Hines GLOBAL PERSPECTIVES

Industrial Delivers: Logistics Steps into the Spotlight

February 2021



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Fresh Park Venlo, The Netherlands

EXECUTIVE SUMMARY

When COVID-19 first appeared, comparisons were made with the Global Financial Crisis (GFC). Back in 2008, the industrial and logistics sector was hit hard and left with a plethora of new but empty warehouses that had been built on the whim of retailers.

However, with today's Coronavirus pandemic, and the focus on distribution and e-commerce, logistics real estate has emerged and stepped into the spotlight as an important part of urban infrastructure.

Industrial and logistics has performed well over the last 12 months. In fact, the pandemic has highlighted the defensive characteristics of the warehouse as an asset, be it an urban last-mile unit or out-of-town bulk distribution center. Large format bulk distribution centers enjoyed average rent collections of about 95% in the first half of 2020. The sector has also suffered fewer delinquencies than other asset classes and displayed a relatively strong leasing performance this year, due largely to increased logistical needs during the lockdowns.[1]

[1] *Sources: NAREIT, August 2020; National Association of Realtors, Commercial Market Insights, July 2020; and CBRE Research, Q4 2020.*

Nevertheless, it has been a challenging year for logistics real estate, as has been the case with all asset classes. Additionally, there is a high degree of variety and diversity within the logistics and industrial real estate sector, of which investors should be aware. Assets with strong ties to brick-and-mortar retail, restaurant and hospitality, and manufacturing, for example, have been affected disproportionately.

More than a decade on from the GFC, the industrial and logistics sector is rising to the challenge of creating more capacity to meet long-term changing consumer behaviors that have been accelerated by COVID-19, such as the explosion in online shopping. As supply chains and technologies continue to evolve, so will logistics and industrial real estate.

Hines forecasts the broadening of types and placement of industrial and logistics assets in the future. Trends are expected to include:

- The proliferation of the last mile or urban logistics
- The densification and increased velocity of supply chains
- Near-shoring or on-shoring of manufacturing and storage
- The dramatic rise of space dedicated to logistics across the world
- Logistics buildings becoming increasingly integrated into mixed-use developments and urban infrastructure

This paper analyzes the challenges the sector faces and its evolution, while identifying core investment opportunities in a period set for significant growth.

MEET

OUR EXPERTS

This paper was put together following the Hines Global Perspectives Forum: Logistics & Leasing – COVID's Breakout Product Type, as well as a series of in-depth interviews with leading experts from within Hines and externally, as listed below.

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International Director, Industrial Brokerage
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Parc 114 Business Park, Texas

SHIFTING SANDS FOR TENANTS

In a sense, the sudden disruption caused by COVID-19 isn't sudden at all. It is rooted in decade-long structural shifts, such as urbanization, the rise of robotics and e-commerce. The most visible and immediate of these was the rapid acceleration of e-commerce in conjunction with COVID-related lock downs.

Digital transformation in the retail space has been driving industrial and logistics real-estate demand for well over 10 years. But, fear of contagion, social-distancing laws and lockdowns have boosted the uptake of online shopping.

The online share of worldwide retail sales has grown from 10% to a projected 20% in 2020, while the pandemic is forecast to increase growth twofold over the next 10 years.[1]

[1] *Source: PMA online sales data as of YE 2019, with Hines Research analysis.*

Booming online sales

Online sales in the U.S. as a share of all retail sales rose from

11.6% in Q1 2020 to **16.1%** in Q2 2020 (OECD)*

Online sales in the U.K. as a share of all retail sales rose from

20.3% in Q1 2020 to **30%** in Q2 2020 (OECD)

"COVID-19 fast-forwarded the online transition of retail by five to seven years. The speed of growth may settle down again, but this change is secular and irreversible," says Head of Industrial and Logistics for the U.S. Southwest Region and Mexico, Hines, Palmer Letzerich.

Customer expectations are changing, too, with leading e-tailers making promises of same day or next-day deliveries, and increasingly broad visibility to inventory pools. These expectations of speed are becoming so embedded in consumer culture that retail and logistics industries have to adapt.

The pressure on tenants is coming from both the consumer and supplier sides. The sudden swell of demand during the first wave of lockdowns reverberated all the way up the supply chain. Just as there was a spike in the need for essential goods and the desire for lifestyle products to entertain people at home, manufacturers and bulk distribution warehouses were forced to adjust.

For many this highlighted the over-reliance on supply networks that might have been "too lean" and illustrated the value of safety stocks and near-shoring of at least some production - both of which require additional warehouse space.

"There has never been more integration and interdependence between what happens on the retail floor, whether it's virtual or physical, and what happens up the supply chain. Every time the consumer makes a new demand, it has a ripple effect on operations," says Benjamin Conwell, senior managing director at Cushman & Wakefield.

PALMER LETZERICH
Hines

"COVID-19 has pulled forward the percentage of e-commerce sales as a percentage of retail sales by 5 years which means more activity moving through our warehouses now and for the coming years."

** OECD is the Organisation for Economic Co-operation and Development.*

A deep dive into E-TAIL

The shift to online shopping has been seen across industries, demographics and generations. Previously low-penetration areas have grown, such as food and drink, consumer staples, home furnishings and improvements, and health and beauty. The most notable example is online grocery, where volumes have roughly doubled from pre-crisis levels. Growth is expected to continue in all of these verticals.

The pool of people shopping online is widening, too. The baby boomer and near-boomer generations, well-accustomed to buying their groceries in store, have switched. The burgeoning middle-income populations in countries such as China and Mexico will also feed into the rising number of people adopting online shopping globally.

"E-commerce was growing steadily, but the coronavirus had the effect of pouring gasoline on a steady-burning fire," says Conwell. "With so many physical stores closed for months, the consumer was forced to shop online initially. Now they choose it for convenience, safety and for choice, and we do not expect them to switch back."

BENJAMIN CONWELL
Cushman & Wakefield

"E-commerce was growing steadily, but the coronavirus had the effect of pouring gasoline on a steady-burning fire."

Charles Tyrwhitt Distribution Centre, UK

THE NEED FOR MODERN SPACE

The line between retail and industrial and logistics real estate will continue to blur as the shift to omnichannel retail increases, creating new pressing challenges for the sector, such as:

- The need for more space along a faster supply chain
- The need for more inventory, stored closer to the consumer, and shorter transits
- The need to densify and de-risk the supply chain

It is estimated that each $1 billion of incremental e-commerce sales results in the need for approximately 1.2 million additional square feet of warehouse space.[1] This heightened demand for space is driven by the requirement to store more inventory closer to the consumer to cater for various types of shopping such as: in-store, click and collect, and deliveries. This means more capacity at the last mile, within densely-populated pockets, and also at well-positioned transportation nodes and intersections outside of urban areas.

[1] *Source: Forrester Research, CBRE Research, 2018.*

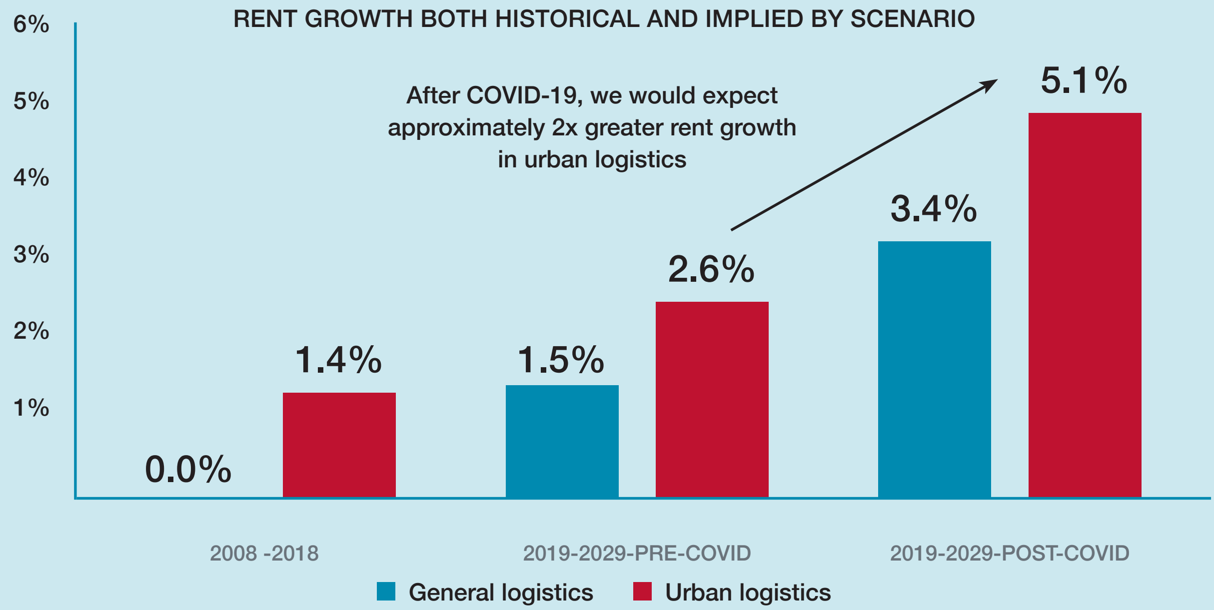
"The last mile tends to get all the press, but you can't grow the last mile without growing the other hubs further up the supply chain," says Tom Griggs, managing director for Hines in the U.S. "In fact, the last mile is being used inefficiently if it is just storing goods."

The concept of one vast regional distribution center in the middle of nowhere is fast becoming outdated, he argues. There needs to be densification of the supply chain with more pick-and-pack hubs in more locations and closer to urban logistics.

Panic buying in the spring lockdown, empty supermarket shelves and fully booked delivery slots will live long in the memory and play into the need for more safety stock. The just-in-time online delivery model is flipping into one being dubbed just-in-case as retailers gear up for future demand shocks while also catering to the consumer's insatiable appetite for choice.

Again, this drives the need for more space to store more inventory in more places. In the U.S. alone, it has been estimated that a 5% rise in inventory volume equates to a need for 700 million additional square feet of warehouse space.[1]

COVID-19 is a major tailwind to urban logistics rent growth



Source: PMA European logistics coverage, with Hines Research analysis.

[1] *Source: Cushman & Wakefield, Supply Chain Digest, July 2020.*

So, what does this mean for rents? Hines' research team indicates e-commerce penetration is closely correlated to rental growth, and once online sales reach 8% of total sales in a market that triggers disproportionate rental growth. The team also forecasts that if online sales accelerate to 30% of retail sales by 2029, rather than the 20% previously projected, rental growth rates over the next 10 years could increase twofold.

It's not just about aggressive expansion and the creation of more space, but about the transformation of the supply chain, and what facilities go where, and how they fit into the communities and people that depend on them.

The trend for on-shoring and near-shoring has been gathering pace since at least 2011, when a tsunami hit Japan and flooding submerged seven of Thailand's largest industrial zones for weeks. With climate change comes a concern that extreme weather events could become more frequent, requiring more redundancy in supply chains.

These trends, along with the demand shock of COVID-19 that has spurred distributors and manufacturers into prioritizing supply-chain resilience.

"Traditionally a company that is growing, particularly a U.S. company, will want to add production capacity, and their first thought would have been to add it in China alone," says René Buck, chief executive officer of BCI Global in Amsterdam. "But trade tensions between China and the U.S. and COVID-19 have put re-shoring and other good production locations firmly on the C-suite agenda."

The pandemic has highlighted that disruptions at suppliers and supply-chain partners can cause production holdups and shortages for the purchasing business.

TOM GRIGGS
Hines

> **"The last mile gets all the press. But you can't grow the last mile without growing the distribution hubs in the supply chain, too."**

A study conducted this year by the McKinsey Global Institute in August 2020, predicted a shift from single-source, cost-focused supply chains to a heightened focus risk management and higher supply-chain resilience. The study found that 53% of respondents (global companies) planned to adopt a dual-sourcing strategy for raw materials and 47% are looking to boost inventory. Further, 40% are leaning toward near-shoring and 38% want to regionalize their supply chains.

Businesses around the world had already started to develop a China-plus-one model, establishing additional capacity in Malaysia, Vietnam or Indonesia to spread their orders between different manufacturing plants. This allowed them to diversify their production bases and at the same time access the growing middle-income demographics of Asia.

In the 1990s, China and Mexico were both seen as low-cost production hubs for many manufacturers. Mexico has become the cheaper option, and much closer to home, without tariffs for U.S. companies. Moving production from Asian countries to Mexico brings suppliers closer to market for U.S. businesses and cuts out the need for ocean or air freight.

Re-shoring from Asia is less pressing for European companies that are not so reliant on China, typically using Central or Eastern Europe. The Czech Republic, Hungary, Bulgaria, Romania and Poland have long been cost-effective locations for European manufacturers. Each has a good labor market, low production costs and a growing consumer base. “They may not have to re-shore as drastically, but many will be changing their supply chains to be more resilient in case of future disruptions,” explains Buck.

The just-in-case model fits here, too. It’s not just about the last mile, but also the final assembly point. During the COVID crisis, businesses who had a single source supplying a vital component to complete a piece of machinery, for example, were caught out.

RENÉ BUCK
BCI Global

“Trade tensions between China and the U.S. and COVID-19 have put re-shoring and other good production locations firmly on the C-suite agenda.”

More inventory, more demand for space

In the U.S., it has been estimated that a 5% rise in inventory volume equates to a need for

700 million

additional square feet of warehouse space[1]

"An out-of-stock product is a lost sale and delays in critical components shut down production for manufacturing facilities. We saw this happen during the first wave of the pandemic," says Omar Thowfeek, managing director at Hines. "This highlights the importance of having multiple suppliers into a final assembly point. Companies need a network of suppliers rather than a linear supply chain."

Visibility of order and inventory information is also crucial, with many companies taking a more proactive and vigilant stance, following the pandemic, of the need to monitor health and safety and social-distancing procedures.

JLL has forecast that re-shoring will bring big players back to the market, taking up far larger sites (from 500,000 square feet to one million) than was common pre-COVID. The brokerage division of the property group predicts another one billion square feet of industrial space by 2025.[2]

OMAR THOWFEEK
Hines

"Companies now need a network of suppliers rather than a linear supply chain."

[1] Source: Cushman & Wakefield, Supply Chain Digest, July 2020.

[2] As of July 2020.

Convento City Park, Mexico City

BIG AND SMALL BOXES OF THE FUTURE

There is a shift in mindset away from pure square-footage metrics. The logistics and industrial sector is also on the cusp of redefining the modern-age warehouse – both in and out of town.

The product itself is changing. A new set of priorities is emerging among tenants when looking for their next building:

- Location, with the last-mile facility close to a dense and growing population
- Location, with the distribution center close to a sustainable and cost-effective labor base
- Buildings with higher ceilings to accommodate mezzanine and robotics, if needed
- Reliable power, utilities and IT infrastructure
- In-built carbon-zero considerations, such as solar panels and e-charging points
- Employee amenities on-site

A premium location closer to the city center on more expensive real estate does not automatically make a logistics/industrial property a last-mile facility. Its value lies not only in its location, but also in its functionality.

Urban logistics and retail will continue to blur together as the purpose of the brick-and-mortar store evolves from being a showroom and point of customer acquisition into also serving a role in online order fulfillment and distribution. Fulfilling online sales at stores reduces last-mile costs of retailers while meeting customer on-demand expectations and creates an opportunity for brand engagement.

As traditional retail footprints are expected to shrink, excess floor space can be repurposed into on-site fulfillment micro warehouses. The high ceilings, deep space and shipping/receiving access found in department stores are ideal for this conversion, but most retail space was not designed with such a purpose in mind – so increased retrofitting and redevelopment of these spaces is expected.

Retail-to-logistics conversions are more common in the U.S. due to the high level of over-retailing. The European retail model is often high-street based, where it is more difficult to achieve planning consent for change of use.

But zoning makes it challenging in the U.S., too. “It is difficult to sell the idea to a local community that their shopping mall is going to be converted into a noisy distribution hub that is operational 24/7. Successful conversions have so far tended to be of blighted buildings in areas where the promise of jobs has won people over,” explains Thowfeek.

Whether retrofitted from retail or brand-new, last-mile locations should be designed with movement rather than storage in mind, as inventory turnover at this point in the supply chain is frequently measured in days or even hours. The ability to move freight rapidly to the end customer is what drives the rent premium of a last-mile hub.

Some bulk distribution centers are being overhauled, too, with speed as a core consideration. Ceiling heights and high door-to-square-footage ratios are key for large yards of freight to cycle through a building quickly. The rise in automation leads to the greater use of mezzanine space, and it is likely that a higher percentage of logistics and industrial tenants will look for additional clear height for their bulk distribution space.

Automation requires reliable IT infrastructure, increased power capacity and access to fiber networks. This means power, water and high-speed internet access are at the top of the checklist when a tenant is searching for a new location.

Large regional sites are not simply being redesigned with robots in mind. The labor shortage is one of the biggest challenges the sector faces and will dictate how tenants choose a site. Investors and developers must build with access to a willing and appropriate workforce.

The rise in automation does not reduce the need for people. An e-commerce-related, highly palletized warehouse is extremely automated, but also needs the people to interact with robotics. It creates both lightly skilled and highly skilled jobs.

During the pandemic, workers unable to do their jobs from home went back to warehouses and factories. This has highlighted a need for quality and culture within a warehouse facility.

"The design of the logistics hub is fast becoming more people-centric," Letzerich explains. "Buildings should be developed with amenities and shaped with the employee in mind. The very best modern-day distribution centers are being delivered with cafes, outdoor seating and dining, and basketball courts. Offices have been evolving for the last decade or two with employees front and center. The logistics sector is now rethinking inside the big box," he says.

PALMER LETZERICH
Hines

"The design of the logistics hub is fast becoming more people-centric with a push toward higher population density and deeper labor pools."

The next five to 10 years and beyond will see a growing demand for green warehouses, including new zero-carbon buildings, as major companies make commitments on carbon emissions and setting out science-based targets.

Buildings with energy monitoring and management systems and solar paneling will be sought-after. For example, e-vehicle charging will be an expected amenity in the future, which directly impacts the size of a site's parking.

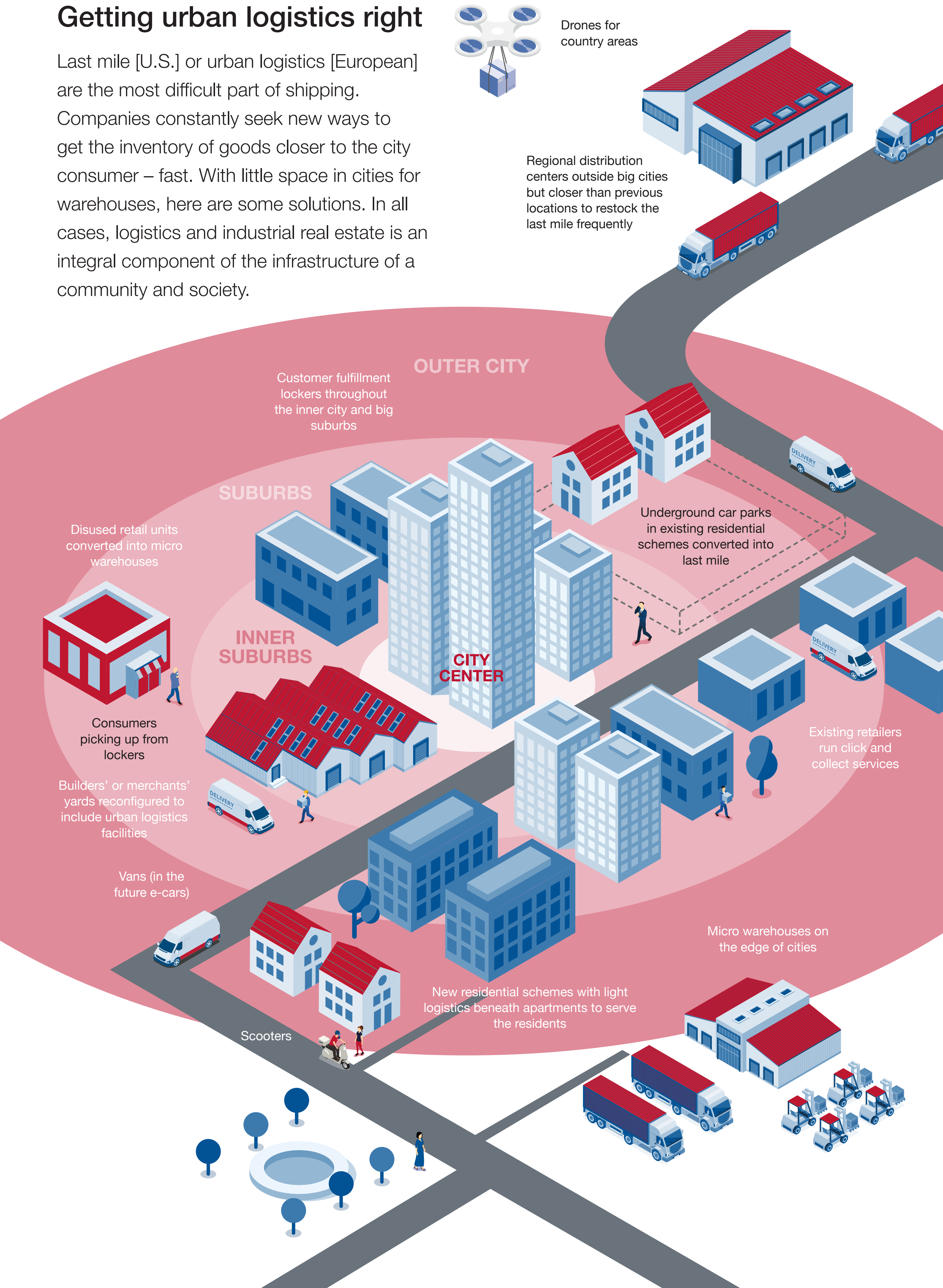
E-trucks and forklifts, with automated vehicles, are some of the biggest changes coming down the track for industrials and logistics, but there is also a narrow role for drones.

"Where a drone comes in is to help the e-tailer make the same delivery-time promise to everyone. It's inefficient to send a truck with one $10 item to a far-flung rural dwelling. A drone should be deployed for this and in rural areas there is less restrictive air space," says Griggs.

ABC Westland, the Netherlands

Getting urban logistics right

Last mile [U.S.] or urban logistics [European] are the most difficult part of shipping. Companies constantly seek new ways to get the inventory of goods closer to the city consumer – fast. With little space in cities for warehouses, here are some solutions. In all cases, logistics and industrial real estate is an integral component of the infrastructure of a community and society.



Cold storage heats up

The surge in online grocery shopping, particularly perishables, has boosted demand within the industrial and logistics industry for cold and frozen storage facilities.

As of 2018, the cold chain was valued at an estimated $94 billion, but is set to see a 12% compound annual growth rate through 2025, reaching $212 billion globally, according to Hines Research.[1]

Micro consumer trends feed into this requirement for cold storage space. Increasingly health-conscious consumers often prefer fresh, locally grown and responsibly sourced goods that don't contain traditional preservatives. Such foods require more stringent temperature control in storage and when transported. The rising uptake in all-in-one meal delivery kits also increases the need for cold-chain capacity. These habits will likely become more widespread.

There is a lack of supply to meet demand for fresh food, albeit ordered online or bought in store, and while cold-storage warehouses can be retrofitted, facilities designed to store perishables below freezing need to be purpose-built.

The characteristics of cold-storage facilities:

- Concentrated around major food supply-chain nodes
- Located close to large metro markets for speed of delivery
- Warehouses have an average age of 34 years
- The optimum-shaped warehouse is spherical with clear heights of 40ft-plus. This minimizes heated floor costs and increases pallet capacity
- Construction costs are two to three times higher than a comparable dry warehouse, although tenants tend to stay longer when they have found the right facility

The cold chain has been suddenly thrust into the spotlight. For the majority of 2020, the world's attention has been on scientific efforts to create a vaccine for COVID-19. However, the focus has now switched to logistics and the cold storage and distribution of the different vaccines, with the Pfizer vaccine to be kept at -70°C/-84°F. Vaccines are small and take up little space, but clearly the industrial and logistics sector has a vital role to play here in 2021 and beyond.

The pandemic has also emphasized the need to store critical medical equipment, medicines and pharmaceutical products on home soil and close to the population. This is another factor motivating companies to re-shore and will play into the need for more cold-storage space.

[1] *Source: Grandview Research (2019)*

Boulevard Oaks Business Park, Houston

THE CASE FOR INVESTMENT IN LOGISTICS AND INDUSTRIAL ASSETS

It is clear that the gains from new or expanding e-commerce tenants outweigh the losses from the brick-and-mortar retailers, and that industrial and logistics is fast becoming a real-estate sector of high conviction.

If the U.S. is anticipating the uptake of more square footage in the next few years, then even more growth is anticipated for Europe. Asia, South Asia and Latin America remain even more undersupplied.

Hines Research has identified five core opportunity markets across the Americas, Europe and Asia with long-term prospects, and one market to watch which is earlier in its maturation. This analysis takes into account suitability for:

- Urban logistics facilities designed to feed local and growing e-commerce demand
- Regional domestic hubs that are part of the import and export network servicing different parts of one country
- Global hubs that export pan-regionally

Some of these markets, such as Los Angeles, may be positioned for all three.

Real growth can be found in cities with increasing, high-salaried tech and financial services industries attracting young professionals. The leading German cities are fine examples of locations that will need more inventory space and efficient last-mile operations.

For Logan Smith, head of European Logistics at Hines, growth is not solely driven by the macro performance of a country or city, but by changing consumer behavior and technology as well.

“In many ways, the e-commerce led growth we are currently seeing is simply an extension of the first wave of “big-box” growth from the ‘90s and ‘00s which was led by manufacturers and distributors investing in ERP [enterprise resource planning] systems. The driving factor in both cases was the ever-increasing need for inventory and order visibility,” says Smith.

“At Hines, we recognize this. And in all communities in which we operate we recognize that logistics and industrial space - and supply chains themselves - play an essential role for people and communities around the world.”

LOGAN SMITH
Hines

“The opportunities lie not just in the demand for more space, but in the proliferation of logistics.”

WHERE IN THE WORLD

SEVERAL LOCATIONS FOR LAST-MILE INVESTMENT

Last mile takes many forms and while there are many cities to consider for last-mile investment, Hines Research has identified several with large and growing populations that double up as important global or regional logistics hubs.

These locations are cities where e-commerce adoption is high and growing. They also have a well-established consumer class with considerable disposable income.

These locations are the ones to watch. They have all the traits of the red dots but are far earlier in the maturation of their consumer class and online adoption.

CONCLUSION

The institutionalization of the industrial and logistics sector has been underway for more than a decade. But, over the past five years, it has grown in stature among investors. COVID-19 has accelerated this further.

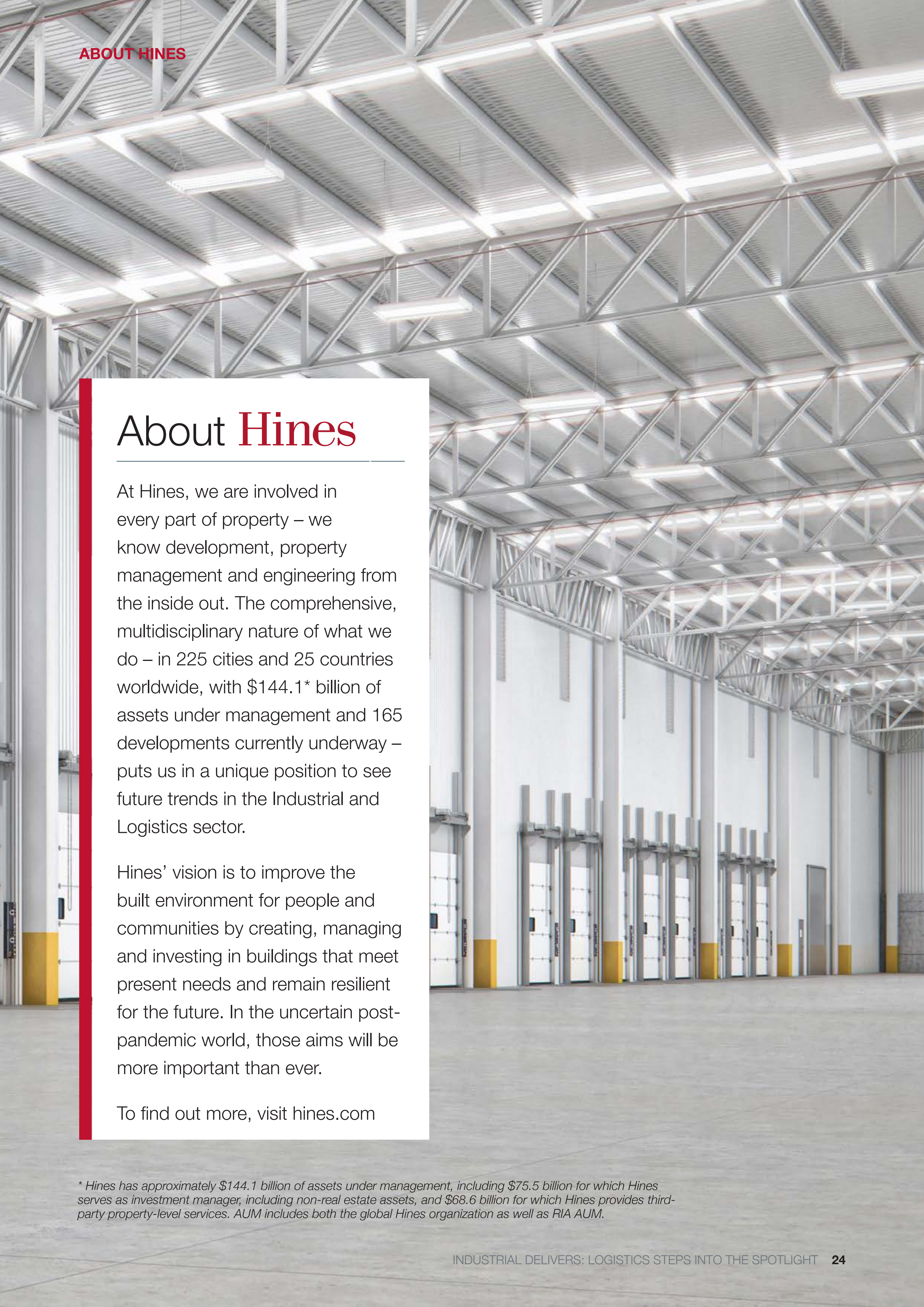
Every interconnected aspect of the industrial and logistics landscape is changing swiftly and significantly. Supply chains are undergoing profound transformation and the diversification of geographies, suppliers and business models is altering and speeding up global trade flows.

The most compelling investment case, however, is the evolution of the role of logistics in our daily lives and urban-suburban fabric.

Historically, industrial and logistics buildings have been isolated in specific locations, but they have a vital role to play in creating a positive localized economic impact and accessible employment close to home.

“Old brownfield logistics sites are readily converted into residential developments. Now other assets, such as retail and leisure, are being transformed into buzzing logistics hubs which, in turn, should be a key component of true mixed-use districts,” says Smith.

Logistics real estate is finally being seen as part of the infrastructure of a city, not just a property type.



About Hines

At Hines, we are involved in every part of property – we know development, property management and engineering from the inside out. The comprehensive, multidisciplinary nature of what we do – in 225 cities and 25 countries worldwide, with $144.1* billion of assets under management and 165 developments currently underway – puts us in a unique position to see future trends in the Industrial and Logistics sector.

Hines' vision is to improve the built environment for people and communities by creating, managing and investing in buildings that meet present needs and remain resilient for the future. In the uncertain post-pandemic world, those aims will be more important than ever.

To find out more, visit hines.com

** Hines has approximately $144.1 billion of assets under management, including $75.5 billion for which Hines serves as investment manager, including non-real estate assets, and $68.6 billion for which Hines provides third-party property-level services. AUM includes both the global Hines organization as well as RIA AUM.*