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**Fidelity European
Real Estate**

**Making a Climate
Impact in Logistics**

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Executive summary

The challenge of reaching net zero carbon in the built environment cannot be underestimated. After energy supply, financing the transition to net zero buildings requires the largest investment per annum, with private capital required to make the lion's share of this investment. Fidelity International believes this transition can now largely be delivered while generating attractive rates of return, especially for logistics real estate.

The great news is that unlike other sectors of the economy such as agriculture or aviation, we already have the technologies we need to make this transition happen, we just need the capital. It is therefore up to forward-thinking private capital allocators to decide to deliver the change the built environment needs, and to real estate investors to offer stewards of capital this option.

Logistics real estate traditionally refers to warehouses that are used for storage, order picking, and distribution of goods. These are often situated near important transportation infrastructure (road, rail, airports, ports) to facilitate the movement of those goods. The term has grown in prominence in recent years and is generally accepted now as referring more broadly to modern, strategically located warehouse stock, whether used by occupiers directly focused on logistics, such as DHL, or more traditional industrial usages, such as vehicle manufacturers.

Fidelity sees a strong case for the beginning of a new era for brown to green logistics

Fidelity sees a strong case for the beginning of a new era for brown to green logistics strategies. This opportunity has arisen due to a confluence of factors, some foreseen and others unanticipated. At a headline level, they include the acute repricing of logistics assets since the second half of 2022, induced by surging interest rates, the energy crisis in Europe which has brought the additional costs of brown buildings into sharp relief, and the pace of rental growth in the sector, particularly over the last two years.

The key focus of the transition of the built environment is on refurbishment. Much of today's warehousing stock is fit for its basic purpose and will be for many years to come, but if we are to meet climate goals, this stock needs to become more operationally efficient. Refurbishments emit 50-75 per cent less carbon than a new build. 'Embodied carbon', or the carbon dioxide emitted from materials like steel, concrete, and glass, makes up roughly one third of the life cycle emissions of a building on average.

The beneficiaries of warehouse refurbishments are not limited to the asset owners who will profit from the attractive IRRs that can be generated. They also include the occupiers who will have lower operating costs and better working environments. Ultimately, this benefits current and future generations who will have incrementally fewer greenhouse gas emissions heating the earth.

How to make an impact in logistics

Accelerating the pathway to net zero carbon should be the key aim of impact-focused logistics refurbishment. This journey centres around the greenhouse gas management hierarchy, which consists of three simple stages.

Eliminate is step one and involves removing sources of Scope 1 emissions (greenhouse gases emitted on site). In practice, this means removing gas-powered heating in warehouses, which is a major step forward for the emissions profile of a building.

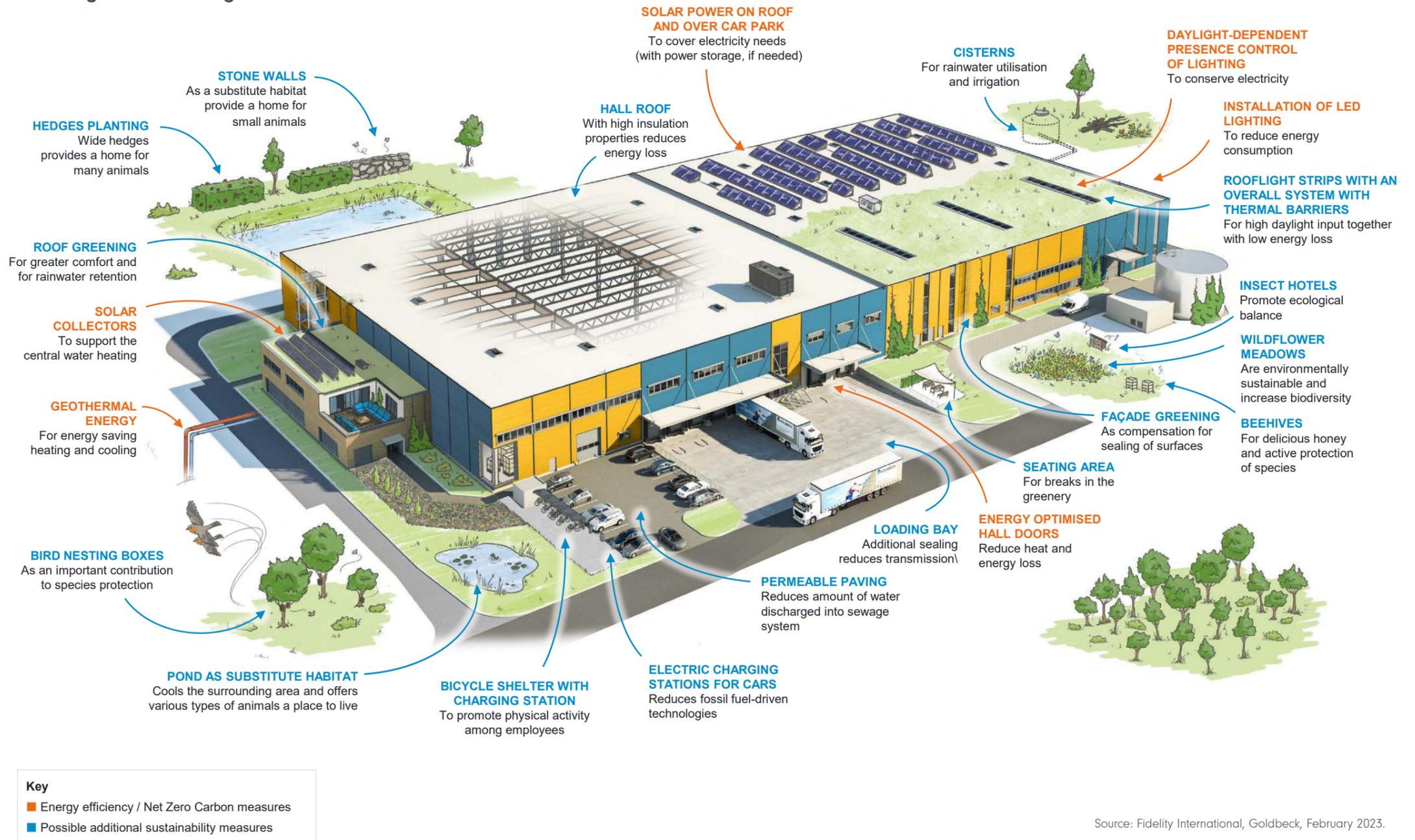
Step two is **Reduce**. This is demand-side focused, ensuring the right approaches and technologies are in place to lower the amount of power used for lighting, ventilating, running appliances etc. in the building. Examples of reduction measures include switching from older lighting types like halogens to efficient LEDs, or using heat pumps as a low energy source of building heating. These measures reduce Scope 2¹ emissions.

The final stage is **Substitute**. This is about transitioning to alternative sources of power, including utilising any potential for on-site energy generation. Thanks to the large roof areas of logistics properties, there is usually great potential for solar arrays on roofs, or indeed on canopies over carparks if the site is large enough to allow it. Any remaining power requirements not satisfied by on-site renewables should be procured from the grid through green tariffs, to ensure the power is decarbonised. An overview of some of the measures discussed above and more can be seen in the graphic below.

If this approach were adopted, resulting in at least a 30 per cent reduction in refurbished asset's primary energy demand (PED), investors are likely to be aligned with leading benchmarks such as the EU Taxonomy. In reality, it should be feasible for investors to be much more ambitious than the EU Taxonomy standard and be able to reduce the theoretical energy demand figure by an even greater degree, so that refurbished assets are capable of being operationally net zero carbon.

¹ For further details on Scope 1 and Scope 2 emissions, please see: <https://www.weforum.org/agenda/2022/09/scope-emissions-climate-greenhouse-business/>

Delivering sustainable logistics assets

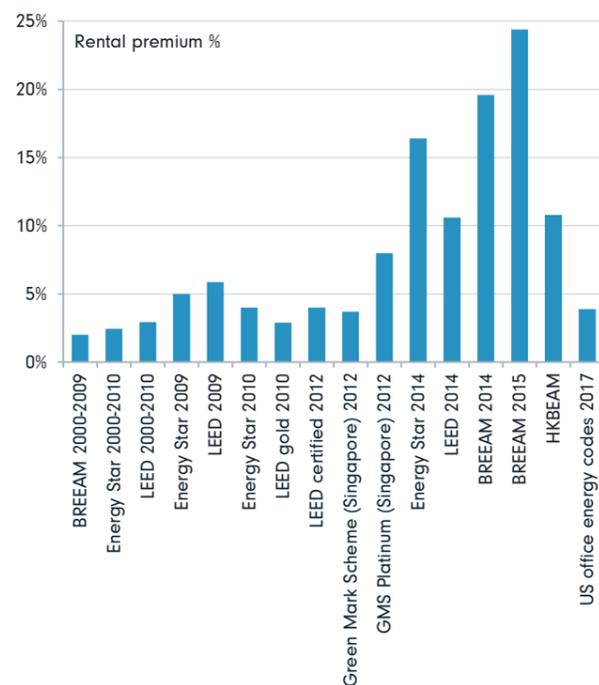


Source: Fidelity International, Goldbeck, February 2023.

Our conviction in returns potential

Academic literature on the topic of green buildings and financial returns provides some valuable insights which challenge the accepted wisdom that it is more costly overall to create green real estate. Multiple studies over the last 20 years (see chart below) covering a range of sectors and geographies have shown that occupiers are willing to pay more for green space, with the green premium growing over time as the sustainability agenda increasingly comes to the forefront.

Rental premium for energy efficient buildings evident²



Source: Fidelity International, October 2022. *Andrea Chegut, et al., 2014; Alexander Reichardt, et al., 2012; Franz Fuerst, et al., 2009; Wiley Benefield, et al., 2010; Erin A. Hopkins, 2016; Stefanie Lena Heinzle, et al., 2012; Prashant Das, et al., 2013; Franz Fuerst, et al., 2015; Maya Papinaeu, 2017. Measuring the Mythical, AVIVA, July 2021.

Similarly, studies such as one by Dalton and Fuerst 2018² have shown that investors are willing to pay more for green real estate, driven by the fact green buildings are more attractive to tenants, and should therefore see lower vacancy risk, as well as having lower operating costs and less transition risk (mainly regulatory and market risk). Forward-thinking occupiers are now demanding that energy efficiency and sustainability characteristics are at the heart of the design of buildings they occupy.

² Ben Dalton and Franz Fuerst, The 'green value' proposition in real estate (Cambridge, Routledge, 2018).

Following on from this, there is a body of research showing the cost of capital is lower for green buildings, helping to boost returns. Lenders are willing to accept a lower margin on loans to green real estate because of their de-risked nature, with higher occupier and investment liquidity and less transition risk.

Where the academic and industry research is less well explored is for the logistics sector. This market has experienced acute shortages of supply over the last cycle, which makes disaggregating the pricing impact of ESG credentials on rents and yields for logistics assets difficult. Indeed, availability of space has been the main concern for occupiers, with vacancy rates lower than 2 per cent in some European markets. There are, however, strong signs that similar ESG considerations are taking hold in the logistics sector, supported by an emerging stream of research that suggests the same.

According to CBRE³, there has been a median 25bps valuation yield premium for BREEAM certified (a system for rating buildings on their sustainability) European logistics compared to the market prime net yield over the last five years. This research corroborates the anecdotal evidence we see that investors are now willing to pay a premium for highly sustainable warehousing space, though other factors such as building quality and location were not considered.

Fidelity believes these dynamics are accelerating. With the energy crisis in Europe suddenly bringing the additional occupational costs of older 'brown' buildings into sharp relief, plus the growing body of occupiers with net zero carbon targets, we expect green warehouses to be more differentiated than ever before. Indeed, in a recent report penned by JLL's valuation team⁴, surveys of the firm's in-house logistics experts showed widely held expectations for a clear rental premium for green warehouses by 2024, with the premium expected to be in the region of 10-19 per cent. This is highly instructive considering it is these same valuers that ultimately determine the estimated rental value of properties for valuation purposes.

³ CBRE Research, Capturing the value of sustainability in European logistics (Amsterdam, CBRE, 2022).

⁴ JLL, Valuing Net Zero & ESG for Industrial & Logistics (London, JLL, 2022).

We estimate that around 25 per cent (often more) of occupancy costs within a logistics building come from energy costs⁵. Significantly improving energy efficiency and utilising the potential for on-site power generation could translate into major savings for occupiers, while delivering double-digit IRRs for real estate investors.

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Case study: effect of efficient warehousing space on total occupancy costs

	GRESB average	Highly sustainable Dutch warehouse
EUI (kWh/m ²)	86	28
Warehouse size	25,000	25,000
Average cost of energy per kWh € in the Netherlands	0.36	0.36
Annual cost of energy €	774,000	252,000
Rent psm €	85	85
Annual rent €	2,125,000	2,125,000
Total cost of energy + rent €	2,890,000	2,377,000
Energy as a % total occupancy cost	26.7%	10.6%

Source: GRESB, JLL, May 2022. Energy price is the January average from the Dutch CBS, January 2023. Please note that for the purposes of this analysis, Total Occupancy costs exclude service charges. EUI stands for energy use intensity.

The figures above show the impact that highly efficient warehousing space can have on total occupancy costs. If we assume there is no green rental premium for efficient space, then based on the numbers above, we are implying the occupier is saving over half a million euros per annum on energy bills at present. It is simply not realistic that this does not get reflected in rental demand levels in the medium to long term, in our view. This example does not include the impact of on-site power generation, which would further reduce the need to purchase power from the grid, saving more money in the process for occupiers and generating additional return for investors.

⁵ Based on pre-European energy crisis figures.

The JLL Global Logistics Survey⁶ shows that Europe is the clear leader in terms of occupier action on sustainability, which indicates the greatest green premium is likely to emerge in Europe, and most likely sooner than it will in other regions.

Which statement best describes how the sustainability agenda is influencing occupier decision-making and actions?

% of respondents	Global	Americas	EMEA	Asia Pacific
No action yet	39%	43%	30%	42%
Limited action	23%	23%	24%	25%
Some taking significant action	27%	21%	40%	28%

Source: JLL Global Logistics Survey, 2021.

For those with a high conviction view on the outlook for sustainable warehouses, we see this as a compelling opportunity to be a first mover in this area.

Overall, the lack of further empirical evidence quantifying green premia in logistics could be framed as a disadvantage or an opportunity, but Fidelity believes it is the latter. Widely published details on the extent of green premia in logistics would drive up pricing and increase competition. For those with a high conviction view on the outlook for sustainable warehouses, we see this as a compelling opportunity to be a first mover in this area.

Why now?

In the first half of 2022, the key leading indicators for real estate pricing shifted to signal an imminent repricing of assets. This began in earnest over the summer, and is still underway, with a quick reset of values having already taken place by historical standards. Pricing has changed to reflect a rapid increase in the cost of debt, a sharp decline in the spread between property yields and sovereign bond yields (now at the lowest levels seen since 2008), and an expected downturn in the economy due to the rising rates backdrop.

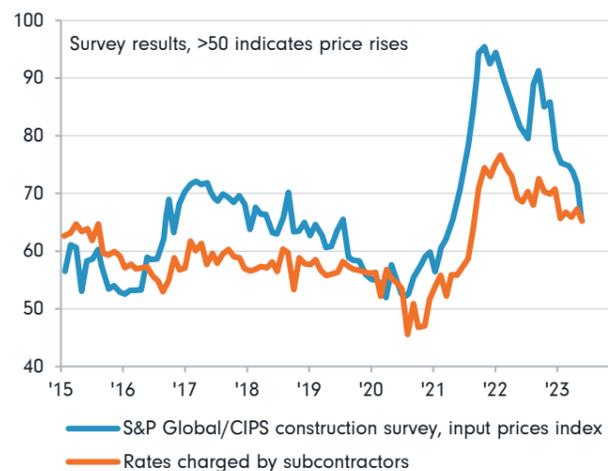
⁶ JLL, The future of global logistics real estate (New York, JLL, 2021).

The resulting correction is providing attractive opportunities in the value-add real estate space, providing an entry point to deploy capital into a more discounted market and increasing the likelihood that investors sell into a rising market in years to come. To date, we have seen value-add pricing fall in the region of 35 per cent, which we believe represents the majority of the peak to trough valuation decline we will see this cycle, although there may still be some more valuation decline in the first half of 2023. Value add repricing is driven mainly by the higher leverage involved in value-add investment activity, whereas the Core/Core+ space still consists of many predominantly equity players.

The higher cost of debt may weigh on returns to a greater extent than before we entered this hiking cycle, but based on current market conditions we expect this can be more than fully offset by the lower entry prices achievable today. For strategies with a moderate leverage profile, the cost of debt is even less of a headwind. Whilst the amount of assets coming to market has declined in Europe over the last seven months, these pent-up sales will come back on stream at some point, likely in the middle of 2023, and will enable cash-rich buyers to cherry pick the best deals.

Inflation, particularly for construction prices, may feed through negatively to the returns generated by value-add strategies as a result of high capex costs for refurbishment. Recent data however (see chart below) suggests we have passed the peak of construction price inflation. Commodity prices have fallen substantially since their 2021 and 2022 highs after demand fell due to recessionary pressures. Since the pace of price increases has slowed, it has become easier to forecast expected construction costs for refurbishments, reducing the volatility of this line item in underwriting models substantially.

UK Construction Prices



Source: S&P Global/CIPS Construction Survey, Pantheon Economics, January 2023.

Notwithstanding the short-term trends, the rising rates backdrop is expected to be relatively short lived, with rate cuts currently priced in by 2024 to revitalise ailing economies, suffering under the pressure of interest rate increases. An interest rate curve of this general shape would align with investor interests as it increases the likelihood of selling assets into a reflating economy, with lower interest rates in the years to come supporting real estate yield compression.

Altogether, while the cost of debt and construction costs are higher and therefore negatively impacting returns, we expect this to be more than offset by the better value entry prices that can be secured in the market now. In addition, the rental premium for green logistics real estate continues to be supported by the elevated energy costs that are being experienced across Europe, and this is a positive impact on end returns.

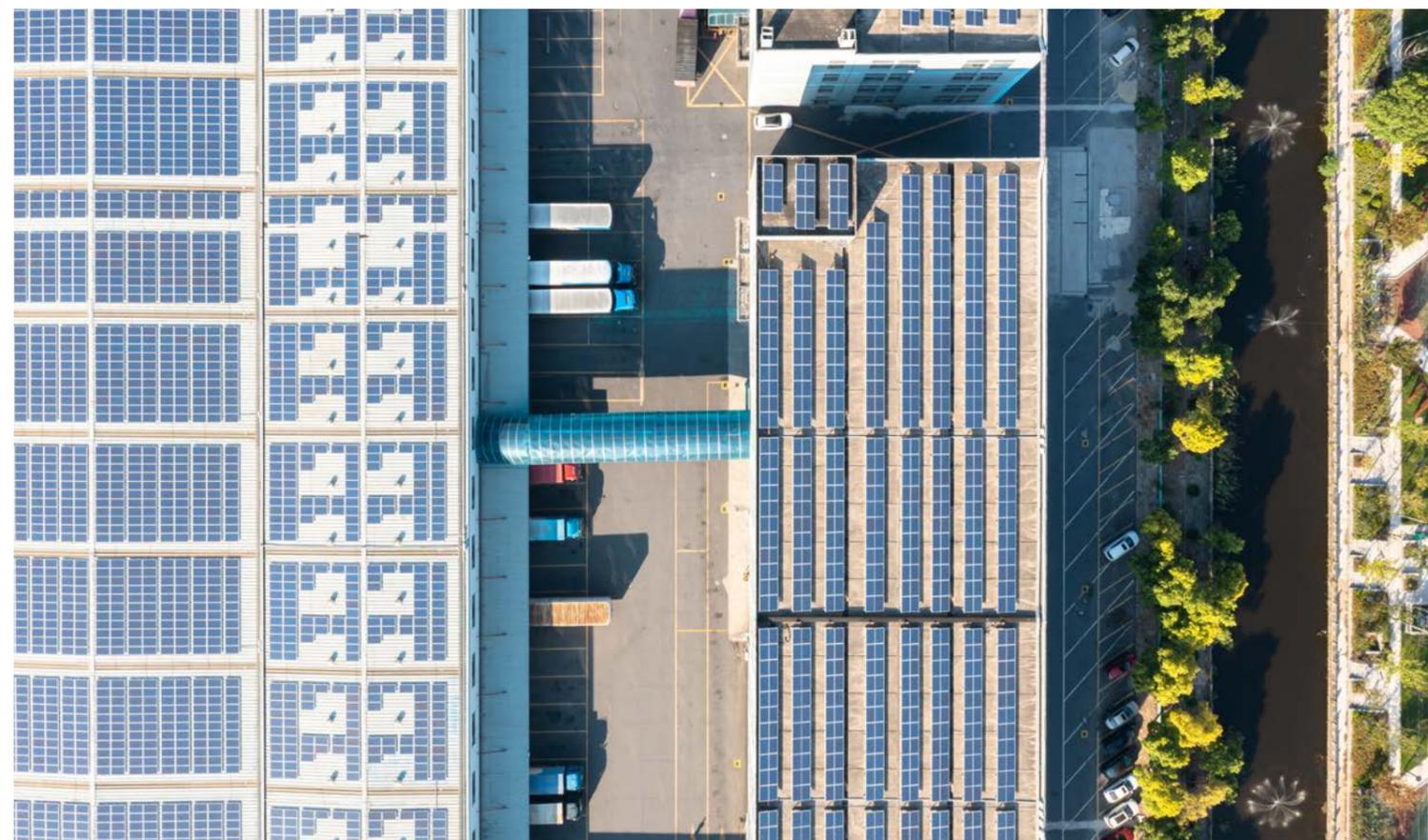
The window of opportunity

The logistics sector in general is currently under-supplied, with record low vacancy rates across Europe, but availability of green space is even more profound. Ninety-six per cent of the warehousing stock in Germany was built before the year 2000, with similar trends across other European markets, so there are plenty of brown buildings waiting to be transitioned.

Achieving the necessary transition of the total warehouse stock to net zero by 2050 will require a concerted effort from investors, occupiers, and the real estate industry as a whole, but this could be a remarkable opportunity to do so profitably.

As logistics occupiers demand green warehouses, in order to hit their own increasingly ambitious carbon reduction targets and to save on occupancy costs, the mismatch between supply and demand will become even more acute. Those investing today will be first movers in capitalising on this opportunity to accelerate the net zero transition of the logistics stock.

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