

# Future Gazing



## *Logistics for modern living*

2024

Exploring the lifestyle, demographic and consumer trends that shape our relationship with industrial and logistics property

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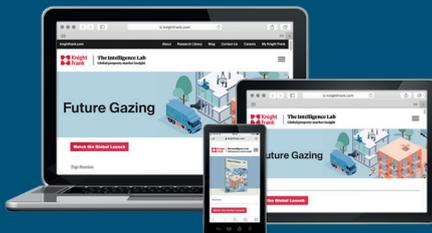
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**AUTHOR: CLAIRE WILLIAMS**

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## LOGISTICS AND INDUSTRIAL SERVICE LINES - KEY CONTACTS

### RESEARCH:

#### Logistics & Industrial Research

Claire Williams  
[claire.williams@knightfrank.com](mailto:claire.williams@knightfrank.com)  
+44 (0) 203 897 0036

### AGENCY:

Logistics & Industrial Agency  
Charles Binks  
[charles.binks@knightfrank.com](mailto:charles.binks@knightfrank.com)  
+44 (0) 207 861 1146

### CAPITAL MARKETS:

#### Industrial Capital Markets

Charles Divall  
[charles.divall@knightfrank.com](mailto:charles.divall@knightfrank.com)  
+44 (0) 207 861 1683

Johnny Hawkins  
[johnny.hawkins@knightfrank.com](mailto:johnny.hawkins@knightfrank.com)  
+44 (0) 207 861 1519

#### European Logistics Capital Markets

Richard Laird  
[richard.laird@knightfrank.com](mailto:richard.laird@knightfrank.com)  
+44 (0) 207 861 1663

### CONSULTANCY SERVICES:

#### Valuation & Advisory

Roger Young  
[roger.young@knightfrank.com](mailto:roger.young@knightfrank.com)  
+44 (0) 207 590 2464

Giles Coward  
[giles.coward@knightfrank.com](mailto:giles.coward@knightfrank.com)  
+44 (0) 207 861 1679

#### Planning

Nick Diment  
[nick.diment@knightfrank.com](mailto:nick.diment@knightfrank.com)  
+44 (0) 203 866 7859

#### ESG Consultancy

Jonathan Hale  
[jonathan.hale@knightfrank.com](mailto:jonathan.hale@knightfrank.com)  
+44 (0) 207 861 1181

# Foreword

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**CHARLES BINKS**  
Partner, Department Head  
Logistics & Industrial

Industrial and logistics properties and the activities that take place within them are largely removed from daily modern life.

Yet many, if not most, of the goods and services we rely upon are made, processed or stored within industrial and logistics properties. The daily demands of modern lives could not be met without industrial and logistics properties and the activities that take place within them.

The Covid-19 pandemic served to shine a spotlight on the industrial and logistics sector. It highlighted the vital role that industrial and logistics facilities play as part of the nation's critical national infrastructure. They are a crucial part of supply chains – both for critical and discretionary items – and support the health and well-being of the population along with the growth of consumption and the broader economy.

Household projections, demographics, and the population's needs regarding amenities and service provisions (such as shops, pharmacies, healthcare, and schools) are typically considered as part of local development plans when assessing housing and employment provisions. However, the specific functions that take place within industrial and logistics properties and their importance in providing the goods and services needed by households and businesses are often overlooked.

A diverse business ecosystem exists within our industrial and logistics properties. How these businesses connect to our modern lives and our economic prosperity needs exploration so that we can better anticipate and plan for future demand and support economic growth.

Although vacancy rates have risen over the last year, occupiers of industrial and logistics properties frequently cite a lack of available, suitable premises as a barrier to business expansion.

Local development plans frequently prioritise the needs of other sectors without understanding the supporting role played by industrial and logistics property. And despite a critical need for logistics and distribution infrastructure specifically, local planners often promote other, alternative uses of industrial land.

While logistics operators frequently think of catchment areas in terms of the number of residential properties they can reach from a particular logistics facility, this relationship needs to be considered in reverse. What are the needs of the household in terms of logistics and the wider industrial property sector?

# Households and their logistics needs

## DEMAND FOR INDUSTRIAL AND LOGISTICS PROPERTY FROM THE PERSPECTIVE OF THE HOUSEHOLD

As households' locations, lifestyles and demands have changed, businesses have responded, resulting in growing demand and shifting uses of industrial and logistics property.

The logistics sector provides the critical link between the manufacturing and processing of goods and consumer markets. Consumer demand, economic expansion, and productivity growth all contribute to demand for industrial and logistics property.

Demand for logistics as a service and for industrial and logistics property has grown as the number of households has increased. The number and distribution of residential properties shape the locations and quantum of space required for logistics. They are the delivery addresses of customers and the homes of workers. New residential developments mean additional customers and extra delivery points for logistics firms.

The relationship between households and their logistics needs continues to evolve, and future demand (per household or property) will likely change due to several key trends, including the expansion of the digital economy and the reconfiguration of supply chains.

Lifestyles are changing, from shopping habits to ways of working, technology is advancing, and supply chains and trading relationships are evolving. As a result, demand for industrial and logistics facilities is shifting regarding the locations, types and sizes needed.



This year's Future Gazing research will explore our changing relationship with and requirements of industrial and logistics real estate. How changes in lifestyles, shopping habits, population dynamics, shifting trade dynamics, and attitudes towards the environment are changing the demands on the sector in terms of the quantum of space, as well as the locations, sizes and types of space needed.

We delve into the lifestyle, demographic and consumer trends that shape our relationship with industrial and logistics property. From logistics to support evolving retail habits to further up the supply chain, we look at space used to provide consumers and businesses with services, and the wholesalers and distribution firms that supply them, as well as the changing composition of the manufacturing sector to determine what our requirements for industrial and logistics properties may be over the next five years and beyond.

“For each dwelling in the UK, there is 109 sq ft of occupied industrial and logistics space”

## PLANNING FOR LOGISTICS AND INDUSTRIAL NEEDS

The strategic placement of logistics and industrial properties along the supply chain is contingent upon various factors, including the distribution of residential properties, demographic trends, income levels, and lifestyles. Proximity to customers is crucial for distribution purposes, while proximity to ports is essential for import/export operations, and access to labour pools is a key concern for firms across the sector from manufacturing to distribution.

Most planning decisions are made at a local or regional level, while logistics networks and supply chains are considered on a national or international scale. The misalignment between these perspectives results in a failure to consider the sector’s needs as well as society’s distribution needs in a holistic manner. Furthermore, local governments often seek to prioritise other sources of employment or uses of industrial property over logistics and distribution.

The lack of flexibility and responsiveness in the planning system, coupled with the failure to acknowledge changing lifestyles, shopping, and working habits, has led to an oversupply of retail property in some instances and an undersupply of industrial and logistics space across the UK. This has led to extremely low vacancy rates and double-digit rental growth.

The UK’s national planning policy and the prioritising of housing over other sectors has reduced the amount of industrial land available for the development of logistics space. A

lack of flexibility or agility in the planning system remains a barrier to not allocating enough land in suitable locations. The location of industrial land is still closely tied to outdated uses and modes of transport; for example, large swathes of industrial land can be found alongside rivers and canals, and while these may now be better suited for housing, the need for industrial land, particularly for logistics, needs to be considered according to the needs of the population, both in terms of the quantum of space and the locations of that space.

### THE RELATIONSHIP BETWEEN HOUSING AND INDUSTRIAL AND LOGISTICS STOCK

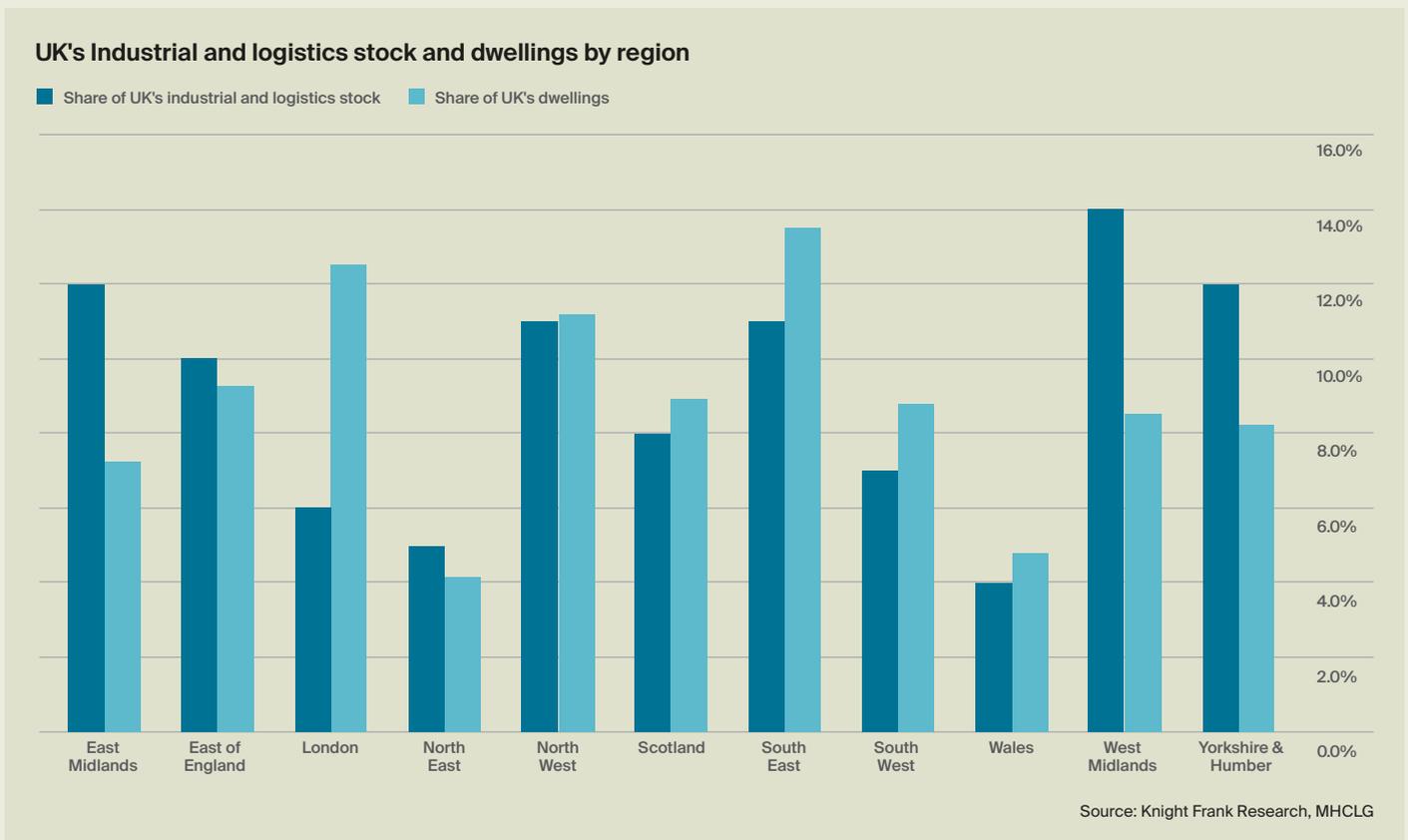
Currently, there is 109 sq ft of occupied industrial and logistics floorspace for each dwelling in the UK. This figure includes all unit sizes and all types of usage, including light industrial properties.

As the distributions of both industrial and logistics stock and homes vary significantly by region, the amount of occupied industrial and

**“The Midlands (East and West) and Yorkshire & Humber regions together account for 38% of the UK’s industrial and logistics floorspace but just 24% of housing stock”**

logistics floorspace per dwelling varies across different geographies of the UK. The Midlands (East and West) and Yorkshire & Humber regions together account for 38% of the UK’s industrial and logistics floorspace but just 24% of housing stock.

The East Midlands has the highest proportion of occupied floorspace per dwelling, with 183 sq ft per dwelling in the region. This is followed closely by the West Midlands, with 182 sq ft per dwelling. The Midlands is a strategic logistics location and home to many national distribution operations. The Midlands Golden Triangle, which is generally defined as



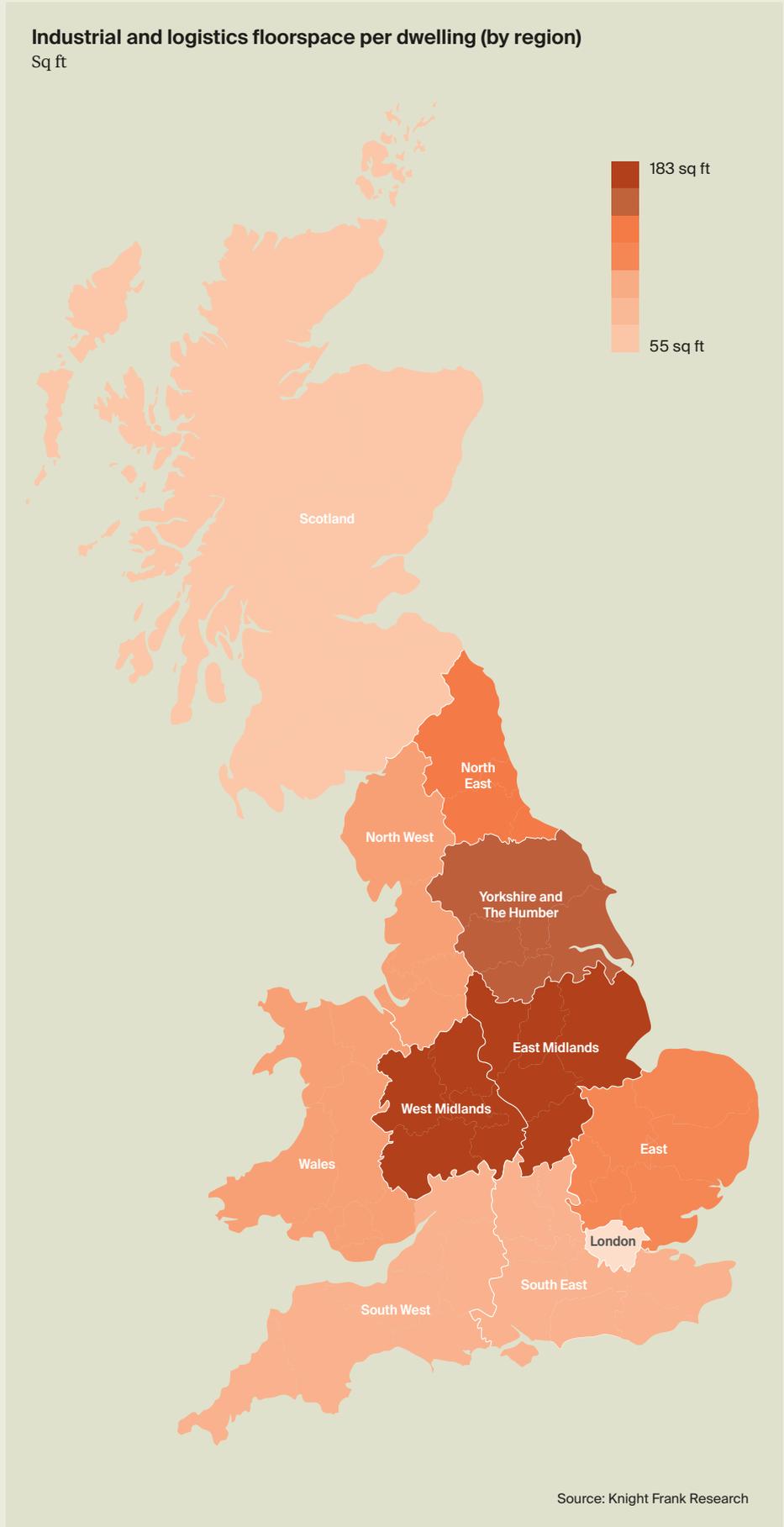
an area encompassing Nottingham, Birmingham, and Northampton, offers a strategic position within a 4-hour drive of 90% of the UK population and is easily accessible by the M1, M6 and M42 motorways, making it a prime distribution location.

The Yorkshire and Humberside region follows the Midlands, with 154 sq ft per dwelling. Yorkshire has risen in prominence as a logistics location, appealing to distribution firms seeking a base from which to serve the north of the country. One of the region’s key advantages over the Midlands Golden Triangle is the cheaper rents, with prime rents for big box units in South Yorkshire currently at £8.20 per sq ft (Sheffield), compared with £10 per sq ft in Northampton or £11 per sq ft in Birmingham in the Midlands. Availability of labour is another factor attracting occupiers to the region.

London has the lowest level of industrial and logistics stock per dwelling, with just 55 sq ft per dwelling; this is not surprising given the high density of residential properties in the capital and high land values. Large swathes of industrial land have been lost to residential and other uses in the capital, reducing the amount of industrial and logistics floorspace within the region. Intense competition for space, particularly for last-mile distribution, has led to rapid rental growth in recent years. Average rents across Greater London have risen 46.4% in five years (to September 2023), compared with 34.2% across the UK (MSCI).

**HOW HAS THIS CHANGED OVER THE PAST TEN YEARS?**

Over the past ten years, occupied floorspace per dwelling has grown 7.5%, from 102 sq ft per dwelling in 2013 to 109 sq ft in 2023. The fastest growth has been in the East Midlands, where floorspace has increased 13.1% (per dwelling) over the ten years. This has been followed by Yorkshire and Humberside (+10.3%) and the North West (+9.8%).



# 63%

Market rents have risen 63% on average across the UK, while prime rents (units over 50,000 sq ft) have almost doubled over the past ten years (+93%) across the UK.

The only region with negative growth over the ten years was Greater London (-3.6%). Despite a slight increase in the amount of occupied industrial and logistics floorspace over the period, the number of dwellings has increased faster. The region has seen the amount of occupied industrial and logistics floorspace per dwelling decrease since 2016. There are limited amounts of industrial land in London, making it difficult to increase the amount of floorspace; the region has seen occupied floorspace increase by just 8% over the period, compared with 17% across the whole of the UK. Furthermore, the need for additional housing in the capital has been prioritised by government, leading to the reduction in the amount of allocated industrial land.

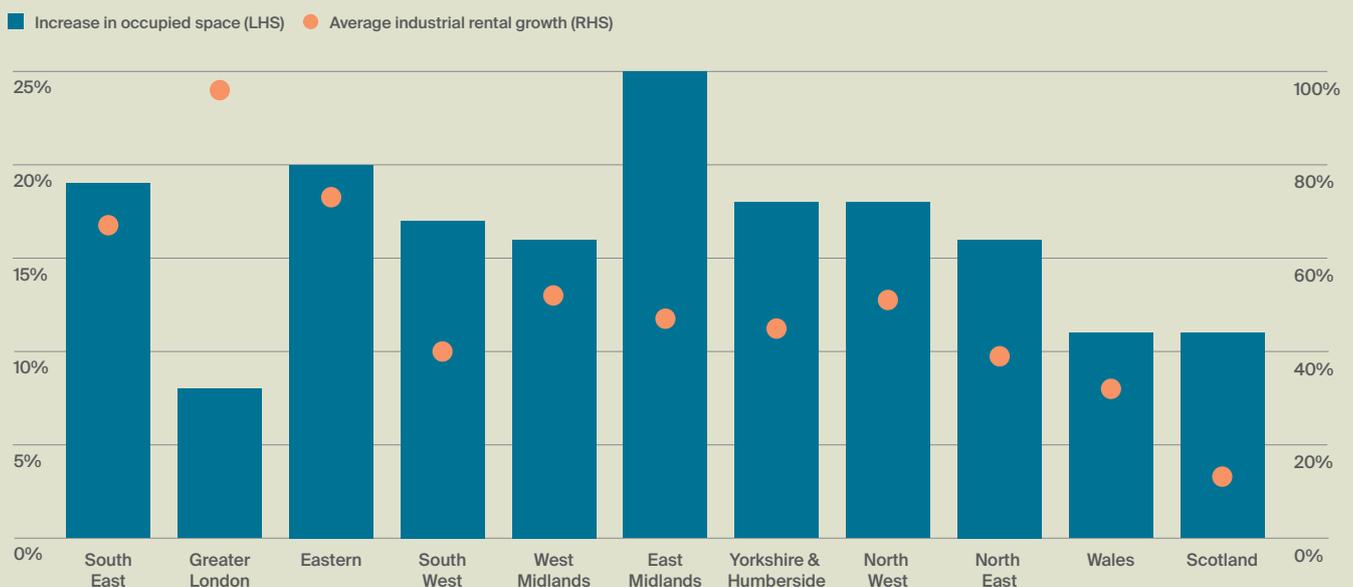


Occupied industrial and logistics space has increased faster than total inventory. While occupied industrial floorspace has risen approximately 17% over the last ten years, the total stock has risen more slowly. This has driven down vacancy rates, from 9.2% at the end of 2013 (units over 50,000 sq ft) to 5.2% currently (Q3 2023) and pushed up rents. Market rents have risen 63% on average across the UK, while prime rents (units

over 50,000 sq ft) have almost doubled over the past ten years (+93%) across the UK. Indicating demand, particularly for well-specified, well-located facilities, is outstripping supply.

London has witnessed the strongest rental growth on a regional basis, with average rent rising 96% over the past ten years. Over the same period, occupied space has increased by just 8%, the lowest increase across any UK region.

## Growth in rents and occupied space (past ten years)



Source: Knight Frank Research, MSCI

# Consumer-driven demand: Shifting demographics

## POPULATION GROWTH AND CHANGING HOUSEHOLD STRUCTURE

The UK population is expanding, albeit at a relatively modest annual rate. The UK population in 2023 was estimated to be 67.7 million, an increase of 3.6 million (+5.6%) from the population in mid-2013.

Household sizes are shrinking. Over the past twenty years, the average household size has shrunk from 2.41 persons in 2003 to an estimated 2.37 in 2023 (Oxford Economics) and is expected to decrease further to reach 2.32 in ten years (2033). Rising populations and shrinking household sizes are driving demand for more housing and a greater number of dwellings per head of population. This means more addresses that need to be delivered to.

## URBANISATION AND HOUSING DEMAND

In the year to March 2023, a total of 210,320 homes were completed (ONS). Oxford Economics forecast the number of dwellings to rise by 958,640 over the next five years (to 2028), broadly in line with current delivery levels. However, in October 2023, the Labour Party announced they would reinstate mandatory housing targets, setting a housing target of 1.5 million homes over five years, or 300,000 per annum. This is the same level set by the Conservative government in 2021, though they have since declared this an advisory rather than a mandatory target.

Our report uses the Oxford Economics forecasts as a base case

# 3.6m

The UK population in 2023 was estimated to be 67.7 million, an increase of 3.6 million (5.6%) from the population in mid-2013.

for estimates of floorspace per dwelling. However, if these housing targets were met, this could mean an additional 541,460 homes and even greater demand for industrial and logistics floorspace to service these additional homes.

While all regions are expected to see a rise in the number of

Forecast growth in dwellings and incomes by region (2023-2028)



Source: Knight Frank Research, Oxford Economics

dwellings over the next five years, London is expected to record the strongest growth, with an additional 254,450 dwellings anticipated by the end of 2028, or 6.7% growth (Oxford Economics). The South East region is also expected to see strong growth, with an extra 149,770 dwellings expected (+3.6%) by the end of 2028, as is the East of England region, with an additional 108,110 dwellings (+3.8%). Greater London is also expected to record the strongest growth in disposable incomes (+19.3%), followed by the South West and then the East of England regions.

Our modern lives are increasingly urban. While the urban population is rising, rural populations are shrinking. Currently, around 84.5% of the population is urban (57.7 million people). This compares to 82.1% or 52.7 million people ten years ago (2013), and by 2033, the urban population is expected to reach 59.5 million, or 85.6% (Oxford Economics).

Growing urban populations will mean greater pressures on industrial and logistics land in UK towns and cities due to housing needs. It also means a greater need for urban industrial and logistics property to service the growing population and

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**“Our modern lives are increasingly urban. While the urban population is rising, rural populations are shrinking. Currently, around 84.5% of the population is urban (57.7 million people)”**

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rising demand for deliveries and services. There will be a greater need for both last-mile logistics (B2C) and facilities catering to the growing food and beverage, leisure and hospitality sectors in these cities (B2B).

People in urban areas typically receive higher incomes than those living in rural UK regions. In 2020, median workplace-based earnings in Predominantly Urban areas (excluding London) were £25,400, while Predominantly Rural areas were lower at £22,900 (ONS). There are also major differences in shopping behaviours and consumption patterns. When it comes to online retail, rural consumers have more limited options; click-and-collect from-store options are less likely to offer convenience, and they may have to pay a premium for deliveries.

Those who live, work or visit in urban environments will have more shops and services on their doorstep, with far greater choice; there will also be more online delivery options and Q-commerce available. Urban residents, city centre workers, and tourists are likely to go to restaurants more often, have takeout food delivered, grab a coffee or sandwich on the go, and require dry cleaning or laundry services. Space is at a premium in city centres, and locating goods or performing some services offsite can enable firms to make more efficient use of their city centre floorspace. Storing goods or performing services close to the city centre means a need for industrial and logistics property to be located in the suburbs of the city or within close proximity.

The changing distribution of the UK’s dwellings and household incomes will impact the distribution of both online and in-store retail



While all regions are expected to see a rise in the number of dwellings over the next five years, London is expected to record the strongest growth, with an additional 254,450 dwellings anticipated by the end of 2028, or 6.7% growth (Oxford Economics).

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spend. Along with a greater proportion of urban residents, there are regional variations in terms of forecasts for additional dwellings and growth in household incomes. A greater number of homes in London, the South East and Eastern regions will drive proportionately greater growth in demand for distribution and logistics facilities in these regions. The impact on the locations of national distribution hubs is likely to be relatively limited. Though the centre of gravity in terms of consumer demand may shift slightly further south, rising rent costs may lead some operators to look further north. The main impact will be felt in terms of demand for last-mile logistics facilities.

Aside from consumer-driven shifts, migration and demographic changes will also impact the workforce, and this, in turn, will impact locations for industrial and logistics operations. Increasing use of technology, data and automation in warehouses is impacting the types of employment found in warehouses, with a need for more highly educated workers or ones with specialist skillsets. Attracting this type of talent may influence the locations of warehouse operations.

# Consumer-driven demand: Changing lifestyles

Where we live, how much we earn, how we shop, what we spend our money on and how we spend our leisure time are all driving changes in our requirements of the industrial and logistics sector.

## THE RISE OF ONLINE RETAIL

Technology and digitalisation have changed how households shop. Online penetration rates have increased from 9.3% to 26.6% over the past ten years (2012-2022) and are forecast to rise further to reach 29.1% by 2028 (Mintel). Growth in online retail sales and the associated demand for business-to-consumer (B2C) deliveries has driven strong growth in demand for distribution and fulfilment facilities. This type of distribution typically requires more logistics space compared with traditional retail, with order fulfilment taking place in the warehouse rather than the store.

With e-commerce and B2C operations expanding their footprints, there has been a need for the development of distribution and fulfilment facilities, particularly in the Midlands Golden Triangle, along key transport routes and close to urban centres. Knight Frank analysis of online distribution networks found that every £1 billion in online sales requires 1.36 million sq ft of logistics space.

Servicing the growth in online sales over the past ten years has resulted in rising demand for warehousing space. The pandemic accelerated the growth in e-commerce, with non-essential shops ordered to close during lockdown periods and many shoppers looking to online alternatives due to concerns about the virus. Online penetration rates reached 30.7% in 2021 (ONS), although they have since declined (to 26.6% in 2022). The spike in online sales

prompted some instances of online retailers overexpanding and this has led to some space coming back to the market recently. However, the long-term trajectory is one of growth.

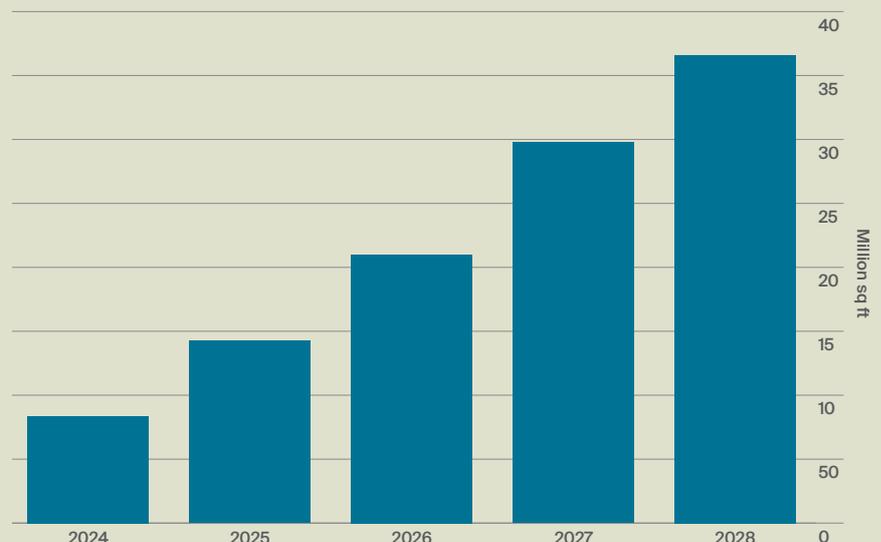
Though growth in e-commerce has not been the only source of additional demand, stiff competition amongst occupiers has pushed rents up and vacancy rates down. At the end of 2013, the UK industrial vacancy rate (units over 50,000 sq ft) was 9.2%, compared with 5.2% currently (Q3 2023). Prime rents across the UK (units over 50,000 sq ft) have risen 92% over the same period.

Based on retail sales forecasts from Oxford Economics and Mintel, we have calculated that the growth in online retail will require an additional 37 million sq ft of space over the next five years.

**“Based on retail sales forecasts from Oxford Economics and Mintel, we have calculated that the growth in online retail will require an additional 37 million sq ft of space over the next five years”**

Households are spending more and more online, and the amount of fulfilment and distribution space needed to service this demand is rising. Online sales totalled an estimated £3,961 per dwelling on average in 2023, requiring approximately 5.4 sq ft of industrial and logistics floorspace (per dwelling). Based on forecast online penetration rates from Mintel, and

**Projection of e-commerce driven demand for warehouse space**  
2024-2028 Cumulative



Source: Knight Frank Research

# 29.1%

Online penetration rates have increased from 9.3% to 26.6% over the past ten years (2012-2022) and are forecast to rise further to reach 29.1% by 2028 (Mintel).

retail sales and dwellings forecasts from Oxford Economics, this is expected to rise to £4,699 per dwelling by 2028 (2023 prices). This rise will mean that the anticipated growth in e-commerce by 2028 will raise requirements per dwelling to 6.4 sq ft. To put this another way, for each additional dwelling forecast over the next five years an additional 38.2 sq ft of industrial and logistics stock will be needed to accommodate the increasing online retail demand.

This figure assumes that the utilisation of space per quantity of throughput remains the same. However, retailers are increasingly outsourcing both their e-commerce fulfilment and deliveries to their store networks to specialist third-party logistics firms. This may result in greater efficiencies, through better utilisation of floorspace, with taller buildings and more mezzanine usage, and greater automation.

Our analysis of online distribution networks found that 20-25% of space is typically needed in 'last-mile' facilities as part of hub and spoke distribution models. The growth in online retail over the next five years is likely to require an additional 7-9 million sq ft of last mile logistics floorspace, with a greater proportion of this space

**“For each additional dwelling forecast over the next five years an additional 38.2 sq ft of industrial and logistics stock will be needed to accommodate increasing online retail demand”**

needed in and around Greater London and the South East and East of England regions.

### STORE-BASED RETAIL SET FOR GROWTH

It's not only the growth of online retailing, however. While online retail has been a significant source of growth in the sector, it still accounts for just over a quarter of all retail expenditure in the UK.

Delivering to a store network requires much less warehousing space compared with fulfilling individual customer orders. Store stock tends to be delivered in bulk, often in roll-cages, with minimal packaging. This makes storage and packaging much more efficient in terms of space. Furthermore, store-based retail does not require last-mile distribution.

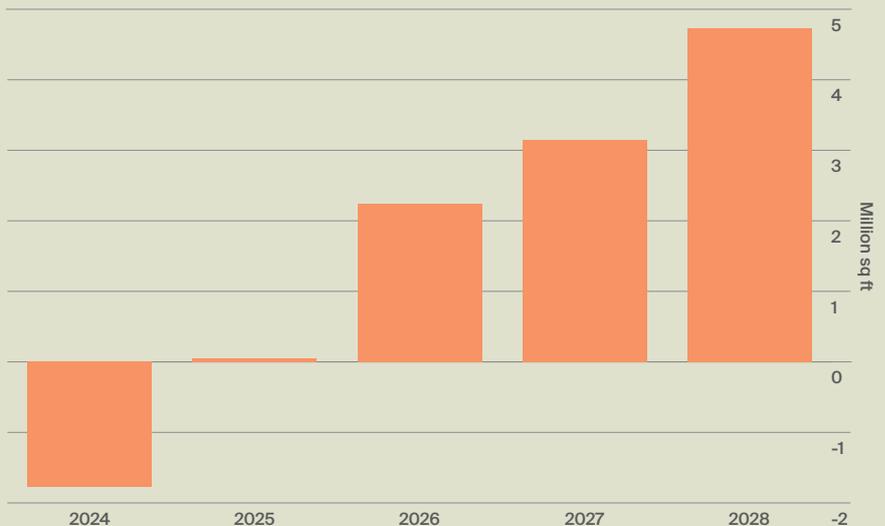
“E-commerce requires three times the amount of distribution space as store-based retail” is an often-quoted figure and our analysis supports this. In our assessment of the top eight retailers in the UK, with predominantly store-based sales, we find that each £1 billion of in-store retail sales utilises 449,000 sq ft of industrial and logistics space.

Based on this relationship and using retail sales forecasts from Oxford Economics (subtracting forecast online retail and fuel sales), we have calculated the expected growth in in-store retail sales volumes over the next five years. We find that an additional 4.7 million sq ft of warehouse space is required to support the growth in store-based retail sales over the next five years.

Each dwelling spends approximately £11,184 (2023) on retail (excluding fuel and online sales) and therefore requires 5.0 sq ft of industrial and logistics space to service these purchases. Retail sales volumes (excluding online sales and fuel sales) are forecast to rise in line with the number of dwellings. Therefore, the floorspace needed per dwelling will remain broadly stable over the next five years, with each additional dwelling forecast needing an extra 4.9 sq ft of industrial and logistics space to support store-based retail purchases.

**“For store-based retail sales, we find that each £1 billion utilises 449,000 sq ft of industrial and logistics space”**

**Projection of store-based retail driven demand for warehouse space 2024-2028 Cumulative**



Source: Knight Frank Research

Distribution to retail store networks is well established with fixed routes and predictable order volumes and locations. This type of distribution is not prone to the same flux as B2C deliveries. Locations are based on the store network, which is relatively fixed. Therefore, additional floorspace requirements may result in extensions of additional facilities or selective upsizing rather than significant network expansions.

Retail store distribution networks have seen limited network modernisation in recent years. The recent softening in capital values and rental growth rates may prompt some retailers to take the opportunity to get fit for purpose and upgrade or expand.

It is worth noting that this analysis only considers the top retailers and looks only at their own distribution channels. This analysis doesn't consider direct store delivery (DSD) from suppliers. The list of top retailers is dominated by grocery stores, including Tesco and Sainsburys, Asda, Morrisons, Aldi, as well as John Lewis, M&S and Co-Op. Some suppliers to grocery retailers will often deliver their products directly to the stores as a way to reduce the time it takes fresh produce to reach the customers. For example, bread is often distributed in this way.

This analysis does not consider suppliers to retailers, either direct-to-store distribution or other business-to-business (B2B) parts of the supply chain. The further back in the supply chain we go, the further from the final delivery point or customer we are. Proximity to the customer tends to be less critical, and production or operating costs more important.

#### WHOLESALE/DISTRIBUTIVE TRADE DEMAND

Global supply chains are essential to modern life, and wholesalers and B2B trade and distribution firms form the critical link between production and consumer, wherever they may be.

The modern marketplace is now global. As well as consumers, B2B trade is increasingly taking place through online platforms. Digital technologies have allowed consumers and wholesalers to look further afield



# 4.7m sq ft

of warehouse space is required to support the growth in store-based retail sales over the next five years.

for goods and to compare prices across a global platform. Logistics enables these businesses and markets around the world to connect.

This part of the supply chain is varied in terms of markets, locations, types of facilities and drivers of demand. A rise in retail sales (both domestic and international) will have a knock-on impact on wholesalers and traders who supply retailers. A rise in manufacturing output could also have a positive impact on demand. Many wholesalers or B2B distribution firms will be connected to international trade, either importing or exporting goods. Global markets, international supply chains, trade relationships, and currency movements will also therefore influence demand.

Modern consumers have high expectations, expecting timely and reliable deliveries. However, supply chains have been badly impacted by various factors in recent years from the Covid pandemic, and more recently hijackings of cargo ships and a drought affecting the Panama Canal, forcing cuts in vessel traffic, with a 40% reduction of vessels expected by February 2024.

These issues have prompted many retailers and manufacturers to reassess

their supply chain strategies, seeking to improve resilience, responsiveness and visibility. Some firms are now looking closer to home for suppliers and components and increasing investment into supply chain technologies. Some wholesalers and distributors are opting to hold additional stock to protect against delays and ensure they can meet customer demand.

#### DEMAND FROM SERVICE ACTIVITIES

Particularly in urban locations, industrial property uses have evolved away from traditional manufacturing towards an occupier base now dominated by 'clean' and more service-based activities. In London, a large proportion of the activities taking place on industrial land are not industrial activities. The service sector accounts for 16% of occupied industrial floorspace across the UK but 25% in Greater London, 39% across Inner London boroughs, and in Manchester it accounts for 30%.

The expansion of the service sector in industrial and logistics premises can be partly explained by the high occupancy costs and limited availability of well-located commercial premises in city centres. But there is also growing demand for facilities or hybrid premises that don't fit neatly into one of the traditional property sector classifications. Many occupiers of urban industrial space today are 'clean' activities that provide the expanding city centre population and businesses with services such as catering, cleaning, courier services,

laundry services, hospitality services, property maintenance, vehicle maintenance, media production, storing office supplies, printing and many others. These types of businesses are often collectively referred to as ‘servicing the services’.

Demand for this type of space will continue to grow. The UK’s economy is dominated by service industries, which include retail, hospitality, and finance, as well as public services like health and education. Service sectors accounted for 81% of UK output in 2022, though the proportion is higher in many cities. In London, the service sector accounts for 91% of output, 88% in Edinburgh and 83% in Bristol. The service sector is forecasted to see strong growth over the next five years, with output expected to rise 6.7% across the UK, but London, Bristol, and Manchester are expected to see growth rates in excess of 7% (Oxford Economics).

If the need for industrial and logistics space for service activities grew in line with these forecasts, there would be a need for an additional 36.5 million sq ft across the UK, with 3.9 million sq ft of this space needed in Greater London.

Policymakers seeking to support the growth of UK city economies must consider the needs of these ‘servicing the services’ businesses and their demands upon urban industrial land. And whether they should be accommodated on existing industrial land or perhaps instead incorporated as part of new mixed-use developments.

**NON-TRADITIONAL/ALTERNATIVE SOURCES OF DEMAND**

Alternative or non-traditional uses of industrial and logistics floorspace and land have been rising. Non-traditional uses include film studios and data centres, as well as research and development. Though these alternative uses represent a small proportion of occupied stock, there has been significant growth in these sectors. There is also rising demand for hybrid facilities that can be used for various functions, for example, facilities that can be used for both R&D and manufacturing.

The South East and East of England regions have the largest concentrations

of industrial and logistics stock occupied by non-traditional uses. Wales and the North East also have relatively high proportions of stock in non-traditional uses, while the Midlands and North West have the lowest proportions.

Our increasing use of telecommunications and digital data drives demand for data centres, which tend to be situated on industrial (or light industrial) sites. Increased demand for data centres is therefore putting demand pressures upon industrial sites and restricting the supply of land and properties for other industrial uses. Flexible industrial spaces are also used as laboratory space for research and development.

How we consume television and media is changing, with households increasingly turning to streaming platforms over terrestrial television. The rise of streaming platforms is driving demand for content, which in turn has meant increased demand for film studio space. Limited amounts of purpose-built studio space and the versatile nature of warehouse space, typically with large columnless expanses, have meant they can offer a suitable alternative for studios to adapt and convert into filming space.

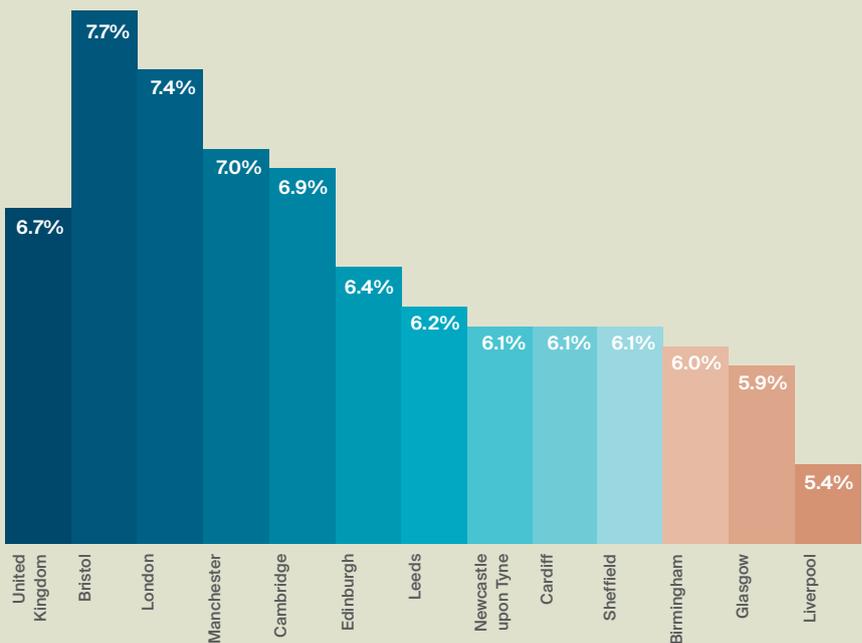
**“If the need for industrial and logistics space for service activities grew in line with these forecasts, there would be a need for an additional 36.5 million sq ft across the UK, with 3.9 million sq ft of this space needed in Greater London”**

Alternative sources of demand for industrial sites can be exemplified through Slough Trading Estate, an industrial estate to the west of London. Alongside logistics, food processing and automotive sectors, tenants of the park include telecoms, biotechnology, pharmaceuticals, IT, R&D, and data centres.

Warehouses are also used for alternative leisure uses, such as trampolining or climbing centres. Vacant second hand space in urban areas may be taken by leisure operators, particularly if they can secure the premises at a competitive price.

**Forecast growth of the service sector across UK cities**

Growth in services GVA (Gross Value Add) 2023-2028



Source: Oxford Economics

# Production-driven demand

## THE MANUFACTURING SECTOR AND THE WIDER ECONOMY

Being further up the supply chain, manufacturing industries, unlike logistics operators servicing retail demand, can often, but not always, locate further away from the customer or final place of sale. High operating costs in the UK have meant many firms locate their manufacturing operations overseas.

The distance between manufacturing parts of the supply chain and the end user can make a link to households more difficult to define and more prone to external factors such as geopolitics and currency fluctuations. However, various supply chain issues in recent years, combined with rising tariffs for imported products, have led both private firms and the UK government to want to increase supply chain resilience and manufacturing capabilities at home, particularly for critical industries.

High-value manufacturing is of strategic importance for the UK government. In 2023, the UK government published its Advanced Manufacturing Plan, setting out its priorities of boosting investment, international cooperation, building supply chain resilience and reducing costs and barriers to competitiveness.

Manufacturing is an important source of employment in the UK, with average salaries 10% higher than the UK average. There are currently approximately 2.6 million employed in the manufacturing sector, with average weekly wages of £710 compared with £648 across the whole economy (October 2023, ONS).

In November 2023, the UK government announced £4.5 billion in funding for British manufacturing to increase investment in strategic manufacturing sectors, including automotive, aerospace, life sciences

**“An additional 33.8 million sq ft of industrial and logistics space will be needed by 2028 to accommodate the forecast growth in manufacturing”**

and clean energy. The funding will be available from 2025 for five years. The funding forms part of the Prime Minister's pledge to grow the economy, attract private investment, boost energy security, create more skilled, high-paid jobs, and enable the UK to seize growth opportunities through the transition to net zero.

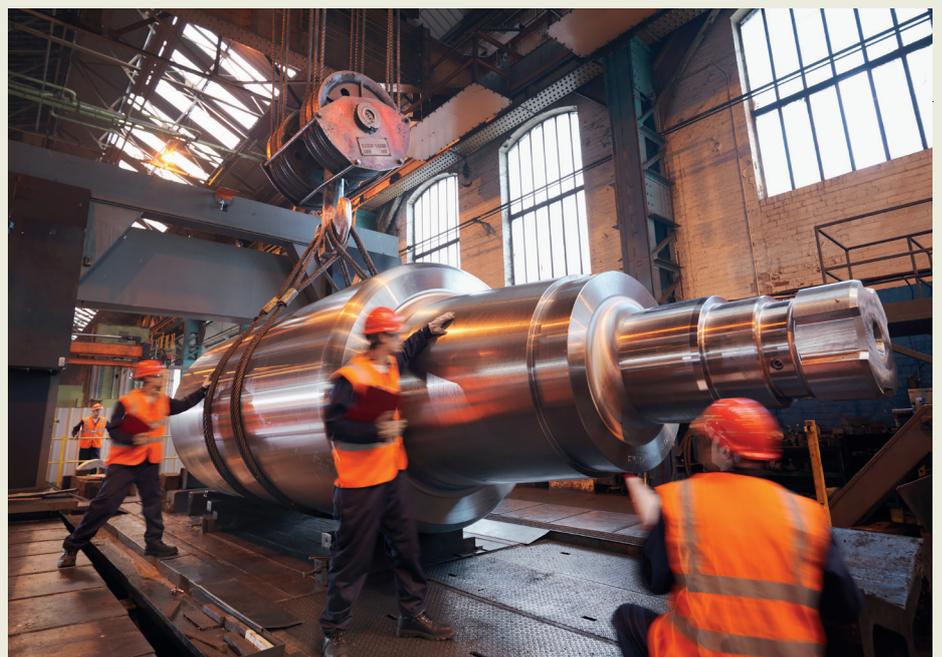
In 2021, the UK ranked as the eighth-largest manufacturing economy in the world. Despite only accounting for 10% of GDP, the manufacturing sector accounts for 43% of all UK exports. The sector is, therefore, critical to the government's Export Strategy's aim of reaching £1 trillion in exports by

2030. This would require growth of 20% compared with 2022 figures when exports totalled £834 million.

## RISING OUTPUT AND IMPROVING EFFICIENCIES

Manufacturing output has risen faster than occupied stock. Manufacturing output is anticipated to have risen 11.5% in the ten years to 2023 (based on forecast 2023 figures from Oxford Economics) but only 2.1% in the last five years. Meanwhile, occupied manufacturing industrial space has risen 5.8% in ten years and only 0.4% in the past five years.

This could indicate improving capacity utilisation in the sector; that is, a greater economic output is being generated using a smaller real estate footprint. This is likely due in part to a change in the make-up of the UK manufacturing sector, with high-value manufacturing comprising a greater proportion of both economic output and industrial floorspace.



There has been a rise in the proportion of manufacturing take up in recent years, accounting for 25% of take up in the last two years, compared with just 15% in the previous two.

Demand for space has come from a variety of manufacturing firms, both traditional manufacturing and advanced manufacturing. Engineering firms, electronic manufacturers, automotive and aerospace manufacturers, food manufacturers, and life science manufacturing firms all took space in 2023. For example, Siemens Healthineers took just over 600,000 sq ft in Bicester, and Pelican Healthcare took 82,000 sq ft in Cardiff.

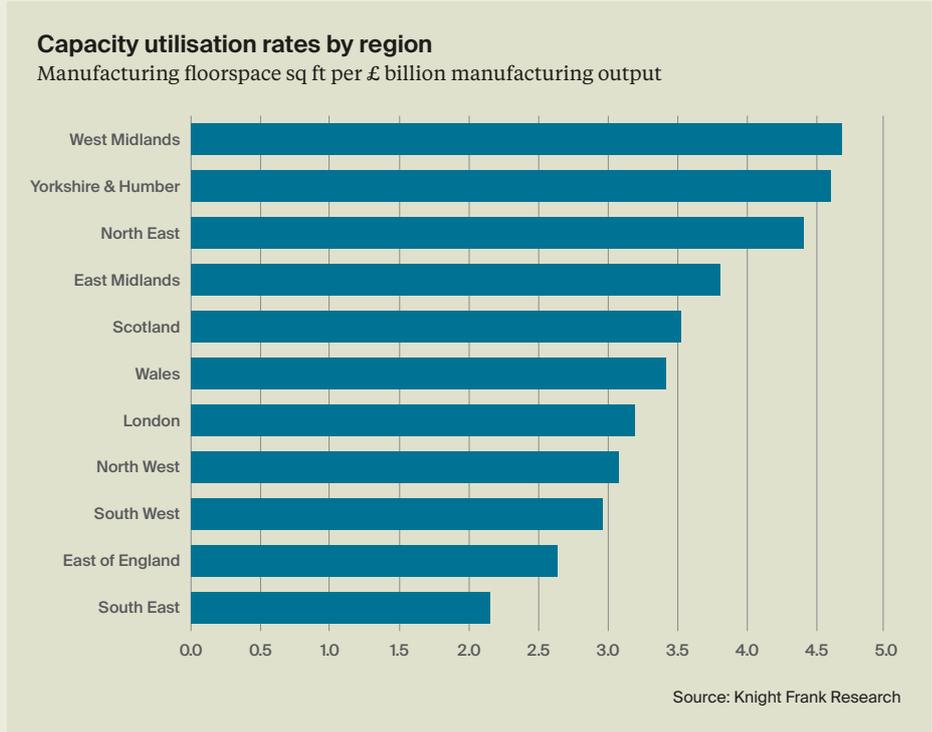
Each £ billion of manufacturing output (GDP) requires around 3.39 million sq ft of floorspace (based on an average from the past ten years). In 2013, each £ billion (2023 prices) required around 3.47 million sq ft. However, this has trended downwards over the last ten years, and in 2023, £1 billion of manufacturing output is expected to be generated with only 3.29 million sq ft of floorspace.

Manufacturing output is forecast to grow 4.3% over the next five years to 2028 (Oxford Economics). If capacity utilisation rates remain at around £1 billion output per 3.29 million sq ft, then an additional 33.8 million sq ft of industrial and logistics space will be needed by 2028 to accommodate the forecast growth in manufacturing.

However, improving capacity utilisation rates may reduce this figure. Greater capacity utilisation in the manufacturing sector could make it possible to grow output without the same proportional increase in occupied industrial floorspace. Based on the downward trend over the past ten years, it could be expected to improve further over the next five and ten years in manufacturing.

**REGIONAL VARIATIONS**

On a regional basis, capacity utilisation rates are highest in the South East region, where £1 billion of manufacturing output was generated with just over 2 million sq ft of floorspace. East England and South West regions also have high capacity



utilisation rates. At the other end of the scale, the West Midlands, North East and Yorkshire & Humber have much lower capacity utilisation rates, with a larger floorspace needed per £1 billion of manufacturing output.

These variations will be partly due to the different types of manufacturing in these regions. Computers,

electronics, and pharmaceuticals are key manufacturing sectors in the South East region. These sectors also have a strong presence in the East of England region. The South West has a significant aerospace engineering presence. These high-value sectors are likely to have a high output per sq ft of floorspace.

It may also reflect differences in operational costs (particularly rents) and variations in the availability of new facilities. Prime rents in West London are currently £27.50, compared with £11.00 in Birmingham and £8.75 per sq ft in Leeds (Q4 2023, units over 50,000 sq ft).

In locations where occupiers are paying a higher rate per sq ft, they may seek to use the asset more intensively. At the same time, there is less incentive to improve operational efficiencies in a location with cheaper rents. In areas with low levels of industrial stock available, there may be limited scope for expansion to larger facilities.

The forecast floorspace requirements by region do not consider changes in the composition of manufacturing in terms of sub-sectors. There will be variations in capacity utilisation rates by subsector, and a shift towards more high-value manufacturing is likely to mean improving capacity utilisation rates.

#### REQUIREMENTS PER DWELLING

There is currently 25.6 sq ft of occupied manufacturing floorspace per dwelling in the UK. This number has trended downwards over the past ten years (averaging 26.7 between 2013-2018), as the increase in manufacturing floorspace has not kept pace with rising numbers of dwellings.

An additional 958,640 dwellings are forecasted in the UK by 2028 (Oxford Economics). Achieving the forecast growth in manufacturing output (at current capacity utilisation rates) would require an additional 35.3 sq ft of manufacturing floorspace

for each additional dwelling, raising the required manufacturing floorspace per dwelling to 25.9 sq ft by 2028.

#### CHANGING LIFESTYLES AND COMPOSITION OF THE MANUFACTURING SECTOR

The composition of the manufacturing sector in the UK continues to shift away from heavy industry, such as the manufacture of basic metals and metal products, towards a higher concentration of high-value manufacturing sectors – such as computer, electronic and optical products. As this shift continues, the capacity utilisation rates will improve, and thus the amount of floorspace needed to generate additional output is likely to decrease.

#### UK FOOD MANUFACTURING SECTOR

Food production is the UK's largest manufacturing subsector (by output), accounting for around 18% of UK manufacturing output. Across the UK, employment in food manufacturing has risen 19% over the past ten years (to 2022).

What we eat is an essential part of our lifestyle choices and well-being. Modern food habits have evolved due to urbanisation, technological advancements, and shifting lifestyles.



The food processing industry is highly varied. Small, urban multi-let units house a variety of producers, from artisan chocolate makers, micro-breweries, bakeries and coffee roasters.

Busy modern lifestyles have driven a need for speed and convenience. From ready meals to pre-prepared sauces to recipe kits, a growing number of options are available to help us recreate haute cuisine with minimal time and effort. Demand for these products and for processed food more broadly has led to growth in food manufacturing in the UK.

In London, the food products, beverages and tobacco subsectors account for around 32% of manufacturing output for the region. Food and beverage manufacturers are needed close to urban centres, providing freshly prepared items

# £1bn

of manufacturing output is expected to be generated with only 3.29 million sq ft of floorspace



or dishes to the cities' hospitality industries and food retailers.

Despite continued inflationary pressures (prices for food and non-alcoholic beverages rose 9.2% in the year to November 2023) and lower office occupancy levels in many cities post-Covid, long-term trends, including urbanisation and growing consumer need for convenience will support the growth of the sector long term.

The food products, beverages and tobacco manufacturing subsector is forecast to grow faster than the manufacturing sector overall, with 4.7% growth forecast over the next five years, with an additional £1.9 billion of output expected by 2028 (2023 prices) (Oxford Economics).

The strongest growth in percentage terms is forecast for Wales, with 5.7% growth by 2028. However, in absolute terms, the strongest growth is expected in Scotland, with an additional £316 million output per annum expected by 2028, accounting for 17% of the total growth across the UK. The East Midlands and Yorkshire & Humber regions are also expected to see strong growth in absolute terms.

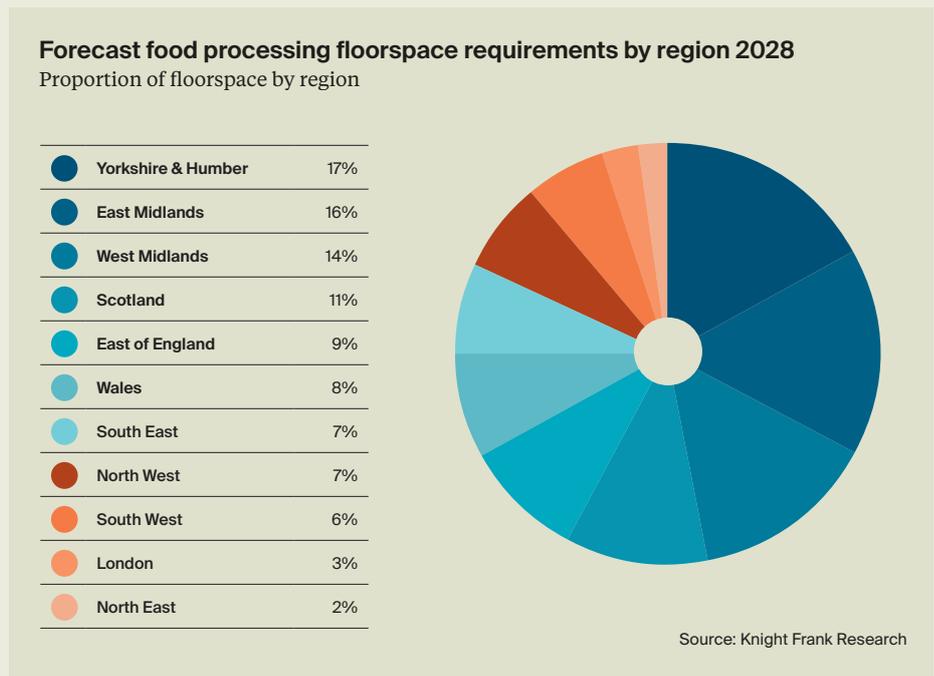
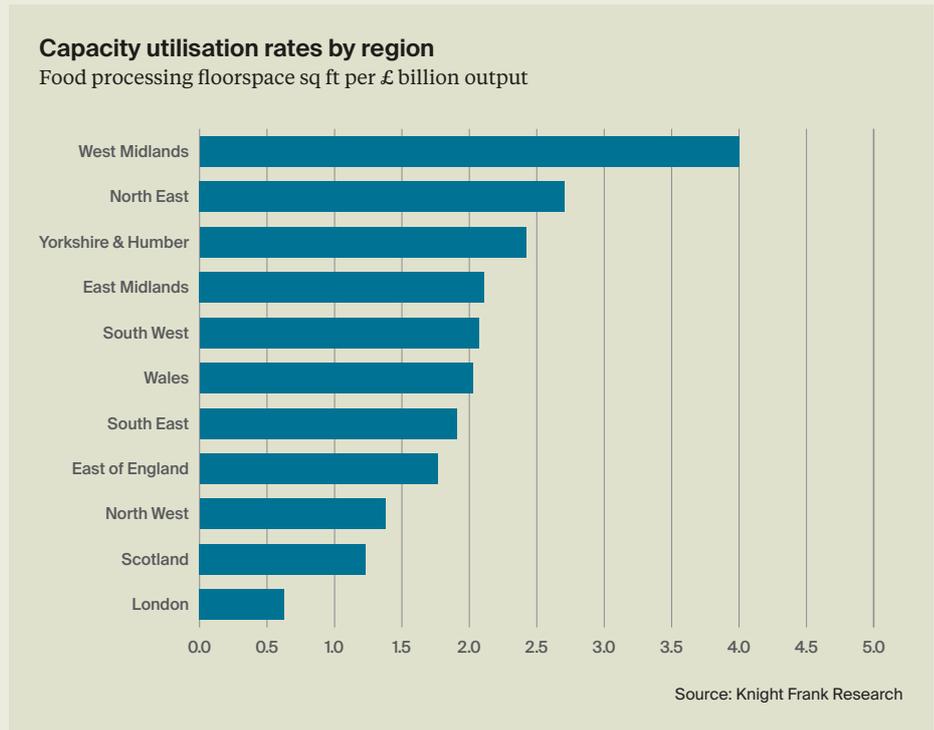
The food processing industry is highly varied. Small, urban multi-let units house a variety of producers, from artisan chocolate makers, micro-breweries, bakeries and coffee roasters. The largest food manufacturing firms that make and supply household food brands to UK supermarkets, including Associated British Foods, Boparan Holdings and Arla Foods occupy large, highly automated facilities. There will be great variation in operating costs, which is reflected in the differences

**“An additional 3.5 million sq ft will be required across the UK to accommodate growth in the food manufacturing sector”**

in capacity utilisation across the regions. In London, small units with high rents will necessitate a high output per sq ft area. Occupiers in the capital are constrained in terms of space and with low vacancy rates, there are limited options for expansion. In locations such as the West Midlands and North East, huge facilities will house large, highly

automated facilities producing foods for the national and international consumer markets.

An additional 3.5 million sq ft will be required across the UK to accommodate growth in the food manufacturing sector. The amount of floorspace per region is determined by both the forecast rise in output and the current capacity utilisation rates.



# Towards a segmented forecast of demand for industrial and logistics space

Supporting the forecast growth of the retail, manufacturing and service segments of the market considered in this report would require an additional 111.6 million sq ft of industrial and logistics space over the next five years. These segments of the market together account for approximately half of all occupied space. Wholesalers and B2B distribution and those focused on import and export operations, general storage, or alternative uses are not considered as part of this forecast.

For the segments of the market analysed, the floorspace needed per dwelling is forecast to rise from 109 sq ft per dwelling to 111 sq ft.

Given that the growth of the remaining segments of the market, particularly the wholesale and B2B distribution elements, will be closely tied to growth in the retail, service and manufacturing sectors, this part of the market is also likely to see growth. If the requirements for the rest of the market rose at the same rate, then the industrial floorspace would need to rise by 225.7 million sq ft (6.8%) over the next five years (assuming vacancy rates remain constant) and the amount of floorspace per dwelling would need to increase to 113 sq ft.

Though this is a significant rate of increase, it is below the rates of growth recorded over the past ten years. Occupied space has increased 17% over the past ten years, or from 102 sq ft to 109 sq ft on a per dwelling basis (+7.5%).

This has been possible due to a combination of new facilities being built as well as a significant amount of vacant space becoming occupied. Vacancy rates have moved in from 9.2%

**“Industrial floorspace would need to rise by 225.7 million sq ft (6.8%) over the next five years”**

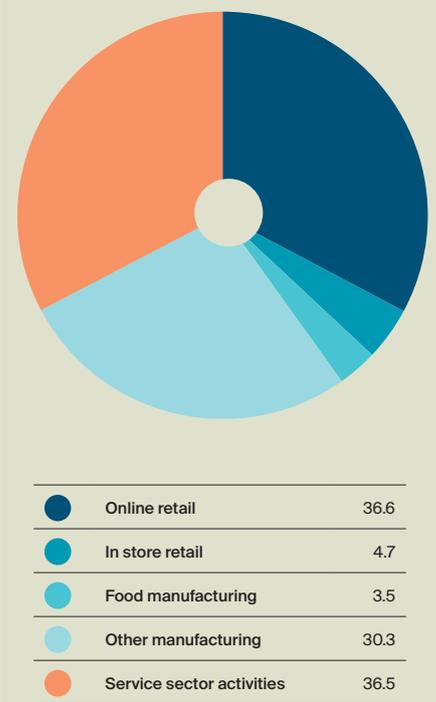
ten years ago to 5.2% (Q3 2023), and while there has been some outward movement over the past year, current vacancy rates remain well below the 8% of floorspace considered to be a reasonable rate of frictional vacancy by the Land for Industry and Transport SPG (2012).

With vacancy rates low relative to historical levels and below the frictional rate, the level of stock will need to increase to accommodate growth, or alternative ways to accommodate occupiers (particularly service-based or ‘clean’ industrial activities) will need to be found.

The Midlands (East and West), along with Yorkshire & Humber, together account for 38% of the UK's industrial and logistics floorspace. They are also the regions that have seen the largest rise in occupied space over the past ten years and are expected to see the largest rises in demand over the next five years. The demand in these regions will be dominated by national distribution hubs and by manufacturing.

Scotland is also expected to see strong growth in demand from manufacturing. Occupied stock in Scotland has increased just 11% in the past ten years, compared with 17% across the UK as a whole. Scotland has not witnessed the levels of development seen in other regions, and

**Forecast additional floorspace demand by use (2023-2028)**  
Million sq ft



Source: Knight Frank Research

more than three-quarters of stock in Scotland was built before 2000 (based on floorspace). If manufacturing is to expand in the region as forecast, new facilities are likely to be needed.

Continued pressure on urban facilities is expected due to demand for last-mile logistics to service the growth in online retail, the anticipated growth in service-based activities due to the forecast expansion of the service sector, and food manufacturing activities.

# Conclusions

## Ten key points

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- 1** Though industrial and logistics property is not a visible part of our consumer transactions and is largely absent from the daily activities of modern urban lives, many items and services we rely upon are made, stored, and dispatched from industrial and logistics facilities. The activities that take place within industrial and logistics space support a wide range of economic functions as well as our national supply chain infrastructure. To ensure support for the growing population and economy, sufficient provision of industrial and logistics stock needs to be considered.
- 2** A growing population and shrinking household sizes are driving a need for more housing. Each additional property is a potential delivery address and each household will need industrial and logistics properties to support the supply chain infrastructure that provide both critical and discretionary items/services.
- 3** Housing decisions made at a local level can have far-reaching implications for the industrial and logistics sector. A desire of local government to favour certain uses of industrial and logistics space can have unintended consequences, such as a lack of distribution infrastructure for local residents and businesses, stifling the growth of the service sector, or limiting options for business expansion.
- 4** There is currently 109 sq ft of occupied industrial and logistics floorspace for each dwelling in the UK. This relationship between the household and industrial and logistics operations has changed over the past ten years as lifestyles have changed and our supply chain needs have evolved. There is more floorspace per dwelling now compared with ten years ago and this trend is expected to continue due to growth in household incomes, increasing urbanisation, changing consumer preferences, including rising online sales and demand for convenience, as well as an expanding manufacturing sector, and a drive for greater supply chain security.
- 5** In London and the South East regions and key cities, the confluence of growing urban populations, hospitality industries and consumer demand for convenience support robust and growing service sectors. Industrial and logistics facilities in and around urban centres are in demand for various activities, such as laundry and catering services. These 'servicing the services' add to other sources of demand for urban facilities, including last-mile distribution.
- 6** There are also rising alternative sources of demand, with warehousing offering versatile space suited for conversion to uses such as film studios or leisure uses such as trampoline or climbing centres. Industrial parks can also provide large sites suited for data centres, or research and development uses, etc.
- 7** Understanding the segmentations of demand within the sector is critical to delivering the right facilities in the right locations, supporting the activities that take place within these spaces, and broader economic functions that rely on these activities. The different uses and functions within industrial and logistics space and the scale of operation impact operational costs and location choices, and the capacity utilisation of the space varies accordingly.
- 8** Although improving efficiencies and better use of space are generating greater capacity utilisation, rising operational costs or a lack of facilities will mean that some operations are not feasible, and a lack of options for expansion can limit business growth (or lead to relocation).
- 9** An additional 111.6 million sq ft of industrial and logistics floorspace is needed to service the growth of retail, manufacturing and service sector activities over the next five years. If the rest of the sector experiences the same growth rate, industrial floorspace would need to rise by 225.7 million sq ft.
- 10** Accommodating the forecast growth in demand, and providing the right space in the right locations, will require a joined-up approach to planning and an understanding of the connection between households and industrial and logistics space, as well as how this is changing.



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**Claire Williams**  
Head of UK and European Industrial Research  
+44(0) 203 897 0036  
[claire.williams@knightfrank.com](mailto:claire.williams@knightfrank.com)



**Charles Binks**  
Head of Logistics & Industrial Agency  
+44(0) 207 861 1146  
[charles.binks@knightfrank.com](mailto:charles.binks@knightfrank.com)



**Charlie Divall**  
Head of Industrial Capital Markets  
+44(0) 207 861 1683  
[charles.divall@knightfrank.com](mailto:charles.divall@knightfrank.com)



**Johnny Hawkins**  
Partner, Capital Markets  
+44(0) 207 861 1519  
[johnny.hawkins@knightfrank.com](mailto:johnny.hawkins@knightfrank.com)