Levelling Up - The Logic of Logistics

A report demonstrating the wider economic, social and environmental benefits of the industrial & logistics sector

Contents

Foreword

The Covid-19 pandemic has demonstrated that our industrial and logistics facilities are a key part of the nation's critical national infrastructure.

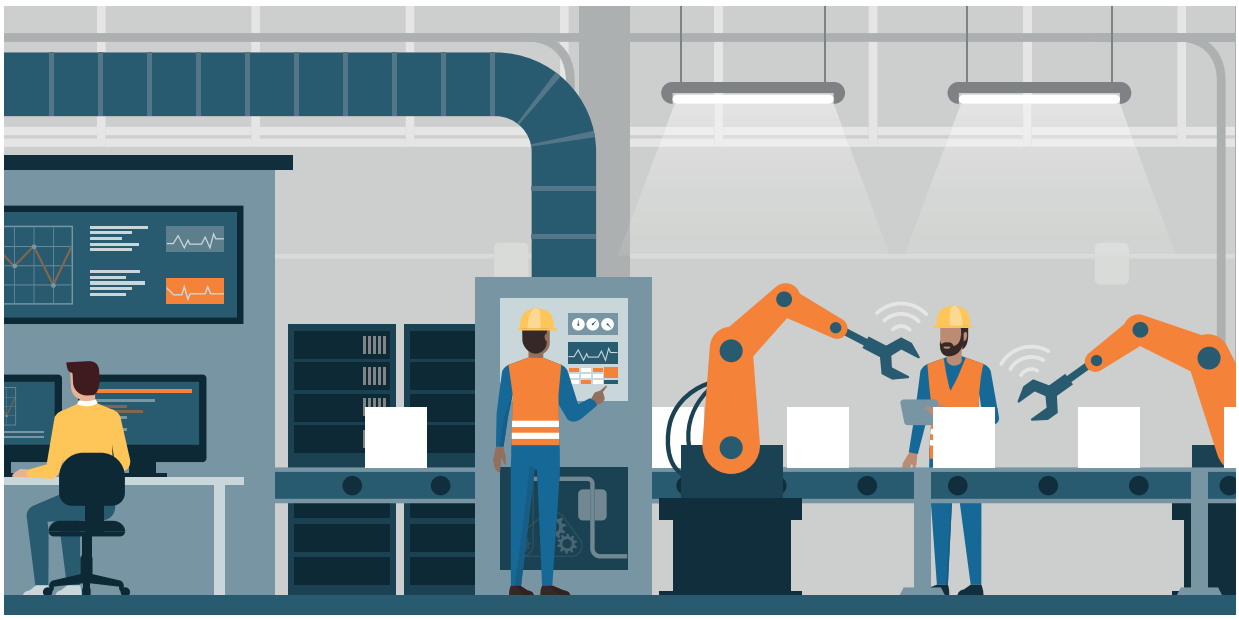
Alongside our supply chains, they support other important and growing sections of a strong economy and the way we live our lives by ensuring we have what we need at the right time. They are as crucial as the roads, rail, airport and port facilities needed to move goods around the country.

The sector also generates significant economic benefits supporting increasing numbers of high-quality jobs across the English regions. A thriving industrial and logistics sector is therefore critical to the government delivering on its ambitions to 'level up' across the UK with over 70% of demand for industrial and logistics space in the North of England and the Midlands.

Enabling the sector to reach its full potential is essential to the government's aspirations to address regional inequalities but our planning system remains a barrier and is restricting growth in the sector by not allocating enough land in appropriate locations. If the industrial and logistics sector is to play its full part in levelling up, it is vital that we create a more agile planning system which is more responsive to the sector's needs.

This latest BPF Industrial Committee report builds on previous research publications advocating for a more responsive planning system to the needs of the industrial and logistics sector. The report also provides a comprehensive overview of the growing economic, social value and environmental credentials of the sector as well as presenting case studies from within the BPF membership to reinforce these qualities.

Gwyn Stubbings
Planning Director, GLP
Chair of the BPF Industrial Committee



Executive Summary

An Economic Powerhouse

I&L facilities are Critical National Infrastructure

Food Supplies

Alongside their supply chains, they support the functioning of our economy and the way we live our lives, by ensuring we have what we need. They are as critical as the roads, rail, airport and port facilities needed to move goods around the country

Fuel Supplies

Vaccines and Medical Supplies

The I&L sector generates significant economic benefits

3.8 million
jobs in I&L in England

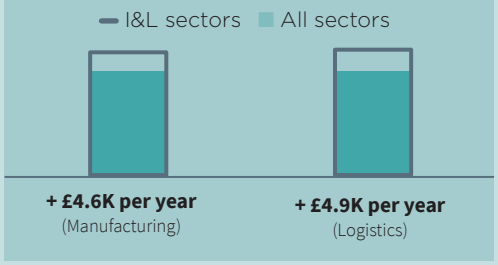
£232 billion
of GVA

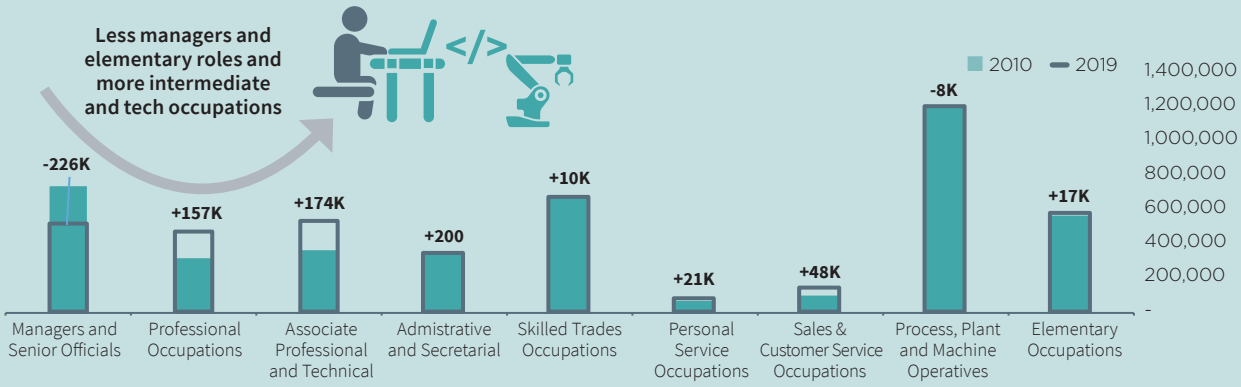
29% productivity
increase between 2025 and 2039

The I&L sector is subject to continuing misconceptions about average pay and skill levels

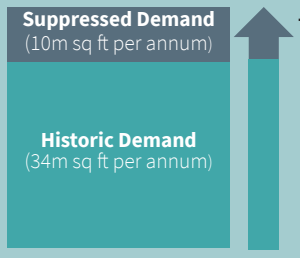
…and the occupations provided are becoming more diverse

…the reality is I&L jobs pay more





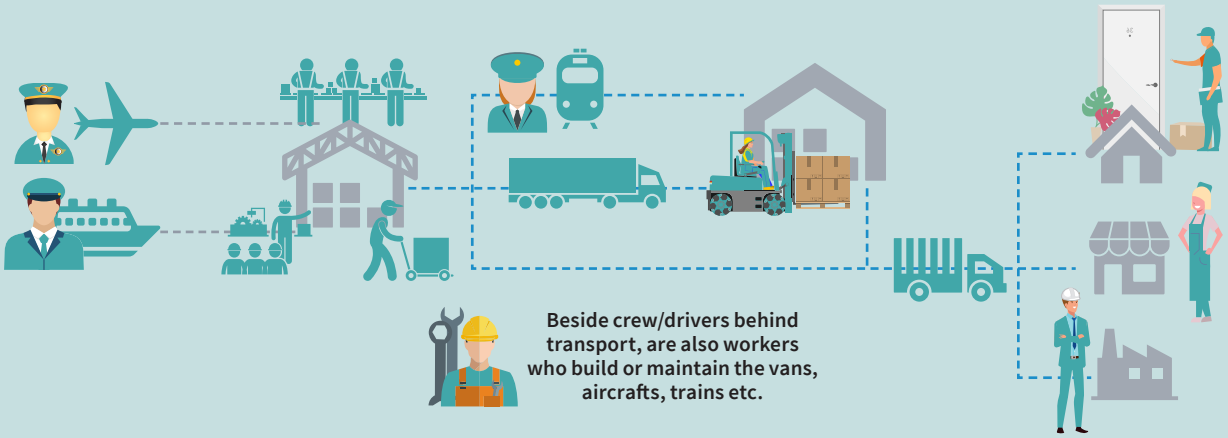
The UK planning system is restricting growth in the I&L sector by not allocating enough land in the right locations



…the historic lack of supply has restricted ('suppressed') demand by 29% nationally which should be provided for in the future. Future demand estimates should also consider housing, e-commerce and freight growth

Growing Social Value Credentials

I&L supply chains are far reaching and provide significant levels of employment in addition to onsite jobs



Beside crew/drivers behind transport, are also workers who build or maintain the vans, aircrafts, trains etc.

Most UK freight comes in via ports and airports

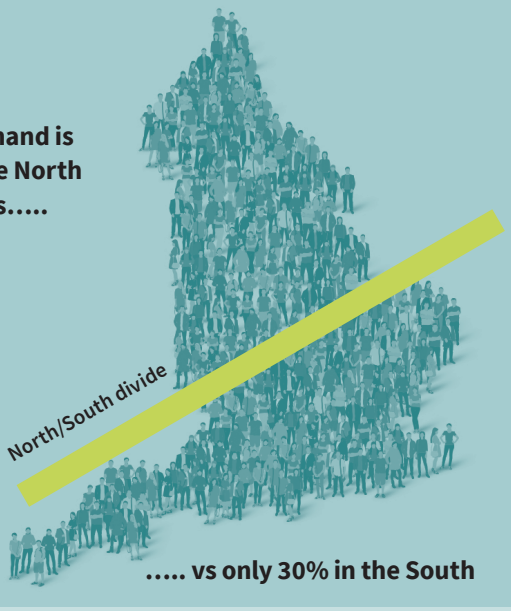
Freight is handled at port / air-side sheds before being distributed

Goods are moved mainly by HGV / LGV or rail to either distribution hubs (sheds) or direct to customers

End customers are either homes or businesses

I&L investment is helping to support the Government's 'Levelling Up' Agenda

70% of I&L demand is generated in the North and Midlands.....

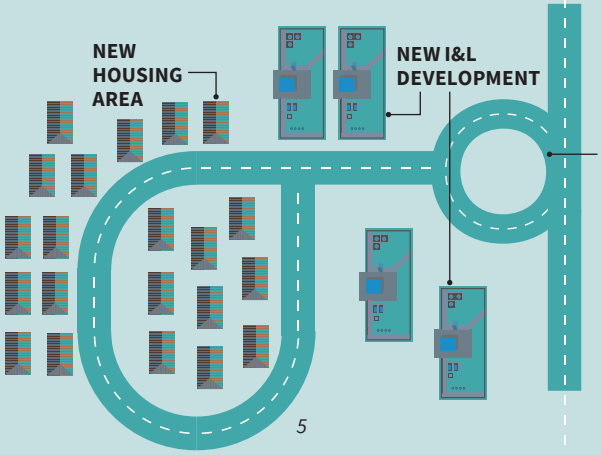


..... vs only 30% in the South

Given the I&L sector's strong economic credentials and growth prospects, future I&L jobs can be crucial in bridging the GVA and productivity gap between the North and South

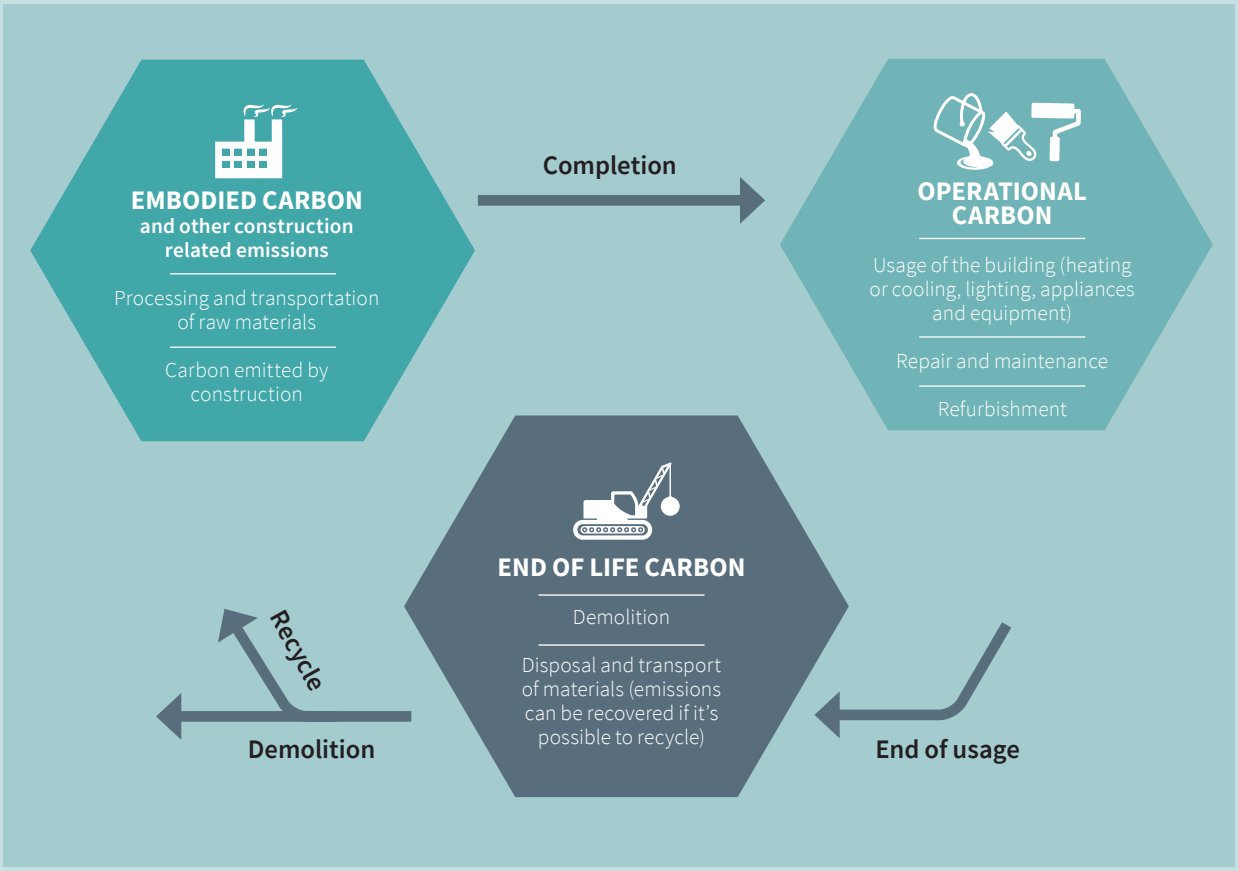
I&L investment can aid the delivery of new housing

I&L development can contribute to the delivery of new homes via the funding of strategic infrastructure such as motorway junction upgrades and link roads



A Green Recovery 'Boxed'

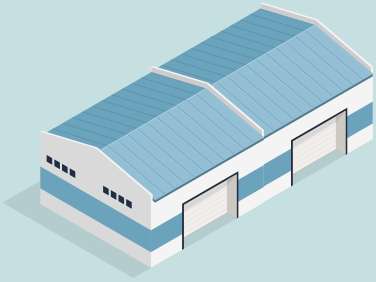
Carbon is present across all three phases of the property life cycle



EMBODIED CARBON
I&L facilities can be built with recycled, low carbon and sustainably sourced materials

I&L buildings are achieving outstanding results for constructions such as Net Zero Carbon recognition, and top EPC and BREEAM ratings

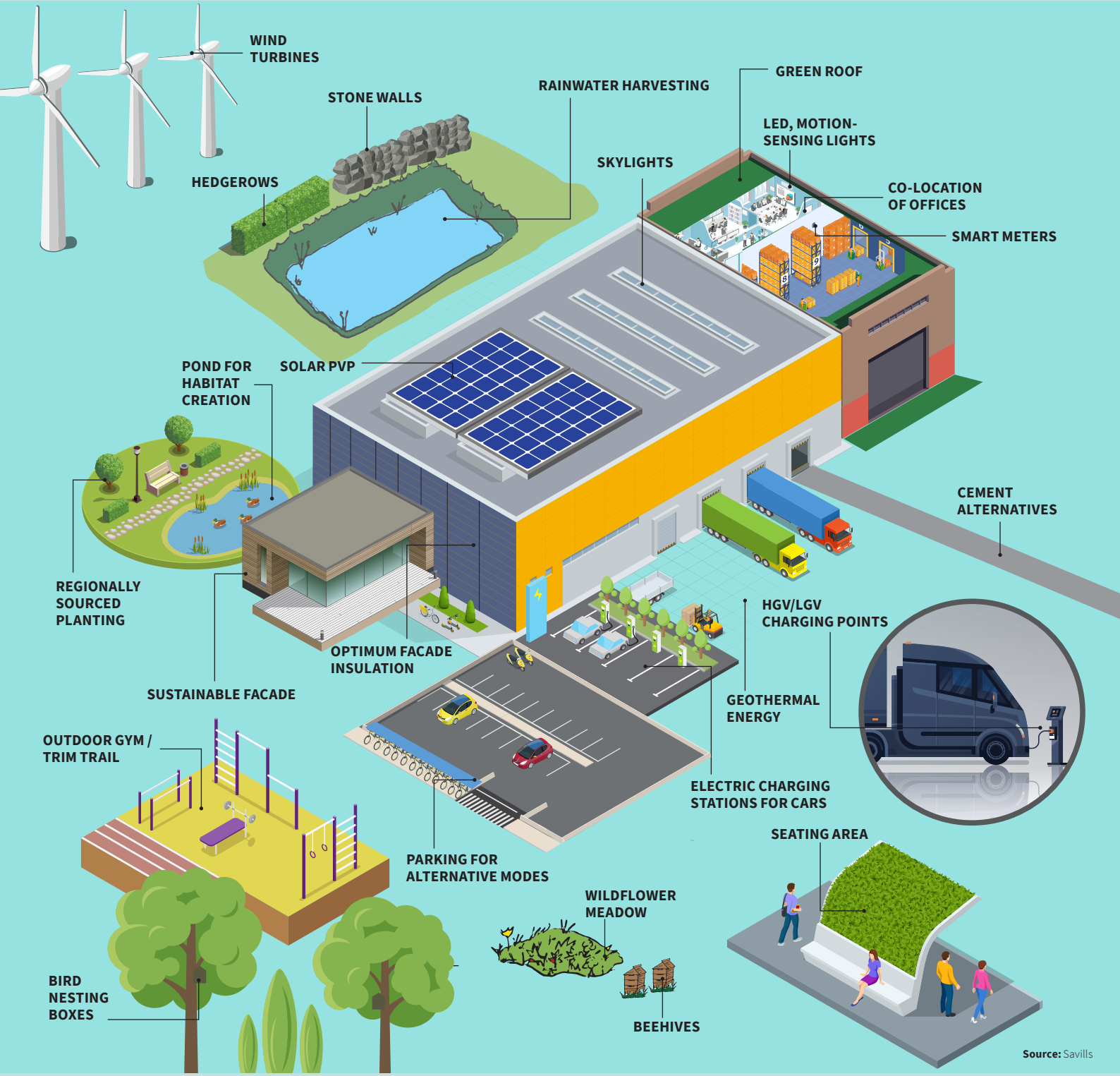
END OF LIFE CARBON
Modern I&L buildings have the advantage to be lightweight structures which are highly adaptable for a large range of uses



The steel frames used in I&L properties are much more easily recycled than concrete which is more common in other commercial uses

OPERATIONAL CARBON

I&L premises are innovating to reduce carbon



Source: Savills

1. Introduction

The I&L sector is not only an economic powerhouse but also delivers significant social value and is embracing innovative ways to reduce carbon

The aim of this report is to evidence the importance of the industrial and logistics (I&L) sector to the UK, not just in terms of it being an 'Economic Powerhouse' but also in terms of its 'Growing Social Value Credentials' and contribution to 'A Green Recovery Boxed'. It is hoped that by reviewing the sector against economic, social and environmental objectives, this report presents a balanced and evidential account of the sector's future growth potential and the critical role it can play in a post Covid and Brexit UK.

The intended audience for the report are those integral to the sector's future growth and success including: national government policy makers, local authority planners, elected members, investors and tenants, as well as those keen to learn more about the sector.

The report is structured as follows:

- **An Economic Powerhouse** focuses on the sector's economic attributes, namely how I&L premises facilitate modern lives and therefore should be considered as 'Critical National Infrastructure,' similar to how major roads, ports, airports and rail freight interchanges are. We also discuss the sector's contribution to the national economy and the key growth drivers that are underpinning recording breaking levels of demand. This chapter finishes by discussing a number of flaws in the way future demand and land needs are currently assessed as part of Local Plans and how these flaws can be addressed by using an alternative method developed by Savills and St Modwen;

- **Growing Social Value Credentials** discusses the sectors contribution to local and regional communities, the Government's 'Levelling Up' agenda and the range of jobs and training opportunities the sector creates as part of its wider supply chains. We also discuss how I&L developments are contributing to strategic infrastructure to the benefit of new housing developments and how modern I&L premises are adopting a more human-centric approach to their design; and

- **A Green Recovery 'Boxed'** outlines how the sector is embracing sustainability via a reduction in carbon across all phases of a property's life cycle. We discuss how buildings are achieving net zero in construction; how carbon can be reduced during operations through clever building design solutions that improve energy supply and reduce energy demand; and we finally consider a property's end of life, exploring how I&L premises can be repurposed for other uses.

Reader's Note

When we refer to the industrial and logistics (I&L) sector we mean Light Industrial (formally B1c use class now part of Class E), General Industry (B2 use class) and Storage and Distribution (B8 use class). Effectively the primary use classes that require warehouses or factories (including ancillary offices) and associated yard spaces. These use classes typically cover the diverse range of industrial, manufacturing and logistics companies that operate within England.

2. An Economic Powerhouse

Recent global challenges have proven that the I&L sector's workers, stock of facilities and distribution networks are unquestionably 'critical national infrastructure'

I&L facilities and their supply chains support the functioning of our economy and the way we live our lives. The food we eat, the products and services we purchase, the materials used to build new homes and new infrastructure, even the vaccines that give us protection from Covid are stored, manufactured and distributed from warehouses and factories to 'us' the end customer. Without these facilities and the increasingly efficient supply chains that link them up with suppliers and end customers, the delivery of our purchases would be much slower, more expensive and we would have less choice.

It can be difficult to acknowledge the critical role played by the I&L sector when everything is running smoothly. It is much easier to understand its importance when things don't work quite as well. The six-day blockage of the Suez Canal in March 2021 created a domino effect on global supply chains, which affected not only those sectors relying on container shipping but also the transport sector as fuel vessels were delayed too. The shortage of HGV drivers in autumn 2021 led to fuel shortages in UK petrol stations and forced businesses to close down sites or cut product lines, adding to the backlog of production caused by the Covid pandemic.

These challenges have brought to the fore the importance of supply chain resilience and the need for a sufficient supply of appropriately located I&L premises. For instance, during the recent lockdowns, the I&L sector has been instrumental to ensure the effective delivery of medical stock in hospitals and food supplies on supermarket shelves. As vaccines were made available, the operation of effective distribution networks across transport modes was fundamental to supply vaccination centres while meeting stringent time frames and cold-store requirements. The pandemic has indeed proven that our daily life depends on the I&L sector. Its workers, stock of facilities and distribution networks are unquestionably 'critical national infrastructure.' The sector is also critical to the Government's 'Levelling Up' agenda given it is one of the few large sectors that invests more in the central and northern parts of the country rather than London and the south. We discuss this issue further in the 'Growing Social Value Credentials' chapter.

The sector's growth is critical to the UK's future prosperity

The sector is a significant employer of at least 3.8 million people. However the true number of jobs is likely much higher as this only relates to 'manufacturing, transportation and storage'[1] activities. The wider supply chains of I&L businesses

Key stats: I&L sector

3.8 million
jobs in I&L in England

£232 billion
of GVA

29% productivity
increase between 2025 and 2039

14% the share of I&L in the total economy in terms of GVA

Source: ONS, Oxford Economics, Savills [2]

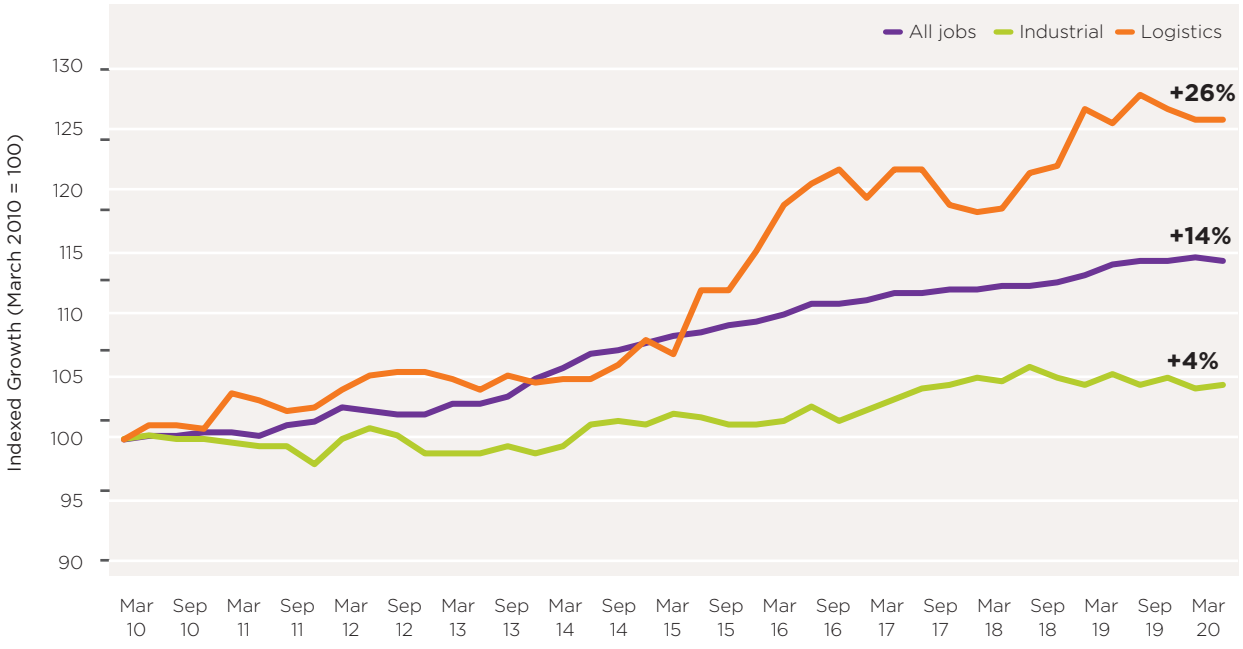
include other types of jobs not covered by this statistical classification. For instance, office based roles and professions such as product design, research & development and engineering are routinely found in I&L companies but fall within the 'professional services' classification.

A prime example of the wider economic impacts of I&L supply chains is Amazon. In addition to the 55,000 staff[3] it employs directly in the UK, the company is reported to have created 175,000 jobs via the 65,000 plus small and medium-sized enterprises (SMEs) who are selling professionally through Amazon[4]. While Amazon's diversity lies primarily in the different products it handles and distributes, I&L companies can differ greatly in terms of their operational characteristics and the activities conducted from their premises.

Not only is the I&L sector large, at 14% of the England economy, it is fast growing too. Over the last 10 years, jobs within the logistics part of the I&L sector have grown by 26% compared to only 14% across the economy as a whole. Its growth profile has been further accelerated by the Covid pandemic and Brexit as we discuss further below.

"Over the last 10 years, jobs within the logistics part of the I&L sector have grown by 26% compared to only 14% across the economy as a whole."

Historic Jobs Growth in England



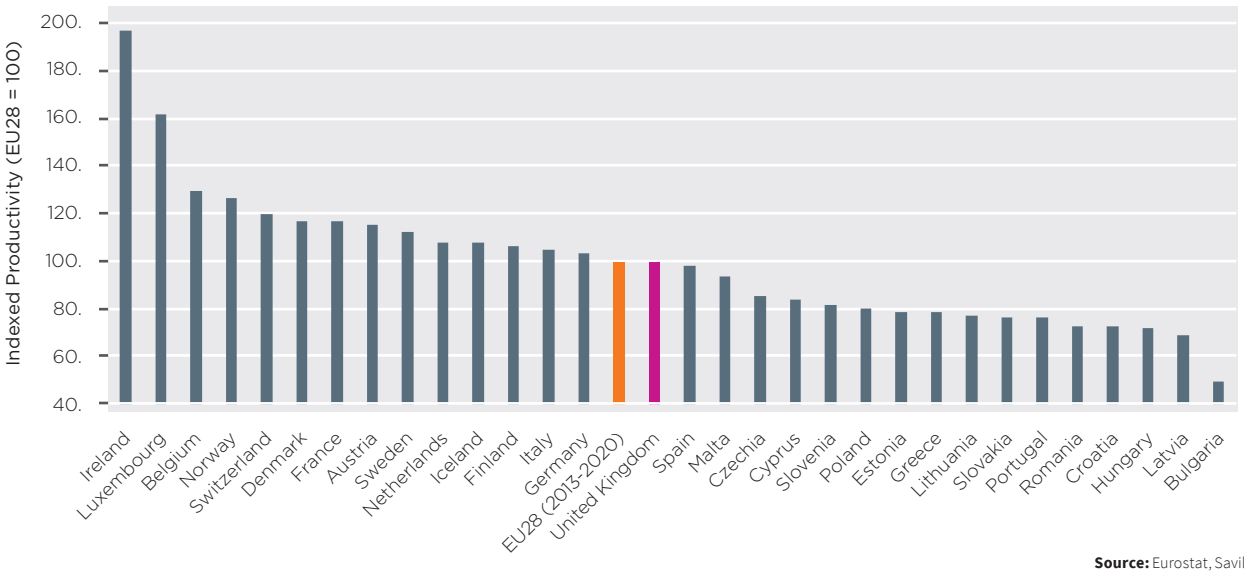
Source: ONS, Workforce Jobs by Industry and Region, Savills

The sector is also highly productive with Gross Value Added (GVA)[5] per job currently at £58,000, some 12% higher than the average of all sectors. Its productivity is also predicted to grow at a faster pace, increasing by 29% between 2025 to 2039 compared to 18% across the UK economy as a whole[6]. These are extremely important statistics given the UK's labour productivity currently lags many of its western European peers as shown in the chart below.

Improving the UK's labour productivity will become increasingly important in a post Brexit world given its important bearing on attracting inward investment, ability to pay higher wages and higher tax revenues for the Government which can be reinvested in critical services and infrastructure.

The vision of the UK becoming a "high-wage, high-skill" economy was central to Prime Minister Boris Johnson's Conservative Party Conference speech on the 6th October 2021. Essential to achieving this vision will be to increase overall labour productivity, which in turn will require further growth in the more productive parts of the economy which undoubtedly include the I&L sector.

Labour productivity per person employed - 2019



Source: Eurostat, Savills

I&L growth is being driven by numerous factors

Not just e-commerce driving growth

While e-commerce grabs most of the headlines for driving growth in the sector, there are several growth drivers at play as illustrated below. Combined, these growth drivers are resulting in unpreceded demand for I&L premises.

Savills January 2022 Big Shed Briefing[7] reported that 55.1 million sqft (gross) of warehouse space had been transacted in 2021, setting a new annual record for take-up and being 86% above the long-term annual average.

I&L Growth Drivers

Source: Savills

Growth in UK freight

Freight arriving and leaving the UK needs to be sorted, packaged and distributed via a network of freight handling infrastructure (i.e. ports, airports, rail freight interchanges and motorways) and optimally located I&L premises in order to reach end customers.

Significant growth is forecast across all freight modes, which will increase demand for I&L space in the future. I&L premises should not be seen as separate from the infrastructure which enables goods to be moved around the UK, but should be considered critical national infrastructure itself.

I&L forecasts

LGV Traffic Forecasts

between +25% and +108% by 2050*

*from 2015 base

Rail Traffic Forecasts

+74% by 2043/44*

*from 2016 base

Global Air Freight Forecasts

+121% by 2039*

*from 2019 base

Port Tonnage Forecasts

+39% by 2050*

*from 2016 base

Source: DfT, MDS Transmodal for Network Rail, Boeing, DfT, Savills

E-Commerce Growth

E-Commerce growth is being driven by two factors.

Firstly, population growth. The UK Government has announced a housing shortage in response to demand consistently outstripping supply. To address this situation, the Government has set an annual housing target of 300,000 homes per annum in England which it is struggling to achieve with less than 225,000 homes delivered per annum over the last five years[8]. Based on current online retail spending data[9] and average household size[10], 300,000 homes per annum equates to an extra £1.3 billion per annum in online retail spending. Using the 'warehouse to homes ratio' discussed in the BPF's 'What Warehouse Where?' report[11], this level of housing growth could generate a warehouse requirement of 21 million sqft per annum on its own.

Secondly, technological improvements coupled with society's increasing preference to purchase goods and services online. Retail spending is growing faster than the rate of population growth (+71%[12] vs +14%[13] over the last 20 years). More of this retail spending is being conducted online, for instance in 2006 online sales accounted for only 3% increasing to 19% prior to the Covid pandemic in February 2020. The Covid pandemic has accelerated this growth with internet sales currently at 26%[14] and forecast to grow to 37% by 2025[15]. The growth in online shopping has significant implications on future I&L demand given that e-commerce requires over three times the logistics space compared to traditional brick-and-mortar retailers[16].

Faster Deliveries

Consumer expectations for same-day or next-day delivery are reshaping the operating models of logistics companies. For instance, the emergence of Zapp, Getir and Deliveroo who deliver groceries "in minutes" while most of the major retailer such as Boots, Next and many more deliver next day. These trends are expected to increase demand for logistics space as reduced delivery times are expected to benefit online retailers.

The Covid pandemic has accelerated this shift: a survey by Bringg[17] found that since the start of the pandemic 27% of retailers added same-day delivery for online orders as a fulfilment option and 1 in 3 retailers are planning to add same-day delivery options in the next 6 to 12 months.

To enable fast deliveries, stock needs to be held near the end customer before it's picked up for the last mile. This requires warehousing space in regional and local distribution hubs nearby to population centres. Large 3PLs like Amazon can more easily fit this model within their existing operations due to the sheer number of deliveries that they fulfil daily and their huge geographic coverage. For most retailers however this move will require investment in technology and upskilling of staff in addition to more warehousing space. In some cases, it could require setting up their own delivery fleet to improve margins, as already done by some large grocery retailers such as Sainsbury's, Tesco and Asda, to cope with the growing demand for online orders.

Near-shoring / re-shoring

The Covid pandemic and Brexit have created major disruptions for the sector's supply chains in the form of border restrictions, lockdowns and access to labour such as HGV drivers. In order to minimise similar disruptions in the future, many UK companies are moving their operations either back to the UK or closer by. Likewise certain I&L activities may be re-shored to the UK as it becomes more expensive to conduct business in the EU as a result of Brexit. According to a survey carried out in July 2020 by the Institute for Supply Management, 20% of firms are planning to or have already started to near-shore or re-shore. These findings are corroborated by a survey carried out by Savills[18] whereby over 80% of respondents expected the Covid pandemic to either 'greatly increase' or 'somewhat increase' on-shoring. This is likely to lead to higher domestic inventory requirements, further increasing long-term demand for I&L space.

Definitions

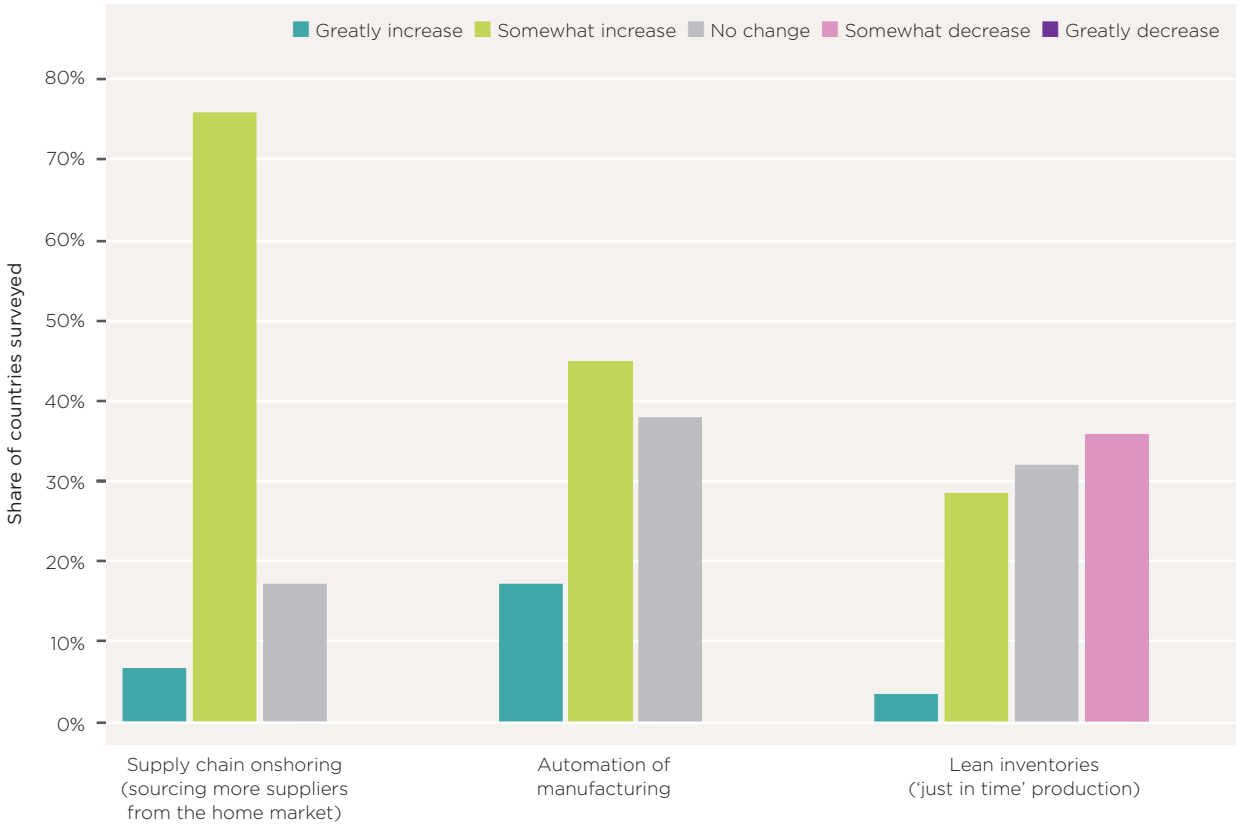
Near-shoring
Transferring a business operation to a nearby country as opposed to a more distant one (i.e. off-shoring)

Re-shoring
Moving a business that had gone overseas back to the country from which it had originally relocated

"To enable fast deliveries, stock needs to be held near the end customer before it's picked up for the last mile. This requires warehousinfg space in regional and local distribution hubs nearby to population centres"

Certain I&L activities may be on-shored to the UK in response to international supply chain disruptions

Impact of Covid-19 on supply chains and manufacturing after pandemic has passed



Source: Savills Research

Co-locating different business functions

As the operations of modern day I&L companies have evolved via investments in automation and technology, so have the types of occupations found in the sector. Alongside traditional roles such as factory / warehouse managers, forklift operators and delivery drivers are a diverse range of new roles such as software engineers in charge of automated systems, supply chain managers and data analysts.

While these new and more diverse occupations are the result of operational changes in the sector, these changes are impacting the design and composition of modern I&L premises. One such change is the increased prevalence of office space being co-located with warehouse and manufacturing facilities to house these new roles, but also as a means of improving operational efficiency, reducing estate costs and fostering stronger collaboration between different business units (see Bidfood case study). Based on Savills data tracking large units over 100,000 sqft across the UK, the amount of office space found in I&L premises has increased over the last five years.

While the external appearance of premises occupied by a manufacturer may look similar to that occupied by a logistics company, their internal fit out, even a building's environmental performance are increasingly tailored to the specific requirements of individual companies. Modern I&L premises are also found to house gyms, cafes, restaurants, game rooms, and even hairdressers and physiotherapy suites. As a result, the types of activities undertaken, the levels of employment generated, and range of occupations found on site are very much company specific. This diversity evident in the sector is not adequately captured via the current planning use classes or standard job densities applied to I&L developments.

As detailed in our Gymshark case study below their diverse operations are being co-located together meaning its premises do not fit solely within either an office (E(g)(i)), research and development (E(g)(ii)), industrial processes (E(g)(iii)), general industrial (B2) or storage and distribution (B8) use class. Nor do any of its different activities operate as ancillary to one another but rather as separate components of a collective whole.

Case Study: Gymshark

Gymshark is a fast growing clothing company which is now expanding across multiple facilities in Blythe Valley Business Park (Solihull) to create a campus style working environment. The large warehouse chosen for their new innovation hub provided Gymshark with the necessary flexibility to house multiple functions, combining production, storage, design studio, innovation and office space, meeting rooms and breakout areas. The building is designed to bring together these diverse uses and the people covering different roles to promote innovation and integration across a number of functions.

Source: GymShark

Case Study: Bidfood

Purpose-built for Bidfood, the 117,400 sqft premises in the Slough Trading Estate include 22,000 sqft of head office accommodation arranged across three floors for marketing, commercial, quality control, finance, IT, customer services and telesales personnel. The remaining floorspace includes a customer presentation suite, temperature-controlled warehouse and distribution facility.

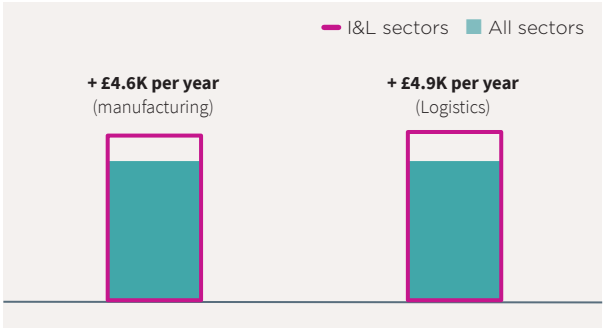
Source: SEGRO

Diverse and better paid occupations

The I&L sector is subject to several misconceptions about average pay levels, skills required, and types of spaces provided. It is not a low paid[19], low skilled employer, in fact, the reality is very different.

Firstly, average pay is higher than the UK average. Data from the Office for National Statistics (ONS) show annual wages above average at +£4,600 for Manufacturing and +£4,900 for Logistics.

I&L jobs pay more



Source: ONS (2021) ASHE, UK Gross Annual Pay in 2020

Secondly, while other sectors have contracted during the Covid pandemic the I&L sector has continued to expand. Data on online job ads tracked by ONS via Adzuna indicate that job postings have increased by three times for transport & logistics roles and two and a half times for manufacturing roles since the start of the pandemic[20]. Two notable examples behind these statistics are the John Lewis Partnership and Amazon:

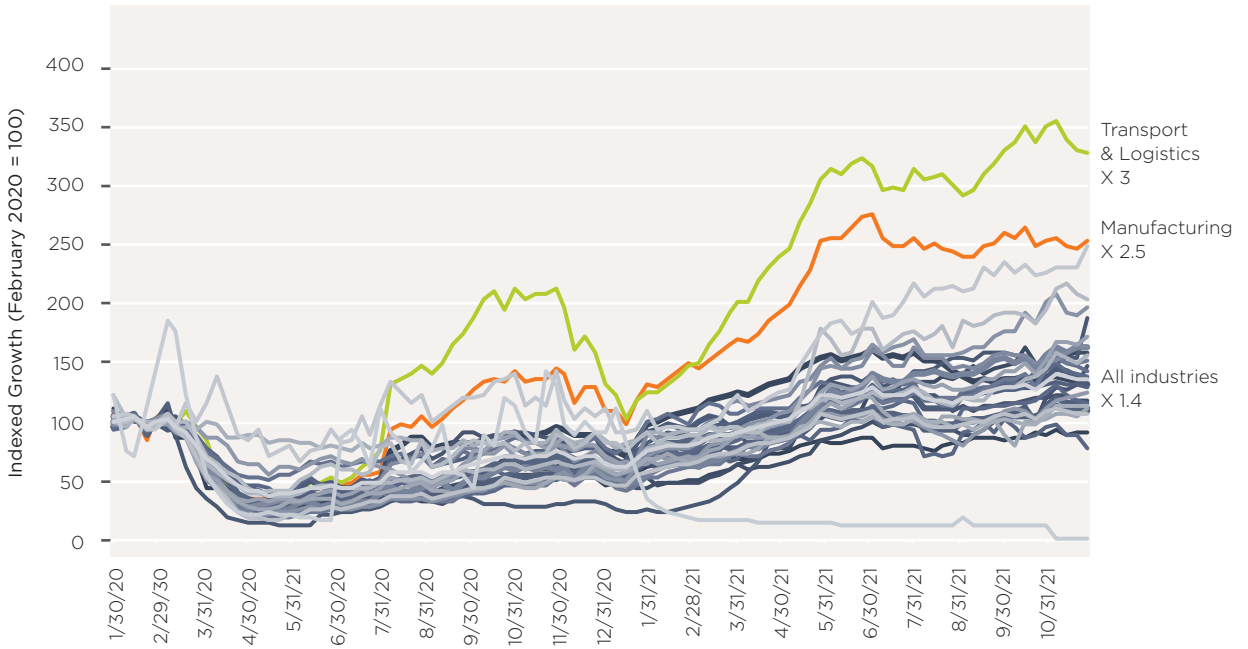
- The John Lewis Partnership is recruiting more than 550 permanent full-time driver and warehouse partner roles across their distribution centres and Waitrose.com and John Lewis.com customer delivery centres[21]; and

- Amazon committed to recruit 20,000 temporary staff for the busy Christmas period across its network of fulfilment centres, sort centres and delivery stations[22]. These are in addition to the 7,000 permanent jobs it announced in September 2021[23].

"The Industrial & Logistics sector is not a low paid, low skilled employer, in fact, the reality is very different"

I&L job adverts have increased during the pandemic

Up to 3 x more I&L job adverts

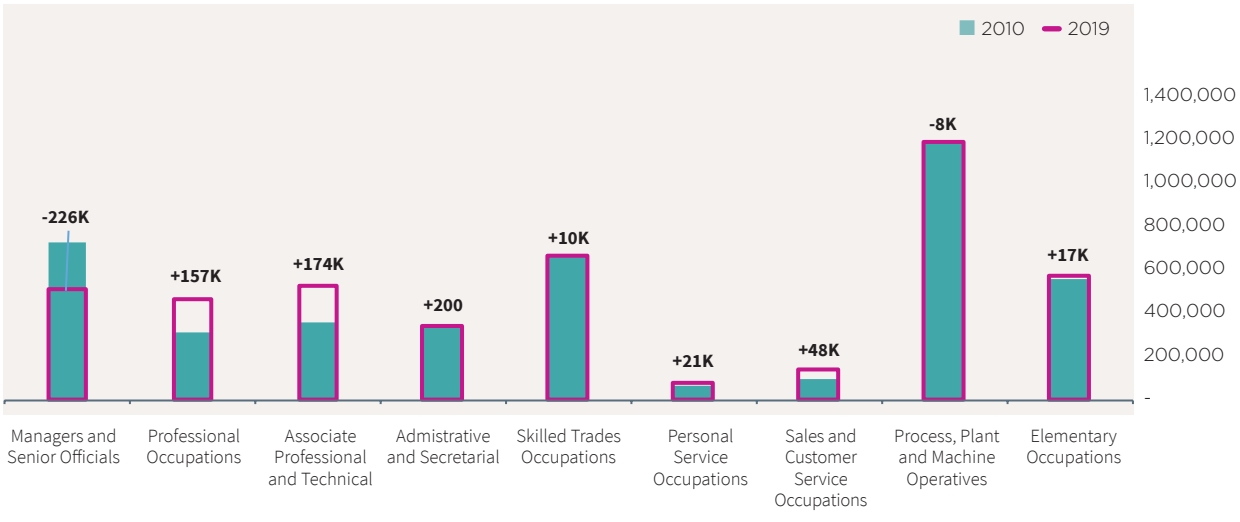


Source: ONS (2021), Online Job Advert Estimates based on Adzuna

Thirdly, I&L jobs have become increasingly diverse over the last decade. At the beginning of the decade the sector had a much more polarised distribution, with a higher share of managers at one end of the spectrum and more plant and machinery operatives and elementary occupations at the other end. Today we see a higher share of Professional and Associate Professional and Technical roles, typically associated with higher-skilled engineering and technological professions.

This is in response to increased automation and robotics in the sector and more advanced supply chain processes. These office-based roles are increasingly co-locating alongside production and logistics uses as it is convenient for these people to be closer to the operations they control and analyse. This increased occupational diversity means the I&L sector can play an important role in re-employing people that have lost jobs in other sectors of the economy as a result of the Covid pandemic.

I&L occupations are becoming more diverse



Source: ONS, APS

Case Study: Overclockers

Overclockers are a modern British logistics and e-commerce success story. Initially founded in 1999 as a web retailer of custom 'overclocked' PCs, Overclockers started life trading from a tiny, 400 square foot warehouse in Stoke-on-Trent. It was, in many respects, a precursor to the personalisation and e-commerce boom that has transformed the way Britain likes to shop today. In 2021, following phenomenal business performance during the pandemic, which saw record demand for high performance computers, gaming hardware, and personalisation in the era of working-from-home, Overclockers now employ 107 staff across three areas and will soon move into a new, 100,000 square foot St. Modwen built warehouse.

Overclockers are a traditional logistics business in the sense that they receive and ship products to and from Europe, and all over the world. However, the extreme technical personalisation service that they offer to customers – Overclockers configure some of the world's most powerful personal computers – means its workforce is highly skilled, with a significant proportion of the team hired as apprentices and trained on-the-job.

Employing and nurturing a highly skilled, local workforce is not the only service that Overclockers provides to society. Some of its clientele include police forces, who require especially powerful computers to help them solve crimes, Formula One teams, who operate right at the cutting-edge of technology and data, and universities, who have an increasing need for ever-more-powerful computers to help them find solutions for some of the world's most pressing issues, including climate change.

Source: St Modwen

The UK planning system is restricting growth

The strong growth expected in the I&L sector, and the jobs, investment and productivity it will bring, will not materialise unless sufficient land is allocated in the right locations. The planning system is the guardian for allocating land, therefore it is critical the employment evidence which support Local Plans do a more accurate job at assessing future demand.

This issue has been central to the recommendations of other BPF publications, most recently the BPF's Employment Land Manifesto which recommends:

- Introducing a *Presumption in Favour of Logistics Development* within the NPPG when precise criteria are met. This is needed as Local Plans can take years to be adopted and therefore are completely out of kilter with the pace of market changes;
- Ensuring *Local Plans allocate sites in the right locations* to respond to a broad range of market needs;
- Modernising Employment Land Reviews to allow for the utilisation of 'real time' information so that they can be kept up to date; and
- Introducing an *Employment Land Delivery Test* to ensure that a commensurate amount of employment land is brought forward to counterbalance housing and that any employment land lost to other uses is delivered in the right locations. If a local planning authority failed to meet the delivery test, a presumption in favour of sustainable logistics development could be engaged.

The attributes of an optimal I&L location

Source: Savills

Although the National Planning Policy Framework (NPPF) provides a clear and positive policy context to assessing future economic needs, the Planning Practice Guidance that accompanies the NPPF lacks the same clarity. Economic need plays second fiddle to housing need in the guidance, the latter being subject to a standard methodology with a series of unambiguous steps set out to establish the minimum annual housing need for each local authority area.

There is specific reference to the critical role of logistics and the need for market analysis and engagement with stakeholders, but the guidance fails to provide a clear and robust approach to ensuring I&L needs are met. As a consequence, an array of local authority strategies are being adopted resulting, in most cases, too little land being allocated to meet current and future market demand. This is primarily due to these strategies being backwards looking and projecting forward historic trends as a proxy for future demand. As a result, modern day growth drivers are not taken into account, for example: housing growth, online retailing growth, increasing UK freight volumes and the need for larger premises, all of which generate increased demand for I&L land and floorspace. The main NPPG methods for estimating future land needs and their deficiencies are summarised below.

The UK planning system is restricting growth in the I&L sector by not allocating enough land in the right locations

Current NPPG methods are not fit for purpose

Project forward future demand based on either **historic completions** or **historic net absorption** (take up)	Underestimates future need as the **I&L sector** has been **supply constrained for the majority of the last decade**
Consultations with relevant organisations, studies of business trends, and understanding of innovative and changing business models	Not sufficient on its own, most **agents don't take longer term view** which are essential to forecasting employment land need. Transactional focus, not land focus
Demographically derived assessments of current and future local labour supply > usually look at **housing growth** either within LA or wider FEMA	Housing growth at the local level has no relationship to **I&L markets** which have a **more regional** demand profile. A local focus restricts need
Use **3rd party job projections** such as Oxford Economics, Experian, etc. and translate into floorspace requirement	**No transparency** and therefore limited scrutiny. **Do not have a land focus** which is the core requirement to facilitate I&L growth

Source: Savills

The inadequacies of these models and their application is evident in that supply historically has not kept pace with demand. When demand cannot be fully satisfied occupiers vie for limited available space pushing up rents. This is what we have seen over the last decade with 61% rental growth[24], more than double the rate of inflation.

At the national level, the market equilibrium level where supply and demand are broadly in balance and rents are more stable is around 8% availability. This benchmark rate is found in a number of prominent publications such as the GLA's Land for Industry and Transport Supplementary Planning Guidance (SPG). England's I&L market has been below this level for over seven years clearly demonstrating the failure of the current NPPG methods in estimating demand accurately. Put another Net absorption is a leading measure of demand, comparing occupied space (move-ins) versus vacated space (move-outs).

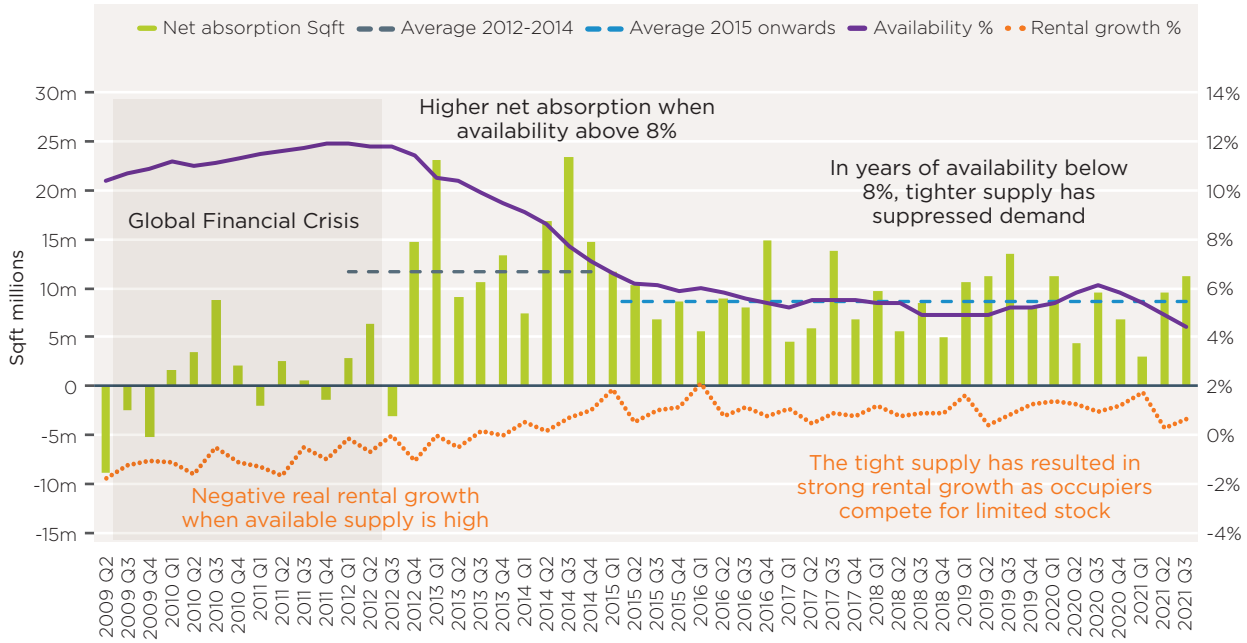
This relationship between supply and demand is clearly shown in the chart below. When available supply was higher at around 10%-12% in 2012-2014 net absorption averaged 47 million sqft per annum (net). This is higher than the average net absorption more recently from 2015-2020 at 34 million sqft (net) despite the UK only having just emerged from the Global Financial Crisis (GFC). The key reason why leasing demand was higher in 2012-2014, despite the impact of the GFC, is that sufficient available supply existed to accommodate demand, even though overall demand was weaker compared to the more recent period post 2015. After 2015, available supply has been well below the equilibrium rate of 8% which has suppressed overall demand as it could not all be accommodated.

A further clear indicator of demand exceeding supply is strong rental growth. As can be seen from the bottom part of the chart real rents[25] have been growing strongly since 2015 when availability dropped below 8%. This is distinct from the period after the GFC (2012-2014) when real rental growth was either negative or zero, indicating there was more than enough supply to meet demand.

Definitions

Net absorption is a leading measure of demand, comparing occupied space (move-ins) versus vacated space (move-outs).

Historic supply constraints have suppressed demand



Source: Savills

To help address the supply / demand imbalance Savills and St Modwen have developed a new methodology built upon the principle of 'suppressed demand' that accounts for demand that has been lost due to supply shortages. The calculation of suppressed demand can then be added to historic demand projections to give a more accurate picture of likely demand into the future.

The high level steps in the Savills / St Modwen employment land estimation model includes:

A. Find a market's equilibrium availability rate: This is around 8% at the national level but can alter slightly from market to market. A market's equilibrium rate is either when rents are broadly stable or when rental growth transitions from being negative or stable to growing strongly year on year.

B. Identify those years when available floorspace was below the equilibrium rate: This involves identifying previous years when availability was below the 8% equilibrium rate.

C. Calculate suppressed demand: Here you calculate how much demand the market should have had in those years of tight supply in order to be at the equilibrium rate. For instance, if the equilibrium rate is 8% but the market had 5% in a given year, the 3% difference needs to be translated into floorspace.

Next, you calculate the average of the ratio between net absorption and available floorspace for every year over the lookback period. This ratio is then applied specifically to the availability uplift that was needed in those years of tight supply to reach the equilibrium rate. This provides a suppressed demand calculation for each year when actual availability was lower than the equilibrium rate. These are then added together to give a total suppressed demand over the lookback period.

D. Add suppressed demand to historic trend: Finally the suppressed demand is added to the historic demand over the lookback period. The annualised figure of this combination can then be projected forward over the Local Plan period to provide a more accurate estimate of future demand.

This methodology when run at the England level estimates future demand will be at least 29% higher than historic levels, equating to a minimum of 44 million sqft per annum (net). A useful cross reference to make here is with the BPF's previous report 'What Warehouse Where?' which estimated each home could generate a need of 69 sqft of warehouse space or 21 million sqft per annum based on the Government's annual housing target of 300,000 homes. While Savills calculations are for both warehousing and industrial demand (i.e. the entire I&L sector), this comparison usefully gives an idea of the significant contribution warehouse needs from new homes will make to overall future I&L demand (of up to 48%).

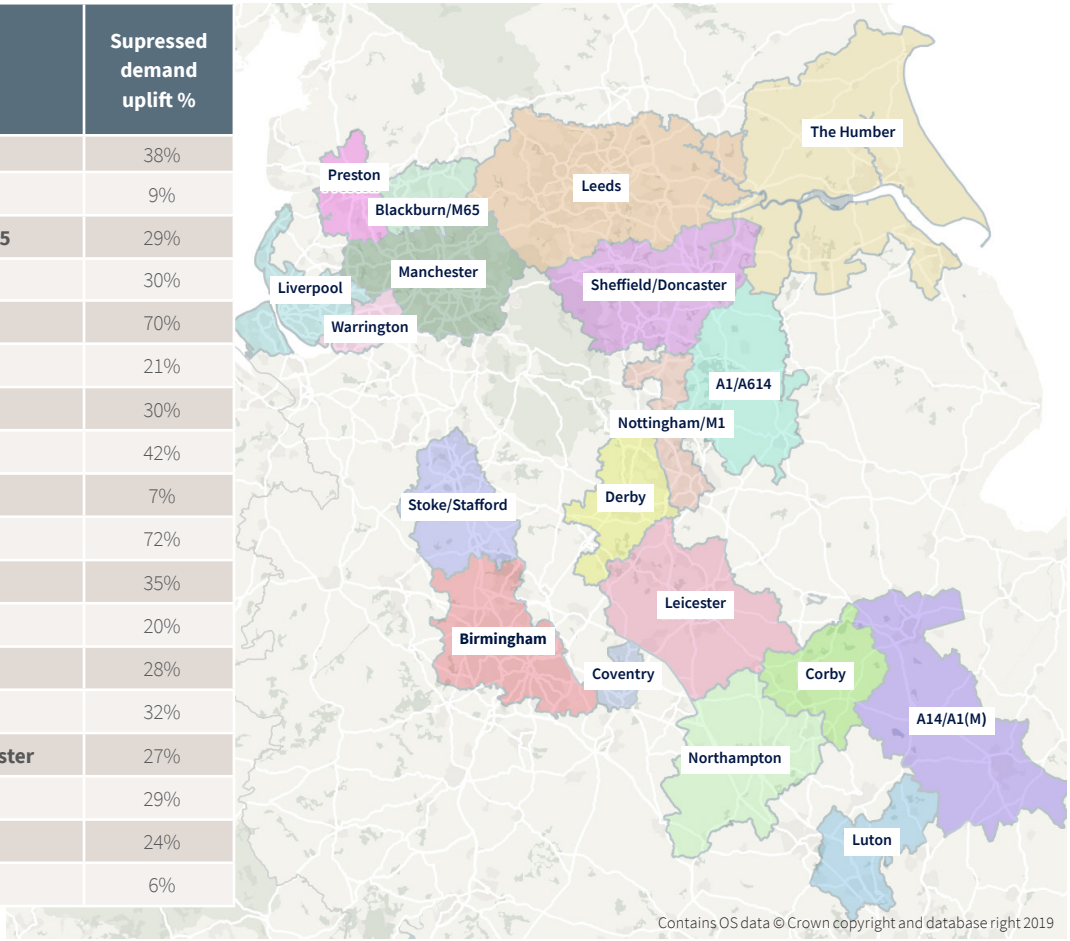
If supply improves in England, future demand p.a. (net) will be at least 29% higher than historic levels

Source: Savills

Savills has tested its suppressed demand model across 19 key I&L markets in England. Many of these markets have historically experienced leasing demand well beyond the supply of available land and floorspace. The percentages on the table indicate how much additional demand (as a minimum) should be planned for in the future within each market above historic levels. While these results are based on wider market areas made up of a collection of local authorities, the model can be run at the national level, the individual local authority level as well as more bespoke market areas.

Markets Tested for Suppressed Demand in England

Market	Supressed demand uplift %
A1/A614	38%
A14/A1(M)	9%
Birmingham/M65	29%
Blackburn/M65	30%
Corby	70%
Coventry	21%
Derby	30%
Leeds	42%
Liverpool	7%
Luton	72%
Manchester	35%
Northampton	20%
Nottingham/M1	28%
Preston	32%
Sheffield/Doncaster	27%
Stoke/Stafford	29%
The Humber	24%
Warrington	6%



Source: Savills 2021

The above suppressed demand figures should be considered minimums as their focus is on correcting past trends by accounting for lost demand due to historic supply constraints. This more accurate historic trend should also be uplifted further to account for current day and future demand drivers, the key ones, as discussed above, being online retailing growth and growth in freight volumes. Savills has developed a method for calculating these factors too (please see below contact details for further information).

For further information on the Savills/St Modwen methodology, please contact either:

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3. Growing Social Value Credentials

I&L development generates direct and indirect jobs and substantial social value in the form of training and apprenticeships

The social value of I&L supply chains

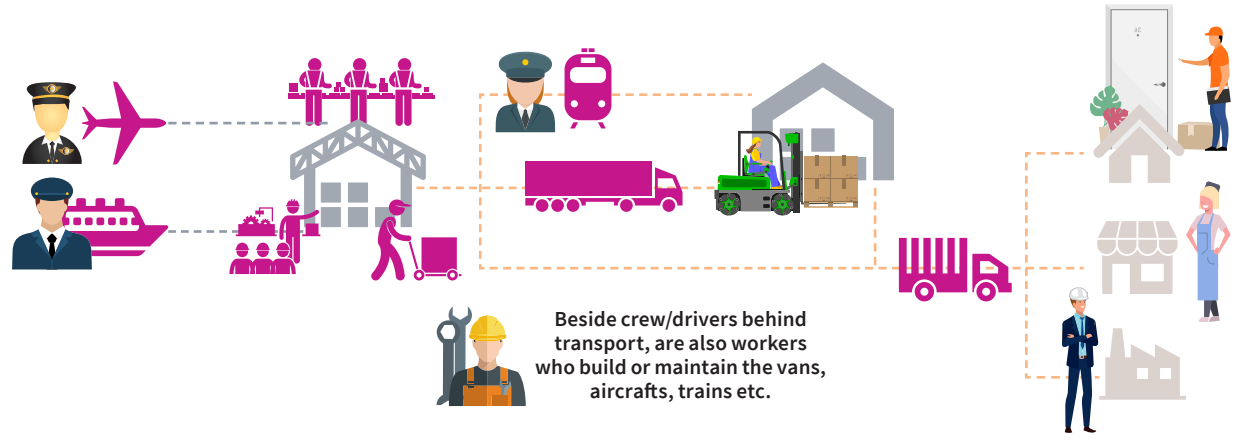
I&L developments generate significant jobs and economic benefits as part of their wider supply chains in addition to onsite employment. In turn, these economic benefits create social value in the form of apprenticeships, training and upskilling opportunities for local people.

I&L jobs range from entry level graduates to highly skilled engineering and management roles. This wider supply chain employment is often overlooked in favour of the higher on-site job densities for retail and office uses. However, in many cases, the office and retail jobs envisaged in Local Plans are not created given these uses are unviable to build in many locations throughout the country.

In terms of wider supply chain employment, production plants and warehouses require goods to be transported and delivered between their suppliers and end use customers. This creates the need for drivers of Heavy Goods Vehicles (HGVs) and Light Goods Vehicles (LGVs). LGV licences alone have increased by 83% over the last two decades[26] in response to the rise in online shopping and subsequent expansion of the I&L sector. This increase in HGVs and LGVs creates jobs involved in their manufacture, maintenance and repair.

The growth of the UK's freight industry also creates significant jobs. I&L premises are a critical link in the chain alongside the key freight modes that allow goods to enter, leave and move around the country (i.e. ports, airports, rail freight interchanges and motorways). Like warehouses and factories, these freight handling facilities generate employment to drive the planes, trains and boats, as well as jobs involved in their maintenance and repair. Jobs are also created at ports, airports and rail freight interchanges as part of their operation.

Employment within wider I&L supply chains



Source: Savills

As discussed above, the sector has also increased its share significantly of professional occupations (plus 157k) and associate professional and technical roles (plus 174k) over the last decade. Many of these roles are involved in supply chain management, engineering linked to the sector's increased automation, sales and marketing and even research and development into future advancements such as drone deliveries and autonomous driving vehicles.

The sector also generates significant construction and apprenticeship roles which will increase further as it expands into the future. As discussed earlier, Savills estimate future I&L needs in England to be at least an additional 44 million sqft (net) per annum. This is an uplift of 29% against the historic 10 year trend and accounts for suppressed demand (i.e. demand that has not been accommodated historically due to the lack of available supply). This future demand, if facilitated via the bringing forward of ample land supply, will give rise to a vast construction programme that will support 45,400 jobs per annum. Of these, 400 construction apprenticeships will be created each year, delivering a social value of over £7.8 million per annum[27]. Based on Savills research on local procurement benefits, we expect this construction programme to generate £440 million of social value benefits for local communities[28].

The I&L sector also delivers on average 41,100 apprenticeships starts per annum[29]. This is particularly important given the high levels of youth unemployment in England which currently stands at 14.6%[30]. If the sector is able to expand consistent with Savills estimate of future demand, the number of apprenticeships could grow to 53,000 starts annually; which is equivalent to over half a million apprenticeships over the next 10 years.

Case Study: From unemployed to full-time, permanent employee

Jehan's journey to employment shows her determination to seize the opportunity enabled by I&L development at Hinckley Park and Mercia Park. Below are some excerpts from Jehan's story as told on winvic.co.uk.

"Back in April 2019 I was unemployed and my Jobcentre Plus assessor told me about a jobs fair that was taking place. I spoke to a number of different organisations and businesses there but one offering that really caught my attention was a training course being offered by North Warwickshire and South Leicestershire College, IM Properties, Winvic and a local groundworks subcontractor, which focused on groundworks and health and safety. […]

I was accepted on to the three-week course and in June 2019 I walked into a college classroom as the only female out of 22 attendees – I didn't feel apprehensive about this, but instead, I thought prove you can do it and see what happens. The first week focused on employability skills, such as interview techniques, the second was all about groundworks – and this was all on-site at Hinckley Park as the earthworks were being undertaken there – and the last was back in the classroom for health and safety training, sitting exams and a job interview with a Winvic groundworks subcontractor on the project."

Upon completion of the course, Jehan obtained her CSCS card, an employability certificate and a City and Guilds Level 1 in Health and Safety. The subcontractor she had the interview with passed on her CV to their network and in November 2020 Jehan was invited to an interview with Winvic's HSEQ Director Ian Goodhead, for a Covid Marshall role at the fit-out project at Hinckley Park. A week later she was already on site to start her new job.

After her Covid Marshall role ended she started to look for other options. "When discussing potential options with Ian

Goodhead, a position at IM Properties site, Mercia Park was mentioned to me. I had an interview with my now Project Manager Frank Hayes and HSEQ Manager David Powell, I'm happy to say that I'm now an Assistant Site Manager. I've now undertaken my Fire Marshall, Fire Co-ordinator, First Aid, IPAF, cherry picker, scissor lift and Confined Space Management training and I'm about to undertake my Temporary Works Co-ordinator Training and NEBOSH, which I'm hoping to complete it over six to eight weeks via distance learning.

In one way it's still hard to believe that a three-week training course through attending a jobs fair has really led me to a complete career change, a stable job in an area I was interested in AND that it's with a successful and supportive company!"

Source: https://www.winvic.co.uk/news/how-laying-social-value-foundations-constructs-new-careers-meet-jehan-our-latest-assistant-site-manager/

Case Study: GLP Centre of Logistics Education & Research (CLEAR) at Magna Park Lutterworth

The Centre for Logistics, Education and Research (CLEAR) is a research, innovation, education, and training facility that is being developed through a partnership between industry and education in Magna Park, Lutterworth. CLEAR will provide skills training and professional development at all levels across the spectrum of logistics and supply chain roles, creating training pathways of progression for new entrants and established talent alike. The centre will give students the opportunity to learn while they earn via a portfolio of work based, facility based or online learning options. Delivery of training will be by North Warwickshire and South Leicestershire College (NWSLC) and Aston University, working in partnership to ensure that CLEAR offers training pathways of progression. Together they have complementary skills and expertise that allows for the 'one stop shop' delivery of a fully integrated and holistic programme of applied research, education, training and professional development.

Source: https://www.nwslc.ac.uk/, GLP

Case Study: Prologis Education Hub at DIRFT

The Education Hub is a 9,551 sqft centre for logistics training and education that can be used by occupiers at Daventry International Rail Freight Terminal (DIRFT). The building has three distinct areas, a reception and café, three flexible training rooms and three smaller meeting rooms. The Hub is also home to the Prologis Warehousing and Logistics Training Programme (PWLTP), a digital learning and development programme aimed at training those leaving education and re-skilling the unemployed by equipping them with the knowledge needed to pursue a career in logistics.

Source: Stephen + George[31], Prologis

The I&L sector can play a pivotal role as part of the Government's levelling up agenda

The Levelling Up Agenda

Traditionally, there has been a North-South divide in the UK whereby regions in the South[32] perform better across a number of socio-economic indicators compared to regions in the North[33]. The Government has repeatedly tried to address this issue for a long time with initiatives aimed at 'rebalancing' the economy and a Levelling Up White Paper due to be published in the coming months.

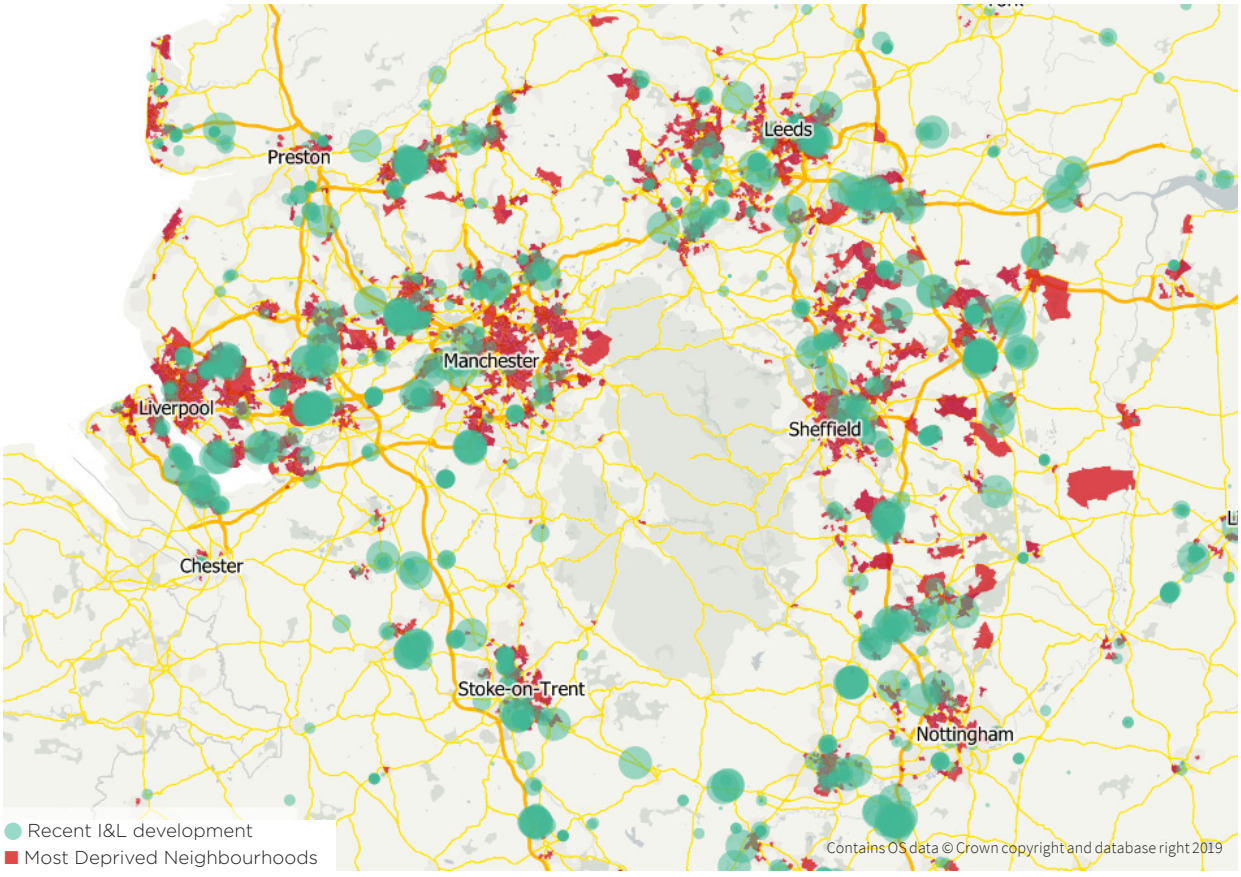
The I&L sector can play a pivotal role as part of the Government's levelling up agenda. In GVA terms, the South accounts for 63% of England's total GVA while the North accounts for only 37%. However, over the last five years I&L demand (net absorption) in the North has accounted for 70% of the country's total demand. Looking at a more granular level, a region such as the East Midlands that accounts for 7% of the country's GVA, has attracted 19% of the country's I&L demand in the last five years.

This strong growth in I&L in the North equates to circa 113 million sqft of net additional floorspace[34] or 117,000 jobs[35] over the last five years. As discussed above the sector provides a diverse range of jobs with higher levels of pay and GVA compared to the 'all sector' average. These jobs will be crucial in bridging the GVA and productivity gap between the North and South.

Another key focus is to provide better job opportunities for deprived communities outside the South East. The chart below show that the hotspots for I&L investment over the last five years are located nearby to deprived communities demonstrating the important role the sector can play in providing access to local jobs.

The Planning System is starting to recognise the link between I&L jobs and helping address deprivation. For example, in a recent called-in decision[36] for an I&L development in St Helens, the Secretary of State agreed with the Inspector that the jobs brought about by the development "would have a tangible benefit to the local economy and would provide an early opportunity to help address […] deprivation issues".

I&L investment is located nearby deprived areas in the North



Source: Savills 2021

I&L investment can aid the delivery of new housing

Tackling the under-supply of homes has now been at the forefront of the planning system's objectives for many years. Major I&L investments are increasingly becoming integral to the delivery of new homes. Some key advantages of bringing forward I&L development alongside residential include:

- The strong I&L market can achieve healthy uplifts in land value and therefore can usefully contribute to funding strategic infrastructure such as new and improved motorway junctions and link roads. This infrastructure is also critical to enabling new residential development. Many other commercial uses on the other hand are viability challenged and in many cases are unable to make an upfront contribution to wider infrastructure provision.

- Given the strength of occupier demand, the I&L component of Garden Villages and other mixed use developments can be delivered quickly creating local job opportunities for the new incoming residential population. This can support higher levels of self-containment (i.e. local people living and working locally) and higher usage of greener modes of transport (i.e. walking, cycling and public transport) given the reduced distances people are travelling to work. The creation of early jobs is also vital given other commercial uses such as office, retail and leisure uses within town centres typically take longer to come forward as they require a critical mass of housing to be in place to underpin their demand.

Some current examples of I&L investment helping to deliver residential development include:

- Linmere in Houghton Regis (see case study box)

- Hayes Nestle Factory (see case study box)

- Milton Keynes East, which has recently gained outline planning permission and is set to deliver 5,000 homes and 105ha of logistics led employment. The delivery of the employment land at J14 will open the site up and deliver the initial supporting infrastructure.

Case Study: Linmere in Houghton Regis

Linmere in Houghton Regis is a 5,100 unit residential development with an infrastructure cost of approximately £100 million and requiring an upfront payment of £45 million towards the M1/A5 link. The infrastructure payments significantly impacted viability and meant the development could not achieve the level of returns required. However, the Site included 1.23 million sq ft of B8 which was sold to Lidl in a £90 million deal facilitated by Savills. This made the development almost cost neutral and enabled the consortium of owners to progress with servicing and selling the residential units.

Source: Houghton Regis News Desk, http://www.hrnd.co.uk/2013/01/green-field-sites-around-houghton-regis.html

Case Study: Hayes Nestle Factory

Following Nestle's announcement in 2012 to close the former coffee factory, the site is being regenerated to deliver over 1,386 new homes, alongside a 240,000 sq. ft industrial park. The scheme is being brought forward by SEGRO and Barratt London and will create at least 500 permanent jobs and deliver over 3 hectares of public open space, a 1.3 km trim trail and 300 m of canal frontage for the community to enjoy.

Source: SEGRO

More than just warehouses and factories

While the office sector has outwardly embraced health and wellness as part of building design for some time, it has raced up the agenda within the I&L sector recently. I&L developers and occupiers are increasingly adopting the WELL Building Standard which is delivering a more human-centric approach to the design of I&L premises.

The Seven Concepts of the WELL Building Standard

1. Air: Optimise and achieve indoor air quality. Strategies include removal of airborne contaminants, prevention and purification.

2. Water: Optimise water quality while promoting accessibility. Strategies include removal of contaminants through filtration and treatment, and strategic placement.

3. Nourishment: Encourage healthy eating habits by providing occupants with healthier food choices, behavioural cues, and knowledge about nutrient quality.

4. Light: Minimise disruption to the body's circadian rhythm. Requrements for window performance and design, light output and lighting controls, and task-appropriate illumination levels are included to improve energy, mood and productivity.

5. Fitness: Utilise building design technologies and knowledge-based strategies to encourage physical activity. Requirements are designed to provide numerous opportunities for activity and exertion, enabling occupants to accommodate fitness regimens within their daily schedule.

6. Comfort: Create an indoor environment that is distraction-free, productive and soothing. Solutions include design standards and recommendations, thermal and acoustic controllability, and policy implementation covering acoustic and thermal parameters that are known sources of discomfort.

7. Mind: Support mental and emotional health, providing the occupant with regular feedback and knowledge about their environment through design elements, relaxation spaces and state-of-the-art technology.

The attractiveness of a work location is largely determined by the presence of green space around it

This includes building design issues such as south facing offices, making best use of attractive views, natural lighting, improved ventilation, drinking water stations, creating break out and relaxation spaces for staff and in some instances the inclusion of health and childcare facilities.

External to the building there is an increasing emphasis on making better use of outdoor amenity areas such as natural spaces for increased biodiversity, sitting and relaxing, or for sports facilities such as running tracks and football courts for exercise. These trends are consistent with the results of Savills What Workers Want survey which found that, generally speaking, the attractiveness of a work location is largely determined by the presence of green space near or around it.

These human-centric design approaches help to attract staff and keep them happy, which in turn drives productivity. As discussed, the sector's growth has meant that some workers who previously worked in other sectors such as office and retail, now work within I&L and demand these types of facilities. While the sector has increasingly become automated it is still very much being driven by people[37].

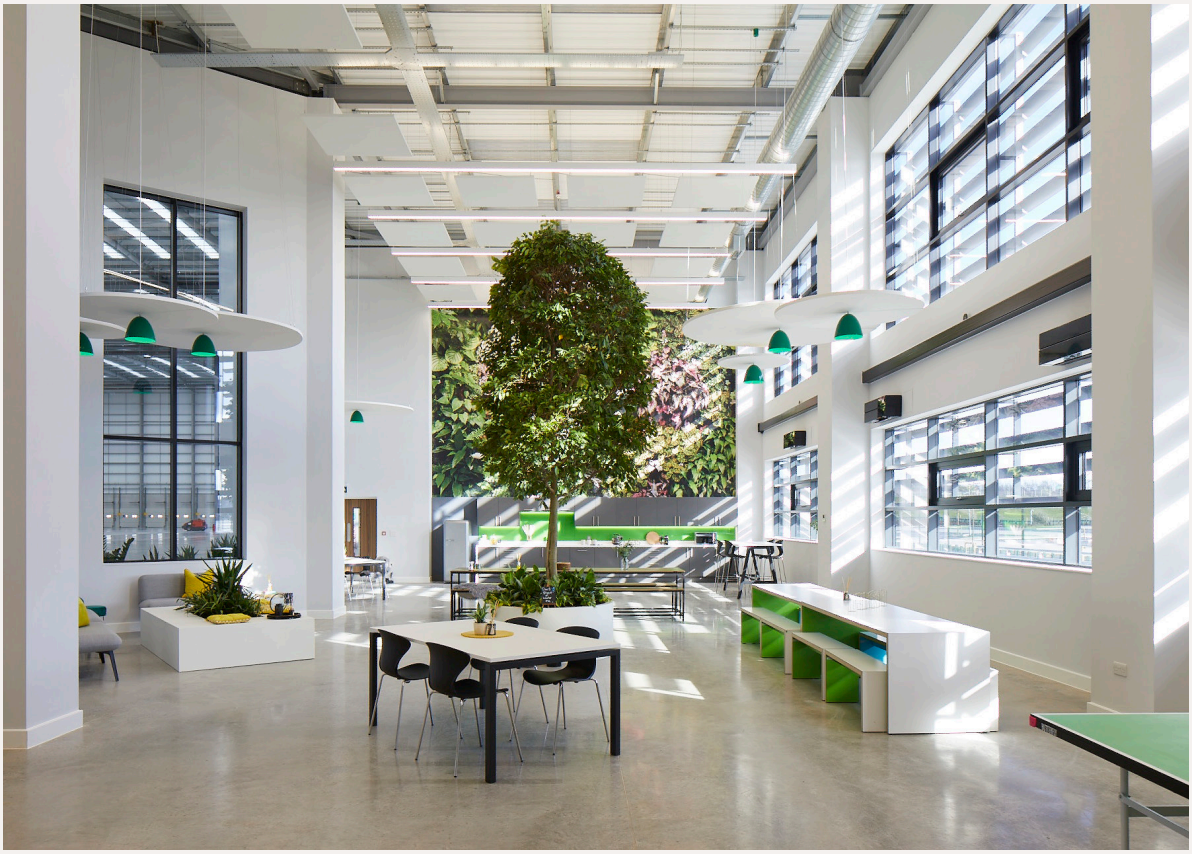
Case Study: Baytree, Dagenham Essex

The scheme is to include a variety of sustainable building features leading to WELL accreditation including external gym equipment, solar photovoltaics linked to battery storage, electric vehicle charging stations, air source heat pumps, enhanced use of recycled and recyclable materials, prefabricated building elements, low energy LED lighting and a super airtight, insulated building envelope, all of which will be constructed within an enhanced landscape environment.

Source: https://www.baytree.com/wp-content/uploads/2017/03/17-03-01-Baytree-commences-first-phase-development-at-its-East-London-....pdf
https://www.chetwoods.com/projects/baytree/

Case Study: DC535 at Prologis DIRFT

DC535 has a living tree as the centrepiece in a light, bright atrium area designed to help employees relax and connect with nature. DC535 also has an employee gym which makes use of natural light, and has a number of green spaces around the building to promote employee wellbeing.



Source: https://prologis.co.uk/wp-content/uploads/2021/01/200226_Prologis_DIRFT_0335.jpg

4. A Green Recovery 'Boxed'

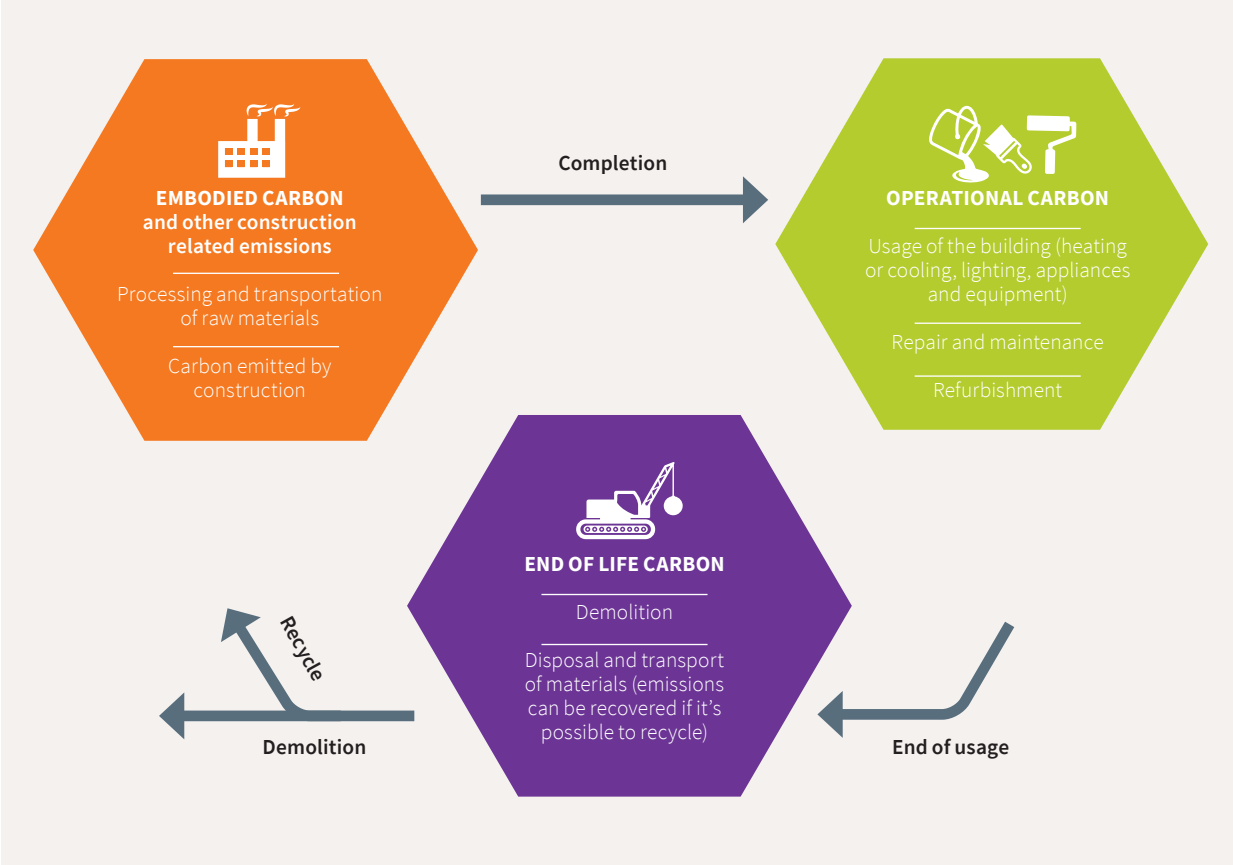
To reduce carbon emissions, interventions have to be made in the construction, operation and demolition of buildings. This is leading to innovations across all phases of an I&L property's life cycle

The Green Evolution of I&L Premises

In 2019, the UK Government and the devolved administrations committed to bring all greenhouse gas emissions to net zero by 2050, in line with recommendations made by the Committee on Climate Change. However, the Government has subsequently clarified this includes shipping and aviation emissions, which means that the rest of the economy needs to decarbonise much sooner, effectively by the very early 2030s. Reaching net zero greenhouse gas emissions requires extensive changes across the economy, and real estate has a key role to play. Every building has embodied, operational and end of life carbon emissions and the built environment contributes 40% of the UK's carbon footprint.

This drive to lower emissions is pushing companies to take a close look at the real estate they occupy to make sure it is in line with Government carbon reduction policies. This is driving a range of innovative solutions that improve the environmental performance of I&L buildings. A Savills survey of logistics occupiers found that 'green/sustainability features' have climbed from 11th to the 6th most important warehouse feature[38].

The Sources of Carbon Across the Cycle of Property



Source: Savills

Embodied Carbon

It is accepted that in today's world, net zero carbon in construction cannot be achieved without an element of carbon offset, but initiatives are under way to further reduce the embodied carbon in construction, including:

- Design for long life, re-use and flexibility
- Using recycled materials or materials that contain a high level of recycled content
- More elegant, efficient design
- Modern methods of construction, off-site manufacture and design for less material and less waste
- Cement alternatives in concrete
- Alternative methods of concrete production
- Increased use of low carbon products, such as cross laminated timber, in lieu of high carbon materials such as steelwork
- Sourcing materials responsibly and as local as possible, with particular consideration to steel
- Using local workforce
- Liaising with contractors and suppliers to reduce their embodied carbon
- Engineering solutions to reduce imported hardcore to site

The embodied carbon footprint of some typically carbon-intensive materials and components can be reduced by using low-carbon building materials. Using cement replacement in concrete and recycled materials in new warehouse construction delivers significant environmental benefits, including minimising transportation-related greenhouse gas emissions and diverting a large percentage of construction waste from landfill. For example, GLP use GGBS (Ground Granulated Blast-Furnace Slag) in concrete as a cement replacement which reduces the embodied carbon of the concrete as GGBS is a bi-product from the steel industry[39].

Case Study: GLP Magnitude 314, Magna Park

Magnitude 314 is 29,200 sqm warehouse with 1,500 m2 of office area located at GLP's flagship logistics park Magna Park Milton Keynes. The development has been officially verified as the world's first Net Zero carbon for construction in line with the UKGBC Net Zero Carbon Buildings Framework Definition. The building was designed to WELL principles and has achieved both a BREEAM Excellent and EPC A rating. Overall, the design has resulted in a 25.8% reduction in embodied carbon compared to a standard logistics building.

Key members of the building supply chain including material manufacturers and component suppliers were asked to provide a complete breakdown and assessment of the products being supplied including details of their origin, embodied carbon value and whether the product can be reused or recycled. Chetwoods, Thrive and Circular Ecology, along with other leaders in their fields were engaged to help the design team and wider supply chain collaborate and reduce as much embodied carbon as possible.

The building was designed to be flexibly adapted by future occupiers. The roof structural capacity allowed for future installation of Solar PV, once an occupier was in place and their energy load was calculated. Magnitude 314 is now occupied by Royal Mail. The delivery of Magnitude 314 also performed high in social value terms, resulting in over 39% of added social value against a contract value of £12 million. This was well above the expectation of 10-15% of social value delivery for similar construction projects.

Source: GLP

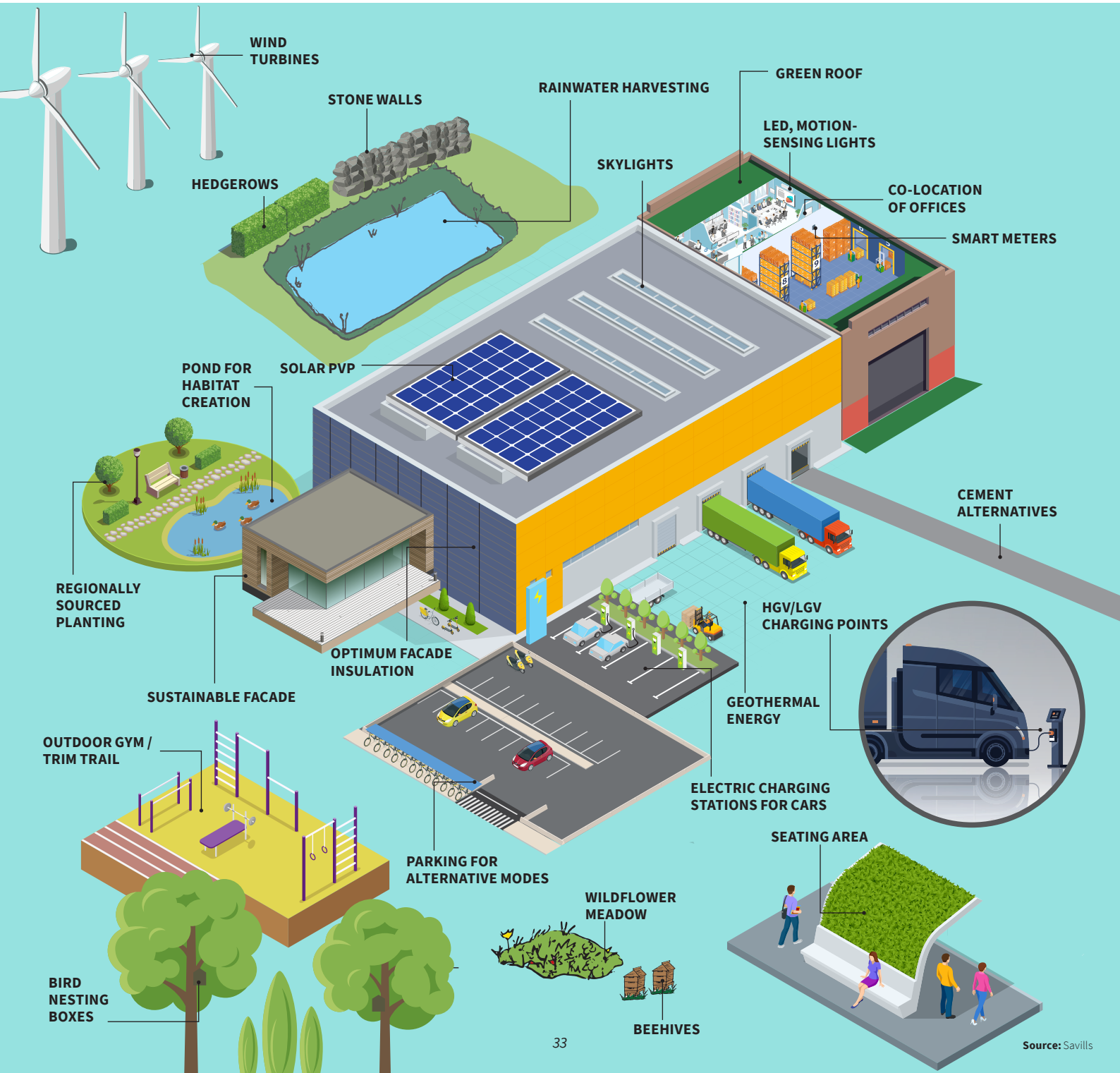
Operations

Energy efficiency during operations can be achieved by addressing both energy demand and energy supply. The former is about reducing the inherent energy demand a building requires to operate, while the latter is about decarbonising the development's energy supply via the use of renewable sources.

The energy demand of large I&L sites has generally been increasing in recent years, driven by growth in certain occupier types such as data centres and cold storage, both of which have heavy cooling demands. This trend is expected to continue over the next decade as we see the increased use of automation and the electrification of transport.

The image below outlines a number of solutions that improve the environmental performance of an I&L building during its operational phase.

The Green Evolution of I&L units



Source: Savills

Lighting is typically one of the largest contributors to a warehouse's energy demand

Reducing Energy Demand

The UK Green Building Council (UKGBC) states that reductions in energy demand and consumption should be prioritised over all other measures prior to implementing on-site renewable energy sources[40]. I&L operators are achieving this in a number of ways.

Lighting is typically one of the largest contributors to a warehouse's energy demand. Below are some popular solutions:

a. Skylights and clerestory windows lower electricity use and associated greenhouse gas emissions and improve indoor environmental quality for warehouse personnel. Skylights avoid light pollution.

b. LED can lower a building's total energy consumption, as well as reduce heat generation. A transition to LED technology can cut consumption between 60-80% compared to other lighting types[41]. LED bulbs also last much longer than all other forms of lighting, which means replacing lighting far less often, resulting in significant cost savings.

c. Sensors, such as motion-sensing lights, as well as sub-meters on machinery, appliances and other equipment. Motion sensors which switch energy-efficient LED lighting on and off as workers move through the space result in a 53% energy reduction from conventional LEDs. For example, all Panattoni buildings include 15% roof lights, and their intelligent lighting systems result in a reduction in electricity consumption by up to 70%[42].

High-reflectance roof membranes such as white thermoplastic polyolefin (TPO) roofing can reduce the building's energy consumption by reflecting more sunlight, with solar gain during the day and loss of heat at night. Benefits include lower indoor temperatures and greater comfort for occupiers, reduced Heating, Ventilation, and Air Conditioning (HVAC) costs, and reduced cost of roof maintenance and replacement.

Compounds and chemicals with non-petroleum bases such as low-emitting sealants, adhesives and carpet systems, also help to conserve non-renewable resources and improve indoor air quality for a healthier working environment.

Parking for alternative modes of transportation, for example bicycle, eScooters and eBikes, EV, hybrid and carpool vehicles, encourages lifestyle choices that reduce carbon emissions and promote health and wellbeing.

Smart meters allow occupiers to track and reduce energy consumption.

Improving Energy Supply

Using renewable energy sources and becoming self-sustainable is increasingly a target for I&L occupiers as it decreases operational costs as well as environmental impacts.

The flat roofs of large I&L buildings are ideal candidates to house solar photovoltaic panels (PV). According to Savills' research and depending on the internal systems, new warehouse development can be nearly energy independent if at least 40% of the roof space is used for PV installation. New development can be designed so that solar PV can achieve a much higher roof coverage. For example Parker Steel's storage facility at Shoreham Port was retro-fitted with around 95% of the roof surface covered by solar PV.

Power resilience is already raised by some occupiers as a growing concern but the full extent of this risk is generally not well understood within the sector. Many organisations overlook the fact that power may not be available at an affordable price without new contract structures or on-site generation. We expect power availability to become a more pressing subject as constraints start to crop up across occupiers' portfolios with the adoption of new technologies that are hungry for electricity, and the roll out of electric vehicles, electric heating and wider decarbonisation.

Distribution Network Operators' (DNOs') strategies tend to respond well to national policy objectives, but lack alignment with local government plans. This can result in a disconnect between where local authorities are planning growth and where DNOs are investing, which can lead to site allocations lacking sufficient energy capacity. This is one area where much more work is needed to align the power grid with opportunities to decarbonise. To this end, engagement in Local Plan making would be welcomed.

While constraints in energy availability can deter development and slow the growth of the I&L sector, they are also pushing developers and occupiers to come up with innovative sustainable solutions to reduce their reliance on the power grid, especially when availability is constrained at peak times. A solution is to decentralise a site's energy supply by building in a private network. This is likely to mean equipping sites with battery storage and on-site energy generation like solar, wind or hydrogen, so that they can more effectively manage on-site demand.

Below are some of the popular solutions:

Solar PVP can be installed on roofs and provide significant energy capacity. For example, DPD's Hub 5 in Hinckley, Leicestershire, has a Solar PV system comprising over 6,000 panels providing an output of 2.4 MW. The power generated by the system enables the hub offices to operate off grid during daytime working hours. Barriers to installation of solar PV will need to be addressed in order to meet net zero targets.

■ **Borehole thermal energy storage** stores heat underground during warm months and pumps it back into the building during winter months to meet heating demands.

■ **Electric air source heat pumps** also offer a solution to drive down the environmental impacts of buildings. They use electricity to move ambient heat energy into or out of a building's interior, enabling Heating, Ventilation, and Air Conditioning (HVAC) systems to operate without burning fossil fuels.

■ In some circumstances, **water source heat pumps** might be attractive where a large water body is nearby and the infrastructure can be installed in the water body without ecological harm.

■ **Hydrogen fuel cells** generate power without carbon emissions – the only emission being water vapour – and can be applied to a broad spectrum of transport vehicles including trucks used for distribution and automated forklifts used to shift goods around within I&L facilities. This technology provides improved energy density and allows for significantly longer driving times compared to electric vehicles.

■ **Wind farms** offer a source of green energy typically generated off-site. Occupiers can supply their site with this form of renewable energy by choosing energy providers that source electricity from wind farms.

Case Study: DPD, Symmetry Park, Bicester

The 60,000 sq ft hub at Symmetry Park, Bicester is Tritax Symmetry, and DPD's, first 'net zero carbon in construction' building, as regulated by the UK Green Building Council (UKGBC).

Locally sourced A and A+ rated construction materials were used wherever possible, with associated low embodied carbon impact. Timber was also sourced from certified and renewable Forestry Stewardship Council (FSC) approved sources. Low energy and zero carbon design principles were incorporated into the scheme from the start. Reduction in energy demand is achieved using efficient fabric and shading design to reduce heating and cooling demand, and natural daylighting to reduce artificial lighting demand.

The unit also implemented smart energy/building management systems to provide automatic monitoring and targeting of all sub-meters to promote energy management and deliver lower consumption. This measure alone reduced the inherent energy demand of the building by approximately 12%, and the carbon dioxide emissions by approximately 40%. The building design incorporates air source heat pumps for heating and cooling, 5,500 sq ft of solar panels (25% of useable roof area), while the design and building materials used help deliver an 82% improvement in airtightness. The remaining useable roof area is designed to take further solar panels as required by any increase in consumption from DPD in the future, most likely through additional EV charging points. The site also boasts 30 electric vehicle (EV) charging points with ducts provided to the service yard and car park for future installation of further car, van and HGV charging points.

The landscape strategy prepared for the development added to the existing ecological resource through the creation of new habitats interconnected with the existing retained habitats. This included the creation of new seasonal wet areas to enhance the local amphibian population, and to provide an aquatic habitat resource on the Site which was previously not present.

Overall, there was a reduction of 500 tonnes of carbon in the construction process, with the remaining carbon being offset through the use of an accredited tree planting scheme in Northamptonshire with over 1,000 trees being planted. In addition, a wind project in India was sponsored, helping develop renewable energy provision in the country.

Source: Tritax Symmetry

Water Management

Solutions to reduce the use of fresh water include:

- motion-activated faucets,
- rain water harvesting,
- grey water recycling,
- low-flow toilets,
- waterless urinals,
- captured rainwater for irrigation.

Towards Greener Distribution Networks

The sector's drive to decarbonise doesn't stop at its facilities. The largest contributing sector to the UK's carbon emissions at 27% is transport[43]. Even though HGVs and vans account for a smaller share of emissions than cars and taxis, they are still linked to over a third of all road transport emissions. This means that the I&L sector can make a significant contribution to the reduction of the UK's carbon emissions by decarbonising its distribution networks.

Policies such as zero and low emission zones, and the recent Government's pledge to phase out the sale of petrol and diesel HGVs by 2040 are strong drivers for the sector's decarbonisation. Based on Savills research we expect that the commercial sector will transition faster to more sustainable transport than private households. This is due to the increasing costs of running commercial vehicles as a result of policy changes discussed above, which will favour the switch from conventional fuel to EVs or alternative fuels such as compressed natural gas.

Compressed natural gas, although a fossil fuel, is considered a low carbon alternative to diesel and is seen as a stepping stone towards hydrogen. This is because of similarities in the type of engines used and the way the gas is handled.

For example, in 2020 John Lewis Partnership announced that they will convert their 600 HGV fleet to biomethane by 2028. CO2 savings from each truck are estimated to exceed 100 tonnes per year. These gas trucks have also the benefit of being quieter, which is especially important for urban deliveries.

The market for HGV EVs is still in its infancy, given the challenges arising from their large size and the considerable distances they travel. However, EVs can be more easily deployed for last mile deliveries, given their smaller load and the shorter distance travelled. They also contribute to make urban areas healthier, improving air quality and reducing noise pollution.

I&L occupiers are driving this change by increasing the adoption of EVs and natural gas powered fleets.

DPD is building the largest all-electric delivery fleet in the UK, with over 700 electric vehicles operating throughout England, Scotland and Wales. In July 2021 Oxford has become DPD's first all-electric city, meaning that all parcels delivered by DPD in the city are carried by EVs. This move is part of DPD's wider initiative that will see them go fully electric in 25 cities by 2025, backed by a £111 million investment in EVs. The initiative will deliver 42,000 tonnes of carbon dioxide savings for the UK[44].

Amazon has committed to reaching net zero carbon by 2040 and has announced that it is on a path to powering its global operations with 100% renewable energy by 2025. The company has over 500 e-vans operating in the UK and has installed more than 800 electric charging stations across its UK sites, with hundreds more to follow.

UPS is investing in 10,000 electric vans to be rolled out across the UK, Europe and the US between 2020 and 2024[45].

DHL Express has pledged to make any purchase of new courier vehicles electric in order to achieve a 100% electric UK-wide fleet by 2030. The company has also been experimenting across different transport modes. In 2020 it launched its waterborne delivery service on the river Thames in London and is currently exploring the use of fully electric cargo planes for regional deliveries.

Hermes' parent company Otto Group has committed to become carbon neutral by 2030. Hermes is making a move to EVs to deal with parcel pick up and deliveries from the Hermes ParcelShop service. It is also increasing its fleet of compressed natural gas fuelled vehicles, becoming the largest fleet of this kind in the UK parcel sector.

Enhancing Biodiversity

I&L developments are increasingly delivering landscape improvements that enhance the biodiversity of an area. The delivery of 'pocket parks' is becoming more and more popular. These are green spaces that can be found within or adjacent to an I&L development that provide outside relaxation space for workers and can also benefit the wider local community. For example, SEGRO's pocket park on the Slough Trading Estate has bee hives, hard standing for street food and solar smart benches which provide free WiFi and USB and wireless charging. At Prologis Park in Hemel Hempstead, a pocket park has been created by rejuvenating a neglected area of land and turning it into a green community space, complete with footpaths, landscaping and benches which can be used by the adjoining nursery and residents[46].

A development delivers biodiversity net gain (BNG) if it contributes to an overall increase in biodiversity value measured using Defra's biodiversity metric. The Environmental Act sets total BNG requirements at 10% above the pre-development level. BNG can be achieved by delivering habitat creation and/or enhancement on-site, off-site or by purchasing credits. Savills' involvement in a number of I&L schemes has shown that:

- There is a shortage of specialist ecological expertise to advise both developers and local planning authorities;
- There is a need to assess biodiversity earlier in the process than has traditionally been the case;
- All land that is developed, even for landscaping, is considered to be a BNG loss and no account is taken of other benefits, such as land remediation;
- It will be necessary to assess whether additional land should be acquired to support BNG strategies, as on-site delivery of BNG is cheaper than off-site solutions or payments; and
- LPAs will need to develop systems for allowing purchase of credits and to identify suitable BNG land.

The I&L sector needs to adapt to the environmental "damage cost" approach. Some local planning authorities are already requiring 20% BNG and Government has been trialling metrics for assessing air quality impacts and will extend this approach to include other natural capital impacts, such as nitrate neutrality, water and waste.

The sector should participate in Government consultations on how these metrics will impact I&L. Development of greenfield sites in particular will become more complex and costly unless it is possible to commit through the planning process to environmental net gains in both building design and operation.

Case Study: Example of Developer's Sustainability Commitments – St. Modwen

Net carbon reduction

What it is

To help achieve the global goal to stop average temperatures rising more than 2 degrees, the UN wants everyone – from individuals to global corporations and governments – to decrease the damage to our planet.

Why it's important

The building and construction industry accounts for around 40% (UN) of the world's carbon emissions. Government, local authorities, partners and customers have expectations and targets which must be met or exceeded but a global step-change is needed.

How can we help

- Target ongoing carbon reduction at a business unit and group level
- Embrace design principles that deliver long-term, low-carbon and low-carbon enabled buildings
- Integrate carbon reduction into business policies.

Overarching ambition

Be operationally net zero carbon by 2025 and fully net zero carbon by 2040.

Biodiversity & sustainable environments

What it is

Population growth and social trends mean humans are impacting our natural environment in unprecedented ways. From the destroying of distant rainforests to dying out UK insect breeds and the way we all handle waste, change is high on the agenda.

Why it's important

Our company changes the landscapes of both brown- and greenfield sites so we are directly impacting nature and the land around us. We want to embrace making a virtue of a progressive approach to our natural environment.

How can we help

- Boost biodiversity at our schemes
- Make positive use of the community spaces we create to improve biodiversity
- Only use materials from sustainably managed sources
- Reduce waste by maximising product and material use throughout lifecycles.

Overarching ambition

Be ready by the end of 2020 to achieve a net biodiversity gain of at least 10% associated with all development activity.

Health & Wellbeing

What it is

Good physical and mental health is something everyone strives towards in the pursuit of a happy life. A healthy body and mind allow us to enjoy our surroundings, feel good about ourselves and achieve more.

Why it's important

We want to play our part in helping to support a healthier, happier and engaged workforce because it drives sustainable performance. We also have the potential to impact our customers and communities – through places and products – to boost their wellbeing and enrich their lives.

How can we help

- Support wellbeing programmes within our workplace
- Address the wellbeing of communities in all development plans
- Consider and plan for the wellbeing of contractors and partners.

Overarching ambition

Be bold in our pursuit of wellbeing to boost the happiness, health and satisfaction of our people. Make a meaningful, positive impact on the health and wellbeing of the communities we operate in and the places we deliver.

Responsible operating practices and partnerships

What it is

Having the right operating practices ensures that our responsible approach to business is reflected in the way we carry out our business. It also means working with and influencing our supply chain and partners to ensure quality, mutually beneficial outcomes.

Why it's important

We are many times larger than ourselves through the activities we carry out and the supply chain we use. This gives us the chance to positively affect working practices, from payment terms and job creation to education and our impact on the natural environment.

How can we help

- Safety first for ourselves, our partners and our customers
- Establish and maintain a framework for supply chain alignment, ensuring we work with partners to collectively meet our responsible business goals
- Build and maintain positive partnerships and effective stakeholder engagement and communications
- Build and maintain a culture.

Overarching ambition

We can only fulfil our approach to responsible business by working with our supply chain. During 2020, launch a charter to our partners to inspire, set goals and underpin responsible ways of working.

Case Study: SEGRO's Bee Hives

SEGRO have made bee hives a common feature of many of their developments, with over 150 hives across their portfolio. Each hive holds as many as 50,000 bees during the peak harvesting season, and these bees visit over two million plants within a two mile radius, assisting with the pollination of local plants and crops.

Source: https://www.segro.com/esg/case_studies/our-environment/boidiversity?sc_lang=en

End of Life

Demolition and rebuilding are carbon intensive activities. Transport and disposal of the old materials produces emissions and wastes the embodied carbon that went into the construction of a property in the first place. Giving a new use to an existing building typically arises as a response to changing economic conditions, so that declining sectors can make space for emerging ones.

Modern I&L buildings have the advantage to be lightweight structures which are highly adaptable for a large range of uses. Since they are built for production or storage purposes, they are not typically visited by the general public and their lighting and interior design requirements are much simpler.

The lack of solid walls means that internal spaces can be easily reconfigured and readapted to host a diverse range of light industrial, manufacturing and logistics companies with limited capital costs. They can also be repurposed to provide lab space, leisure facilities, data centres and even health facilities. Temporary hospitals were an essential component of the Government strategy to counter the Covid pandemic. Examples include Exeter's Nightingale Hospital built on a former Homebase site in Sowton Industrial Estate and Sunderland Nightingale Hospital built as a conversion of a former industrial building.

A well designed I&L building should also be easy to deconstruct at end of life, making materials available for reuse or recycling. Steel frames used in I&L properties are much more easily recycled than concrete which is more common in other commercial uses. When delivering a new building, the cataloguing of its materials and components make it easier to pinpoint and identify items of value that can be captured for potential reuse at the building's end of life.

5. Final Recommendations

This report has evidenced the need for an improved method to estimate future I&L land demand. It is clear that demand within the sector has been much higher than supply for most of the last decade which has resulted in extremely low availability and exponential rental growth as occupiers compete for limited available stock. In order for the sector to grow to its full potential and generate the jobs and investment the national economy needs, the planning system has to better estimate future land demand. It is recommended that the Savills and St. Modwen 'suppressed demand' methodology is incorporated within the NPPG to help inform Local Plans.

The evidence within this report also supports a number of previous BPF recommendations outlined in its Employment Land Manifesto (July 21)[47] as discussed below.

Recommendation 1 of the Employment Land Manifesto

Introduce a Presumption in Favour of Logistics Development within the NPPG when precise criteria are met, such as:

- **Easy access and proximity to the strategic highway network.**
- **Ability to provide effective access by non-private car to suit shift working patterns.**
- **Located away from residential development/where there is no unacceptable impact on residential amenity to allow for uninterrupted 24 hour working.**
- **Capable of accommodating large scale buildings in terms of both footprint and height.**
- **Sites which suit the future occupier's needs.**

The Local Plan process is too slow to respond to significant market changing events, such as the COVID-induced acceleration in the growth of e-commerce. As evidenced in the 'An Economic Powerhouse' chapter, the planning system has failed to provide a sufficient level of I&L land to meet demand. This has resulted in the national I&L market becoming supply-constrained for the last seven years, as signalled by availability dropping below the equilibrium threshold of 8%, and high rental growth at twice the rate of inflation.

Recommendation 2 of the Employment Land Manifesto

Ensuring Local Plans allocate logistics sites in the right locations to respond to a broad range of market needs.

The optimal location for I&L occupiers allows them to be close to their suppliers as well as their end customers. For this reason, access to the strategic road network is critical, as it reduces transportation time, costs, and carbon emissions. The strategic road network also allows a site to expand their catchment of intermodal freight facilities, which are critical nodes within logistics networks. An optimal logistics site is also in easy reach of a workforce with a range of skills, and is close to worker amenities. It also requires good availability of utilities, services, and broadband. A dialogue between Distribution Network Operators (DNOs) and Planning Authorities should be encouraged to ensure power is supplied in locations where I&L development is being planned. Employment allocations should be in locations that allow I&L operators to work 24/7 without impediments.

Recommendation 3 of the Employment Land Manifesto

Ensuring the industrial and logistics sector is recognised for its focus on ESG: making a valuable contribution to the Government's Green Industrial Revolution and generating social value.

As discussed in the 'Growing Social Value Credentials' chapter, the I&L sector supports large and diverse supply chains which generate significant economic and social value benefits. As the sector continues to expand so will the number of apprenticeships and training opportunities it supports. The sector is also heavily invested in the central and northern parts of the country and therefore is playing as critical role as part of the Government's 'Levelling-Up' agenda.

As evidenced in the 'Green Recovery 'Boxed'' chapter, I&L buildings are delivering on ESG objectives across all stages of a property's life cycle. Reduction in embodied carbon is being achieved in numerous ways, such as via the use of recycled materials, cement alternatives in concrete, and reliance on local labour force. During the operational phase, energy efficiency can be achieved by addressing both energy demand and energy supply. The former is about reducing the inherent energy demand a building requires to operate, which can be achieved in numerous ways (for example, improving lightings, or installing smart sensors and sub-meters; while the latter is about decarbonising a development's energy supply via the use of renewable sources such PV, wind, etc.). Finally, with regards to the end of life phase, modern I&L buildings have an advantage of being lightweight structures which can be adapted for other uses. They can also be easily repurposed or materials can be catalogued to allow for potential reuse in the future.

Recommendation 7 of the Employment Land Manifesto

Introducing an Employment Land Delivery Test to ensure that a commensurate amount of employment land is brought forward to counterbalance housing and that any employment land lost to other uses is delivered in the right locations. If a local planning authority failed to meet the delivery test, a presumption in favour of sustainable logistics development could be engaged.

I&L facilities and their supply chains support the functioning of our economy and the way we live our lives. One of the biggest transformations to our lifestyles in the past 15 years has been the rise of e-commerce. In 2006 online shopping was at 3%, while today this share has grown to 26% and is expected to increase even further. The growth in online shopping has significant implications on future I&L demand given that e-commerce requires over three times the logistics space compared to traditional brick-and-mortar retailers. Population growth is a key driver of this rise in e-commerce as more people mean increased online speeding. Based on Savills future I&L demand estimation, Government housing targets and I&L space requirements per housing unit, we know that about half of future I&L demand will be linked to housing growth. This means that Government should not plan for housing growth without also planning for I&L growth.

Acknowledgements

Commissioning Team

The British Property Federation (BPF) represents the real estate sector, an industry which contributed more than £116bn to the economy in 2020 and supported more than 2.4 million jobs.

We promote the interests of those with a stake in the UK built environment and our membership comprises a broad range of owners, managers and developers of real estate as well as those who support them. Their investments help drive UK economic success, provide essential infrastructure and create great places where people can live, work and relax.

UKWA Limited is the United Kingdom Warehousing Association, a trade association with approximately 900 Members. We represent a sector that is worth £20 billion to the UK economy, has grown by 32% in the past six years, and employs over half a million workers. The Voice of the Warehousing & Logistics Industry, UKWA engages with policymakers, the media and other high-profile stakeholders, to represent the views of our Members. We promote and share best practice and our mission is to help Members operate safely, ethically and profitably, while safeguarding industry standards. UKWA Members benefit from a wide range of valuable services from professional business advice and strategic support to networking opportunities and discounted offers from partnering specialists and associates.

GLP is a leading long term global investment manager and business builder in logistics, data infrastructure, renewable energy and related technologies.

Our combined investing and operating expertise allow us to create value for our customers and investors. In the UK, we have over 33 years' experience in developing best in class logistics units and more than £2.3 billion in assets under management in 42 properties in our operating portfolio with key schemes such as Magna Park Milton Keynes, Magna Park Lutterworth, G-Park Biggleswade and G-Park Doncaster.

Across the United Kingdom, our operating portfolio consists of just under 12 million sq ft in key strategic logistic locations which are leased to blue chip customers such as John Lewis, Royal Mail, Amazon, DHL and Bleckmann Logistics.

We are committed to a broad range of environmental, social and governance (ESG) commitments that elevate our business,

protect the interest of our shareholders and investors, support our employees and customers and enhance our local communities. To learn more about our UK operations, please go to eu.glp.com

St. Modwen is a property developer focused on logistics, housebuilding and master developing sites. The St. Modwen Logistics business unit develops and manages urban and big box warehouses on key logistics corridors and conurbations. Our Parks serve the needs of customers to expand their businesses, employ local people and support economic growth. Our customers include global logistics and e-commerce organisations as well as significant national and regional enterprises. The Parks showcase the St. Modwen Swan Standard – a set of industry-leading sustainable development guidelines with a focus on responsible building practices.

St. Modwen is committed to ESG, our Responsible Business approach includes a set of ambitious goals in six strategic areas where we can make a sustained difference to society, our stakeholders and the environment: biodiversity and sustainable environments; net carbon reduction; diversity and inclusion; education and future skills; health and wellbeing; and responsible operational practices and partnerships. This includes our aim to be operationally net zero carbon by 2025, and fully net zero carbon by 2040.

Tritax Symmetry is Tritax Big Box REIT's dedicated logistics developer, specialising in delivering best-in-class greener buildings and an unrivalled choice of locations and scale. With offices in London, Northampton and Manchester, Tritax Symmetry has a land portfolio of 4,150 acres, capable of accommodating 40 million sq ft of logistics space.

The company is dedicated to targeting carbon neutrality on the construction of all new buildings. Its commitment to best-in-class sustainable construction methods will give customers the operational advantages they demand. Further information on Tritax Symmetry is available at www.tritaxsymmmetry.com

Tritax Big Box REIT plc is the only listed vehicle dedicated to investing in very large logistics warehouse assets ("Big Boxes") in the UK and is committed to delivering attractive and sustainable returns for shareholders.

Founded in 1987, IM Properties has established itself as one of the UK's largest privately-owned property companies with an enviable track record of delivery across all sectors of commercial real estate.

Originating from the IM Group, the company has developed over 10 million sq ft of commercial real estate becoming renowned in the industry for the consistent delivery of strategically located, award-winning schemes.

Located in the Midlands, the business is focused on a sustainable future in all sectors in which it invests, develops and manages, including offices, logistics/industrial and residential. Our strategic framework centred on People, Planet and Place is pivotal to our future ambitions for responsible development and innovative growth, to ensure both long-term social and economic value to the communities within which we operate, underpinned by strong environmental credentials.

With a customer-focused approach to development, IM Properties is a market leader in quality building design, place-making and sustainable construction, developing schemes for a wide range of clients, including blue-chip customers from across the globe; all delivered with local market knowledge and expertise.

We are an agile organisation that is committed to securing high quality, long-term investments through a fair approach to business. Our management team uniquely combines the skill set and creativity of a property company with the financial resource of a fund which, over its lifetime, has delivered a diverse and high prized portfolio of institutional standard.

Based in Rugby, Newlands Developments is a specialist industrial and logistics developer with a long history of success and sound professional ethos built up over the last 20 years. It's well-known senior management team, who have worked together for many years, have a solid track record and is responsible for delivering over 50 million sq ft of development.

Newlands expertise is centred around taking large, often complex schemes through the planning process and then using an in-house team of professionals and capital to implement infrastructure contracts, often in excess of £100 million. Newlands are bringing forward numerous sites across the country with a concentration of sites in the East Midlands.

SEGRO is a UK Real Estate Investment Trust (REIT), listed on the London Stock Exchange and Euronext Paris, and is a leading owner, manager and developer of modern warehouses and industrial property. It owns or manages 8.8 million square metres of space (95 million sq ft) valued at £15.3 billion serving customers from a wide range of industry sectors. Its properties are located in and around major cities and at key transportation hubs in the UK and in seven other European countries.

For over 100 years SEGRO has been creating the space that enables extraordinary things to happen. From modern big box warehouses, used primarily for regional, national and international distribution, to urban warehousing and light industrial property located close to major population centres and business districts, it provides high-quality assets that allow its customers to thrive. SEGRO's customers include major businesses such as DHL, Amazon, Mars, Royal Mail, British Airways, Brompton Bike, Ocado, Tesco, Netflix, DPD and Equinix that operate in a range of sectors from parcel delivery to ecommerce, retail to TV and film and manufacturing to date centres.

A commitment to be a force for societal and environmental good is integral to SEGRO's purpose and strategy. Its Responsible SEGRO framework focuses on three long-term priorities where the company believes it can make the greatest impact: Championing Low-Carbon Growth, Investing in Local Communities and Environments and Nurturing Talent.

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Special Thanks

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[25]i.e. rents after accounting for inflation

[26]DfT, Table VEH0101, Q2 2021 vs Q4 2020 – GB

[27]Based on Social Value Portal (2020), National TOMs 2020; DfE (2019), 2018/19 academic year; DfE (2020), Apprenticeships Evaluation 2018-19: Employers

[28]Average proportion of procurement at local authority level

[29]DfE (2020), Apprenticeship starts with enterprise characteristics, 2012-13 to 2019-20 for Manufacturing and Transportation & Storage

[30]ONS (2021), APS, Unemployment rate for the aged 16 to 24 in England

[31]https://www.stephengeorge.co.uk/wp-content/uploads/2021/09/Prologis-RFI-DIRFT-Phase-III-Academy-Hub-1-scaled.jpg

[32]London, South East, East of England and South West

[33]North West, West Midlands, East Midlands, Yorkshire and the Humber

[34]CoStar (2021) – net deliveries in the North since 2016

[35]Based on standard job densities from the HCA Employment Density Guide, 3rd Edition, November 2015

[36]APP/H4315/V/20/3265899

[37]Savills' Podcast (2021), Why the industrial & logistics sector is thinking about 'wellness'

[38]Savills' Research Article (2021), Does demand for green buildings lead to a premium?

[39]GLP Europe ESG Report 2020 https://eu.glp.com/wp-content/uploads/2021/05/GLP-Europe_ESG-Report-2020.pdf

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[42]Panattoni Built in Sustainability https://panattoni.co.uk/sustainability/built-in-sustainability/

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[47]BPF (July 2021), BPF Employment Land Manifesto

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