



NORTHAMPTON
GATEWAY
STRATEGIC RAIL FREIGHT INTERCHANGE

MARKET ANALYSIS REPORT

DOCUMENT 6.8

The Northampton Gateway Rail Freight Interchange Order 201X

Regulation No: 5 (2) (q)

MARKET ANALYSIS REPORT | MAY 2018

GERALD EVE & OXALIS PLANNING

www.northampton-gateway.co.uk

Northampton Gateway SRFI Market Analysis Report

On behalf of Roxhill (Junction 15) Ltd



GERALDEVE



Contents

1. EXECUTIVE SUMMARY	3
2. INTRODUCTION.....	4
3. NATIONAL POLICY ON STRATEGIC RAIL FREIGHT INTERCHANGES	6
4. LOGISTICS SECTOR GROWTH	8
5. THE ROLE AND OPERATION OF RAIL IN THE LOGISTICS SECTOR	14
6. FORECASTS FOR RAIL FREIGHT GROWTH	19
7. THE ECONOMICS AND OPERATION OF RAIL FREIGHT IN THE LOGISTICS MARKET	24
8. MARKET REQUIREMENT FOR NORTHAMPTON GATEWAY SRFI	35
9. OTHER MARKET CONSIDERATIONS	38
10. CONCLUSIONS.....	40
APPENDIX A1: THE LOGISTICS PROPERTY MARKET	42
APPENDIX A2: POTENTIAL DEMAND FOR RAIL FREIGHT USE WITHIN THE NORTHAMPTON GATEWAY CATCHMENT AREA.....	56

1. EXECUTIVE SUMMARY

- 1.1. The UK Government has, in its National Policy Statement for National Networks, recognised that there is a 'compelling need' for the provision of new SRFIs in order to respond to the changing needs of the logistics sector, to meet and stimulate growth in the use of rail, respond to national environmental objectives and to help drive economic growth. Network Rail also supports significant rail freight growth and recognise the importance of the provision of new strategic rail freight interchanges. In their recent Route Strategic Plan they state that they will help to facilitate new terminals, including at Northampton.
- 1.2. The logistics property market has been exceptionally strong over recent years, due to the continued growth of the economy but also structural changes which have driven demand. In particular changes to logistics have resulted in larger units and a greater number of national distribution centres, and, alongside this, there have been changes resulting from the rapid growth of internet retailing.
- 1.3. The principle drivers of occupational choice for users of logistics space are focused on access to markets (connectivity to ensure access to population/businesses), and, access to labour (proximity to economically-active and appropriately skilled people to staff warehouse operations). Because of these key factors the Midlands is a focus of logistics activity and demand. The existing concentration of logistics activity in the Midlands is expected to continue. Northampton Gateway is in the southern part of this logistics 'heartland'.
- 1.4. There is an existing concentration of Strategic Rail Freight Interchanges in the Midlands which reflects the concentration of logistics activity in this area. This network will need to be reinforced and expanded if the growth in rail freight is to be achieved and demand met. A lack of SRFI's has undoubtedly constrained the growth of rail freight and, unless new SRFI's are provided in locations which address market requirement, logistics operations will continue to be developed but will be road-based.
- 1.5. There is a high level of NDC and RDC warehouse stock in the area around Northampton Gateway and research undertaken by Gerald Eve on the make-up of this existing stock indicates that there is likely to be a large pool of occupiers who could utilise the Northampton Gateway SRFI.
- 1.6. The Northampton Gateway site has the potential to expand the network of SRFI's in the Midlands. It will expand the existing network to the south to address demand; other SRFI's are under construction / proposed which will expand the network to the north east (East Midlands Gateway) and north west (West Midlands Interchange) of the region.

2. INTRODUCTION

2.1. This report provides support for the case for development of a strategic rail freight interchange at Northampton Gateway. It reviews relevant policy and historical trends, as well as the general market dynamics and demand in the logistics sector and specifically considers the demand for rail-freight interchanges and rail-served warehousing.

2.2. This report has been prepared by Gerald Eve and Oxalis Planning working alongside Roxhill and Segro and with input from Burbage Reality and Victa Railfreight. Gerald Eve is a leading adviser in the field of logistics property in the UK. Burbage Realty is a Northampton based property advisor with extensive knowledge of the logistics market in the Northampton area. Oxalis Planning are planning advisors with experience of SFRI's through their work on the East Midlands Gateway SRFI. Victa Railfreight is a leading independent advisor on the rail freight industry. Roxhill and Segro are market leaders in the promotion and delivery of strategic rail freight interchange schemes. In addition to drawing upon the experience of the above, specific work has been undertaken to inform this report. This includes:

- Examining relevant policy
- Analysing historic trends
- Understanding the pressure and opportunities in the logistics sector
- Reviewing rail freight forecasts
- Analysis of the logistics market in Northampton
- Research into the potential latent demands for rail freight in the Northampton area.

This report is therefore structured as follows:

- Executive Summary
- Introduction
- National Policy on Strategic Rail Freight Interchanges
- The Logistics Sector Growth
- The Role and Operation of Rail in the Logistics Sector
- Forecasts for Rail Freight Growth
- The Economics and Operation of Rail Freight in the Logistics Market
- Other Market considerations

2.3. It is important to note that there are issues in using historical data to forecast the demand for rail freight logistics, due to the fact that the supply of Strategic Rail Freight Interchanges has been limited. As a result, the use of rail has not, to date, generally been a feasible option. Indeed, in many locations it has not been an option at all.

2.4. The role that rail freight plays in the logistics market is changing. The DfT and Network Rail are both focusing on growing the intermodal freight market substantially over the next 20 years, while market awareness of, and demand for, rail-freight services is growing as a result of the

greater importance of sustainability issues and increasing cost pressures of road-based distribution (both direct costs, including fuel and road-transport labour, and indirect costs as a result of road congestion). Alongside this, demand in the logistics sector remains at high levels, driven in part by the structural changes taking place. Fundamentally therefore new Strategic Rail Freight Interchanges are essential if the market for rail freight is to be met so that the volume of freight transported by rail can grow in accordance with Government Policy. Unless new SRFI's are provided at locations to meet the needs of the logistics industry, occupiers will be forced to rely on the road based movement of goods. SRFI's are an essential component of the logistics property market, needed to meet the growth of, and changes in, the logistics sector.

3. NATIONAL POLICY ON STRATEGIC RAIL FREIGHT INTERCHANGES

3.1. Government Policy on Strategic Rail Freight Interchange (SRFI) is set out in the National Policy Statement for National Network (NPSNN). This replaced previous policy on SRFI's set out in the Strategic Rail Freight Interchange Policy Guidance 2011. The Government Policy on SRFI's is clearly informed by an understanding of the trends in the logistics market and the operation of rail freight. It is also informed by the Government's aspirations to achieve a modal shift in freight movement from road to rail to deliver reduced carbon emissions, reduce road congestion, improve road safety and achieve other environmental benefits.

3.2. The key aspects of the Government's position set out in the National Policy Statement for National Networks are that:

- It recognises the current and future potential growth in rail freight;
- It recognises that to help facilitate the growth of rail freight, rail freight interchanges are essential in order to transfer goods from road to rail and vice versa;
- On a national level it concludes that there is a compelling need for a network of SRFI's;
- It recognises that SRFI's must be well connected to both the national road and rail network, that they must relate to the market they serve and that there are likely to be a limited number of locations suitable for SRFI's;
- It expects the private sector to bring forward and deliver new SRFI's in response to market demand.

Department for Transport – Rail Freight Strategy, September 2016

3.3. The Department for Transport has also published a Rail Freight Strategy (September 2016). This sets out its view on the likely growth of rail freight in the future, the opportunities for enhancing modal shift from road to rail, and the policy interventions necessary to achieve this. This strategy includes forecasts of growth in rail freight. These differ from those set out in the NPSNN as they are based on current constraints. Both sets of forecasts are set out in section 6 of this report.

3.4. The DfT provides forecasts of changes in rail freight activity until 2030. It highlights that, even when constrained by network capacity, it expects intermodal (container) traffic to double in this period, however it emphasises that growth depends on new SRFIs: *"the key constraint to unlocking potential in this sector [is] availability / construction of suitable rail-connected terminal facilities including SRFIs."*¹

¹ Paragraph 60, Table 1, Page 21, Rail Freight Strategy, September 2016

Network Rail's Freight and National Passenger Operations Route Strategic Plan (FNPO Route Strategic Plan – 2018)

- 3.5. This RSP sets out Network Rail's five-year plan for Control period 6, from 1 April 2019 to 31 March 2024. The plan is centred on a range of objectives that support Network Rail's freight and national passenger customers' businesses. In the foreword to the document it confirms that *'In particular the plan sets out the first stage of a longer-term vision to facilitate significant rail freight growth over the next fifteen years.'*
- 3.6. The report highlights the significant continued growth in rail freight particularly in the intermodal and construction sectors. It explains though that growth has been less than previously predicted and that this is partly due to the fact that *'rail served warehouse construction has been less than expected'* (para 5.6).
- 3.7. The report finds at Section 5.8 that the rail freight strategies of the UK and Scottish Governments, supported by both Network Rail's traffic forecast for CP6 and wider sector opinion, *'suggests that there are:*
- Immediate opportunities for rail freight volume growth, particularly across the intermodal, construction and automotive sectors*
 - Longer term opportunities in emerging new markets such as retail logistics, express freight and urban logistics'*
- 3.8. In relation to new terminals the report explains at section 5.12 that terminals are critical to facilitating rail freight growth. They state that *'Network capacity and capability enhancements are ineffective if there is insufficient terminal capacity to accommodate the traffic they enable, such capacity being a function of both the number of terminals and their respective individual capability.'* They conclude that *'Additional inland terminal facilities are required and this need is primarily addressed by Strategic Rail Freight Interchange (SRFI) developments.'*
- 3.9. At Appendix b of the Report identifies the growth of domestic and deep sea intermodal as a key challenge / opportunity and outlines what Network Rail plans to do to meet these challenges. This includes to:
- 'Facilitate new terminal developments at Daventry, **Northampton**, West Midlands and Parkside.'* [bold is our emphasis]

4. LOGISTICS SECTOR GROWTH

- 4.1. Appendix 1 of this Report sets out a detailed analysis of the logistics sector. It considers the changing dynamics of the sector and how these changes affect the demand for warehousing, in terms of the scale of demand, the form and size of warehousing sought and locational requirements. This section provides a summary of the conclusion in Appendix 1, which help to provide an understanding of the market demand for logistics property in the Northampton area.
- 4.2. The types of operators of logistics facilities and operations can typically be classified as one of the following categories: manufacturers, suppliers or wholesalers, retailers and logistics providers ("3PLs" - third party logistics). Occupational demand is driven by several key factors affecting businesses and their property requirements including business activity growth or expansion, business activity decline and business reorganisation.
- 4.3. When one or more of the above factors propels a business to make choices regarding logistics property, the principle drivers of occupational choice for users of logistics space are focused on access to markets (major urban centres and key supply chain routes) and access to labour (an appropriately skilled and economically active workforce), although the availability of appropriate logistics warehouse space and the terms on which it can be contracted, will also be important in determining the type and volume of space occupied.
- 4.4. In terms of the way in which logistics operations are run, and the type of warehousing space required, individual premises are generally run as one of the following broad types of operation:
- **National distribution centres (NDC):** these properties are very large units (typically 25,000 sqm or more) which act as single stock holding point serving a network of regional distribution centres and other destinations within an organisation's supply chain, such as a store network.
 - **Regional distribution centres (RDCs):** these properties are large units (typically 10,000-46,450 sqm) which act as distribution point to other parts of the supply chain – such as multiple stores – in an area/region around the RDC.
 - **Local distribution centres:** these are much smaller units (typically 3,000 sqm to 10,000 sqm) which serve a smaller geographic area but typically of higher market density, particularly of individual consumers.

Market Dynamics

- 4.5. Occupier take-up of logistics floorspace reached record levels in 2016 and whilst take-up in 2017 was slightly lower, take-up remains strong. As a result of strong demand and constrained supply the availability of logistics space nationally – particularly new/good-quality space – has been particularly constrained for the past couple of years and the availability rate of units over 50,000 sq ft at the end of 2016 across the country was 6.2% for all qualities of space. Of all the logistics space across the country, only 6.2% of this total stock was marketed as available at the end of

Q4 2016², which is a very low rate of availability, especially when compared to the 17.2% recorded in Q4 2009, and it has been at this low level for around three years.

- 4.6. The general growth of the economy and consumer spending create ongoing demand in the logistics sector. However over recent years two interlinked factors have strongly affected both the scale and form of demand for logistics space. These factors are firstly the continued drive for efficiency which has resulted in ever increasing demand for very large scale National Distribution Centres and secondly the effects of the significant growth of e-retailing and the associated demands for logistics space to serve this market.
- 4.7. Retailers, notably internet retailers, are maximising the efficiency and increasing the sizes of their warehouse facilities to accommodate the storage and processing of an increased amount of goods. Gerald Eve has found that the average size of new buildings, of both purpose-built space (designed-and-built by occupiers) and speculatively developed space (developed without a specific occupier) has increased year-on-year since 2012. This culminated in an average size of development of 214,207 sq ft during 2017, having risen from an average 169,550 sq ft during 2012³.
- 4.8. This has translated into much increased occupier take-up of large units over 500,000 sq ft. In the three year period 2015 – 2017, Gerald Eve recorded 35 individual occupier transactions of buildings over 500,000 sq ft in size, totalling 26.6 million sq ft.
- 4.9. Online retail represents a structural, rather than cyclical, shift in the way in which consumers choose to shop, and also the way in which goods are delivered to them. The proportion of retail sales represented by online sales has increased to 19.8% in November 2017⁴. The increase in the volume of goods sold online and delivered to individual homes and businesses has created a heightened demand for warehousing space to support the increase in this activity. As a result, the proportion of demand for warehousing space from internet retailers has increased from 74,000 sqm in 2009 (3% of total 3.7 million sqm take-up in that year) to 980,400 sqm in 2016 (21% of the 4.7 million sqm total take-up) according to Gerald Eve's Prime Logistics research.
- 4.10. Additionally, given the continuing development of the online retail market, and despite any economic slowdown that may occur in the future, occupier demand for logistics warehousing space to support online retail sales growth is expected to remain a significant component of overall warehouse floorspace demand and will help drive the potential for an overall increase in the demand for space.

² Gerald Eve's Prime Logistics research

³ Gerald Eve's Prime Logistics research

⁴ ONS, Retail Sales Index, November 2017

Take-up at rail-served sites

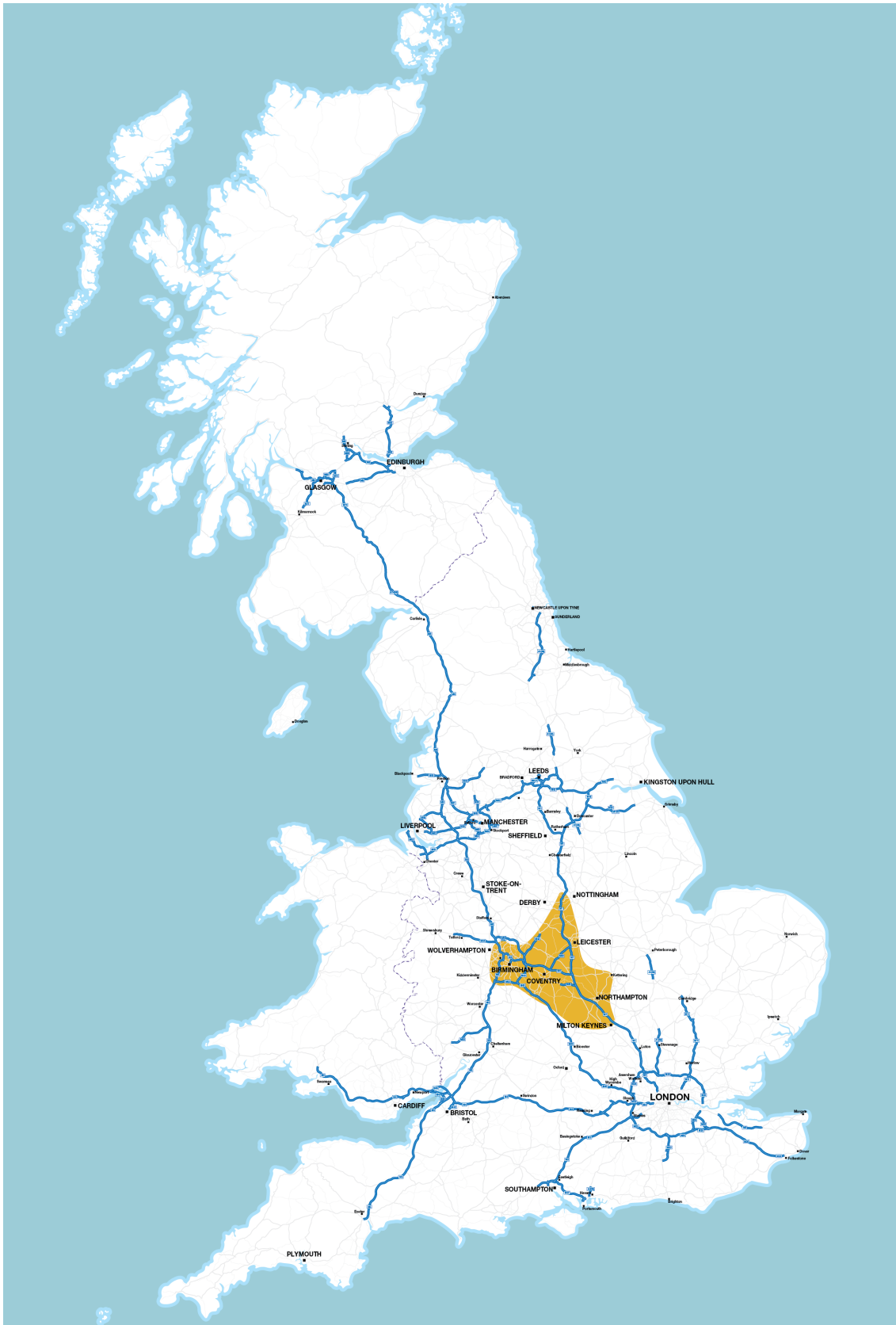
- 4.11. Take-up of warehousing floorspace on rail-served sites, has accounted for 1.59 million sqm between 2005 and 2016, which represents just 4% of total floorspace taken-up over the period, according to Gerald Eve's Prime Logistics research.
- 4.12. According to the same research, of the space that has been taken-up over the past twelve years between 2005 and 2016, 400,000 sqm of space of units of 4,645 sqm or more – or 25% of all rail-served warehousing space taken by occupiers over the period was taken at DIRFT, with, 228,100 sqm at Birch Coppice Business Park which is served by BIFT.
- 4.13. Whilst take-up on rail served sites has been a relatively small proportion of overall take-up, this is a reflection of the availability of suitable sites rather than underlying demand.

Logistics demand in Northampton

- 4.14. In addition to understanding the nature of demand for logistics space, it is important to consider where this space is being taken by occupiers and why locations are more or less attractive for logistics operations. As outlined above the principle drivers of occupational choice are focused on access to markets and access to labour. These drivers of locational choice are expected to continue and potentially be reinforced due to the market dynamics described above, including the growth of e-retailing and the consolidation and concentration of activities into large national distribution centres.
- 4.15. The drivers of locational choice have resulted in a concentration of occupier activity in the centre of the country. The attractiveness of this area relative to other locations, relates to the following intrinsic characteristics:
- the geographic central location in the UK providing access to all parts of the UK within a reasonable drive time. Drive time connections are crucial to the logistics industry.
 - the physical location, being at the population-weighted centre of the country and broadly central to the major UK container ports and key domestic manufacturing areas.
 - the transport connectivity, particularly road, with the country's two most significant motorways – the M1 and M6 – running through this area as do major trunk roads including the A14. These provide the key routes which link the region to the UK's main urban centres and larger container port.
 - the good supply of appropriately-skilled staff.
- 4.16. This focus of logistics activity has generally been referred to as the 'golden triangle'. This area is not precisely defined but the broad historic market understanding was that it stretched from Coventry in the west to Leicester in the north and Northampton in the south. In reality the focus of logistics activity and demand covers a wider area than this, stretching along the M1 and M6 corridors to the north and south and including the M42 around Birmingham. See plan below.

A better description of this concentration is perhaps to refer to it as the ‘Midlands Distribution Heartlands’.

Figure 1: The ‘Midlands Distribution Heartlands’



- 4.17. Northampton is in the southern part of this Midlands Heartland area. This particular area has seen very strong demand over recent years, driven by demand from food and internet retailers partly as a result of its access to London markets. The strength of demand in this particular area, is reflected in strong rental levels. See details at Appendix 1.
- 4.18. The Northampton Gateway site has excellent transport links. Around 87% of the UK population is within a 4.5 hour HGV drive time (a day's round trip) and 77% within a 2.5 hour HGV drive time. Appendix 1 illustrates how even reducing this drive time further to a 90 minute drive time, as depicted in Figure 23 there is an impressive reach from the location. 32% of the population, or 21.3 million people, are within 90 minutes of the Northampton Gateway site.⁵ Being in the southern part of the Midlands Heartlands means that the 90 minute HGV drive time encompasses the majority of London. As a result of this connectivity, the site provides access to a very large market including key urban centres.
- 4.19. As well as Northampton Gateway's good access to London there are a number of major urban centres within a 90 minute drive time to which the site will provide good access, including Birmingham, Coventry, Nottingham, Leicester and Derby. However the site will also serve major urban centres not currently well served by an SRFI, including Northampton, Milton Keynes and Oxford. It is also worth noting that this is an area identified for significant growth, especially the corridor between Oxford and Cambridge, where there is expected to be high levels of housing and population growth alongside infrastructure investment and job creation.
- 4.20. As described above, access to labour, in particular a location's proximity to economically-active and appropriately-skilled people to staff warehouse operations is also a vital consideration of warehouse occupiers. Appendix 1 describes how the Northampton area is well served by a suitable labour force.
- 4.21. The inherent characteristics of the Midlands distribution heartlands have meant that occupiers have sought to locate operations serving a broader area and a significant number of operations serve national distribution purposes. As a result, the size of properties demanded within the Midlands distribution heartlands are typically larger than in other parts of the country. Appendix 1 includes data on take up in the Midlands Heartlands area which demonstrates the strength of this area for logistics compared to other areas of the UK.

Conclusion

- 4.22. The logistics property market has been exceptionally strong over recent years, driven by the continued growth of the economy but also structural changes (particularly the increase in e-retailing) which have driven demand. In particular changes to logistics have resulted in larger units and a greater number of national distribution centres.

⁵ Experian Micromarketer

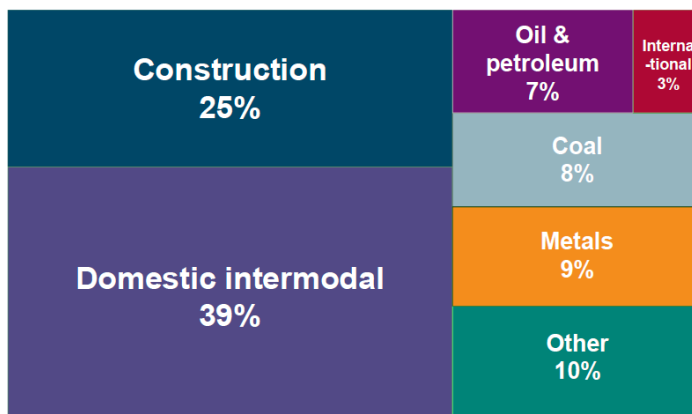
4.23. These changes have resulted in strong demand for logistics space, particularly in the area we have defined as the 'Midlands Distribution Heartlands', and including strong demand in the southern part of this area which has strong links to the London market. This demand is expected to continue in the future and significant areas of land, in suitable locations close to the trunk road network, will be required. Take-up will continue to be heavily focused on non-rail served sites, unless new Strategic Rail Freight Interchange sites can be bought forward.

5. THE ROLE AND OPERATION OF RAIL IN THE LOGISTICS SECTOR

5.1. This section of the report provides a basic description of the role rail plays in the logistics sector and the importance of new SRFI's in facilitating growth.

5.2. Traditionally UK rail freight has been dominated by the movement of bulk commodities, such as coal, aggregates and metals. Intermodal traffic formed a relatively low proportion of total volume. In the last 10 years this has changed greatly, both as a result of a reduction in the movement of coal and increase in the movement of intermodal traffic. The result of this is that in 2017 intermodal traffic represents almost 40% of all freight moved in the UK, and traffic associated with the construction industry, 25%.

Figure 2: Intermodal traffic share of total UK rail freight market (ORR Freight Rail Usage Q4 2016/17)



5.3. Rail's role in the movement of goods is often to undertake the long-haul primary trunk journey, for example from a port to an intermodal terminal. The growth in the use of rail is a result of a number of interrelated factors, including the overall growth of the logistics sector, the rise in the import of goods in containerised form, the reduced costs of rail compared to road, the increasing congestion on the road network and the increasing awareness of environmental issues and businesses drive to have less impact on the environment.

Figure 3: Rail Freight Facts at a Glance (Freight on Rail)

Each year the rail freight industry carries goods worth over £30 bn. – ranging from high end whiskies & luxury cars to supermarket products, to cement and construction materials.		Rail freight is worth £1.6 bn. per annum to UK PLC. The rail freight industry has invested over £2 bn. in equipment since 1994.
Rail freight produces 76% less CO2 than HGVs for the equivalent journey.		Rail freight currently moves one in four of the containers that enter the UK.
Rail freight produces almost 90% less PM10 & up to fifteen times less NOX emissions than HGVs.		Rail is 20 times safer than HGVs according to the ORR. In 2013, HGVs were six times more likely than cars to be involved in fatal crashes on minor roads.
Consumer rail freight grew 6% and construction traffic grew 7% last year.		An average freight train removes 76 HGVs from our roads so there are 1.62 billion fewer HGV km a year.

5.4. For most freight movements rail is unable to undertake a full end- to-end journey. At some point in the movement of goods, these goods will need to be transferred from rail to road or vice versa. To facilitate this transfer rail freight interchanges are required. The lack of rail freight interchanges has unquestionably constrained the use of rail.

How Strategic Rail Freight Interchanges Work

5.5. Retailers and distributors have different ways of using rail within their supply chain. Some may use rail to transfer goods to an National Distribution Centre, which may be on site or off-site, others may transfer goods directly to a rail-connected warehouse on site, or goods may be taken to a terminal, split, and forwarded onto another terminal. Some occupiers may use rail to take goods from distribution centres to ports for exporting overseas. There is no one template model for the use of rail within the logistics network, with each individual occupier having their own reasons for using rail in their supply chain.

5.6. Intermodal terminals exist to load and offload containers to / from rail wagons. Because the UK is a major importer of goods, there is a net flow of full containers into the UK and empty containers out. In terms of imports, generally there will be a single product from a specific manufacturer (for example television sets or sportswear) in each container, and each train will carry containers for a number of different customers. The terminal takes containers and stores

them on site for future transfers, or places them directly onto HGV's for transfer to nearby warehouses or transfers them directly into warehousing on-site.

5.7. The import containers will be delivered into the warehouse (either on or off site) and the full load in each one broken down into units for nationwide distribution.

5.8. In terms of export or domestic distribution, full containers will arrive at the terminal from warehouses (either on site or off-site), containers will then be loaded onto trains for onward distribution to other terminals in the link or to Ports for export.

5.9. In terms of the exporting of goods overseas, whilst the amount of freight passing through the Channel tunnel is currently low (at 0.12 bn tkms or around 2.5% of total freight moved⁶) it has grown by 10% recently and there is a prospect of future growth in this sector, Brexit notwithstanding⁷. The channel tunnel is a strategic freight route and with cross-channel traffic achieving record levels, this has resulted in more rail freight being moved compared to the year previously⁸.

5.10. The terminal will have significant capacity for containers to be stored on site, both when loaded (waiting to be fed into customer warehouses or loaded onto trains) and empty (waiting for reassignment, either to a port for re-export or to a new location for reloading)

Terminal Operation

5.11. An SRFI comprises a high capacity intermodal rail terminal, capable of handling trains of up to 775 metres length (the maximum train length permitted on the UK national rail network). An SRFI also includes a number of warehouses on site, usually large National Distribution Centres (NDCs) or Regional Distribution Centres (RDC's) and has good connections to the trunk road network for deliveries to other local destinations.

5.12. Typically, a specialist terminal operator will manage the operation of the onsite SRFI intermodal terminal. The terminal operator will load and unload the containers arriving and departing from the terminal, and will arrange for their onward final road transit to distribution customers located on the site or close by. The terminal operator will also store containers on site and deliver them to order as required by the customers, and collect and store empty containers for reloading or return to the ports.

5.13. The terminal operator will also deal with the wider rail freight industry, coordinating the planning and timing of freight trains serving the site, the contents and destinations of the containers they carry, and co-ordination of customer requirements.

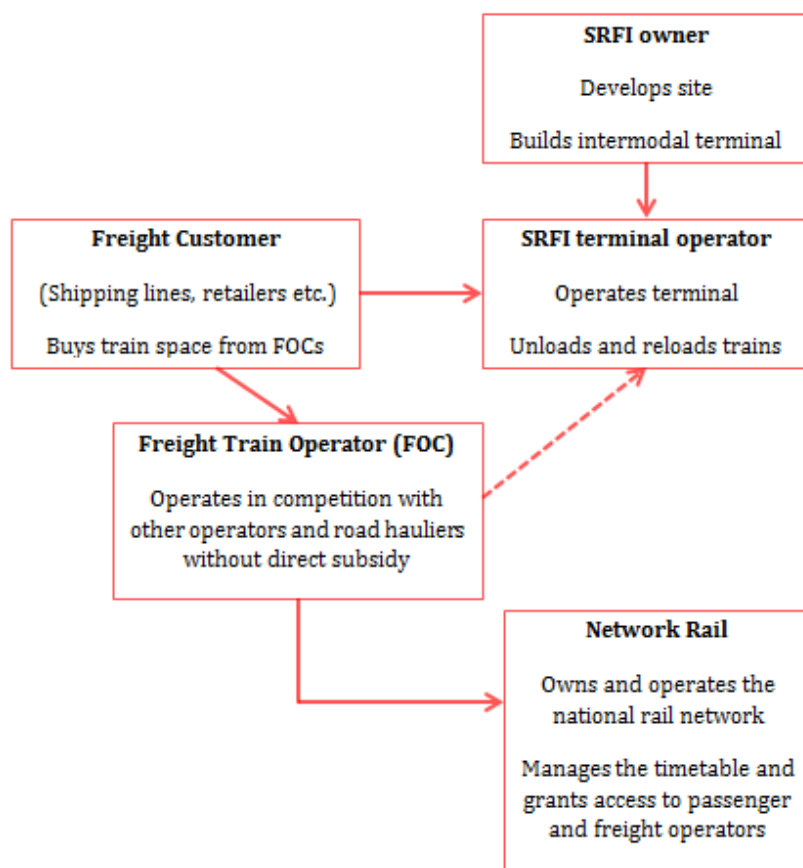
⁶ Office of Rail and Road, Freight Rail Usage 2017-18 Q2 Statistical Release, page 1, http://orr.gov.uk/__data/assets/pdf_file/0019/26335/freight-rail-usage-2017-18-quarter-2.pdf

⁷ Office of Rail and Road, Freight Rail Usage 2017-18 Q2 Statistical Release, page 1, http://orr.gov.uk/__data/assets/pdf_file/0019/26335/freight-rail-usage-2017-18-quarter-2.pdf

⁸ Office of Rail and Road, Freight Rail Usage 2017-18 Q2 Statistical Release, page 4, http://orr.gov.uk/__data/assets/pdf_file/0019/26335/freight-rail-usage-2017-18-quarter-2.pdf

5.14. In overall terms, operation of the rail freight industry and its relationship with the terminal developer can be described on the diagram below.

Figure 4: Rail industry structure



Freight train operators

5.15. The Freight Operating Companies (FOCs) normally lead the railway relationship with the SRFI terminal operator. The FOCs contract rail haulage services with their customers, normally shipping lines or logistics companies. FOCs also manage the internal rail industry relationships with Network Rail, which owns and maintains the national rail network, and provides them with the route capacity for the trains they run.

5.16. FOCs normally own or control all their resources (locomotives, wagons, crews, and operating staff), and operate the freight trains. FOCs are privately owned independent companies, which compete with each other for traffic, and do not receive subsidy from government.

5.17. There are four main Freight Operating Companies in the UK, all of who operate intermodal trains across the country.

- DB Cargo

- Freightliner
- GB Railfreight (GBRf)
- Direct Rail Services (DRS)

6. FORECASTS FOR RAIL FREIGHT GROWTH

6.1. The following section analyses the expectations of growth in rail freight set out in published forecasts from the Department for Transport and Network Rail. It highlights the recent growth in intermodal freight, which together with the construction sector now accounts for nearly 65% of all freight moved by rail. The amount of intermodal freight (which comprises both traffic to and from ports and inland terminals and movements between those inland terminals) has risen consistently, by 93% from 1998-99 (the first year that separate statistics were published) to the year to April 2017.

Network Rail rail freight volume forecasts

6.2. Network Rail published its draft Freight Network Study in August 2016. This contained Network Rail's growth forecasts derived from the ORR's Freight Market Study for each of the key rail freight market sectors. Network Rail's forecasts were unconstrained; that is they demonstrate the growth that could be expected if there were no limits on network capacity for freight traffic or the availability of suitable rail freight terminals. The study forecast Intermodal traffic to grow significantly over the next several decades as shown in Figure 5.

Figure 5: ORR Freight Market Study (2013) central case forecasts for rail freight in Great Britain

Commodity sector/sub-sector	Actual billion tonne kms in 2011	Forecast billion tonne km in 2023	Forecast billion tonne km in 2033	Forecast billion tonne km in 2043	Forecast average annual growth 2011 to 2033
Ports & Channel Tunnel intermodal	5.3	11.0	16.1	21.7	5.2%
Domestic intermodal	1.1	7.1	13.4	21.2	11.9%

Source: Network Rail Freight Network Study, Table 3.1

6.3. Even at a lower growth scenario the report forecasts that Port Intermodal traffic (imported containers moving from port to distribution customers inland) will grow by 4.5% per annum, and Domestic Intermodal (containers moving between UK distribution centres) will grow by 10.1% per annum. This is very significant growth.

6.4. The Freight Network Study sets out the assumptions on which this growth forecast is based (in Appendix 4 of the Study). With regard to terminal capacity it states

“Rail-connected warehousing sites will expand from the current area of approximately 1.6 million sqm to approximately 5.9 million by 2023, 9.6 million by 2033 and 13.3 million by 2043. This reflects both growth of existing sites and the development of new sites ... The assumed overall annual growth in capacity is similar to the rate observed in recent years, which is consistent with the assumption that about 35 per cent to 40 per cent of new large

warehousing developments will be rail connected. These growth assumptions indicate that the study is taking a positive view of the ability of the market, including the planning system, to provide new sites. This reflects the government's commitment to their development, as set out in the Strategic Rail Freight Interchange (SRFI) policy guidance.”⁹

- 6.5. Translating these volumes into annual growth figures, the Study therefore suggests that rail-connected warehousing space needs to grow by around 8% per annum continuously over the next 30 years to support Intermodal growth, to serve both traffic from ports and domestic movements between terminals.
- 6.6. Network Rail's Freight and National Passenger Operations Route Strategic Plan (FNPO Route Strategic Plan – 2018) includes some update forecasts on rail freight growth. The general methodology for these forecasts follow the approach to the earlier forecasts, however some constraints to growth are applied to the modelled traffic growth. The updated forecasts take account of the lower growth that has been experienced over recent years than had been predicted in earlier forecasts. It explains that the reasons for this include the fact that rail served warehousing construction has been less than expected. Others factors include a sharper decline in ESI coal than expected, lower fuel and wage pressures which benefit road compared to rail and capacity constraints on the network.
- 6.7. The rail freight forecasts are not split into categories and therefore can't be easily compared to the previous forecasts. The overall growth in rail freight is forecast to be 2.1% per year. This will include reductions in some types of freight, solid fuels such as coal for example. This overall figure compares to a 3% annual growth rate identified in the 2013 freight Market Study and still reflects considerable growth in intermodal freight and construction materials.

Department for Transport: National Policy Statement for National Network

- 6.8. The forecasts set out in the Freight Market Study are those used to inform Policy in the NPSNN. The NPSNN states that:

“The industry, working with Network Rail, has produced unconstrained rail freight forecasts to 2023 and 2033. The results are summarised in the table below. These forecasts, and the method used to produce them, are considered robust and the Government has accepted them for planning purposes. These forecasts will change over time as our understanding improves and circumstances change, but the table below demonstrates the scale of pressure”. (Paragraph 2.49)

Department for Transport rail freight forecasts

- 6.9. DfT published its Rail Freight Strategy in September 2016. This sets out 'constrained' forecasts of future rail freight growth. It also considers the opportunities for enhancing modal shift from road to rail in line with government carbon emissions targets, and the policy interventions necessary to achieve this. Central to the analysis is a view that Ports Intermodal traffic will at

⁹ Appendix 4, Page 113, Freight Network Study, April 2017

least double in size by 2030. In the same timeframe Domestic Intermodal traffic is projected to nearly double.

6.10. It is important to note that, unlike Network Rail's forecasts and those in the NPSNN, these growth figures are constrained – that is, they take into account the existing capacity of the Network Rail network, and incorporate only declared policy interventions outlined in DfT's Control Period 5 High Level Output Statement (HLOS) of July 2012 or other more recent policy statements.

6.11. DfT's thinking on the need for new terminals to support this forecast growth is set out in paragraph 64:

The report by Arup¹⁰ identified a number of priority issues which should be considered in order to remove barriers to growth and support rail freight to achieve the potential growth and modal shift set out above. These include:

- a. Infrastructure capacity, including addressing limitations in the network (such as gauge clearance and lack of direct rail access in key locations); supporting development of high capacity rail freight interchanges....."*

6.12. The strategy then makes clear that development of SRFIs forms a key part of government policy of rail freight growth:

"Our existing Government policies are already making progress in many of these areas. For example:

The designation in January 2015 of the National Networks National Policy Statement which has provided the Planning Inspectorate with a clear statement of Government policy on the development of Strategic Rail Freight Interchanges (SRFIs). This also provides developers with a clear indication of the evidence they need to submit in applying for planning permission. The National Networks National Policy Statement has been welcomed by the rail freight industry, which advises that proposals for SRFIs are now starting to come forward".¹¹

6.13. The relevant intermodal growth forecasts are shown below.

¹⁰ A DfT commissioned report to assess rail freight growth and referred to in the Rail Freight Strategy report titled Future potential for modal shift in the UK rail freight market, Arup for DfT, September 2016

¹¹ Paragraph 65 b. of DfT Rail Freight Strategy, September 2016

Figure 6: DfT Freight Strategy: Freight Growth projections

NOTE ON GROWTH PROJECTIONS: The estimates of growth potential in this table represent "constrained" forecasts, i.e. they estimate the growth we might expect to see given the likely constraints on the network. These forecasts could be exceeded in practice depending on the measures taken to address these constraints. These figures are not calculated on the same basis as Network Rail's "unconstrained" forecasts set out in the 2013 Freight Market Study and are therefore not directly comparable.			
Commodity	Actual freight lifted in 2011: Million tonnes	Projected freight lifted in 2030 in constrained scenarios: Million tonnes	Overview and constraints/enablers
Ports intermodal (deep sea containers arriving in the UK via ports)	15.1	High Constrained Forecast: 45.69 Central Constrained Forecast: 31.81 Low Constrained Forecast: 22.00	Steady Growth Overall volume of deep sea containers coming to the UK likely to show steady and strong growth. A move towards "mega-vessels" and larger ships is likely to favour rail given its strength in moving large volumes quickly. Possible scope to introduce new traffic flows via development of northern ports although concentration of population growth in the south-east means port traffic likely to remain concentrated in this region. Key constraints include: terminal capacity; gauge restrictions; and availability of freight paths.
Domestic intermodal (containers being transported within the UK)	2.3	High Constrained Forecast: 5.81 Central Constrained Forecast: 4.03	Steady Growth Growth is likely in this sector although domestic intermodal is not well suited to the "whole train load" model of rail freight – a credible method of aggregation/consolidation would help realise growth.
		Low Constrained Forecast: 2.78	Even without growth in the sector, there is scope for rail market share to grow if current long distance general haulage traffic could be shifted to rail. Constraints include: the need for bespoke logistics solutions to facilitate movement by rail; the need for a sufficient volume (critical mass) to justify trainload operations; the need for investment in specialist equipment; and - the key constraint to unlocking potential in this sector - availability / construction of suitable rail-connected terminal facilities including SRFIs.

Source: Department for Transport Freight Strategy, Table 1

Potential demand for warehousing at RFIs based on forecasts and current and expected supply

- 6.14. The forecasts outlined above show that there is expected to be a significant growth in rail freight demand and a significant requirement for rail connected warehousing sites. The Freight Network Study forecasts (which are accepted and used for policy purposes in the NPSNN) include forecasts for the expansion of rail connected warehousing sites from 1.6 million sqm to approximately 5.9million by 2023, 9.6 million by 2033 and 13.3 million by 2043¹².
- 6.15. The general basis of these figures is supported i.e. that if rail freight growth is to occur as forecasted, there will need to be a significant expansion in the number of SRFI's. An analysis of the current and expected supply of rail-connected warehousing space in the context of this forecast demand has been undertaken. This helps to understand the potential need for additional SRFI's to meet the figures set out in the Freight Network Study.
- 6.16. Since 2013 (the base date for the 1.6m sqm figure) our research has identified five additional SRFI or RFI schemes which are now committed. Whilst difficult to accurately measure, an assessment of the potential future warehouse space of these schemes totals 2.15 million sqm. It is not known whether all these schemes will commence development or not, so this reflects the upper end of the potential for future warehouse space.

Figure 7: SRFI or RFI schemes which have received permission and potential warehouse space

	Estimated potential future space (sqm)
Daventry 3	714,000
East Midlands Gateway	557,414
Radlett	325,158
Doncaster iPort	348,671
Mossend International Railfreight Park	204,385
Total	2,149,628

- 6.17. A potentially developable 2.15 million sqm of space falls far short of the forecast in the Freight Network Study which stated that rail-connected warehousing sites will expand from the current 1.6 million sqm to approximately 5.9 million sq m by 2023. This is a forecast of an additional 4.3 million sqm by 2023, which the potentially developable land with planning referred to above is not going to be able to achieve.
- 6.18. Given the time it takes to plan, secure consent and then to develop SRFI's, the forecasts to 2033 and even 2043 are also relevant. In addition to the 4.3million sqm by 2023 it forecasts need on top of this for an additional 3.7 million sqm by 2033 and the further 3.7 million sqm forecast by 2043. These growth assumptions indicate that the study is taking a positive view of the ability of the market, including the planning system, to provide new sites.

¹² Appendix 4, Page 113, Freight Network Study, April 2017

7. THE ECONOMICS AND OPERATION OF RAIL FREIGHT IN THE LOGISTICS MARKET

What are the drivers (advantages to occupiers) of the growth in rail freight?

- 7.1. There are a number of interrelated factors which are influencing the growth of rail freight and which are expected to drive the growth of rail freight in the future. These factors include the overall growth of the logistics sector, the rise in the import of goods in containerised form, the reduced costs of rail compared to road, the increasing congestion on the road network and the increasing awareness of environmental issues and the drive of business to have less impact on the environment.
- 7.2. A greater regulatory restriction on HGV drivers' hours, rising road vehicle fuel costs, and a shortage of HGV drivers, add to the cost of road haul for operators and make the use of rail freight, as an economic alternative, increasingly viable.
- 7.3. As well as the potential cost savings, another key advantage in using rail freight logistics is the ability to avoid congestion on the UK major trunk roads. Congestion on the roads is estimated by the Freight Transport Association to cost British business £17 billion per annum, and with road congestion from cars and vans set to increase, rail's competitive advantage will continue to grow¹³.
- 7.4. Environmentally, rail is a far more efficient mode of transport and produces less than 1% of the total UK CO₂ emissions, compared to road which produces 21%. Over the last six years, rail freight is estimated to have saved two million tonnes of pollutants, 6.4 billion lorry kilometres or 31.5 million lorry journeys¹⁴. When compared with carrying the same tonnage by road, rail produces less than a tenth of the carbon monoxide, around a twentieth of the nitrogen oxide, and less than nine per cent of the fine particulates and around 10 per cent of the volatile organic compounds. Every tonne of freight carried by rail produces 76 per cent less carbon dioxide than if moved by road¹⁵.
- 7.5. The sustainability benefits of rail freight are an increasingly important factor in the operational decisions of occupiers. As well as reliability, rail transport also has a far lower accident rate when compared to transporting goods by road, a key issue which is of benefit to all logistics companies.
- 7.6. Given these pressures, it is important to understand why rail continues to perform a relatively small role in the logistics sector. The movement of freight by rail, compared to road based movement of goods, is a relatively complex arrangement. There are different bodies operating different parts of the process and a need to coordinate trains loads with different goods for different clients. This adds a layer of complexity that makes it less easy for logistics operators to understand the opportunities and benefits. Rail will become more economic and more

¹³ Page 2, The Importance of Rail Freight, Freight Transport Association, http://www.fta.co.uk/export/sites/fta/_galleries/downloads/rail_freight/importance_of_rail_freight_0408.pdf

¹⁴ Freight on Rail 'Facts and Figures', <http://www.freightonrail.org.uk/FactsFiguresRailBoxes.htm>

¹⁵ Freight on Rail 'Facts and Figures', <http://www.freightonrail.org.uk/FactsFiguresRailBoxes.htm>

accessible, as it grows, however a very significant factor is simply the lack of access to rail, and hence familiarity, due to a lack of Strategic Rail Freight Interchanges. This is recognised in the NNNPS and by the DfT in their Rail Freight Strategy¹⁶

The role of rail in the logistics sector

7.7. When assessing the likely future demand for rail- served warehousing, it is important to identify some of the reasons why occupiers have committed to the use of rail. Understanding the drivers and motivations of occupiers will help to understand the potential future demand for such space.

7.8. A 2016 Department for Transport report entitled Future Potential Shift in the UK Rail Freight Market highlighted some of the reasoning behind the potential growth of rail-connected warehousing:

Developers are pushing ahead with intermodal terminal schemes as a result of a demand in the retail/logistics industry for them. This is generally based on inbound supply chain movements from the ports, where rail has a clear cost advantage when containers can be unloaded virtually direct from train to warehouse avoiding a road haul from a distant terminal. What has not yet been grasped is that such rail-connected NDC's could make rail much more competitive in the next leg of the supply chain from NDC to Regional Distribution Centres (RDCs) or customer/store. The ability to put a container/swap body on rail for c. £20-£30 at such a rail-connected NDC, rather than c. £80-£150 if a road leg is involved to a nearby terminal, could lead to significant numbers of Midlands to Scotland/South East/South West trains which, so far, only a few companies have exploited.

Tesco, for example, is one of a small number of companies which has adopted rail as part of their supply chain for certain flows. Under this scenario rail's competitive distances in the domestic haulage market come down from 300+ miles to sub 150 miles for inter-terminal movements. Given that the volumes moving over the latter band are five times greater than the former, the impact of this should not be under-estimated. Clearly, rail-connected NDC's are fundamental to creating this virtuous circle of growth.¹⁷

7.9. Tesco has effectively used rail as a means to fulfil its commitment to be 'a zero carbon business by 2050'. For occupiers with such commitments, reducing the number of miles goods need to be moved is clearly an advantage, especially if, for some volume and type of cargo, it is also more cost efficient:

"Utilising rail services allows us to transport products across the country in the most sustainable way, taking thousands of lorries off the road each year and reducing our carbon emissions. In addition to transferring goods from our central depot to other points for distribution to the

¹⁶ Paras 2.42 – 2.58, National Networks National Policy Statement, January 2015

¹⁷ Para 2.1.4, Department for Transport, Future Potential Shift in the UK Rail Freight Market

*stores, these trains will also return to our depot with goods from our key suppliers making the service even more efficient.*¹⁸

7.10. So, whilst the market is constrained to a certain extent by a lack of strategic investment and lack of access to rail, forward-looking occupiers see the benefits to be had. An example of the type of operations under discussion and a good example of how the market could evolve is referred to in the DfT Future Potential for Modal Shift in the UK Market report, where the example was given that a rail-connected Distribution Centre (DC) in the Midlands could supply the London market with product picked around midnight arriving at a terminal in NW London around 04:00hrs¹⁹.

7.11. The idea goes on that small containers could be delivered from the terminal to central London stores for start of work, and internet orders could be delivered from the same terminal all by electric or gas powered vans. If required, a portion of the train could then continue to Euston or other London terminals for local deliveries around the station area. A close to zero-carbon supply chain would result, using lower cost land and labour than would be the case with a DC in the South East as currently²⁰.

Markets served by Rail Terminals

7.12. The users of rail-freight terminals are typically moving goods by rail to be sent to National, and large Regional, Distribution Centres (NDCs and RDCs)²¹ either on an SRFI site or within a reasonable “catchment” around the terminals, to then be moved onwards to their next (possibly end) destinations, usually by road but sometimes also by rail. This is partly due to the cost-efficiency of rail freight versus road freight whereby rail is more cost efficient than road over longer journeys. Demand for rail-freight terminal services and for rail served warehousing is therefore strongly governed by the locational requirements of NDC’s and large RDC’s. As explained in Section 4, the demand for large scale logistics is strongest in the Midlands Heartlands at locations with good access to the motorway network where occupiers can serve a large proportion of the UK population within appropriate drive times.

7.13. For these reasons the busiest intermodal rail freight locations are at ports (notably the ports of Felixstowe, Southampton and London, three of the largest container ports in the UK) and at SRFIs and RFIs in central locations (particularly DIRFT, Hams Hall and BIFT). Given the economics of rail freight and the dynamics of the logistics market, SRFIs will inevitably need be concentrated, albeit not exclusively, in the centre of the UK where locations have greatest access to UK markets and where a large number of NDC and major RDC’s are located and will want to continue to be located.

¹⁸ Nigel Jones, Tesco UK logistics director, March 2012, on the launch of a new rail service from DIRFT to Wentloog terminal near Cardiff

¹⁹ Page 11, Department for Transport, Future Potential Shift in the UK Rail Freight Market

²⁰ Para 2.1.4, Department for Transport, Future Potential Shift in the UK Rail Freight Market

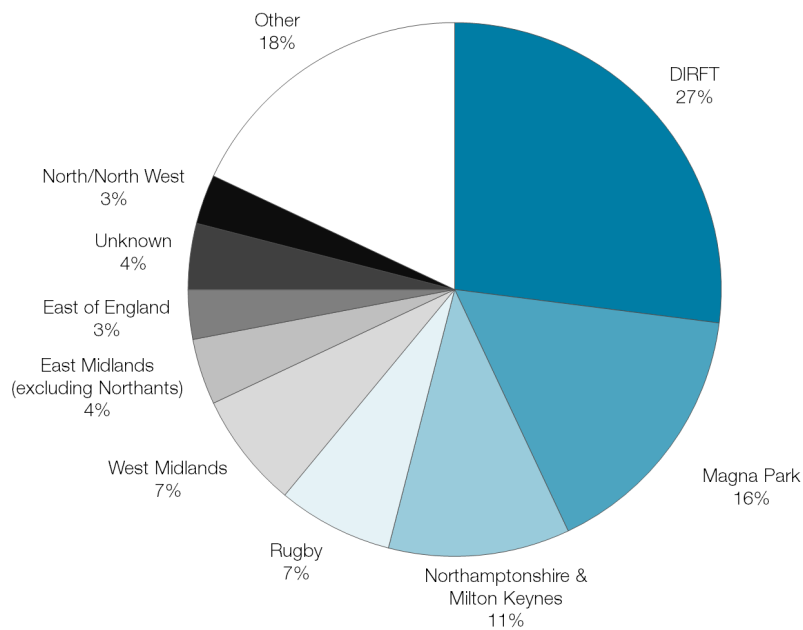
²¹ See Appendix A1 for an explanation of the differences between NDCs and RDCs

Catchments areas for Rail Freight Terminals

- 7.14. Rail Freight Terminals will serve warehousing, both onsite (if they are part of an SRFI) and off-site. Because of the economics of rail freight, particularly the need to minimise the secondary road leg of a journey, the majority of journeys are made to/from a relatively small area around terminals. This area is referred to in this report as a “core catchment”.
- 7.15. Rail users (or potential rail users) are highly sensitive to the cost of road trunking for rail-road combined journeys and each mile that goods need to be moved by road adds additional cost to the overall movement of those goods. (Please note that there will of course be users who will choose to use specific RFIs despite being located further away – for example where a specific route is served or where operations have already been established and it would be more costly to relocate to a different RFI).
- 7.16. For some logistics operators close proximity to the rail terminal will be vitally important if rail is to be a viable alternative to road only haulage. This ‘core catchment’ area around an SRFI terminal might be no more than 15 km, beyond which rail freight will not be a viable and suitable option for some operators. However rail will be a viable option for other operators beyond this ‘core’ area, a ‘secondary catchment’ area of around 50km is likely to incorporate the majority of logistics operators who would utilise a terminal.
- 7.17. Beyond this 50km ‘secondary catchment’ area the frequency of use will decrease greatly, although there will be some destinations, where for a variety of reasons associations with a rail terminal can be established.
- 7.18. An analysis of the operation of the DIRFT SRFI supports this view. Nathaniel Lichfield & Associates undertook research to support Prologis’s Development Consent Order application for DIRFT III²². It analysed the destination of outbound lorries from DIRFT I and II. According to Nathaniel Lichfield & Associates, 27% of outbound lorries leaving the rail terminal at DIRFT were destined for other locations within the DIRFT estate. Another 16% head to Magna Park Lutterworth, which is one of the country’s premier distribution parks, and which comprises entirely of very large warehouses which is around 10km from DIRFT. A further 7% go to destinations within and around Rugby, which is again within 10km of DIRFT. The implication of these destinations, which together represent the destination of 50% of all outbound lorries, is that that majority of the user base for distribution to/from DIRFT is concentrated in a relatively tight geographic area of less than 15km.

²² Nathaniel Lichfield & Associates, DIRFT III: Planning For The Future – The Expansion Of Daventry International Rail Freight Interchange, October 2012 (<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR050001/TR050001-000520-Doc%207.4%20Need%20Report.pdf>)

Figure 8: Destinations of lorries leaving DIRFT, by end destination (February 2010 survey)



7.19. The Nathaniel Lichfield analysis also shows that 11% of lorries travel to Northamptonshire and Milton Keynes; 7% to the West Midlands and 4% to East Midlands. The majority of these areas will lie within the 50km 'secondary catchment' area referred to above. Around 72% overall.

Figure 9: Core catchment of 15 km served by DIRFT

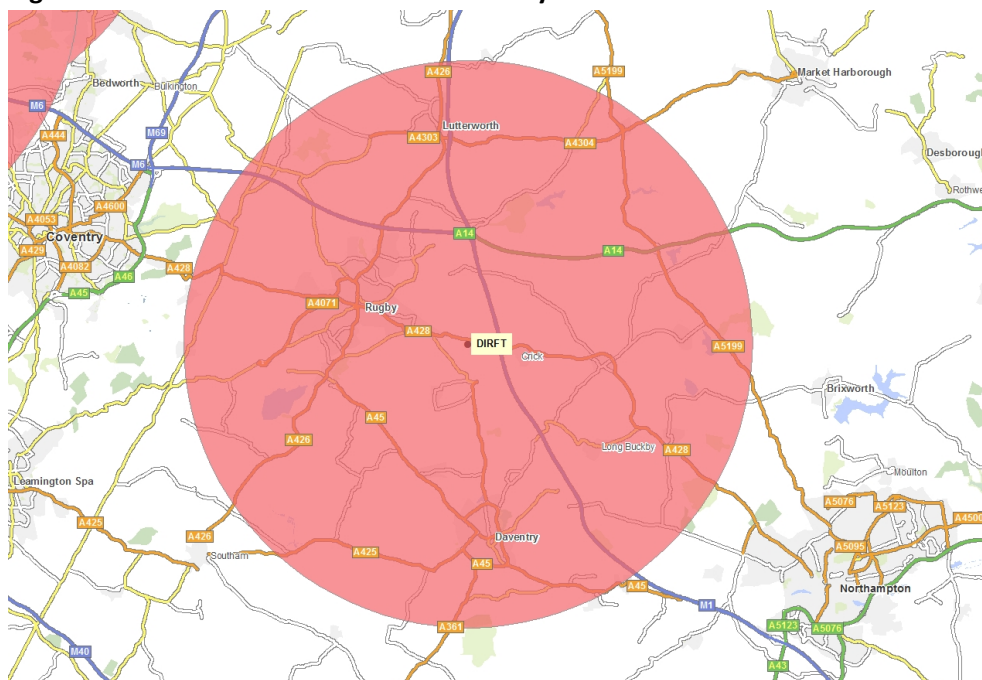
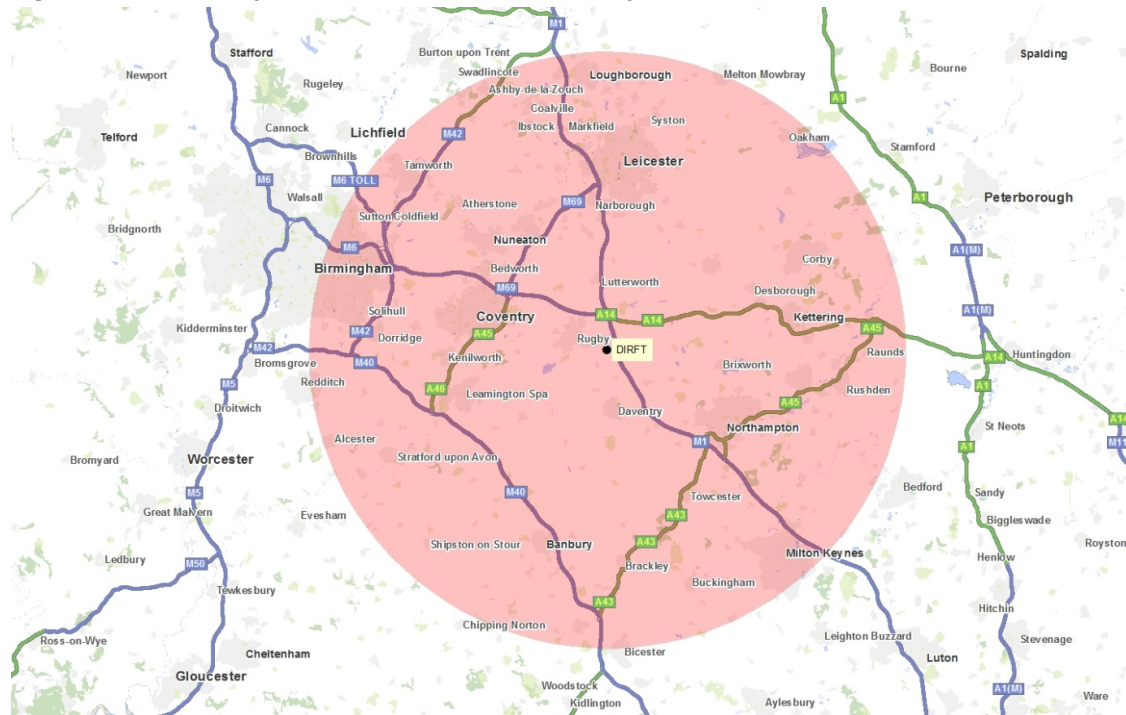


Figure 10: Secondary catchment of 50 km served by DIRFT



Source: Experian Micromarketer, Gerald Eve

Complementary markets served by existing terminals

- 7.20. Given the concentration of logistics activity in the Midlands Heartlands as explained in Section 4 and Appendix 1, it is not surprising that there is also an existing concentration of SRFI's and major RFI's in this area. These are, at DIRFT, Hams Hall, and Birmingham International Freight Terminal (BIFT) at Birch Coppice, and a major RFI at Birmingham Freightliner. This Midlands concentration will increase with East Midlands Gateway SRFI, which is under construction
- 7.21. Based on the 15KM 'core' and 50km 'secondary' catchment area, referred to above, there will be some overlap between the catchments of these terminals.

Figure 11: 15km core catchments around Birch Coppice, Hams Hall, East Midlands Gateway, Birmingham Freightliner, DIRFT and Northampton Gateway

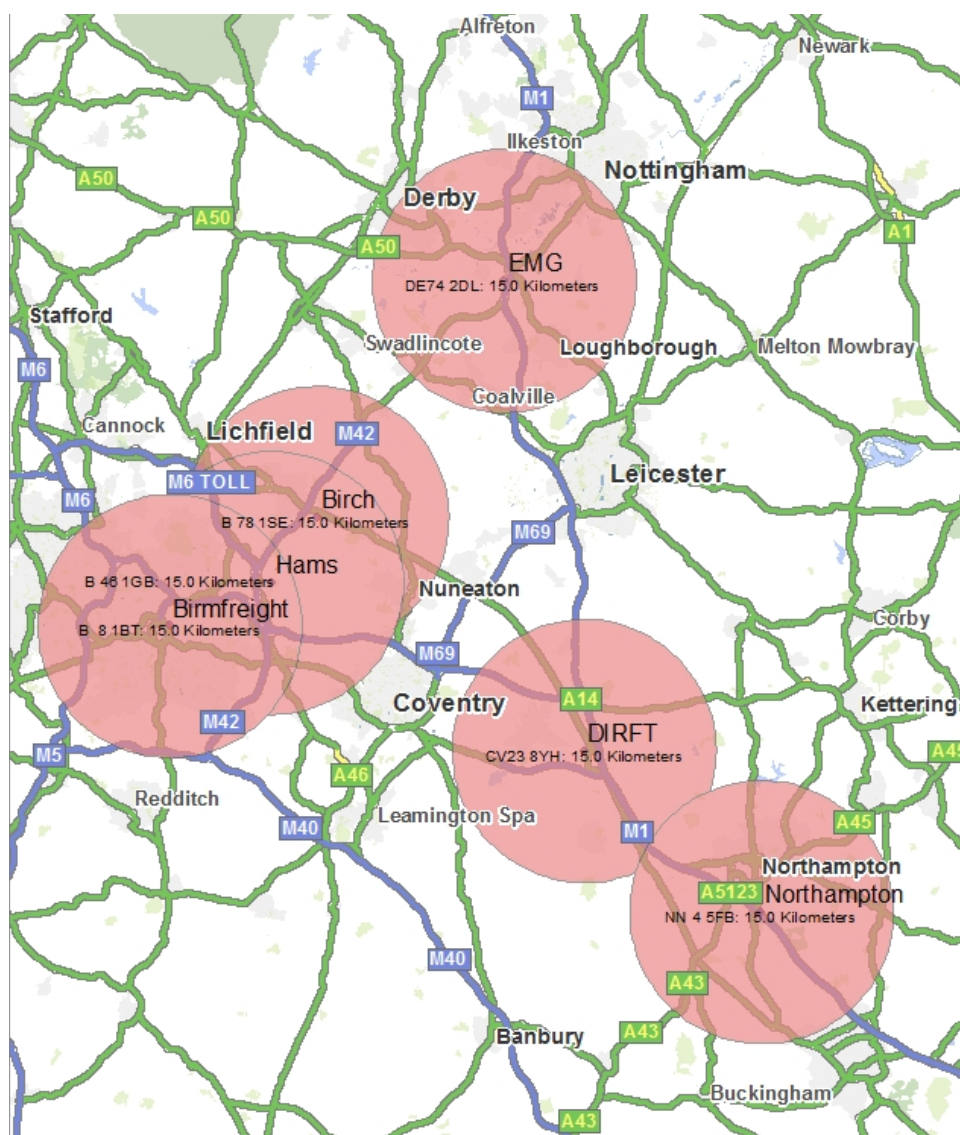
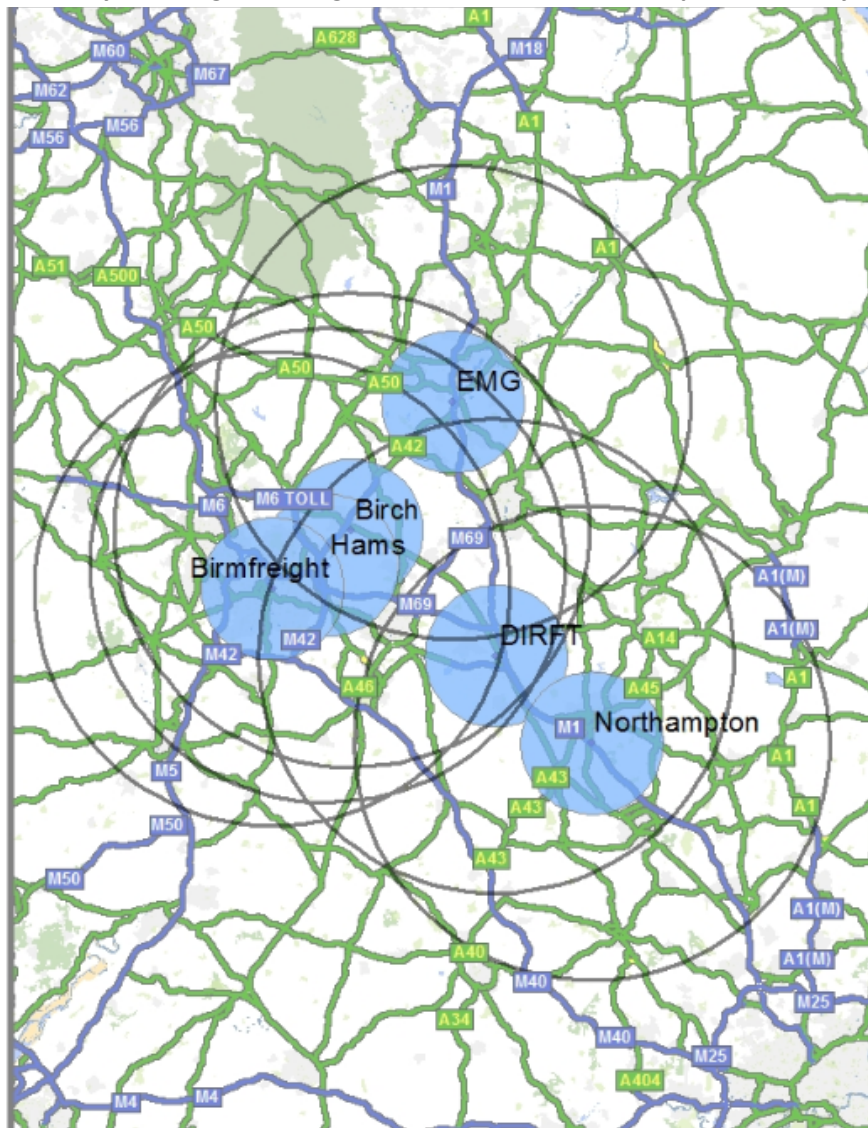


Figure 12: Secondary catchments of 50 km around Birch Coppice, Hams Hall, East Midlands Gateway, Birmingham Freightliner, DIRFT and Northampton Gateway



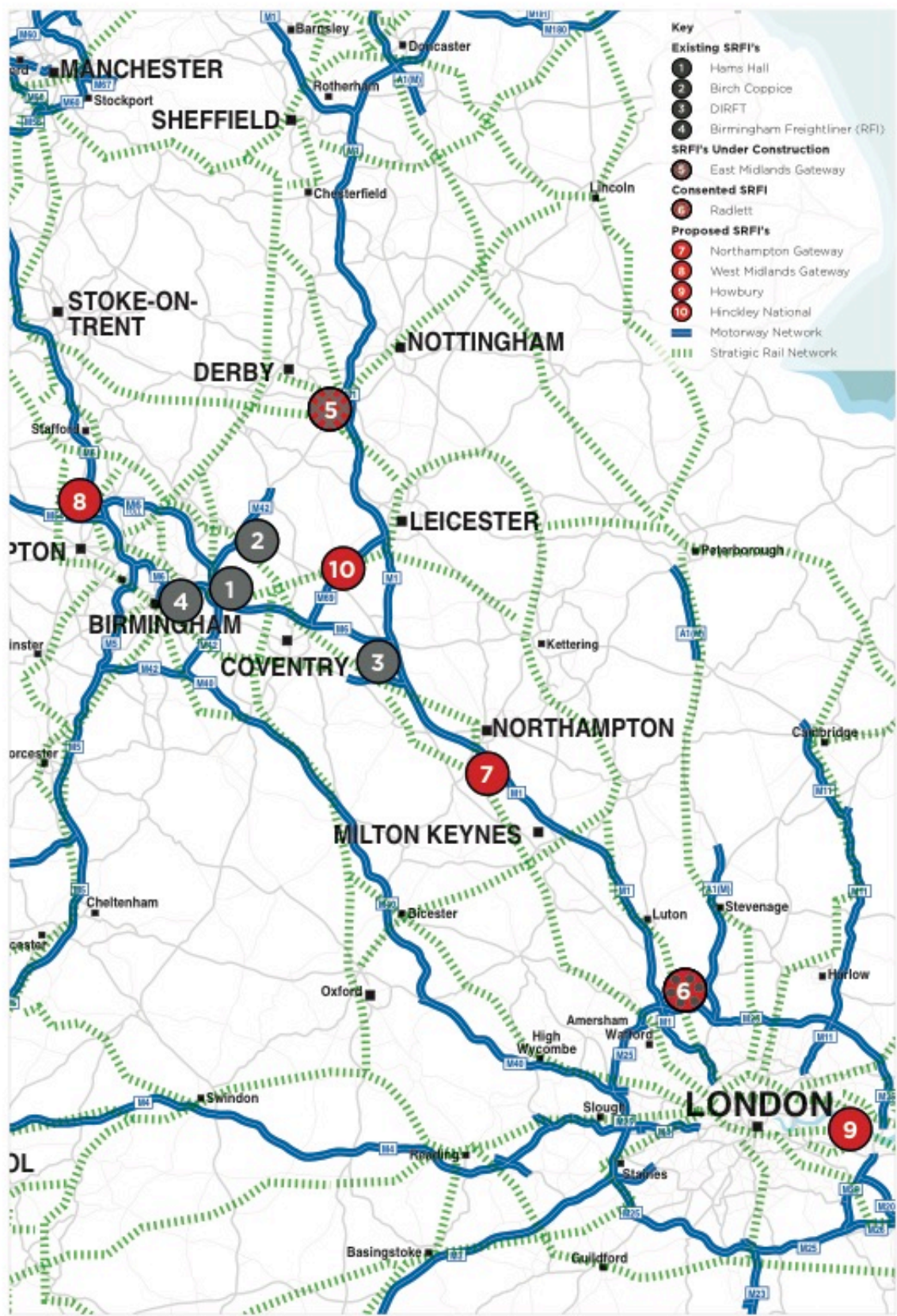
Source: Experian Micromarketer, Gerald Eve

- 7.22. Despite this concentration, each RFI operates commercially successful rail freight operations.
- 7.23. Volumes have risen steadily over the last decade at these existing terminals and between Birch Coppice, Hams Hall, DIRFT and Birmingham Freightliner they now handle thirty-two trains a day. These terminals have been successful in generating modal shift from road by attracting new business to rail, even though they are close to each other. Hams Hall is 7 miles from Freightliner's Birmingham Lawley Street terminal and 5 miles from BIFT. This demonstrates that in concentrated distribution markets, such as the East and West Midlands, there is sufficient volume to make multiple terminals viable and indeed multiple terminals are needed to meet demand.

7.24. The overlapping nature of these catchments does not mean that each is perfectly interchangeable for one another in terms of the services provided, the destinations and routes served by each RFI or the business needs of each user. Despite their proximity and having regard to the matters outline above, they will, to a greater or lesser extent, serve different markets. This will be particularly true for new terminals which expand the network associated with the concentration of logistics activity in the Midlands. East Midlands Gateway for example will stretch the network to the north to serve the growing market around Nottingham , Derby and Leicester. Similarly Northampton Gateway will expand the network to the south , meeting the significant demands referred to in Section 4 and providing a greater association and links to the London market.

7.25. There are other emerging proposals for SRFI's in the Midlands region which reflect the markets response to logistics demand and opportunities for the delivery of viable rail freight scheme. These include West Midlands Interchange which would extend the network to the north west and proposals at Etwell Common (East Midlands Interchange) close to East Midland Gateway and Burbage Common near Hinckley. The proposed Rail Central scheme located immediately west of the Northampton Gateway site emphasises the strength of the market in the Northampton area.

Figure 13: Existing and proposed SRFIs, plus Birmingham Freightliner



7.26. The concentration of SRFI's in this area is not surprising and wholly consistent with the concentration of logistics within this area generally, and importantly the concentration of National Distribution Centres. It is also a clear reflection of the economics of rail freight, as explained elsewhere in this Report.

8. MARKET REQUIREMENT FOR NORTHAMPTON GATEWAY SRFI

8.1. Having considered the economics of rail freight and market demand for SRFI's the following section considers the requirement for an SRFI at Northampton Gateway.

Demand for Warehousing

8.2. As outlined in Section 4 and in Appendix 1, the demand for large scale logistics space in the Northampton area is extremely strong and expected to grow further over coming years. This is driven by the general growth in the logistics sector alongside the effects of changes in the sector, particularly the increased need for NDC's and effects of e-retailing. There is unquestionably a shortage of supply of logistics space generally to meet future market demand.

8.3. Underlying market conditions are expected to continue and there will therefore be strong levels of occupier demand for rail served warehouse space at the Northampton Gateway SRFI. The location is very well served by road and rail connections with 77% of the UK population within a 4.5hr HGV drive time and a population of 21.3 million within a 90 minute HGV drive time of the site²³ including much of London. It is therefore capable of serving a large market across key urban centres. There is also access to a good supply of suitable labour, particularly in Northampton but also the wider area.

Users of the rail freight terminal

8.4. In terms of the market for the rail freight terminal it is considered that a significant component of the demand for services will come from new on-site warehousing and existing and new warehousing in the surrounding area.

8.5. Having regard to analysis in Section 7, a core catchment area of 15km at Northampton Gateway has only a very small overlap with existing SRFI's. The secondary catchment of 50 km around Northampton Gateway would overlap with existing RFIs, particularly DIRFT. Figure 11 shows the core catchments of the existing Midlands RFIs as well as the one for the proposed RFI at Northampton Gateway. Given the concentration of logistics activity this overlap is inevitable. Northampton Gateway has the potential to capture new markets, particularly south of Northampton, which are not well served by existing terminals, and expand the network of SRFI's.

8.6. Given the concentration of existing large scale logistics in Northampton and to the south at Milton Keynes, Northampton Gateway will be capable of serving a large number of existing rail freight users better than existing SRFIs. Most importantly however it will provide an opportunity for rail to be used by existing and future logistics operators in the area who currently rely, or will rely, entirely on the road based system because rail access is uneconomic. It will therefore expand the network of SRFIs and meet un-met demand for rail freight use as well as the demand from future growth in the logistics sector and use of rail freight.

²³ Experian Micromarketer, August 2017

Potential demand for rail freight use within the Northampton Gateway catchment area

- 8.7. Research has been undertaken in order to try to assess the potential depth of demand for rail freight services at Northampton Gateway. The details of the research and findings are set out in Appendix 2 and summarised here. The research focused on logistics operators with units located within the Northampton Gateway 50km catchment but at locations which are closer to Northampton Gateway than to DIRFT. This does not mean that occupiers outside of this search area would not utilise a rail terminal at Northampton Gateway but it helps to understand how Northampton Gateway could expand the reach of rail services by expanding the network of SRFI's.
- 8.8. The analysis focuses on warehouse units of 9,290 sqm or more. A size threshold of 9,290 sqm has been used as units of this size and above are considered to be appropriate logistics operations that may be of sufficient scale to have potential use for rail-freight services. Based on this size threshold, a total of 192 existing warehouse units have been identified totalling 4.87 million sqm.
- 8.9. In addition to the identified existing stock of warehousing space, the research considers the potential for new space to be developed. It identifies 11 sites that could accommodate units of more than 9,290 sqm, totalling 940,770 sqm
- 8.10. There are 33 units that could be developed in the schemes identified, the majority of which are large footprint units of more than 23,225 sqm.
- 8.11. Based on the current and future warehousing space, there is a significant pool of potential users of the proposed RFI at Northampton Gateway within the identified catchment; this is of course in addition to the occupiers on the Northampton Gateway site itself. A significant proportion of this floor space is unlikely to find it feasible to utilise any current rail facility and will therefore be entirely road based in the absence of new rail provision.

Occupiers of warehousing space in the Northampton Gateway catchment

- 8.12. In addition to identifying the amount of warehouse units within this area, the analysis undertaken has also considered the occupational status of these buildings and identified the occupiers of each unit.
- 8.13. In order to consider the likelihood of demand for rail freight services at Northampton Gateway, the analysis has considered these occupiers' sectors and their businesses' current use of rail freight.
- 8.14. Compared with the distribution of floorspace by sector for the logistics warehousing market as a whole across the country, this area has a far higher exposure to retailers and wholesalers (44% of total floorspace compared with 26% for the country)²⁴. Also, the average unit sizes

²⁴ Gerald Eve 'Prime Logistics' research

occupied are larger than the average for the country and for each sector but particularly retail & wholesale which is 29% larger than the national average. This is important as this implies that the operations being carried out at properties are likely to be national and regional distribution functions which, as discussed earlier, are also typical users of rail freight.

8.15. Data has also been collected on the use of rail freight by occupiers in the area. This considers the occupiers business as a whole and not the specific operation of the unit in this area. This information could be considered as an indicator of the current willingness of businesses to use rail freight and an indicator of potential rail freight use at Northampton Gateway.

8.16. This data shows that over half (60%) of the current floorspace within the area is occupied by businesses with an existing use of rail freight as part of their overall business. This indicates that these occupiers use rail freight in their logistics operations and have an understanding of rail freight as a part of their business.

9. OTHER MARKET CONSIDERATIONS

- 9.1. The proposal for Northampton Gateway seeks to address potential demand for different types of rail freight. It is designed with sufficient scale and flexibility to respond to long term changes in the logistics sector. The terminal itself is of significant scale which will allow it to expand over time to accommodate future growth in intermodal traffic but also to adapt to market requirements as they may evolve in the future. In addition to traditional bulk intermodal the scheme is designed to accommodate an aggregates terminal and is future proofed so it is capable of accommodating a rapid rail freight terminal should such a model prove feasible at some time in the future.
- 9.2. The growth of the use of rail to transport construction material (particularly bulk aggregates) has been significant over recent years. The FNPO Route Strategy Plan 2018 concludes that growth has been at 3.5% per annum. GRS Roadstone are experts in bulk and bagged aggregates, they currently have a rail operation in the centre of Northampton. Due to the growth of their business and challenges with the operation of their existing Northampton facility, GRS have agreed terms with Roxhill to relocate their operation to Northampton Gateway. The relocation would allow GRS to operate more efficiently and to continue to expand their business and the use of rail. Their commitment to the site illustrates the growth rail freight in this sector, the suitability of the terminal at Northampton Gateway to meet market needs and the benefits to growth of the provision of high quality new rail terminal facilities.
- 9.3. The Department for Transport outlined potential areas of new traffic development in its Rail Freight Strategy published in September 2016 in which it outlines the potential for using spare capacity in off peak period passenger trains to reintroduce the movement of smaller consignments to rail (Paragraph 71 onwards *"Alongside the traditional rail freight sector's high-volume, high-tonnage model, there is scope to explore innovative new models that meet the demand from customers for a reliable, flexible and rapid delivery service. where there is spare capacity on passenger trains there is a potential opportunity at relatively low additional cost, as this capacity largely goes to waste each time a train runs without it being used."*²⁵)
- 9.4. These new models theoretically offer the opportunity to reduce the number of vehicles in city centres, reducing carbon emissions and improving air quality by supporting final mile delivery through zero-emission technology such as electric vans.²⁶
- 9.5. At the moment this market is largely untested and unproven and is therefore uncertain. However as noted by Network Rail in the recent FNPO Route Strategic Plan, it is a 'longer term' opportunity in a new market. The Northampton Gateway site has been designed so that it can make provision for the future delivery of a rapid rail freight terminal, capable of loading and discharging up to six trains into and six out of the site per day.

²⁵ Para 74, DfT Rail Freight Strategy, September 2016

²⁶ Para 76, DfT Rail Freight Strategy, September 2016

9.6. The approach allows for the final specification and design of the rapid rail freight terminal to respond to market needs if they develop in the future. The rapid rail freight terminal will utilise the rail infrastructure to be provided as part of Northampton Gateways main terminal, in this way the costs of delivery will be minimised and the scope for viable services maximised. Because of the overarching economics of rail freight, whereby the significant costs of initial infrastructure can often preclude investment, this approach will maximise the opportunity for future delivery of rail freight services to meet market requirements.

10. CONCLUSIONS

- 10.1. The Northampton Gateway site represents an exceptional opportunity to develop a strategic rail freight interchange. Situated in the 'Midlands Distribution Heartlands', which as outlined in this report, is the premier logistics location in the country, the site is close to a concentration of existing major logistics operations and will be highly attractive to a range of occupiers keen to make use of its strong road and rail transport links and labour supply.
- 10.2. In recent history rail has played a relatively limited role in distribution, with operators focusing on road-based movement. This has in part been due to the limited number of, and therefore access to, rail terminals (where logistics could be transferred from road to rail) (SRFIs or RFIs).
- 10.3. Intermodal (container) traffic is now the biggest rail freight sector, having experienced growth of 93% in the last 18 years. DfT and Network Rail expect intermodal traffic to continue to grow considerably over the next 30 years and at least double in volume again. Existing SRFI terminals will not be able to cope with this market growth and additional SRFIs will be required. DfT makes it clear that the availability of SRFIs will be a constraint to rail freight growth if not adequately satisfied.
- 10.4. Therefore the UK Government has, in its National Policy Statement for National Networks, recognised that there is a 'compelling need' for the provision of new SRFIs in order to respond to the changing needs of the logistics sector, to meet and stimulate growth in the use of rail, respond to national environmental objectives and to help stimulate economic growth.
- 10.5. The logistics property market has been exceptionally strong over recent years, due to the continued growth of the economy but also structural changes which have driven demand. In particular changes to logistics have resulted in larger units and a greater number of national distribution centres, and, alongside this, there have been changes resulting from the rapid growth of internet retailing.
- 10.6. The principle drivers of occupational choice for users of logistics space are focused on access to markets (connectivity to ensure access to population/businesses), and, access to labour (proximity to economically-active and appropriately skilled people to staff warehouse operations). Because of these key factors the Midlands is a focus of logistics activity and demand. The existing concentration of logistics activity in the Midlands is expected to continue. Northampton Gateway is in the southern part of this logistics 'heartland'.
- 10.7. The use of rail in the logistics sector is expected to continue to grow as the benefits of utilising rail compared to purely road-based logistics increases and awareness grows. However, as recognised by the Government, the provision of additional Strategic Rail Freight Interchanges is essential if growth is not going to be throttled by lack of appropriate infrastructure to facilitate this modal shift. Furthermore, new SRFIs must be concentrated where demand is greatest, in particular in locations where there is a concentration of logistics space, particularly National Distribution Centres and where demand for logistics space will continue to grow. Without the

provision of new SRFIs in these locations, logistics operators will be forced to continue to utilise road as their only method of freight distribution.

- 10.8. There is an existing concentration of Strategic Rail Freight Interchanges in the Midlands which reflects the concentration of logistics activity in this area. This network will need to be reinforced and expanded if the growth in rail freight is to be achieved and demand met. A lack of SRFIs has undoubtedly constrained the growth of rail freight and, unless new SRFIs are provided in locations which address market requirement, logistics operations will continue to be developed but will be road-based.
- 10.9. The Northampton Gateway site has the potential to expand the network of SRFI's in the Midlands. It will expand the existing network to the south to address demand; other SRFI's are under construction / proposed which will expand the network to the north east (East Midlands Gateway) and north west (West Midlands Interchange) of the region.
- 10.10. For the reasons set out in this report, we believe that there will be strong demand for rail freight services and rail-served warehousing at Northampton Gateway.

APPENDIX A1: THE LOGISTICS PROPERTY MARKET

Introduction

1. Gerald Eve has undertaken an assessment of the UK logistics warehouse market with a particular focus on the demand for and supply of warehousing in the Northampton area.

Background to the logistics sector and drivers of demand

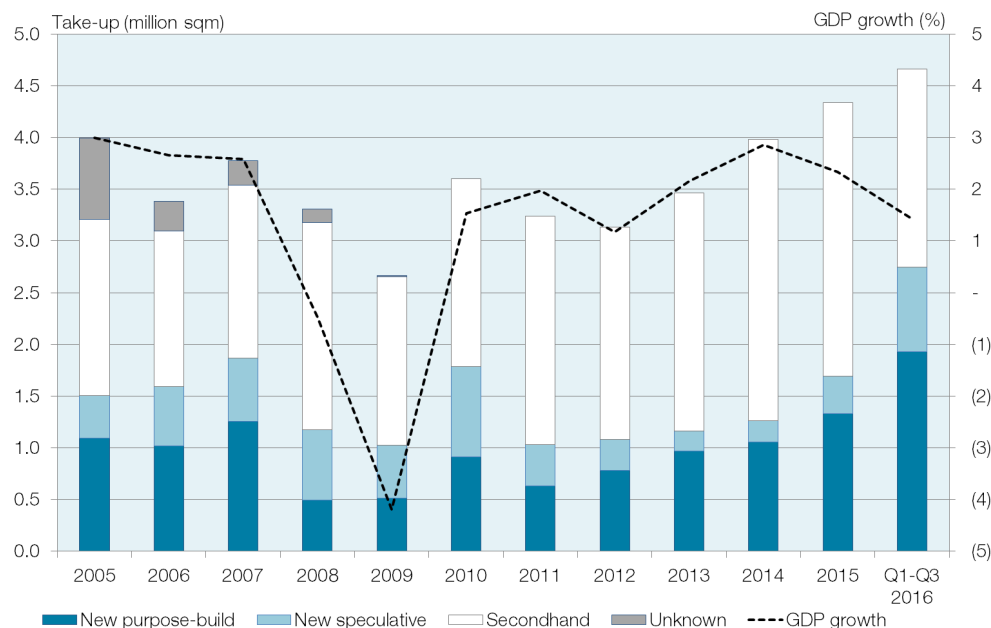
2. Logistics can be defined as the movement of goods from source to end user and relates to a broad range of product and range of end destination types and locations. The types of operators of logistics facilities and operations can typically be classified as one of the following categories:
 - **Manufacturers:** these businesses produce goods, both finished and semi-finished, for sale or to other producers who incorporate these goods into their own manufacturing processes.
 - **Suppliers or wholesalers:** these businesses distribute goods, either as finished goods or components/semi-finished goods, to manufacturers and/or retailers.
 - **Retailers:** these businesses sell goods to the public for their use or consumption (rather than for resale).
 - **Logistics providers (3PLs):** these businesses are providers of outsourced logistics services for the above types of businesses. Parcel & postal operators, who are specifically involved in the movement of letters, parcels and packets, can be considered a subset of logistics providers.
3. Demand (for warehousing) is driven by several key factors affecting businesses and their property requirements including:
 - **Business activity growth:** this can result in intensification of use of existing space but also relocation to larger premises or demand for additional warehouse space in more units.
 - **Business activity decline:** this can result in the relinquishing of underused space back to the market to focus activities in fewer numbers of premises.
 - **Business reorganisation:** this can be reconciliation or consolidation of space (for example, moving from several smaller units into one larger unit), rationalisation of space (such as moving from a larger, underutilised or more costly unit into a smaller or less expensive unit) or strategic changes to the way the business operates (for example, new business areas may mean a new type of premises is required or space in new locations).
4. When one or more of the above factors propels a business to make choices regarding logistics property, the principle drivers of occupational choice for users of logistics space are focused on the following two areas:
 - **Access to markets:** that is, connectivity to appropriate transport links to ensure access to major urban centres and key supply chain routes i.e. occupiers' customers which govern the destination of the goods being moved.
 - **Access to labour:** that is, proximity to economically-active and appropriately skilled people to staff warehouse operations.

5. Following assessment of the business' needs and desires in these key areas, a third factor, the availability of appropriate logistics warehouse space and the terms on which it can be contracted, will also be important in determining the type and volume of space occupied.
6. In terms of the way in which logistics operations are run individual premises are generally run as one of the following broad types of operation:
 - **National distribution centres (NDC):** these properties are very large units (typically 25,000 sqm or more) which act as single stock holding point serving a network of regional distribution centres and other destinations within an organisation's supply chain, such as a store network. They are often the point of first receipt of goods into an organisation's logistics operation – such as goods being imported or delivered from manufacturers for a retailer – and often act as a point of consolidation for goods from multiple sources to be assembled into appropriate loads for delivery to onward destinations. Distribution from NDCs is often nationwide from this single point.
 - **Regional distribution centres (RDCs):** these properties are large units (typically 10,000-46,450 sqm) which act as distribution point to other parts of the supply chain – such as multiple stores – in an area/region around the RDC. Distribution of goods from RDCs is often within a shorter timescale to within NDCs.
 - **Local distribution centres:** these are much smaller units (typically 3,000 sqm to 10,000 sqm) which serve a smaller geographic area but typically of higher market density, particularly of individual consumers.
7. The way in which logistics operations are managed by businesses broadly fall into two categories: 'in house' where businesses run their own logistics functions with their staff, equipment, vehicles and properties, or 'outsourced' to a 3PL, where the day-to-day management of their logistics operations are managed by a logistics provider on the business' behalf.
8. Considering the property commitments to serve logistics operations, appropriate warehousing space will be leased/owned by either the business (that is, the retailers/manufacturer/supplier) with the operations managed either in-house or contracted to a 3PL, or in an outsourced scenario, the property itself may be leased/owned by the 3PL and the customer's operation run from its premises.

A1.2 Demand for logistics warehousing floorspace

9. The demand for warehousing space has fluctuated with the economic conditions over the past twelve years but has also shown some signs of acting independently of the economic cycle. Figure 14 shows recorded take-up of units of 4,645 sqm or more between 2005 and 2016 by the type of space acquired and includes the growth rate of the UK's GDP.

Figure 14: Total occupier take-up of units of 4,645 sqm or more, by type, and UK GDP growth, 2005- 2016



Source: Gerald Eve, Experian Economics

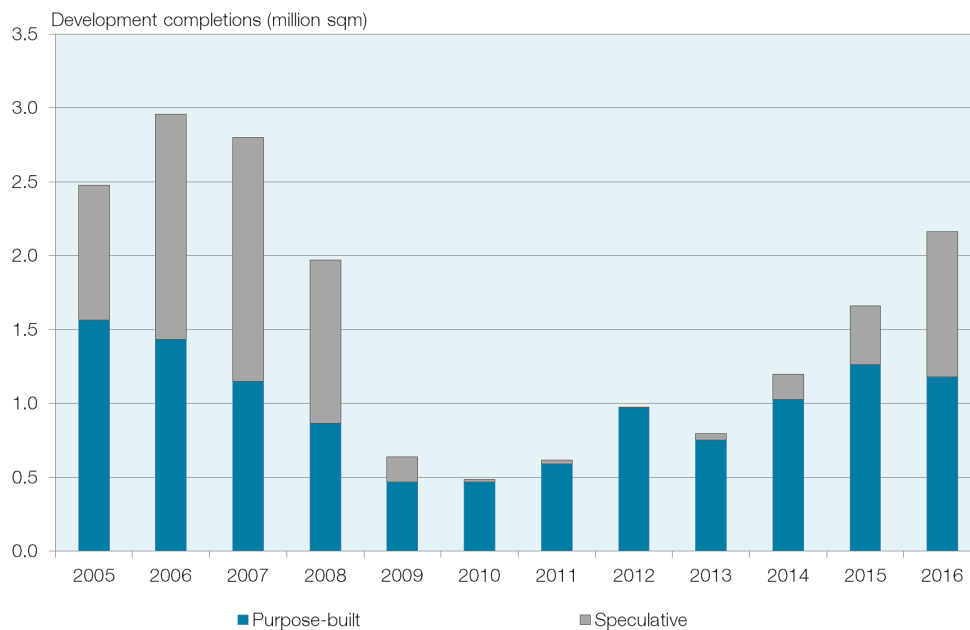
* Note: 2016 GDP growth is forecast by Experian Economics

10. The early part of the period (2005-2007) can be identified as the first occupier “boom” when occupational take-up was consistently strong at 3.5-4.0 million sqm per annum and coincided with a period of consistently strong economic growth at 2.5-3.0% per annum. During this period, as well as being buoyed by relatively robust economic growth, the demand for warehousing space was also supported by the continuing reorganisation of supply chains by businesses, particularly retailers, which resulted in significant demand for new and particularly large warehouse units. During this period, retailers, notably major supermarket chains like Tesco, Sainsburys, Morrisons and Asda as well as fashion retailers and multi-merchandisers such as Next, John Lewis, Marks & Spencer, Ikea and Argos, were highly acquisitive, accounting for 2.95 million sqm taken up in the three year period, representing 26% of total take-up. Of this 2.95 million sqm, 2.06 million sqm or 70% was for new space, either purpose-build or newly-built speculative units. This is partly due to the fact that the space, either the volume or the type of units especially large units of more than 500,000 sq ft, simply did not exist before and so needed to be built in order to satisfy occupiers’ demand.

11. During the period 2008-2012, in line with the overall economic decline, take-up fell and remained subdued at less than 3.3 million sqm per annum except during 2010 when there was a marked uptick in occupier activity with take-up of warehousing space totalling 3.6 million sqm.

12. This is the first example of activity independent of the broader economic cycle but which resulted from conditions specific to the logistics property market. In 2010, there was a significant supply of new, speculatively-developed space that had entered the market in the previous five years which was still vacant having never been occupied following development completion. In the five years between 2005 and 2009, 10.84 million sqm of logistics space as units of 4,645 sqm or more were completed; of this 10.84 million sqm, 5.39 million sqm was built as speculative space.

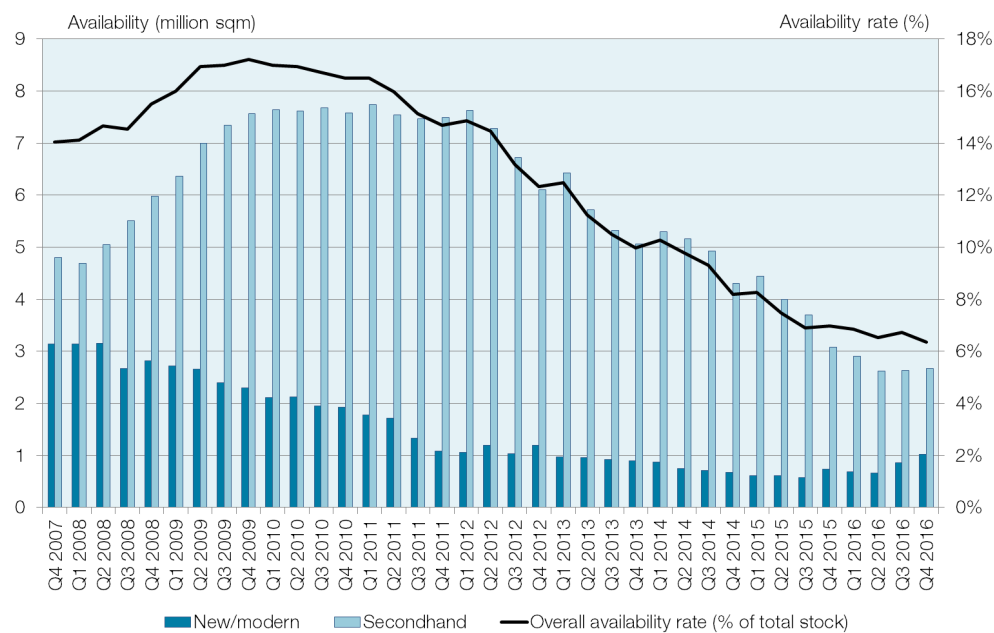
Figure 15: Total development completions of units of 4,645 sqm or more, by type, 2005- 2016



Source: Gerald Eve

13. As this exceptional supply of new speculative space, more space was also being returned to the market as secondhand space as a result of businesses, faced with uncertain economic conditions ahead, choosing to reconcile or consolidate property or in some cases, having to vacate as a result of business failure. This meant that coupled with a decline in occupier demand, the availability of logistics floorspace increased significantly: between Q4 2007 and Q4 2009, the availability of logistics property as units of 4,645 sqm or more increased from 7.94 million sqm to 9.86 million sqm and the availability rate grew from 14.0% to 17.2%.

Figure 16: Total development completions of units of 4,645 sqm or more, by type, 2005- 2016



Source: Gerald Eve

14. The more subdued occupational demand environment coupled with the increase in availability and the fact that costs on this vacant property were increasing, due to the abolition of empty rates relief which came into effect on 1 April 2009, meant that developers and landlords were keen to strike deals with occupiers that were willing and able to take their vacant space.
15. Occupiers in this position were able to negotiate exceptionally attractive deals on this speculatively-developed space in particular as well as on vacant land for purpose-build units. As a result, the volume of space taken in 2010 as speculatively-developed units increased from an average of 537,000 sqm per annum for the 2005-2009 period to 866,000 sqm in 2010. Purpose-build space take-up was also strong in 2010 at 905,000 sqm compared with the average for 2005-2009 of 871,000 sqm and both were indeed far stronger than was expected given the declining economic conditions and the fall in take-up of design-and-build floorspace in 2008 and 2009 to just 492,000 sqm and 512,000 sqm respectively. Overall, take-up of new speculative and new purpose-build floorspace in 2010 accounted for 49% of total take-up, considerably more than the average of 37% for 2008-2009 during which period economic conditions had worsened.
16. This unexpectedly high volume of newly-built space being taken up was directly as a result of the supply-demand imbalance in the logistics property market, creating opportunities for occupiers with the confidence in their business's ability to weather the economic turbulence of the economic downturn to commit to high-quality logistics space on highly competitive terms including discounted rental levels, improved incentive packages (typically longer rent-free periods for tenants) and shorter and/or more flexible leases. Occupiers who acquired a

significant volume of newly-built floorspace in 2010 included Tesco, Marks & Spencer, Debenhams, Asos.com, Amazon, Asda and JD Sports.

17. Following this unexpected uptick in occupier take-up in 2010, volumes fell back again in 2011 and 2012 to just 3.24 million sqm and 3.13 million sqm respectively, as the economic environment remained relatively subdued and occupier appetite for committing to investment in new premises broadly waned. Amongst those occupiers still in the market to take space, the options for newly built premises were becoming more constrained as the availability of newly built speculative units declined: the buildings still available on the market from the 2005-2009 development period were being taken up but as there was no further speculative supply being brought forward, occupiers' options were limited. Whilst some opted to go down the design-and-build route, contracting purpose-build units on development land, many more opted to seek space in the secondhand space market: 4.26 million sqm or 67% of total occupier take-up in 2011-2012 was contracted as secondhand space.
18. In 2013 and 2014, occupier activity strengthened as the economy started to grow at more meaningful rates once more. In 2013, demand reached 3.14 million sqm and in 2014, grew further to record 3.46 million sqm. During this period, the availability of good quality, particularly new speculatively built, space started to become increasingly constrained as the development supply of new speculative space almost completely stopped and much of the recently-completed space in the market had been taken up during 2010 and 2011. Availability of new/modern space at end Q4 2013 was just 3.1% compared with 8.6% at end Q4 2009. As a result, the volume of new speculative space taken up by occupiers was far smaller than in previous years at 297,300 sqm in 2012 and 190,800 sqm in 2013, compared with an average annual take-up of speculative space for the period 2005-2011 of 582,400 sqm. Instead occupiers were forced to choose between secondhand space or committing to purpose-build units to secure new space.
19. In 2015 and 2016, despite output growth rates slowing, both years have posted exceptional volumes of occupier demand for logistics warehousing space: at 4.34 million sqm, 2015 was reported the strongest level of occupational demand recorded, until this volume was bettered in 2016 when 4.67 million sqm were taken-up.

Property market dynamics

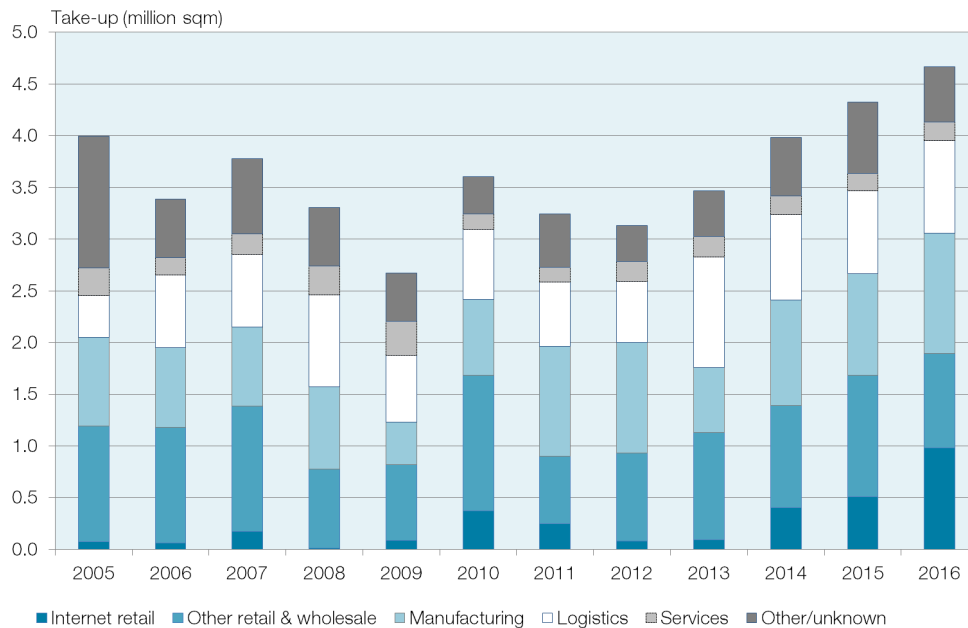
20. The general growth of the economy and consumer spending create on-going demand in the logistics sector. However over recent years two interlinked factors have strongly affected both the scale and form of demand for logistics space. These factors are firstly the continued drive for efficiency which has resulted in ever increasing demand for very large scale national Distribution Centres and secondly the effects of the significant growth of e-retailing and the associated demands for logistics space to serve this market.
21. Online retail represents a structural, rather than cyclical, shift in the way in which consumers choose to shop, and also the way in which goods are communicated to them. The proportion

of retail sales represented by online sales has increased from 2.5% at the end of 2016 to 15% in May 2017²⁷. This shift has been fuelled in part by the technological developments, including investment in the national broadband and 3G/4G mobile networks, which have allowed consumers to shop across many different types of devices, particularly smartphones and tablets, thus increasing the ability of consumers to shop online and therefore increasing the overall amount of online shopping. It has also been driven by the ongoing deepening of the online market: industry body Ecommerce Europe estimates that there were in excess of 750,000 active online businesses across Europe in 2015, up 36% from 550,000 businesses in 2012. Many well-established retailers who have physical store networks have reported over the past ten years that their online sales have been growing at faster rates than their store-based sales, which in turn has fuelled demand for appropriate logistics property.

22. Warehouses that are used to fulfil traditional store replenishment requirements, which were the driving force behind much of the demand for warehousing space from retailers in the mid-2000s, are often considered less appropriate premises to operate operations for the fulfilment of online retail sales (e-fulfilment), which require faster turn-around from order time to delivery than to-store as well as different types of delivery of different and far greater number of individual items (instead of pallet loads) to an exponentially larger number of destinations (individual shoppers' homes/workplaces instead of a finite number of stores within a network). Additionally in order to ensure preservation of the efficient to-store operations, many retailers have opted to run e-fulfilment operations from dedicated facilities, either contracted themselves or through third-party logistics providers (3PLs). This has fuelled demand for warehousing space specifically to be operated for e-fulfilment.
23. The increase in the volume of goods sold online and delivered to individual homes and businesses has created a heightened demand for warehousing space to support the increase in this activity. As a result, the proportion of demand for warehousing space from internet retailers has increased from 74,000 sqm in 2009 (3% of total take-up in that year) to 980,400 sqm in 2016 (21% of total take-up) as shown in Figure 17.

²⁷ ONS, Retail Sales Index, June 2017

Figure 17: Total occupier take-up of units of 4,645 sqm or more, by occupier business sector, 2005-2016



Source: Gerald Eve

24. This change in the way in which consumers shop is a structural economic change and represents a major reorganisation in the retail marketplace, and the type of property required to support that marketplace. As a result, the demand for warehousing is being increased by this reorganisation despite the economic turbulence that is affecting other property classes more negatively.
25. Additionally, given the continuing development of the online retail market despite any economic slowdown that may occur in the future, occupier demand for logistics warehousing space to support online retail sales growth is expected to remain a significant component of overall warehouse floorspace demand.
26. Retailers, notably internet retailers, are maximising the efficiency and increasing the sizes of their warehouse facilities to accommodate the storage and processing of an increased amount of goods. Gerald Eve has found that the average size of new buildings, of both purpose-built space (designed-and-built by occupiers) and speculatively developed space (developed without a specific occupier) has increased year-on-year since 2012. This culminated in an average size of development of 214,207 sq ft during 2017, having risen from an average 169,550 sq ft during 2012.
27. This has translated into much increased occupier take-up of large units over 500,000 sq ft. In the three year period 2015 – 2017, Gerald Eve recorded 35 individual occupier transactions of buildings over 500,000 sq ft in size, totalling 26.6 million sq ft. In comparison, between the period 2012-2014, Gerald Eve recorded 22 individual transactions, totalling 15.9 million

sq ft. There has been a substantial increase in the take-up of warehouses over 500,000 sq ft in size, and it has been retailers, most notably internet retailers, which have driven this increase.

A1.3 Analysis of historic take-up of rail-connected warehouse space

28. Take up of rail-served warehousing has accounted for 1.59 million sqm between 2005 and 2016, which represents just 4% of total floorspace taken-up over the period. However, this relatively small percentage of overall take-up has been located at very few sites. It has been more the restricted availability of appropriate sites, rather than occupier demand for such sites which has kept the percentage low.

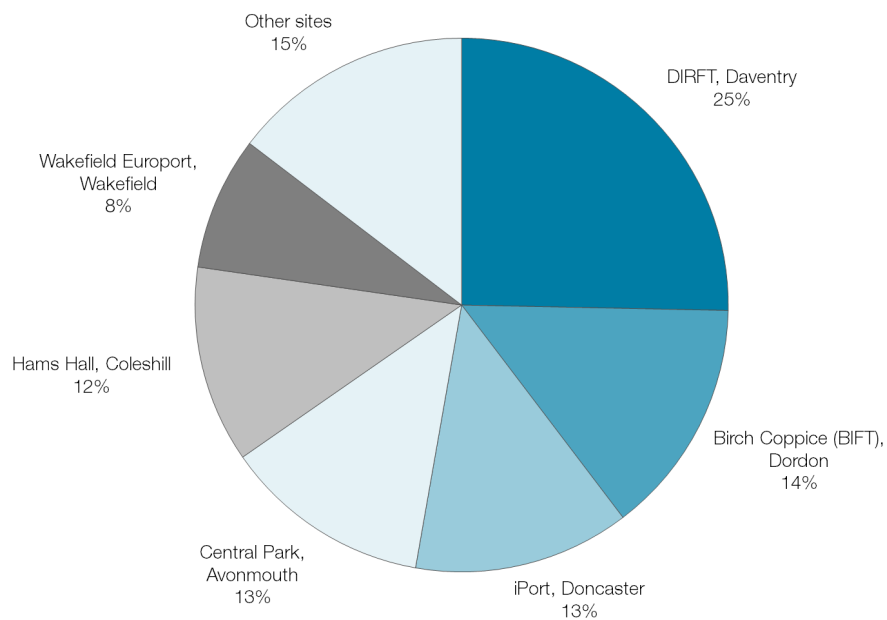
Figure 18: Total occupier take-up of units of 4,645 sqm or more, by rail-served floorspace and all other units, 2005- 2016



Source: Gerald Eve

29. Of the space that has been taken up over the past twelve years between 2005 and 2016, the majority has been at DIRFT with over 400,000 sqm of space as units of 4,645 sqm or more – or 25% of all rail-served warehousing space taken by occupiers over the period, followed by 228,100 sqm at Birch Coppice Business Park which is served by BIFT. In the past several years, demand has been strong at iPort, Doncaster (where 208,700 sqm was taken up, all of it in 2016) and Central Park, Avonmouth, near Bristol (where 200,200 sqm has been taken between 2005-2016, of which 179,300 sqm was taken up in 2016).

Figure 19: Occupier take-up of rail-served warehousing units of 4,645 sqm or more, by location of units, 2005- 2016



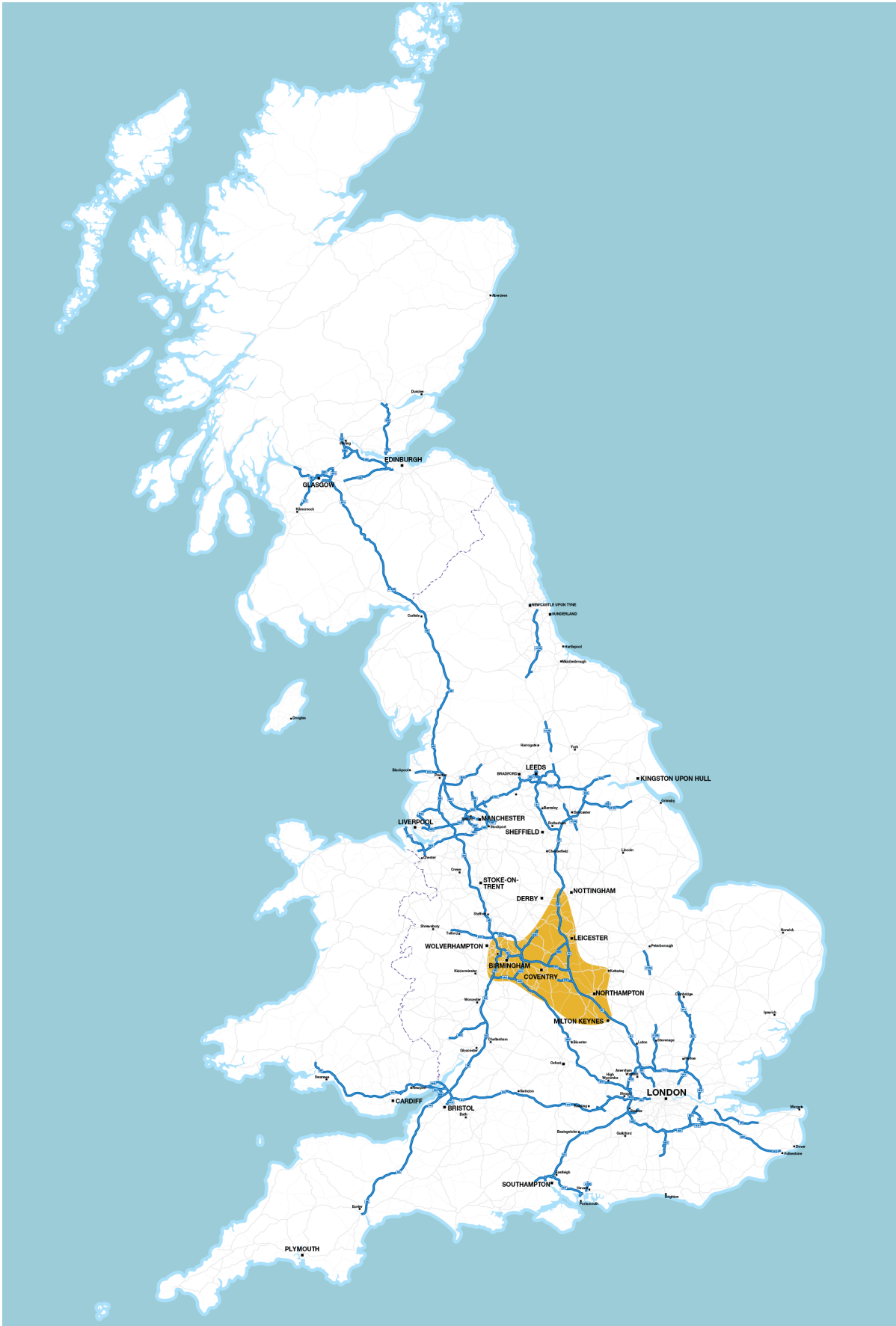
Source: Gerald Eve

30. Whilst take-up of rail served warehousing which has been a relatively small proportion of overall take up, this is in our view a reflection of the availability of suitable sites rather than underlying demand.

A1.4 Logistics demand in Northampton

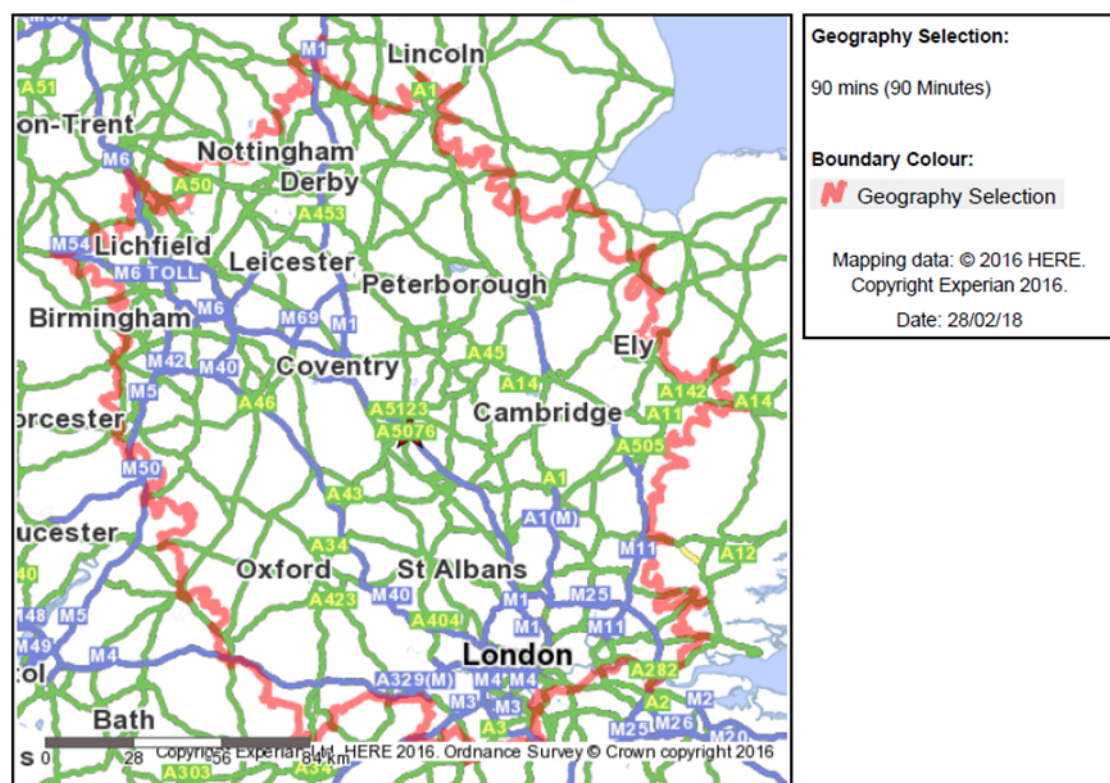
31. For some logistics operations demand is in part governed by the legacy of industrial activities in specific areas of the country, for example, automotive manufacturing in the West Midlands and steel making in Yorkshire. However, for other businesses not tethered to particular areas, it is the intrinsic nature of locations that are attractive for logistics operations.
32. The principle drivers of occupational choice for these users of logistics space are focused on access to markets (to urban centres and supply chain routes) and access to labour (proximity to economically-active and appropriately skilled people to staff warehouse operations).
33. These drivers of locational choice are expected to continue and potentially be reinforced due to the market dynamics described above, including the growth of e-retailing and the consolidation and concentration of activities into large national distribution centres.
34. The drivers of locational choice have resulted in a concentration of occupier activity in the centre of the Country. The attractiveness of the centre of the UK for logistics, relative to other locations, relates to the following intrinsic characteristics:
 - Its geographic central location in the UK providing access to all parts of the UK within a reasonable drive time. Drive time connections are crucial to the logistics industry.
 - Its physical location, being at the population-weighted centre of the country and broadly central to the major UK container ports and key domestic manufacturing areas.
 - Its transport connectivity, particularly road, with the country's two most significant motorways – the M1 and M6 – running through this area as do major trunk roads including the A14. These provide the key links to the UK's main urban centres and large container port
 - Its good supply of appropriately-skilled warehouse staff.
35. This focus of logistics activity has generally been referred to as the 'golden triangle'. This area is not precisely defined but the broad historic market understanding is that it stretches from Coventry in the west to Leicester in the north and Northampton in the south. In reality the focus of logistics activity and demand covers a wider area than this, stretching along the M1 and M6 corridors to the north and south and including the M42 around Birmingham. See plan below. A better description of this concentration is perhaps to refer to it as the 'Midlands Distribution Heartlands'.

Figure 20: The ‘Midlands Distribution Heartlands’



36. Northampton is in the southern part of this Midlands Heartland area. This area has seen very strong demand over recent years, driven by demand from food and internet retailers partly as a result of its access to London markets. The strength of demand in this Midlands area, and particularly the southern part of it, is reflected in strong rental levels. Gerald Eve has recorded strong prime rental growth over the last five years. Between 2012 and 2017, average prime rents in the distribution heartlands have grown by an average 16%. Prime rents in Milton Keynes are now around £7.15 per sq ft, which is the highest prime rent of all the locations in the distribution heartlands. This is reflective of the increased attractiveness of the locations within the heartlands and which in turn is likely to trigger further development.
37. The Northampton Gateway site has excellent transport links. Around 87% of the population is within a 4.5 hour HGV drive time and 77% within a 2.5 hour HGV drive time.
38. Even reducing this drive time further to a 90 minute HGV drive time, as depicted below, demonstrates the impressive reach from the location. 32% of the population, or 21.3 million people, are within 90 minutes of the Northampton Gateway site. Being at the southern side of the Midlands Heartlands means that the 90 minute drive time encompasses the majority of London. As a result of this connectivity the site provides access to a very large market including key urban centres.

Figure 21: 90 minute drivetime radius around Northampton Gateway site



39. The intrinsic attractiveness of the Midlands distribution heartland's location and the availability of appropriate land have meant that a significant proportion of occupiers have sought to locate logistics operations within the area. Using data Gerald Eve maintain on take up across sub regions, on average since 2006, 31% of the total volume of floorspace taken-up per year in UK as a whole has been taken in the sub-regions that make up the Midlands distribution heartlands. This is a significant proportion of all demand and demonstrative of the importance of the heartlands to overall UK demand. These sub regions are shown in the Plan below, they include the Northern West Midlands, Northern East Midlands, Southern West Midlands, Southern East Midlands and Buckinghamshire and Bedfordshire to the south.
40. The inherent characteristics of the Midlands distribution heartlands have meant that occupiers have sought to locate operations serving a broader area and a significant number of operations serve national distribution purposes. As a result, the size of properties demanded within the Midlands distribution heartlands are typically larger than in other parts of the country.
41. As described above, access to labour, in particular a location's proximity to economically-active and appropriately-skilled people to staff warehouse operations is also a vital consideration of warehouse occupiers.
42. The East and West Midlands regions are home to a large labour force, well suited to warehouse operations. According to Oxford Economics, regionally, there is a total labour force in the East and West Midlands of 5.2 million people, or 15% of the total UK labour force²⁸.
43. In terms of warehouse-specific labour supply, the East and West Midlands is equally well placed. For the wholesale and retail, manufacturing and transportation and storage sectors (good proxies for warehouse-specific labour), Oxford Economics suggest that the East and West Midlands is home to 19% of the UK workforce, or, a potential labour pool of 1.8 million people. There is a deep warehouse-specific labour pool in the Midlands on which potential occupiers can draw.

Conclusions

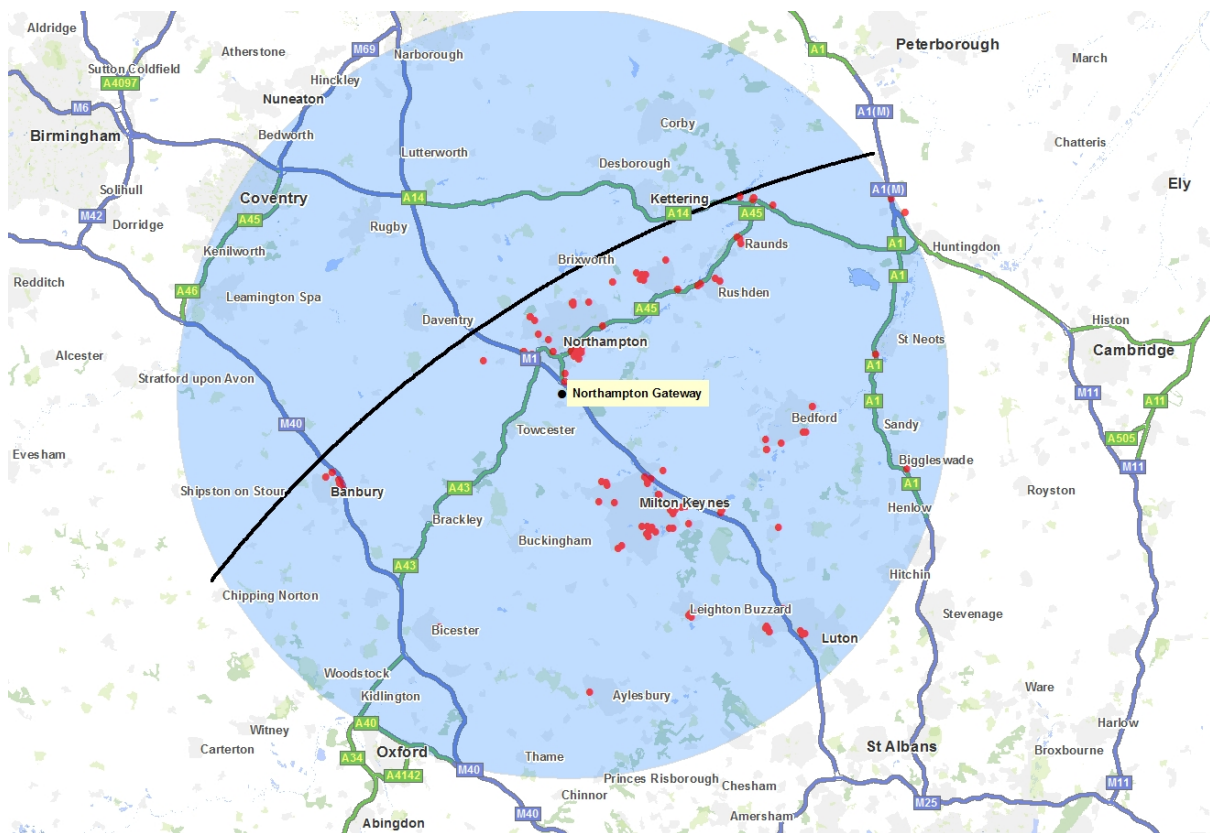
44. Northampton Gateway is in an exceptionally strong logistics location. We would expect there to be strong demand from occupiers for space on the scheme with a focus on large scale national distribution centres and large regional distribution facilities.

²⁸ Based on Oxford Economics Whole Economy labour force, updated 8 February 2018

APPENDIX A2: Potential demand for rail freight use within the Northampton Gateway catchment area

45. Research has been undertaken in order to try to assess the potential depth of demand for rail freight services at Northampton Gateway. The research focussed on logistics operators with units located within the Northampton Gateway 50km catchment but at locations which are closer to Northampton Gateway than to DIRFT. This does not mean that occupiers outside of this search area would not utilise a rail terminal at Northampton Gateway but it helps to understand how Northampton Gateway could expand the reach of rail services by expanding the network of SRFI's. The area of research is identified in Figure 22 below together with the locations of existing units. The line (or arc), defines broadly the area (south of the line) which are closer in terms of travel time to Northampton gateway than to DIRFT.
46. The analysis focusses on warehouse units of 9,290 sqm or more. A size threshold of 9,290 sqm has been used as units of this size and above are considered to be appropriate logistics operations that may be of sufficient scale to have potential use for rail-freight services. Based on this size threshold, a total of 192 existing warehouse units have been identified totalling 4.87 million sqm.

Figure 22: Warehouse units of 9,290 sqm within Northampton Gateway research area



Source: Experian Micromarketer, Gerald Eve

47. Of these 192 units totalling 4.87 million sqm 52 units totalling 1.21 million sqm are located within Northampton and 21 units totalling 709,700 sqm are located in East Northamptonshire, mostly in Rushden and Raunds. 42 units totalling 1.24 million sqm, are located in Milton Keynes. Another 22 units totalling 536,700 sqm are located within Central Bedfordshire, primarily in Dunstable and near J13 of the M1, and another 12 units totalling 356,700 sqm are within Wellingborough.
48. In addition to the identified existing stock of warehousing space, it is important to consider the potential for new space to be developed. There are 11 identified sites that could accommodate units of more than 9,290 sqm, totalling 940,770 sqm. These sites are scheduled in the table below.

Figure 23: Development land being marketed as available within the Northampton Gateway research area

Scheme	Location	Total potential floorspace of units of 9,290 sqm and above (sqm)
Prologis Park Wellingborough West	Wellingborough	198,290
Magna Park Milton Keynes	Milton Keynes	161,045
Midway Park	Northampton	145,144
Prologis Park Pineham	Northampton	99,355
Central M40	Banbury	65,032
Network Bicester	Bicester	60,271
symmetry park Bicester	Bicester	52,917
Bedford Distribution Centre	Bedford	46,992
Bedford Link	Bedford	44,964
Link 9 Bicester	Bicester	37,960
M1/A1 Central	Bedford	28,800
TOTAL		940,770

Source: Gerald Eve

49. Of the land being marketed, the masterplans or signalled masterplans have included potential unit sizes that could be developed on individual plots. There are 33 units that could be developed in the schemes listed above, the majority of which are large footprint units of more than 23,225 sqm as follows:

Figure 24: Units proposed in master plans on development land being marketed as available within the Northampton Gateway research area

Unit sizebands	Potential number of units	Potential total floorspace (sqm)
4,645-9,290 sqm	9	105,093
9,290-23,225 sqm	7	125,701
23,225-46,450 sqm	10	324,797
More than 46,450 sqm	7	385,179
TOTAL	33	940,770

Source: Gerald Eve

50. Based on the current and future warehousing space, there is a significant pool of potential users of the proposed RFI at Northampton Gateway within the identified catchment; this is of course in addition to the occupiers on the Northampton Gateway site itself. A significant proportion of this floor space is unlikely to find it feasible to utilise any current rail facility and will therefore be entirely road based in the absence of new rail provision.

Occupiers of warehousing space in the Northampton Gateway catchment

51. In addition to identifying the amount of warehouse units within this area, the analysis undertaken has also considered the occupational status of these buildings and identified the occupiers of each unit. Within the identified 4.87 million sqm of larger warehouses in the area occupational levels are high: 4.72 million sq ft or 97% of floorspace is currently occupied by a variety of occupiers active in different business sectors.
52. In order to consider the likelihood of demand for rail freight services at Northampton Gateway, the analysis has considered these occupiers' sectors and their businesses' current use of rail freight.
53. Of the total 4.87 million sqm within the catchment, 2.48 million sqm is occupied by retailers and wholesalers. These include some of the largest retail and wholesale businesses in the country – including Sainsbury's, Tesco, John Lewis, Amazon, Primark and Travis Perkins – who have very large warehouses within the catchment. Some of these occupiers have rail served warehouses elsewhere where they have appropriate proximity to a rail freight interchange. Manufacturers are also resident in the region albeit they account for less than half the volume than that occupied by retailers and wholesalers. Manufacturers account for 1.13 million sqm of total floorspace within the catchment and occupiers include food and drink producers (Coca Cola Schweppes, Carlsberg, AG Barr), automotive manufacturers (BMW, Vauxhall) and pharmaceutical and healthcare manufacturers (Baxter Healthcare, AAH Pharmaceuticals).
54. Compared with the distribution of floorspace by sector for the logistics warehousing market as a whole across the country, this catchment has a far higher exposure to retailers and wholesalers (44% of total floorspace compared with 26% for the country)²⁹. Also, the average unit sizes occupied are larger than the average for the country and for each sector but particularly retail & wholesale which is 29% larger than the national average. This is important as this implies that the operations being carried out at properties within the area are likely to be national and regional distribution functions which, as discussed earlier, are also typical users of rail freight. Figure 25 shows the average unit sizes for occupied warehouse units of 9,290 sqm or more in the area compared with the national averages for each sector.

²⁹ Gerald Eve 'Prime Logistics' research

Figure 25: Average unit size of units of 9,290 sqm or more taken up within the research area and Great Britain, by occupier business sector, 2005-2016

Occupier business sector	Northampton Gateway research area average unit size (sqm)	National average unit size (sqm)
Retail & Wholesale	34,400	26,591
Manufacturing	20,924	17,293
Logistics	20,266	17,773
Other/unknown	10,190	15,459
All sectors	25,375	19,569

Source: Gerald Eve 'Prime Logistics' research

55. Data has also been collected on the use of rail freight by occupiers in the area. This considers the occupiers business as a whole and not the specific operation of the unit in this area. This information could be considered as an indicator of the current willingness of businesses to use rail freight and an indicator of potential rail freight use at Northampton Gateway.
56. This data shows that over half (60%) of the current floorspace within the Northampton Gateway catchment is occupied by businesses with an existing use of rail freight as part of their overall business, including 45% with some use of rail as part of their UK operations. This indicates that these occupiers use rail freight in their logistics operations and have an understanding of rail freight as a part of their business.
57. There are retailers – such as Waitrose, Marks & Spencer, Tesco, Sainsbury's and Asda who are publically looking for ways to cut costs and carbon emissions on long haul trips and see the use of rail as a key way of doing this. It is these sorts of occupiers (both those who either want to extend their use of rail as well as those who have to date been underserved by the option to use rail) who are likely to be the key occupiers and users of the Northampton Gateway SRFI. These sorts of occupiers will be drawn by the reliable, more cost effective, environmentally responsible method of logistics which will also help reduce congestion.
58. Some occupiers mention, in their plans for using rail connected warehousing, that it would be useful if there were more regular services and more freight terminals to accommodate the business requirements and schedules of retailers³⁰. Mention was also made of the desire to increase the ability to pool multi-retailer and manufacturer volumes when using freight to ensure that trains are running at capacity as often as possible. The Northampton Gateway site with its proximity to an expanding concentration of NDC/RDC warehouse space would attract the sort of occupier who would likely find most benefit in the use of rail in its distribution network, and, given the high concentration of such occupiers in the area, the potential for these occupiers to pool or share the use of rail freight which could ensure trains run at capacity and therefore offer extra incentive for their use.

³⁰ FTA, On Track! 'retailers using rail freight to make cost and carbon savings', 2011