestion, particularly where they are stationary (when loading or unloading) and because of the difficulty manoeuvring them in constrained areas.<sup>42</sup> Data from London suggests that freight vehicles (HGVs and LGVs) are particularly active at peak times – the Greater London Authority states that a third of central London's traffic in the morning peak is HGVs and LGVs (though it is recognised that a significant proportion of LGVs could be for other purposes).<sup>43</sup>

**Figure 4: HGVs and LGVs as a proportion of all vehicles entering the central London Congestion Charging Zone on weekdays (2016)<sup>44</sup>**



The impacts of congestion on freight itself are hard to quantify, because there are many different factors which affect how much a delay 'costs', including the type of load carried, whether the load enables another part of a supply chain or not (a delay of a delivery of car parts could mean stopping an assembly line, for example), and the time at which the customer needs the goods. The way that congestion costs are quantified on freight for transport appraisal are based only on the hourly cost of a driver plus the vehicle, amounting to little more than £20 per hour, whereas the Freight Transport Association estimates it costs operators £1 per minute to operate an HGV.<sup>45</sup> <sup>46</sup> Neither of these figures capture the potential costs of the delay to the goods being transported, particularly in the context of supply chains (in both production and consumption) which have become increasingly dependent on just in time deliveries. Jaguar Land Rover recently stated it costs £1.25 million for every hour that production is halted.<sup>47</sup>

Rail congestion is different to road congestion because the railway is a timetabled network. The timetable is strictly controlled and the number of trains operated on the network is kept within the level which can be safely handled by the network. Rail congestion is often better considered as an issue of rail capacity, which itself is determined by a range of factors, including the number of tracks, signalling, train characteristics, loading gauge and the layout of junctions and terminals, as well as decisions on the allocation of rail paths for freight.<sup>48</sup>

Congestion is a broader societal problem, and tackling freight congestion will not solve the overall problem of congestion. However, freight, in some circumstances, contributes disproportionately to congestion, and action to manage its impacts through better planning and innovative last mile delivery techniques in urban centres could be an important step in managing congestion.

The Commission will make specific recommendations on managing the impacts of congestion, looking at the effectiveness of congestion management methods and alternative approaches to delivery, in the final report.

## 2 Regulatory certainty to drive change

---

**The regulatory environment is a driving factor in shaping the choices that freight operators make, and helps ensure change on issues such as safety and emissions. Timely clarity over the rules to come, providing space for technological innovation, and consistency across boundaries can help ensure positive and proactive change from within the freight industry, providing long term solutions that manage freight's harmful by-products with minimal consequential impacts on its efficient operation.**

The regulatory environment refers to the rules that freight operators must adhere to as part of their business and is therefore one of the primary factors that affects the way in which their business can operate. How a fleet of lorries runs, the routes that drivers can take, the times of day different operations can take place and the weight of a vehicle are all subject to regulation. Done well, regulation acts as an important protection for both those within the industry (such as train and lorry drivers), other road and rail users, and the wider population. Done poorly or without enough consideration of the wider impacts on freight operators' ability to adapt to meet new rules, regulation can have a stalling effect on change, and create new or worsen other issues – such as higher congestion from more vans due to HGV restrictions.

### The regulatory landscape

Regulation for freight in the UK comes in several different forms, each with separate authorities implementing them, varying practices across areas, and different penalties for non-compliance. It is a complicated system not only due to the variety of parties involved in delivering and enforcing it, but because of the scale of what it seeks to control. Regulation is a mechanism used to manage market failures, which include controlling harmful by-products such as carbon, congestion and noise levels, but also ensuring safety, controlling access to streetscape and other infrastructure, across all modes of transport and areas such as land use.

At the national level, government, along with the Office of Rail and Road, Civil Aviation Authority, and the International Maritime Organization provide the regulatory framework and rules governing the transport network, which includes both rules specific to freight and rules that indirectly affect freight. For HGVs, for example, EU and domestic rules include those on maximum driving hours, the use of a tachograph to record all driving hours, vehicle height, weight and length limits, and restrictions on the type of loads that can be carried.

At a sub national and local level, bodies such as Combined Authorities and local authorities can set regulations that apply specifically to their local areas in relation to things like air quality, loading and parking restrictions, and times of operation of freight facilities. Each authority can set its own rules according to its local situation and requirements in accordance with allowance under law and devolution agreements.

## Regulation to encourage innovation

The technological advancements affecting freight are happening in a variety of areas with a wide range of vehicle technologies, warehouse automation, and port automation trials underway or beginning to be adopted. The regulatory framework and rules must adapt to accommodate and, ideally, encourage such advancements. The Commission's own Roads for the Future competition sought to instigate thinking on how roads should adapt to the challenge of Connected and Autonomous Vehicles (CAVs).

Some progress is being made, such as the change to allow standard category B licence\*\* holders to drive electric vans up to 4.25 tonnes (to accommodate the battery weight) and the controlled highway trials of lorry platooning, which start next year. Although all such initiatives are positive, tackling regulation through a piecemeal approach as technologies emerge may mean regulation is continuously playing catch up.

Beyond planning for changes in existing forms of transport, the range of innovative delivery methods being considered and trialled for both urban and rural deliveries introduces alternative forms of transporting goods that at present have little to no regulation. Delivery drones and droids (aerial and ground based), e-cargo bikes, and more basic approaches such as human portering will all have impacts on the freight industry, infrastructure, and society. They will create new challenges such as pavement use rights, noise levels, and new safety requirements to ensure operations protect both operators and the public – all of which will require some form of common control and standards. It is important to consider the regulatory requirements of new approaches as they are starting to emerge, when there is a genuine opportunity to ensure good working practices and the minimisation of harmful by-products from the start.

*“One of the key outcomes looking out to 2050 is an efficient regulatory framework which ensures that logistics policy issues are considered holistically across regulatory bodies, modes and geographies to ensure maximum efficiency.”*

**FTA response to NIC Call for Evidence**

\*\* A category B licence allows individuals to operate vehicles up to 3.5 tonnes maximum gross weight.

If the UK is to decarbonise freight there may be a case for a more streamlined approach to foster new technology trials at a faster pace. As part of the research into alternative urban delivery methods and alternative fuels for freight, the Commission will consider how regulation can adapt to encourage the advancement of new technologies, including through the use of mechanisms like the Ofgem regulatory sandbox.

## The effect of uncertainty on freight

Through conversations with industry, the Commission has heard that regulatory uncertainty acts as a brake on the industry's pace of change – most often this uncertainty relates to the type of vehicle and/or fuel to use. Uncertainty in any industry will affect investment decisions and potentially slow progress until clarity is provided. However, this is particularly true within the freight sector where vehicle investment can represent a very significant proportion of turnover, particularly for smaller operators.

Uncertainty and change within any complex system is somewhat expected as the environment around it changes. Currently, there is significant uncertainty on freight regulation, particularly around the introduction of Clean Air Zones in the cities of Birmingham, Derby, Leeds, Nottingham and Southampton, where the High Court has mandated action as soon as possible to tackle the air pollution in those cities. Whilst it is not disputed that it is right to improve the air quality and protect the health of the populations in the affected areas, the timeframes for the implementation of the Clean Air Zones (five years in total, from announcement to implementation, with the Clean Air Zone plans to be developed and consulted on, and signed off by government within that period) create significant challenges for both the areas designing schemes and the freight industry that will be strongly affected by them. The government's analysis calculated that the cost of compliance with Clean Air Zones would be £1 billion of fleet adjustment costs, of which £455m would fall on businesses.<sup>49</sup>

The lack of clarity on standards and the speed that the freight industry would be required to change – in some cases there will be less than two years between the announcement of the Clean Air Zone standards and implementation of the Zone – has created uncertainty over what solution the industry could adopt. With no retrofit technology available to upgrade older vehicles to EURO VI standards, hauliers have the choice of buying new vehicles, paying a daily charge to enter the zones, or transferring goods to smaller vehicles which may be exempt from the schemes. With new compliant lorry tractor units generally costing more than their equivalent EURO V counterparts, and a four per cent profit margin reported by the top 100 haulage firms,<sup>50</sup> selling vehicles and being able to afford a new one may not be a viable option for many. The potential outcome could be delays to meaningful improvements in air quality for residents.

Better planning at an earlier stage could have helped reduce or even eliminate the uncertainty around Clean Air Zones and ensure higher levels of compliance from day one. The government is now beginning to outline longer term plans and

strategies across key sectors, such as through the Road to Zero publication, the upcoming Maritime 2050 strategy, and the recently published aviation strategy. However, if such strategies are to be effective they must outline firm objectives and clear targets. This in turn would help to encourage the freight industry, vehicle manufacturers, and other key players in the system to begin planning and innovating, in preparation to meet the changes required.

The freight study final report will look at how and where long term planning can help support aims such as a low or no carbon freight system, and the level of clarity and commitment required from government to help deliver faster change.

## Harmonisation and coordination

Sub national level, county, city, and local authorities set rules of operation and restrictions on freight to help manage its impacts and serve the community. Each area has their own specific issues to manage based on their economic activity, geography, population and infrastructure quality. Whilst this in itself is not an issue, the disparity and variety of rules and restrictions between different areas of all scales can mean freight operators make inefficient choices. As mentioned previously, the planned introduction of Clean Air Zones in certain cities (largely being done in isolation) means that freight operators may not be able to take the most efficient route for deliveries to ensure compliance with different zone rules. There is some positive acknowledgement of the need to harmonise from the West Midlands and Greater Manchester Combined Authorities, who are liaising over the design of their Clean Air Zones and how these can work in a complementary fashion. However, the majority of road haulage stakeholders engaged by the Commission state the lack of clarity around the operation of different zones and the speed of introduction is currently the key uncertainty affecting the haulage industry.

Although the issues covered relate to local decisions there may be a role for a stronger Clean Air Zone framework and other guidance going forward, to help ensure a consistent approach across boundaries. The Commission will consider the options for strengthening and expanding guidance as part of its final report.

# 3 The forgotten element of spatial planning

---

**An absolute focus on increasing the supply of homes comes at the expense of a sustainable balance of land uses and supporting infrastructure. Gaps in planning policy and guidance give planners little understanding of why and how to plan for freight, leaving the needs of the freight system far down the priority list. Over time, a lack of holistic, freight-aware decisions will erode the capacity of the freight system to deliver the goods that communities and businesses want and need in the most sustainable way possible.**

The current approach to planning can mean that freight is forgotten in plans for new developments and, even where it is considered, it is not a holistic assessment. Often plans for new developments only reflect consideration of the final delivery of goods, neglecting the fact that this is the result of the successful functioning of a whole supply chain, finely tuned and optimised, often spanning borough, county, and even national boundaries.<sup>51</sup>

The failure to consider the whole supply chain in the planning system leads to insufficient capacity for the efficient handling of goods at different stages in their journey from point of production to consumption. These issues combine to create unsuitable conditions for good freight planning. Better planning for freight will allow the freight system to have access to the capacity it needs to allow the most sustainable and efficient decisions to be made, reducing the risk of an irreversible slide towards an inefficient system.

## A lack of freight know-how in planning and policy

The freight system does not feature prominently in the public consciousness. What is seen by the public of the freight system's activities appears to function well, in that supermarkets get stocked day-after-day and items bought online arrive quickly and safely.

The public perception has undoubtedly influenced the level of knowledge about freight within the public sector, its associated policy areas, and the priority it is afforded.

An example of the lack of understanding of freight in planning and policy making is the failure of the planning system to consider supply chains in their entirety. The freight system is considered only at the point at which goods are delivered, rather than as a supply chain, with multiple stopping off points on the journey from production to consumption.

Focusing on the point of delivery rather than the supply chain can lead to freight being considered and planned for as a nuisance, with planners keen to introduce measures to mitigate the impact of deliveries, instead of taking a more balanced and enabling approach, recognising constraints further up or down a supply chain. The failure of the planning system to anticipate and plan for the logistics requirements associated with new housing developments means planners make provision for the final delivery of goods to new households through the stipulation of concierge services or parcel lockers, but they do not and are not required to understand the relationship between housing and logistics space requirements in the supply chain.

Properly balanced decisions require planners to have a full and nuanced appreciation of the issues, but the space devoted to freight and logistics in planning policy does not allow the issues to be covered in any detail. Planners have access to a wealth of instruction and guidance about housing, little on employment and almost nothing on the specific needs of freight. This inevitably makes it difficult to reflect both the need for freight and the needs of the freight system in plans and decisions, and to properly recognise its enabling role in new developments. This hole in the policy framework needs to be fixed so that planners can give freight the support it needs in order to be recognised as an essential, enabling part of any functioning community. What a better framework should look like will be explored by the Commission in the coming months, ahead of the final report.

## Local planning vs global supply chains

The point of production and consumption of goods rarely fall within the same planning geography. Goods need to be moved across national, regional and county borders in their journey from origin to destination, and are often stored and processed along the way.

The current planning system encourages local planning authorities to only plan for the parts of the freight system that they 'see' within their area, eg a port, clusters of warehouses or a high street, with a need for loading bays. Current planning policy encourages neighbouring local planning authorities to agree and cooperate on 'strategic policies'<sup>52</sup> and cross border issues, which can include housing, transport infrastructure and water supply, but there is limited precedent for freight

*"...supply chains that end in cities originate in other areas. Almost all [supply chains] are regional, most are national and many are global. There is a continuum from point of production (in the UK or abroad) to the point of consumption in UK cities..."*

**Gazeley response to NIC Call for Evidence**

being considered as a strategic issue in this context, and therefore limited evidence of locally led efforts to work together and join up their respective planning geographies in response to freight issues and opportunities.

The implication of failing to plan for freight at the right spatial scale is that actors in the freight system find it more and more difficult to locate the land for the capacity the system needs in the locations which allow it to function most efficiently.

The Commission will explore alternative options for planning at the right scale for freight in its next phase of work.

## A shortage of space for warehouses and distribution

Sufficient storage and distribution capacity is needed for the freight system to work efficiently. There is evidence to show that there is an increasingly limited supply of land for storage and distribution operations in key markets, particularly the land required for last mile logistics in London. A recent report for the Greater London Authority (GLA) stated that there is a rapidly dwindling supply of warehousing space in London, and that the present vacancy rate is four per cent,<sup>53</sup> “by far the lowest rate of any region of the country.”<sup>54</sup>

Last mile logistics providers, such as parcel carriers or retailers and producers, need to be able to serve customers in urban areas quickly, often within short delivery windows. Providers therefore need space for final distribution operations in areas where their drive time to the end destination is minimal. In some places the periphery of the urban area will do, but in London, and other large and densely developed towns and cities, a short drive time to customers means a need for space inside the urban area.

Demand for such space has increased at the same time as the supply has been actively reduced. A recent upsurge in demand for last mile logistics space in London (triggered by population growth, increasing e-commerce activity, and demand for faster delivery times and shorter delivery windows) has coincided with a period of the release of industrial land for non-industrial land uses – most often housing. This was facilitated by a succession of pro-release policies in London planning policy.

The limited supply of affordable, suitable premises in central locations means that logistics providers need to look further afield for the right solution. Some commentators have referred to this trend as ‘logistics sprawl’<sup>55 56</sup> – logistics providers can no longer find affordable premises in central London and so ‘sprawl’ further and further from the centre, and then out of the city altogether. This increases a providers’ stem mileage (the distance from the distribution point to the first delivery address) – wasting a larger proportion of the journey distance, with knock-on effects for emissions, congestion, and operational efficiency.

While London is set to change its policy on industrial land in the new London Plan (expected to be adopted in autumn 2019) from one of managed release to a

policy of retention and limited release by exception,<sup>57</sup> some contributors to the Commission's research have noted they are concerned that assessments of need for industrial space are less robust in other areas of the UK, raising the possibility that an undersupply issue could take hold elsewhere. It is partly the strength of London's evidence base on supply and demand for industrial space which has allowed such a complete change in policy direction to take place, before the situation becomes critical.

Without a complete and up to date understanding of the demand for and supply of the space needed by the freight system to allow fast and efficient distribution to towns and cities, there is a risk that supply shortages occur in places outside of London, resulting in freight facilities being located further from customers, with less and less efficient journey patterns.

How local planning authorities develop and maintain a more robust evidence base on demand and supply for logistics land – and the steps that should be taken to maintain a suitable supply and correct an emerging undersupply issue – will be explored by the Commission in its next phase of work.

## **Wharves and depots for freight use are under threat**

Current government policy is to promote the use of rail or water for freight transport as a method to reduce the environmental and congestion impacts of road freight – providing modal shift revenue support to encourage this activity in relation to container traffic. Local planning authorities can formally protect freight sites such as wharves and railheads, and Network Rail maintains specific protections for railway land for future freight use.

The most pressing issue concerning the safeguarding of freight handling sites is that of the erosion of informal 'buffer' zones between wharves and/or rail depots and noise sensitive uses (ie housing). Under pressure to deliver significant numbers of new homes and ambitious regeneration projects, local planning authorities are granting planning consent for housing and other uses adjacent to wharves and/or rail depots, leaving the wharf or rail depot operator open to nuisance complaints from new occupants – as has been the case in one example in London which the Commission have been made aware of,

*"If potential developments are allowed on or adjacent to [wharves and depots] the industry's ability to make full use of rail and water transport will be compromised."*

**Mineral Products Association (MPA) response to the NIC Call for Evidence**

where complaints from residents of a new adjacent development have resulted in the curtailment of aggregates facilities operations.

Without robust protections for existing operators, reinforced by effective mitigation measures to protect new residents from the realities of an operational wharf or rail depot (eg noise, dust and vibrations), operators will continue to be the subject of nuisance complaints and ultimately could have their operations limited, or stop future new facilities in areas where they are needed. The 'agent of change' principle outlined in the new National Planning Policy Framework (NPPF) and draft New London Plan (which places the onus for mitigating the impact of a change of land use on the instigator of that change) should make developer-led mitigation measures standard. However, concerns remain over the enforcement of the principle by time-poor local planning authorities.

In land-constrained areas housing and industrial land will continue to compete. Multi-purpose land use can be a way to maintain the quality of freight operations whilst meeting wider targets such as housing and employment.

The Commission will investigate the best way of balancing the need for housing with the need for wharf and rail depot capacity in its next phase of work.

## Providing inner city freight capacity alongside new housing: Chapelle International ‘Logistics Hotel’, Paris

The Chapelle International ‘Logistics Hotel’ is a new road and rail served freight terminal and logistics depot in the centre of Paris. The ‘hotel’ has four floors, with a cash and carry in the basement; the urban railway terminal, depot space and offices on the ground and first floors; and an urban farm and sports facilities on the roof.

Space for a logistics facility was designated as part of the masterplan for the site, in addition to land for residential units, a gym and sports facilities, office space and schools.



Image credit: Sogaris

The operators anticipate that there will be two freight trains per day arriving and unloading at the facility in the near future, from locations up to 200 kilometres from Paris. Containers will be unloaded from the train and loaded on to road vehicles for final delivery in the city. In addition, several hundreds of new residential units are being constructed on the adjacent land as part of the masterplan.

Chapelle International is a positive demonstration of proactive last mile logistics planning for the City of Paris, but importantly shows that when done sensitively and designed in from the outset, logistics, housing, offices and leisure can coexist in close proximity.

## 4 Data for informed decision making

---

**The limited amount of freight data available to policy makers at both national and local levels makes it difficult to develop plans and interventions that meet the needs of freight whilst managing its harmful by-products. Targeted action is needed to gather better data, ensure access to it, and to help deliver decisions that enable efficiency for all.**

The complexity of the freight system and the variety of factors that affect the decisions made by the freight industry means that predicting operator behaviour and reactions to change is difficult. Even a single consignment of goods can have numerous alternative pathways through the supply chain, and can be in regular flux as operators try and squeeze out further efficiencies, or as customer demands change. In most cases, infrastructure changes on the transport network will require an element of modelling to help determine the effectiveness of interventions. However, current transport and land use models and appraisal methods such as TRICS and WebTAG have very limited capability or information to enable proper assessment of freight impacts and behaviours. They therefore provide little help in developing new policies or physical interventions for freight.

Access to better data on how the freight system currently operates – which would help provide the information that modelling requires, identify issues and test changes – is key to enabling policy makers to effectively tackle problems such as peak time congestion in urban centres. Without it, piecemeal policies will lead to lost opportunities for faster change and further negative impacts.

## The Starfish project – efficiency enabled through data

Following a 2007 DEFRA study into reducing the external costs (accidents, noise, congestion, and emissions) of food haulage, the Efficient Consumer Response initiative (ECR UK) undertook work to further improve efficiencies and the benefits of data sharing and collaboration in the Fast Moving Consumer Goods (FMCG) market.

27 companies from across the FMCG sector provided information on their goods transport for two months of the year, equating to over one million vehicle kilometres and almost 127 million pallets of goods. The data provided helped to show opportunities for improvement – including backloading and consolidation – but also demonstrated that 7,500 tonnes of CO<sub>2</sub> can be saved each month by backloading, and five per cent of CO<sub>2</sub> savings through consolidation of part loads from nearby depots of these companies alone.

Providing haulage data has significant benefits for both hauliers and wider society. Although a relatively small sample study (when compared to total lorry miles), the Starfish project is an example of how data can help to design interventions to tackle the negative effects of freight.

## The current data situation

Compared to other similar countries in Europe, the UK is relatively on par in terms of its statistical analysis of freight transport. In addition to the mandatory data requirements of the European Commission the UK government does – in certain areas – collect more data to help understand specific modal markets.

Data on rail freight is amongst the most regularly collected freight information, with the Office of Rail and Road compiling quarterly updates on rail freight using DfT, Network Rail and freight operating company data to understand the freight lifted, moved, train delays, and market indicators – which all help show the status and future demand of the rail freight market. Equally, on roads, the DfT's Continuous Survey of Road Goods Transport (CSRGT) provides a range of information on HGVs (ie origins and destinations, load factors, cargo, etc) – creating a dataset of around one million trips. On international gateways, the volume of goods entering and leaving the country is relatively well recorded by both government and international organisations such as the OECD, which provides information on import/export rates, enables international comparison, and a picture of the global movement of goods.

Freight operators themselves are constantly collecting and compiling data on their journeys. Whether through the use of telematic devices, GPS, satnavs, or manual records such as manifests, most movements will be tracked and information used to understand things like route effectiveness, delays, vehicle and driver performance, and a range of other information that enables freight operators to identify efficiency

opportunities – something of a necessity in a market where profit margins of even the most successful hauliers equate to around four per cent.<sup>58</sup> However, this data is not shared.

The most obvious data gap relates to van traffic. Vans are the fastest growing segment of the road vehicle market (van vehicle miles increased by over 65 per cent between 2007 and 2017),<sup>59</sup> and more data is needed to understand where vans are being driven and what they are used for. However, data on vans is almost non-existent. The last reliable surveys were undertaken by DfT between 2003-2005 (providing around three years of data on company owned vans at the national level, using data from 13,000 driver records over three days), and the 2008 Van Activity Baseline Survey. Considering the rise in van miles since these surveys, this data will now be out of date.

## The need for new data

New or additional data is only of value to policy makers where it can provide new understanding or insight into an issue or potential policy impact. On this basis, more freight data across all areas of the industry and on every mode is not necessary. For example, with rail being an access controlled system and the data collection already at a good standard, there is little that further data could do to help deliver better policy.

More freight data must be focussed on helping policymakers better understand its impacts at the local and regional scale. Considering the average haul length of HGVs is 105km and fewer than one in five HGVs are involved in long haul activity, more information about HGV movements at the sub national scale is essential.<sup>60 61</sup>

Within urban areas, the significant growth in van miles is causing serious concern. In 2015, vans accounted for 16 per cent of road transport CO<sub>2</sub> emissions,<sup>62</sup> 30 per cent of NO<sub>x</sub> emissions,<sup>63</sup> and 10 per cent of airborne PM<sub>10</sub> particulates.<sup>64</sup> Between 1998 and 2008, 50 per cent of urban traffic increases were because of vans.<sup>65</sup> Although freight specific LGVs are thought to make up only 21 per cent of the total number of vans and 26 per cent of van miles,<sup>66</sup> the rise of e-commerce and demand for faster and more convenient freight may add to the issues.

## Tackling the data gaps

Obtaining route data for HGVs is not a new issue. Other than the CSRGT (for which completion is a legal requirement), success in getting significant volumes of any haulier data has always been limited. Outcomes have generally been on small geographical scales or with too small a sample to provide a reliable picture of freight movement. Numerous projects have the aim of seeking agreements from hauliers to share their data for the purposes of improving operational efficiency and enable better policy planning – but progress with such attempts has been slow. Despite clear potential benefit for hauliers, the offer of safeguards such as data anonymisation, and guarantees over IT security, fears over commercial

confidentiality and the highly competitive nature of the industry mean that HGV operators – large and small – remain reluctant to share any of their information.

The limited success of obtaining haulier collected data does not mean that further attempts for data sharing should be abandoned or dismissed. If even part of this mass of data could be accessed by government and local areas, it would deliver a significant databank that updates naturally with new information and with little additional burden in the way of additional data gathering for government or industry. However, if current attempts at voluntary data sharing continue to be a challenge, a mandatory approach may be required.

## Addressing the data void on vans

In recognition of the lack of information on LGVs, the DfT intend to undertake a new van survey in 2019. Local areas are also becoming aware of the issues that vans can create and contribute towards and are beginning to take some action. Transport for London and the City of London Corporation have recently undertaken studies within their areas to try and record van movements and van behaviours, with plans for further work including two years of primary research on goods movements within the Square Mile, and the introduction of questions on home deliveries into the London Travel Demand Survey.

Although specific urban schemes will help to provide some level of data on urban van movements, the individual nature of local areas – such as their layout, population, and location in the country – may mean that data in one local area is not a particularly useful guide for other areas. For example, due to London's shortage of logistics space, congestion levels, and population density, van behaviours in London will differ from those in cities such as Birmingham where land availability is less of an issue. Similarly, single programmes of national level surveys provide a useful static shot of the situation, but fail to give policy makers the all-important route information required to understand and address issues.

## Utilising technologies to capture movement data

All the survey data collected provides some insight into the freight market, changing trends in the demand for freight, and the industry's general approach. However, they fundamentally miss a key aspect that could truly help policy – routing data. Without this level of detail, it is difficult to truly understand how hauliers and van operators choose routes, react to incidents, or respond to changes in the regulatory environment such as road use restrictions or environmental rules.

Technologies such as intelligent ANPR (Automatic Number Plate Recognition) and mobile tracking already exist and have the capability to provide large volumes of data quickly and in a consistent format that can be analysed. Using these to gather data on vehicle movement patterns could help to produce the information needed to develop effective freight policies, and prove a more effective method of obtaining freight data than through paper surveys or voluntary data sharing.

How such a programme could work and be rolled out will be considered as part of the Commission's final report. Whatever the solution, the freight industry must do its part. Commercial confidentiality and personal information should be respected and kept private, but the industry must be willing to share data or cooperate with new measures if it is to expect policy makers to introduce changes that factor in the needs of freight.

## 5 Towards a coordinated approach

---

**Despite the overall efficiency of the freight system, its negative impacts are a challenge. Delivering a clean, efficient, competitive and affordable freight system will require action from government. This interim report has reviewed three of the principal levers that government can use to affect change in the freight system: regulation, planning and the data that underpins infrastructure decision making. Ensuring that these interventions are effective in delivering the right solutions will require government to adopt a more coordinated approach towards freight policy.**

The UK's freight system is almost wholly privately owned and operated but it depends on public infrastructure, has harmful by-products which affect all of us and is strongly shaped by government actions and policies. Government creates the physical and regulatory framework, through land use planning, regulation and infrastructure decision making, in which the freight industry attempts to develop the most competitive, efficient and profitable business possible.

The UK's freight and logistics system is one of the most efficient and effective in the world and will continue to be critical to the UK's economic prosperity and competitiveness.<sup>67</sup> Despite this, congestion, harmful emissions and difficulties finding appropriate land are continuing issues that create inefficiency or slow progress.<sup>68</sup> Addressing each of these will require a government response.

### Freight blindness

This report has demonstrated that both government and local authorities often have little understanding of why and how to plan for freight, leaving the needs of the freight system far down the priority list. This has resulted in policy makers or planners being unable to take account of, or plan effectively for, the needs of freight. Government's current approaches to policy making for freight are piecemeal, fragmented into individual modes and have struggled to proactively confront future challenges.

Notwithstanding a range of sector specific performance reporting, there has been no national view as to how the UK freight system is performing as a whole. It is difficult to draw firm conclusions from existing data collection and analysis and it has often been challenging to find empirical data to test or verify the hypotheses put forward by industry or observers. In part, this is due to the extensive and fragmented nature of the industry, but the Commission also believes that the paucity of data collection is symptomatic of the limited visibility of the freight sector within government and the limited priority given to it as a policy issue.

Currently, most policy relating to freight is the responsibility of Department for Transport. Its responsibilities range from setting policy and regulations, collecting statistics and administering modal shift grants. The recent Ports Connectivity Study, Freight Carbon Review and the ongoing Maritime 2050 programme, are all individually necessary and valuable pieces of work that begin to look forward and recognise the wider factors affecting freight. However, in the main they still each deal with individual components of a wider system and struggle to fully recognise the non-transport aspects of freight.

The freight system uses infrastructure, occupies land, interacts with planning and regulation, impacts the environment, ultimately responding to and meeting the demands of consumers and businesses. Being dominated by transport, the current approach demonstrably struggles to craft policy approaches capable of reflecting the reality of how the system actually functions.

A lack of freight-aware decisions risks perpetuating harmful by-products and compromising the efficiency of the UK's freight system. If it becomes less efficient, or its productivity is dampened, these could be manifest in lost export income, reduced employment, higher import prices and consumer impacts such as less efficient deliveries and a higher cost of goods.<sup>69</sup>

## A coordinated response

Creating the conditions in which the freight system is both incentivised and able to make environmentally efficient choices at the right pace will require a more coordinated government response within and between different tiers of government, and based on better data.

Better coordinated interventions would need to set a long term direction across all modes; address market failures; and target investment and innovation. Fulfilling these three roles would allow congestion management, the reduction of environmental impacts, infrastructure investment and enabling the uptake of new technologies to be brought into focus simultaneously, in coordination with land use planning and passenger transport.

Coordination would need to draw on the right expertise inside and outside of government. Across government, there are obvious interdependencies with the Ministry of Housing, Communities and Local Government (MHCLG) (illustrated earlier in this report) and the Department for Business, Energy and Industrial Strategy (BEIS), but also HM Revenue and Customs, Highways England, Network Rail and the Office for National Statistics (ONS). It should also seek to draw on expertise and knowledge from outside of the public sector, seeking active and structured involvement from industry and other relevant stakeholders.

The movement of freight is largely blind to administrative boundaries, but its impacts can often be very localised. The relationship between national and local tiers of government and regulation will need to be a critical consideration in designing a more coordinated response.

The case for, scope and benefits of government adopting a more coordinated approach to the UK's freight system will guide the next phase of the Commission's freight study.

## Next steps

The Commission will use this interim report to start a conversation with government, industry, local authorities and wider stakeholders about the scope of a more coordinated approach and how it could be delivered in practice. This engagement will also include conversations with the freight industry and government about the pathway to a lower carbon and managed congestion future, to ensure the Commission is fully aware of the impacts, issues, and effectiveness of change on both the operation of the industry and government's plans and policies. This engagement will be key in helping to inform the development of the Commission's final recommendations to government in spring 2019.

The Commission will use its final report to outline the actions needed by government to enable technological acceleration and introduce policies that will help reduce congestion and emissions and deliver a sustainable freight system that is fit for the future.

# End notes

- <sup>1</sup> World Bank (2018), Connecting to Compete 2018: Trade Logistics in the Global Economy, The Logistics Performance Index and its Indicators
- <sup>2</sup> MDS Transmodal (forthcoming) – supporting analysis prepared for the NIC
- <sup>3</sup> Department for Transport (2018), Air pollutant emissions by transport mode: United Kingdom: from 2000. (ENV0301)
- <sup>4</sup> WSP (forthcoming) – supporting analysis prepared for the NIC
- <sup>5</sup> Greater London Authority (2018), Mayor’s Transport Strategy
- <sup>6</sup> Department for Transport (2018), UK Port Freight Statistics: 2017
- <sup>7</sup> Department for Transport (2017), Road Use Statistics
- <sup>8</sup> Department for Transport (2018), UK Port Freight Statistics: 2017
- <sup>9</sup> Department for Transport (2018), Port and domestic waterborne freight statistics. Major port traffic by cargo type. Table PORT0201
- <sup>10</sup> Department for Transport analysis of 2017 HMRC Overseas Trade data
- <sup>11</sup> Department for Transport analysis of 2017 CAA Airport Data
- <sup>12</sup> Department for Transport analysis of 2017 CAA Airport Data
- <sup>13</sup> Steer for Airlines UK (2018), An assessment of the value of air freight services to the UK economy
- <sup>14</sup> Freight Transport Association (undated), Air Freight
- <sup>15</sup> Committee on Climate Change (2011), Review of UK shipping emissions
- <sup>16</sup> Committee on Climate Change (2015), Factsheet: Aviation
- <sup>17</sup> OECD (1997), Environmental Effects of Freight
- <sup>18</sup> Air Quality Expert Group (2017), Impacts of Shipping on UK Air Quality
- <sup>19</sup> Department for Transport (2018) Domestic Freight Transport by Mode (TSGB0401)
- <sup>20</sup> Freight Transport Association (2018), Logistics Report 2018
- <sup>21</sup> MDS Transmodal (forthcoming) – supporting analysis prepared for the NIC
- <sup>22</sup> Office for National Statistics (2018), Gross Domestic Product: chained volume measures: seasonally adjusted £m and Department for Transport (2018), Transport Statistics Great Britain
- <sup>23</sup> Department for Transport (2018), Transport Statistics Great Britain
- <sup>24</sup> Department for Transport (2017), Freight Carbon Review: Reducing greenhouse gas emissions from road freight
- <sup>25</sup> Department for Transport (2017), Road Traffic Estimates: Great Britain
- <sup>26</sup> Department for Transport (2017), Freight Carbon Review: Reducing greenhouse gas emissions from road freight
- <sup>27</sup> Ranieri, L., Digiesi, S., Silvestri, B., Roccotelli, M. (2018), A Review of Last Mile Logistics Innovations in an Externalities Cost Reduction Vision
- <sup>28</sup> Dolan, S. (2018), The challenges of last mile logistics & delivery technology solutions
- <sup>29</sup> Allen, J., Piecyk, M., Piotrowska (2016), An analysis of the next-day and economy parcels market and parcel carriers’ operations in the UK
- <sup>30</sup> Greening, P., Piecyk, M., Palmer, A. and Dadhich, P. (2018) Foresight Report: Decarbonising Road Freight (forthcoming)
- <sup>31</sup> Call for Evidence response – Thomas H Zunder, Principal Research Associate and Freight Research Manager at Newcastle University
- <sup>32</sup> Office of Rail and Road (2017), Rail Statistics Compendium
- <sup>33</sup> Department for Transport (2018), Greenhouse gas emissions by transport mode, United Kingdom: 2003 to 2016. (ENV0201)
- <sup>34</sup> Department for Transport (2018), Air pollutant emissions by transport mode: United Kingdom: from 2000. (ENV0301)
- <sup>35</sup> Department for Transport (2017), Freight carbon review
- <sup>36</sup> Department for Transport (2017), Road to Zero
- <sup>37</sup> Committee on Climate Change (2017), Meeting Carbon Budgets: Closing the policy gap
- <sup>38</sup> WSP (forthcoming) – supporting analysis prepared for the NIC
- <sup>39</sup> WSP (forthcoming) – supporting analysis prepared for the NIC
- <sup>40</sup> WSP (forthcoming) – supporting analysis prepared for the NIC
- <sup>41</sup> Department for Transport (2008), Delivering A Sustainable Transport System: The Logistics Perspective
- <sup>42</sup> Department for Transport (2008), Delivering A Sustainable Transport System: The Logistics Perspective
- <sup>43</sup> Greater London Authority (2018), Mayor’s Transport Strategy
- <sup>44</sup> Transport for London (2017), Travel in London Report 10
- <sup>45</sup> Department for Transport (2014), Values of Time and Vehicle Operating Costs TAG Unit 3.5.6
- <sup>46</sup> Call for Evidence response – Freight Transport Association
- <sup>47</sup> Jaguar Land Rover (2018), Jaguar Land Rover Media Release: Jaguar Land Rover Chief Executive Calls for Brexit Certainty to Avoid an Annual Bill of More Than £1 billion
- <sup>48</sup> WSP (forthcoming) – supporting analysis prepared for the NIC
- <sup>49</sup> Department for Environment Food and Rural Affairs (2015), Improving air quality in the UK: Tackling nitrogen dioxide in our towns and cities
- <sup>50</sup> Freight Transport Association (2018), Logistics Report 2018
- <sup>51</sup> Call for Evidence response – Chartered Institute of Logistics and Transport (CILT)
- <sup>52</sup> Ministry of Housing, Communities and Local Government (2018), National Planning Policy Framework
- <sup>53</sup> CAG consultants (2017), London Industrial Land Demand Final Report
- <sup>54</sup> CAG consultants (2017), London Industrial Land Demand Final Report
- <sup>55</sup> Call for Evidence response – FTC 2050 project (University of Southampton, University of Lancaster, University College London and University of Westminster)
- <sup>56</sup> Call for Evidence response – Thomas H Zunder, Principal Research Associate and Freight Research Manager at Newcastle University
- <sup>57</sup> Mayor of London (2018), Draft New London Plan showing minor suggested changes
- <sup>58</sup> Statista (2018), Reported profit margin percentage from top 100 road hauliers in the United Kingdom between 2008 and 2017
- <sup>59</sup> Department for Transport (2017), Road Traffic Estimates: Great Britain
- <sup>60</sup> Department for Transport (2018), Domestic Road Freight Statistics, United Kingdom 2017
- <sup>61</sup> Department for Transport (2017), Freight carbon review
- <sup>62</sup> Department for Transport (2017), Transport energy and environment statistics, Greenhouse gas emissions by transport mode, United Kingdom: 2003 to 2015. Table TSGB0306 (ENV0201)
- <sup>63</sup> Department for Transport (2017), Transport energy and environment statistics, Air pollutant emissions by transport mode, United Kingdom: from 2000. Table TSGB0308 (ENV0301)
- <sup>64</sup> Department for Transport (2017), Transport energy and environment statistics, Air pollutant emissions by transport mode, United Kingdom: from 2000. Table TSGB0308 (ENV0301)
- <sup>65</sup> Cabinet Office (2009), An analysis of urban transport
- <sup>66</sup> Department for Transport (2008), Van Baseline Survey
- <sup>67</sup> World Bank (2018), Connecting to Compete 2018: Trade Logistics in the Global Economy, The Logistics Performance Index and its Indicators
- <sup>68</sup> Vivid Economics (forthcoming) – supporting analysis prepared for the NIC
- <sup>69</sup> Department of Infrastructure, Regional Development and Cities (2018), Inquiry into National Freight and Supply Chain Priorities, Report, March 2018