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Introduction

The Industrial & Logistics (I&L) property sector has continued to thrive since we presented our first ExCEEding Borders I&L report in 2020. The total I&L stock for the CEE-12 region has grown to exceed 65 million sqm, with 25 million sqm situated in and around the 12 capital city markets. Poland, as the largest country of the group covered in this report, also maintains the largest I&L market and is approaching the 30 million sqm mark.

While the disruptions and changes initially brought about by the pandemic continue to play out, the war in Ukraine has also added a new set of significant challenges. Besides the humanitarian tragedy that is ongoing and the continued disruption to CEE and global supply chains, there is a tsunami of inflation that is building up and threatening to bring an economic crisis with it. Since the beginning of last year, the CEE region has had to struggle with rising fuel, energy, labour and material prices. By contrast, by the end of last year, these prices began to stabilize and reach levels close to January 2022 in some cases. This gives hope that 2023 will be the time for the market to return to stability.

During the pandemic, we experienced greater interest from tenants' from both the e-commerce sector and logistics operators offering their services to retailers and internet trading companies. In 2022, e-commerce tenants were still active in the market, but to a lesser extent than during the first two years of the pandemic.

In the report, we will also touch on some of the trends facing the sector across the CEE-12 countries covered. In addition to the standard description of the warehousing market, we also focused on the manufacturing sector in order

to answer the question of how large it is, which industries are the most developed and what can we expect in the near future. This market segment varies greatly from country to country. One of the more developed branches of this market is the automotive sector, where almost every CEE-12 country has seen increased activity. The popularity of this sector is partly related to the trend toward electromobility. CEE-12 countries have experienced a large number of inquiries from companies producing electric batteries for cars, among other things. Another significant industry is food manufacturing. Developers and owners of manufacturing facilities indicate that one of the trends is nearshoring, which may not be what is shaping the market to a significant degree at the moment, but more and more examples of this phenomenon can be realised over time. We believe that this market will continue to grow significantly, creating new opportunities for investors, tenants and developers in the spirit of ESG.

We hope you find this market research useful and, whether you are an investor, developer, occupier, or another interested party in the I&L sector, we look forward to discussing your outlook and plans with you.



Monika Rajska-Wolińska Chief Executive Officer | CEE **EMEA Board Member** Colliers



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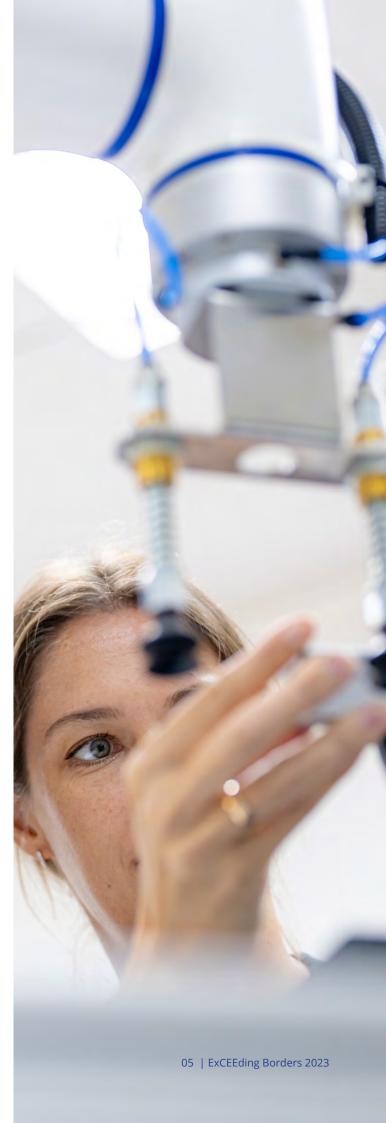
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Key findings

- The total I&L stock for the CEE-12 region has exceeded 65 million sqm, with 25 million sqm situated in and around the 12 capital city markets.
- Poland is the largest country of the group covered in this report, which maintains the largest I&L market approaching the 30 million sqm mark.
- All of the CEE-12 countries experienced a significant **rise in rental rates** over the course of last year. Despite this, the CEE-12 region still remains competitive to Western European countries in this regard.
- According to Eurostat data, the largest turnover in the manufacturing sector belonged to Poland, which accounted for about 38% of the total CEE-12 volume.
- One of the most developed manufacturing sectors in CEE-12 is the automotive sector. It accounted for 20% of the manufacturing turnover in 2020.



Key findings

- In CEE-12 countries, **ESG-related solutions are becoming increasingly popular** and tenants are increasingly demanding them from developers and landlords.
- Recently, there has also been noticeably increased interest in production space by occupiers coming from Asia, mainly China and South Korea.
- In terms of the share of production contract volumes in gross demand since the beginning of 2018, the Czech Republic has led the way, with a share of as much as 36%.
- The war in Ukraine has caused significant challenges to the market including disruption to global supply chains, rising fuel, energy, labour and material prices. However, in most cases, by the end of 2022, the situation began to stabilize.

CEE manufacturing, a success story still in the making

The CEE region is arguably one of the hotspots for future activity.

In terms of absolute size, these countries have a population that's a bit bigger than Germany's (over 110 million versus over 80 million), though the cumulated size of the CEE's 12 economies we included in this report make up just over half of Germany's GDP. But that is up from around 40% a decade ago and just 23% back in 2000, so it is clear that the region is growing fast relative to Western Europe, arguably the major economic partner for the region.

At the heart of the region's economic success has been a mix of several key factors (in no particular order):

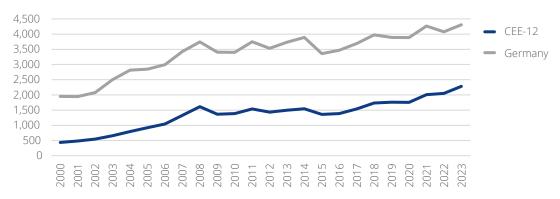
- Geographical position in a key area linking Europe to Asia;
- Relatively low labour costs offering attractive returns;
- A well-educated labour force;
- · A strong tradition in certain manufacturing sectors.

The wages argument is particularly relevant, but it needs to be nuanced. Yes, wages have risen sharply in the region, as they have in other parts of the world. Secondly, labour costs also need to

be interpreted in relation to the output. To start with the first point, we tried to look at the region in relation to China and other global outsourcing destinations. We lack fully comparable data, but with the limited picture that we have, it looks like the CEE region is still, in general, a costlier alternative than China or Mexico when it comes to workforce. But maybe not for long, as China has increased its labour costs by more than 10x in the past two decades, based on economic literature, whereas big CEE countries like Poland or Hungary have seen an increase of up to 3x in the same period, with Czech Republic seeing an approximated 4x increase in manufacturing labour costs in the same period. In fact, China is now no longer regarded as a low-cost

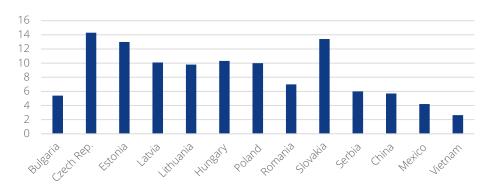
(...) The CEE region should be a prime destination for reshoring operations, though not just as a low cost alternative, as many countries have been growing in prowess in the past decades.

GDP has increased more than 4x since 2000, outpacing Germany's 2x growth (GDP, USD bn)



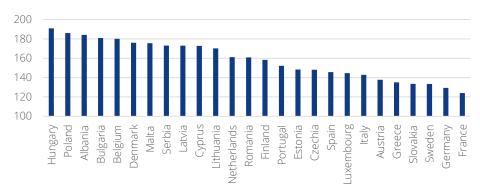
Source: Colliers based on IMF

Manufacturing labour costs in Asia/other parts of the world, while smaller than in CEE countries, are catching up (EUR/hour)



Source: Colliers based on Eurostat & Statista

Wage adjusted labour productivity (Apparent labour productivity by average personnel costs, %)



Source: Colliers based on Eurostat

alternative after its unit labour cost index has nearly tripled in this two-decade period (what this indicator shows is how much it costs to produce one unit of output).

To emphasize the second point we made earlier, it is not that labour costs are low, it's that they are also low in the CEE relative to what the economies are producing (in spite of hefty wage hikes in recent years). If we look at apparent labour productivity (and discount the data for Ireland, which are heavily distorted by statistical reporting of companies shifting their financial balances in the country), the ranking for Europe is led by Hungary, Poland and Albania. Even the region's underperformer, Slovakia, is doing better than two of Europe's biggest powerhouses, France and Germany.

While we cannot quantify the market risk from major events in the last couple of years – notably geopolitical tension and a sharp rise in delivery costs from China to various parts of the world - we do certainly highlight the need to have output both diversified and closer to home at the same time. This suggests that the CEE region should be a prime destination for reshoring operations, though not just as a low cost alternative, as many countries have been growing in prowess in the past decades. Consequently, looking at rankings like Harvard University's Atlas of Economic Complexity shows that many of the countries in the region offer a highly complex range of services and products, so much so that many score better than many Western countries. Overall, we would expect the CEE's economic overperformance to continue, with manufacturing clearly a part of this success story.

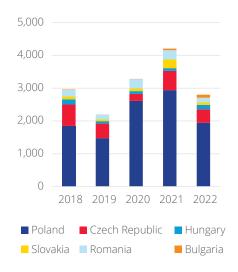
I&L Investment Market

For better, or for worse, many of the changes or disruptions to the industrial and logistics (I&L) sector since the onset of the pandemic and the war in Ukraine remain with us today and may remain in some shape or form for the foreseeable future.

These uncertainties are also feeding through into the global property investment markets, and the CEE region is no exception. While the I&L sector remains to be one of the most sought-after asset classes, whether it be single assets and portfolios to securing development pipelines and sale & leasebacks, it is not without its fair share of challenges. There are of course opportunities too, but activity has slowed down more visibly over the past few quarters.

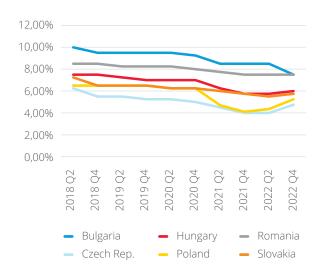
With a lack of evidence in the market, it remains a challenge for all market players to pinpoint where yields currently are. This then leads us to provide a more sentiment-based, in-house view, taking current market conditions into account. Amongst other things, these need to address the various elephants in the room, such as inflation, interest rates, ESG compliance and structural changes to occupier markets, for some sectors. All-in financing costs are currently somewhere between 5.5% and 6.0% driven by significantly higher interest rates as well as the costs of other financial tools such as interest rate swaps (IRS). In addition, the previously wider spread between other investment strategies, such as simple deposits and bonds, has diminished and have also caused investors to pause and reassess their portfolios and strategies.

I&L Investment Volumes in CEE-6*: 2018 - 2022 (millions)



Source: Colliers

Prime I&L Yields CEE-6*: 2018 - 2022



Source: Colliers

The previously wider spread between other investment strategies, such as simple deposits and bonds, has diminished and have also caused investors to pause and reassess their portfolios and strategies.

In the CEE-6*, the 5-year average investment volume is approximately EUR 12 billion. I&L investment transactions accounted for ca. 25% of total volumes on average over the past 5 years (2018-2022) at ca. EUR 15.5 billion. Investment into the sector also secured the top spot so far in 2023 with a share of 43%, although total volumes were down almost 60% compared to the first quarter of 2022. Overall, these volumes would be significantly higher if it were not for the fact that many of the major I&L developers and investors in the region are typically long-term holders of the properties within their portfolios and platforms. These include groups such as CTP, GLP, Prologis and Segro, to name just a few. There are, however, developers and investors that do trade some, or all, of their assets. The largest of these by investment volume include 7R, Blackstone, Hillwood and Panattoni, to name a few. The model for the latter group has also become more challenging in the past 12-18 months due to the fluctuating availability and costs of materials and labour, plus the availability of capital and financing in the current climate.

*CEE-6: Bulgaria, Czech Republic, Hungary, Poland, Romania & Slovakia





Expert opinion

CTP has long understood the business-smart value of CEE. The region is expected to continue to outperform Western Europe based on its strong economic fundamentals and emerging global mega trends that benefit CEE—driving further demand for logistics and industrial space.

Demand is underpinned by improved infrastructure and transport networks, a diverse and expanding economy, a skilled workforce and strong labour market fundamentals, plus rising consumption and the accelerating growth of e-commerce, which has historically lagged behind Western Europe, but is now catching up from a low base.

CEE is also benefitting from global mega-trends like the continued rise of nearshoring and friend-shoring, as companies rethink their global supply chains following the pandemic and increased geopolitical risk. This is particularly the case for European, Asian and American multinationals. There is also the ongoing trend of more production for Europe in Europe, which the EU is promoting as part of its push for Europe's "re-industrialisation".

CTP is ready to meet the growing demand for I&L space, with a significant development landbank across the CEE region that enables us to double our GLA by the end of the decade, developing and operating the highly sustainable, client-focused I&L space that modern occupiers require.



Bert Hesselink *Group Client Relationship Director, CTP*

Sustainability in warehouse and production in CEE

In recent years, there has been a growing recognition of the significance of environmental, social, and governance (ESG) factors in the business landscape, including warehouses and production facilities. ESG encompasses a broad range of issues that have an impact on companies' operations, reputation, and long-term sustainability.

ESG factors play a crucial role in identifying and mitigating potential risks and are closely linked to financial performance. Additionally, stakeholders, including investors, customers, employees, and communities, have increasing expectations for businesses to operate in a responsible and sustainable manner. Investors are considering ESG factors in their investment decisions, and consumers prefer companies that demonstrate a commitment to environmental and social issues.

Implementing sustainable practices in warehouses and production facilities is significant for reducing environmental impact, achieving cost savings, ensuring regulatory compliance, enhancing reputation, managing risks, and capitalizing on market opportunities. By integrating sustainability into their operations, businesses can contribute to a more sustainable future while gaining a competitive edge in the marketplace.



The components of ESG (Environmental, Social, and Governance) apply to warehouses and production facilities in the following ways:

Environmental



Energy Efficiency

Implement energy-efficient measures such as LED lighting, energy management systems, and optimized equipment to reduce energy consumption and greenhouse gas emissions



Waste Management

Implementing waste reduction and recycling programs, as well as proper disposal practices, can minimize waste generation and promote circular economy principles



Water Conservation

Implementing water-saving technologies, monitoring water usage, and implementing efficient water management practices can reduce water consumption and preserve this valuable resource



Emissions Reduction

Implement measures to reduce air emissions, including installing pollution control equipment, optimizing transportation routes, and transitioning to cleaner energy sources





Health and Safety

Ensuring a safe working environment through proper training, hazard assessments, and equipment maintenance is essential to protect the health and well-being of employees in warehouses and production facilities



Labor Practices

Implementing fair labour practices, such as providing fair wages, offering opportunities for professional development, and maintaining nondiscriminatory and inclusive workplaces, contributes to a positive social impact.



Supply Chain Responsibility

Warehouses and production facilities can promote ethical sourcing by engaging suppliers who adhere to labour and human rights standards, environmental regulations, and responsible business practices.



Community Engagement

Engaging with local communities through initiatives such as volunteering, supporting local causes, and collaborating on sustainability projects can foster positive relationships and contribute to community development.

<u>Governance</u>



Ethical Business Practices

Implementing strong governance practices ensures ethical conduct, transparency, and accountability in warehouses and production facilities. This includes adhering to legal and regulatory requirements, maintaining accurate financial reporting, and preventing corruption.



Board Diversity and Independence

Encouraging diversity on boards and ensuring independent decision-making promotes effective governance and reduces the risk of conflicts of interest.



Stakeholder Engagement

Actively engaging with stakeholders, including employees, customers, investors, and local communities, allows warehouses and production facilities to understand and address their concerns, fostering trust and long-term relationships.



Risk Management

Establishing robust risk management processes, including identifying and mitigating ESG-related risks, helps warehouses and production facilities navigate potential challenges, ensuring operational resilience.



The environmental component of ESG focuses on reducing environmental impact, conserving resources, and minimizing emissions. The social component emphasizes promoting health and safety, fair labour practices, responsible supply chain management, and community engagement. The governance component highlights ethical business practices, transparent decisionmaking, stakeholder engagement, and effective risk management. By integrating these ESG components, warehouses and production facilities can enhance their overall sustainability performance, mitigate risks, and contribute positively to the environment, society, and corporate governance.

Challenges in implementing ESG principles

When adopting sustainable practices, warehouses and production facilities often encounter common challenges that can hinder progress. Implementing sustainable practices may require initial investments in new technologies, equipment upgrades, and process changes. The upfront costs can be a barrier, especially for small and medium-sized enterprises (SMEs) with limited financial resources. However, it's important to note that these investments often lead to long-term cost savings and other benefits.

Resistance to change is a common challenge when implementing sustainable practices. Employees, especially those accustomed to existing processes and practices, may be resistant to new ways of operating.

A lack of awareness and understanding about sustainable practices and their benefits can hinder adoption. Many businesses may not be aware of the available sustainable solutions or the potential environmental, social, and economic advantages associated with implementing them. Education and training programs can help address this challenge by raising awareness and providing the necessary knowledge and skills.

Resistance to change is a common challenge when implementing sustainable practices. Employees, especially those accustomed to existing processes and practices, may be resistant to new ways of operating. Overcoming resistance requires effective change management strategies, including clear



communication, employee involvement, and training to ensure buy-in and engagement.

Warehouses and production facilities often operate within complex supply chains involving multiple stakeholders and suppliers. Ensuring sustainability across the entire supply chain can be challenging as it requires collaboration, transparency, and alignment of sustainability goals among all parties. Lack of coordination or unwillingness to adopt sustainable practices by suppliers can pose obstacles to achieving sustainability targets.

Measuring and tracking sustainability performance can be challenging due to the lack of standardized metrics and data availability. Obtaining accurate and reliable data related to energy consumption, waste generation, emissions, and other sustainability indicators can be time-consuming and resource-intensive. Developing robust measurement systems and leveraging technologies for data collection and analysis can help address this challenge.

Compliance with evolving EU regulations and standards related to sustainability can be complex. Keeping up with changing regulatory requirements and ensuring compliance at all levels of the organization can pose challenges, especially for multinational companies operating in different jurisdictions with varying regulations. Regular monitoring, engagement with regulatory bodies,

and participation in industry networks can help navigate this challenge.

The rapid pace of technological advancements in sustainability can pose challenges for warehouses and production facilities. It can be challenging to keep up with emerging technologies, assess their suitability, and make informed decisions about adopting them. Engaging with industry experts, participating in conferences and trade shows, and conducting thorough research can help businesses stay informed about the latest technologies and their applicability to their operations.

Balancing sustainability goals with operational efficiency and cost-effectiveness can be a challenge. Some sustainable practices may require tradeoffs, such as longer production times, additional resources, or increased costs. Striking a balance between sustainability objectives and maintaining business competitiveness is crucial to ensure the viability of sustainable practices.

Addressing these challenges requires a holistic and strategic approach, involving strong leadership commitment, stakeholder engagement, capacity building, and collaboration. Overcoming these obstacles can lead to long-term benefits, including cost savings, improved reputation, regulatory compliance, and resilience in a changing business landscape.



Expert opinion

The energy market in Poland is determined primarily by its dependence on coal and gas. Although year-on-year the share of energy from renewable sources is growing, as the data for 2022 showed, a significant part of it is still generated in conventional power plants. This, of course, determines the price formation on the Commodity Power Exchange and affects the energy contracting strategies of specific companies.

As Colliers Energy, we have nearly 500 GWh of energy under management and, depending on the client, different targets to meet. However, we see that an important factor prevailing in the process of choosing a supplier is the source of the energy, but also the ability to secure supply. We pay special attention to manufacturing companies and warehouse tenants to understand how the facility is powered. This is because in many cases, by renting, we may be connected to the park owner's infrastructure and consequently lose the ability to decide for ourselves how and from what source to buy energy. Our ESG strategy may be at odds with the park owner's plans, making it even more difficult for us to purchase green energy efficiently. In addition to these constraints, it is also important to consider that the pace of RES development in Poland may slow down, what with increasing pressure from the EU for decarbonization and further involvement of more industries in the process and the consequent increase in demand for green energy, accompanied by limited supply.

According to the country's energy strategy, an update of which is underway, the transition fuel for the emergence of the atom in Poland is to be gas, which is also an emission fuel. Thus, there is no escaping the increase in energy prices in PPAs (Power Purchase Agreements); therefore, we are already encouraging investors and owners to enter into similar agreements – we are at your disposal!



Dariusz Chrzanowski, *Director, Energy Advisory, Colliers*

Industrial and Logistics Market & Manufacturing Sector in CEE-12

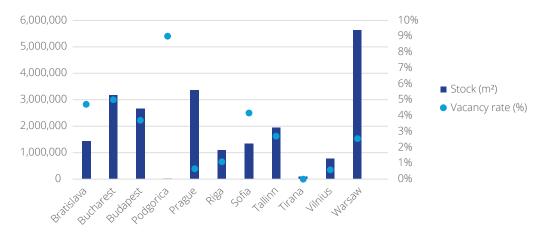
The total supply of modern Industrial and Logistics stock across the CEE-12 capital city markets amounts to almost 25 million sqm and more than 65 million sqm at a combined country level.

From this figure, the current availability can be categorized as low, with the majority of markets recording vacancy rates below 5% (with the average figure amounting to 4%). A high percentage of the new supply being constructed is on a build-to-suit basis, or in other words, with tenants secured in advance of commencement. Standard speculative development across the region has a smaller share of the pipeline, however, I&L properties also have the shortest delivery times compared to other sectors (assuming all permits are in place), taking from 7 to even 12 months. As mentioned previously, there are several factors that can influence demand for a market and the decision-making process. The CEE region is ideally located in the very heart of Europe at the intersection between East and West which also plays an important role alongside the physical geographical and topographical features of each country or location.

The region has excellent access to the international transportation network, which includes road, rail, river, seaports and air terminals. Much of this infrastructure has undergone improvements over the last few years and will continue to develop going forward.

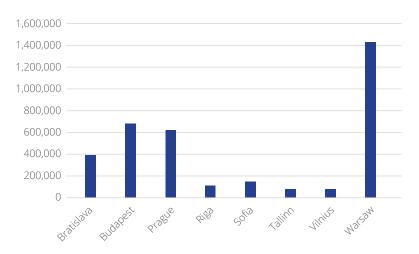
Overall, the demand from the I&L sector in the CEE-12 region over the past few years has been strong and is driven mainly by the 3PL, retail and distribution sectors, followed by the light production, automotive and FMCG industries. During the pandemic, we experienced higher tenant interest from the e-commerce sector and logistics operators offering their services to retailers and internet trading companies. New tenants in the sector continue to emerge, but e-commerce's share of demand is significantly lower than at the beginning of the pandemic.

Total stock, new supply & vacancy rate in selected CEE capital cities (m²), 2022



Source: Colliers

Demand in selected CEE capital cities (m²), 2022



Source: Colliers

In all of the CEE-12 countries over the course of last year we experienced a significant rise in rental rates. The lowest headline rents across the region are in Poland and amount to EUR 3.20 – 5.50 per sqm/month (at the end of Q4 2022). The majority of CEE-12 rents range between EUR 4.00 – 6.00 per sqm/month. The highest can be found in Montenegro (EUR 9.50 per sqm/month) and the Czech Republic (EUR 7.50 – 7.90 per sqm/month)

During last year, there was also a change in the trend of yields, from downward to upward. For the most developed I&L markets of the CEE-12 region, such as Poland, Czech Republic and Slovakia, yields are between 4.75% and 5.85%. Markets including i.e. Albania, Montenegro and Serbia have higher figures ranging from 8.0% to even 10.5%.

In 2022, due to the ongoing war in Ukraine, all CEE-12 countries were experiencing rising fuel prices, higher construction material prices, reduced availability, a partial breakdown of supply chains and rising inflation rates. These caused prolonged construction timelines for new I&L schemes, the halting of newly-started and planned schemes and a rise in both rental rates and yields. However, in most cases, by the end of 2022, the situation began to stabilize, fuel and construction material prices began to fall, inflation rose more slowly, and developers began to pick-up activity. Currently, the I&L sector is still performing well, despite a slight slowdown. Colliers experts predict that it will return to even better shape in 2023.

The manufacturing sector in CEE-12

The manufacturing sector in CEE-12 varies from country to country. According to Eurostat data, the largest turnover in the manufacturing sector in 2020 belonged to Poland, which accounted for about 38% of the total volume of CEE-12 countries, followed by the Czech Republic (19%) and in third place Hungary (12%). In terms of the share of manufacturing contract volume in gross demand since the beginning of 2018, the Czech Republic is the leader, with a share as high as 36%. In most cases, it is between 14% and 20%.

Manufacturing sector by turnover in selected CEE countries



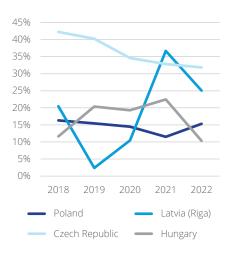
Source: Colliers based on Eurostat





Light manufacturing is usually located in commercial real estate, as often space in warehouse parks can realistically be quickly adapted for manufacturing or logistics and warehousing purposes. In the case of heavy manufacturing, there are cases where tenants locate in commercial real estate, but more often these are facilities built on the customer's property. Historically, most spaces for manufacturing were built proprietary because it involved the individual requirements of the users of that space. In the commercial sector, much of the manufacturing is located in large-scale BTS schemes, while leases in smaller modules in SBU and Last Mile Logistics facilities also occur.

Share of the manufacturing sector in demand in selected CEE capital cities and countries



Source: Colliers

According to Eurostat data, the most developed manufacturing sector in CEE-12 in 2020 in terms of turnover was automotive. Indeed, a number of clients have recently announced the opening of new factories in CEE-12, including Minth Group in Poland (components for Mercedes, Tesla and Renault will be manufactured here), BMW in Hungary and Volvo in Slovakia. In manufacturing real estate, the trend towards automotive is also evident. Its growth is strongly linked to the development of electromobility. Recently, the CEE-12 has seen a significant increase in inquiries from companies involved in the production The trend toward nearshoring, friend-shoring and reshoring may positively influence the speed of development of this segment in CEE-12.

of batteries used in electric cars. The trend for this sector should continue over the coming years. The second sector with the highest turnover in CEE-12 is food manufacturing.

In the manufacturing sector, owners and developers of commercial facilities note the occurrence of nearshoring, friend-shoring and reshoring. This is not the most leading trend in the market, but these phenomena have a real impact on the condition of the market. Increased interest in manufacturing space from Asian clients, mainly from China and South Korea, has also been noted.

Rental rates for manufacturing space are higher than for standard logistics and warehouse space. Contracts also tend to be for longer periods than standard and are often more than 10 years. This is due to the fact that most of the space leased in the market is being developed as BTS schemes, which are tailored to the needs of a given tenant.

Colliers analysts forecast that the manufacturing sector in CEE-12 countries will continue to grow significantly in the coming years. This is due in part to cheaper labour and lower rental rates than in Western European countries. While Western Europe is beginning to slowly run out of land for locating large-scale manufacturing facilities, the CEE-12 countries are characterized by a relatively high availability of such plots. The trend toward nearshoring, friend-shoring and reshoring may positively influence the speed of development of this segment in CEE-12.



Expert opinion

The last three years have been marked by changes and uncertainty - first due to the pandemic, and then the war in Ukraine. It has led to a new way of thinking about the industrial cycle and supply chain security. The consequence is a strengthening of the nearshoring phenomenon: companies are increasingly moving their production facilities closer to the end consumer. The Polish market, in particular, is benefiting greatly from this - its central location in Europe, developed infrastructure, and lower operational costs than in the West attract giants from many industries. The very high standard of implementation and flexibility of developers is also significant. Companies choose both, huge tailor-made spaces, or within parks and smaller speculative areas.

Industrial properties have been one of the most interesting investment assets for years. Tenant demand, strong rental growth, access to financing, and the stable foundations of the industrial and logistics sector made Poland/CEE a very attractive investment destination.



Robert Dobrzycki
CEO and co-owner of Panattoni Europe,
Panattoni UK and Panattoni India



Expert opinion

The current situation in the manufacturing segment is influenced by two key trends: an increasing pressure for sustainability and decarbonisation within manufacturing and the growing trend of nearshoring, where companies move part of their manufacturing and supply back to Europe. In that sense, industrial parks are unambiguously the future of the European economy, which we feel more acutely than ever before. The period of uncertainty caused first by the outbreak of the global pandemic and then by the war in the east of the continent has, I believe, made us a more enlightened society, which will be more self-sufficient in the fulfilment of basic needs. And we're not just talking about e-commerce and supply, but also about manufacturing, which is beginning to dominate in terms of its share of the industrial property sector.

In Accolade's portfolio, tenants from light production/manufacturing have a significant 30% share. This goes hand in hand with the dynamic development of not only traditional but also new industrial locations. By recognising the potential of these regions before they were fully realised, Accolade has become one of the pioneers of the most attractive zones in Central and Eastern Europe, such as Szczecin in Poland or the much-neglected Karlovy Vary region in the Czech Republic.



Lukas Repal *Chief Operating Officer, Accolade*

I&L Market in CEE-12: 2022

Czech Rep.		Prague
1.3 M	U/C	222,300
0.9 🔻	VAC	0.6
2.2 M ▼	DEM	623,500 🔺
7.5-7.9	REN	7.5-7.9
4.75	YIE	4.75
6.0-6.5	PRE	-
36	SHP	-

Legend



Total stock: Country

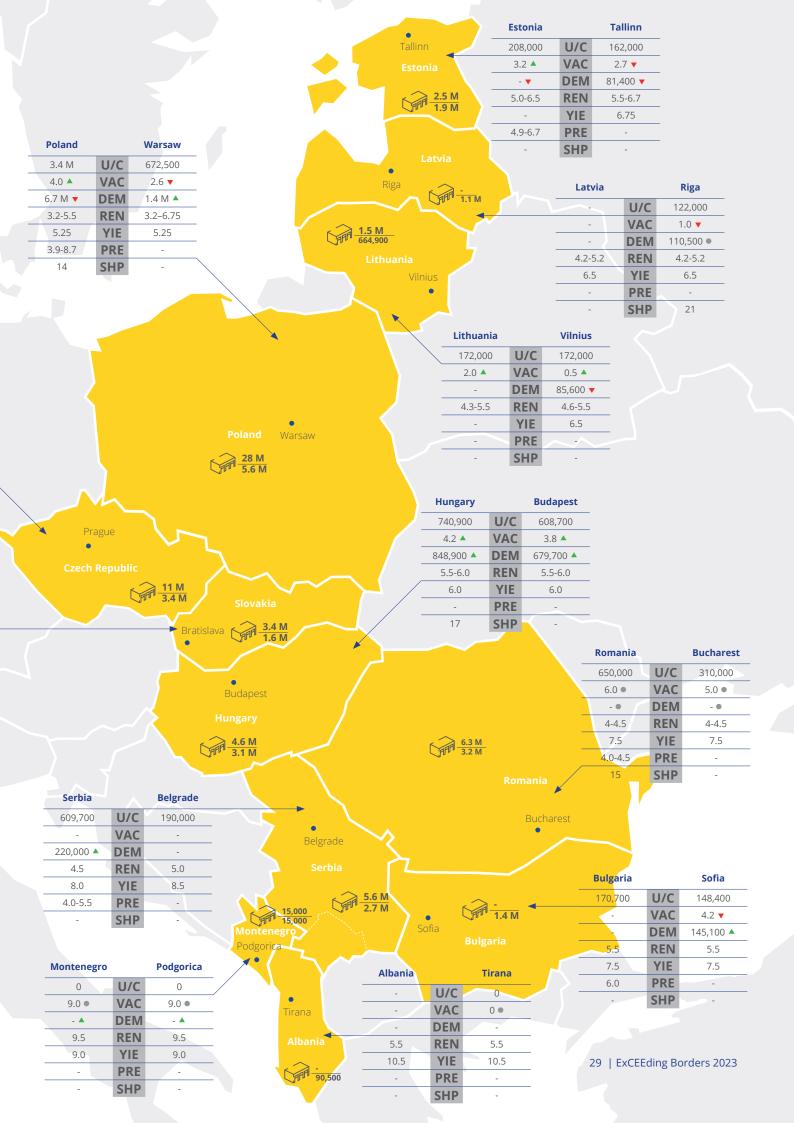
Total stock: Capital

Country / Capital City

Supply u/c (m²)	U/C
Vacancy rate (%)	VAC
Gross Demand (m²)	DEM
Prime headline rents (EUR/m²/month)	REN
Prime yields (%)	YIE
Headline rents for production space (EUR/m²/month)	PRE
Share of production space in demand since 2018 (%)	SHP

Slovakia		Bratislava
134,800	U/C	19,400
5.0 ▼	VAC	4.7 🔺
678,500 🔺	DEM	395,000 🔺
4.3-5.6	REN	4.9-5.6
6.5	YIE	5.85
5.0-6.2	PRE	-
_	SHP	_

Increase	A
Stable	•
Decrease	▼



Albania

Overview

Albania

Total stock (m²)

Supply U/C (m²)

Vacancy rate (%)

Gross Demand (m²)

Prime headline rents (EUR/m²/month)

5.5

Prime yields (%)

10.5



Tirana

Total stock (m²)

90,500

Supply U/C (m²)

Vacancy rate (%)

Gross Demand (m²)

Prime headline rents (EUR/m²/month)

5.5

Prime yields (%)

10.5





Market characteristics

Tirana's industrial market has developed significantly during the last decade, mostly along the Tirane-Durres highway. This segment is part of the area between Tirana-Durres- Elbasan, which is the busiest industrial segment with 60% of the privately owned companies in Albania operating in the area.

Currently, two Class-A industrial parks, Tirana Industrial and Tirana Logistics Parks, are located within a radius of 7 km from Tirana city centre and account for 90,500 sqm.

The remaining industrial stock consists of smallersized, stand-alone warehouses offering fewer amenities and lower-quality premises than the above-mentioned parks. In terms of geographical distribution, the area closer to Tirana is denser in stock, higher in quality and more expensive compared to the industrial area close to Durres.

Another area of interest, but of smaller importance, is the former industrial area on the outskirts of Tirana or the so-called Kombinati area. Here, former state-owned industrial properties have been privatized and renovated to create some stock along with new built industrial premises.

The continuous increase in supply of industrial premises in the suburbs of Tirana is a correlation of high demand, due to overall external inflationary pressures and increased transport costs and the need for corporates to diversify their production, suppliers and supply chain, especially after the Covid crisis. A significant part of the demand for industrial properties is generated by the textile, shoe & leather industries, which are labour intensive and require large spaces to produce and operate. Hence, we expect that demand from such industries will increase in the short run. Furthermore, ongoing major public investments, such as the Adriatic Ionian highway, the expansion of the port of Durres and new airports, are creating an environment for further development in the industrial sector. We have seen increased interest from foreign companies to establish operations in Albania. In terms of rental prices, we have registered a 10% price increase which can be attributed to the indexation of rents to annual inflation rates. In terms of rental prices for the suburbs of Tirana, such as Tirane-Vore zone and Tirana city - Kombinati area, these vary from EUR 2.2 per sqm/month to EUR 5.5 per sqm/month depending on their quality, size and location. The sector has seen a 15-20% increase of construction costs reflecting the external and internal market dynamics.

Bulgaria Overview

Bulgaria

Total stock (m²)

Supply U/C (m²)

170,700

Vacancy rate (%)

Gross Demand (m²)

Prime headline rents (EUR/m²/month)

5.5

Prime yields (%)

7.5



Total stock (m²)

1.4 M

Supply U/C (m²)

148,400

Vacancy rate (%)

4.2

Gross Demand (m²)

145,100

Prime headline rents (EUR/m²/month)

5.5

Prime yields (%)

7.5



Selected largest schemes under construction in 2022

Project name	Size (in m²)	
CTP Sofia West	41,200	
CTP Sofia East	26,600	
Zora Logistic Center	18,500	

Selected largest lease agreements in 2022

Project name	Tenant	Size (in m²)	Type of deal
CTP Sofia West	Lidl	40,000	Pre-lease
Retail park Vladimir Vazov	Delamode	10,800	New lease
Industrial Park Sofia East	Ozone	8,000	Expansion



Production data

Share of production lease agreements in the last 5 years (%)



Rental rates for production space (EUR/m²/month)



Top 3 industrial sectors by turnover



- Basic metals
- Food products
- Fabricated metal products, except machinery and equipment

Source: Colliers based on Eurostat

Market characteristics

Industrial space continues to be of interest to both investors and occupiers. Occupiers, however, are focused on the main markets such as Sofia and Plovdiv and price continues to play a dominant role in their decision whether to lease. Smaller spaces (100-500 sqm) are very liquid and sometimes their occupation is only a matter of days. The largest developer in the country is currently CTP, which has a significant pipeline in various stages of development. The service charge for occupiers has also been increasing in unison with rental rates. The latter has been rising due to a combination of stable demand and lack of product. Apart from CTP, there are very few speculative projects under development as most companies prefer to build or expand in their current location by themselves. There is a lot of outdated stock which does not match in any way to modern standards. However, it remains competitive due to its lower prices, location and availability.

Economic impact on the I&L market

There were only a few logistics projects completed in 2022, however, the current pipeline of projects under active construction is at a record-high rate. The war in February caused a sharp increase in construction costs which doubled from March to October and then began to normalize. This was the main cause of the smaller volume of completed stock and the lack of new construction starts throughout most of the year. For light manufacturing there are a lot of expansion demands, caused by the recovery of supply chain disruptions, the withdrawal of production factories from Asia and the relocation of orders from Ukraine, Belarus and Russia into the region. After a period of increased interest, industrial and logistics space recorded a lack of availability for occupation as there were no new major speculative projects under active construction. A moderate increase in rents occurred due to this, as well as increased construction and associated costs. In addition to that, there was a lack of investmentgrade product on the market, despite the increased demand.

ESG development on the I&L market

The COVID-19 pandemic has disrupted supply chains globally making ESG a frequently discussed topic. However, it is slow to make its way into real estate schemes. Tenants do not demand it yet and developers are not willing to invest too much into ESG practices due to its inflated costs of implementation.

Production sector

Amidst global uncertainties, Bulgaria's production sector has demonstrated its robustness. Despite the challenges posed by the COVID-19 pandemic, the industry has shown resilience and adapted to the new realities. As businesses recognize the country's strategic location, competitive costs, and access to international markets, there has been a moderate increase in investments in production facilities countrywide. The outlook for Bulgaria's industrial production sector is promising. The country's strategic location at the crossroads of Europe, its developed transportation network, and its competitive costs make it an attractive destination for businesses seeking to establish or expand their production facilities. Unfortunately, Bulgaria has lacked a stable government for the past two years so any state initiatives supporting industrial development, including tax incentives, streamlined regulations and infrastructure investments cannot contribute in any way to attract foreign investments. Sustainability and energy efficiency are becoming crucial considerations, attracting environmentally conscious businesses, which represent only a fraction for now.

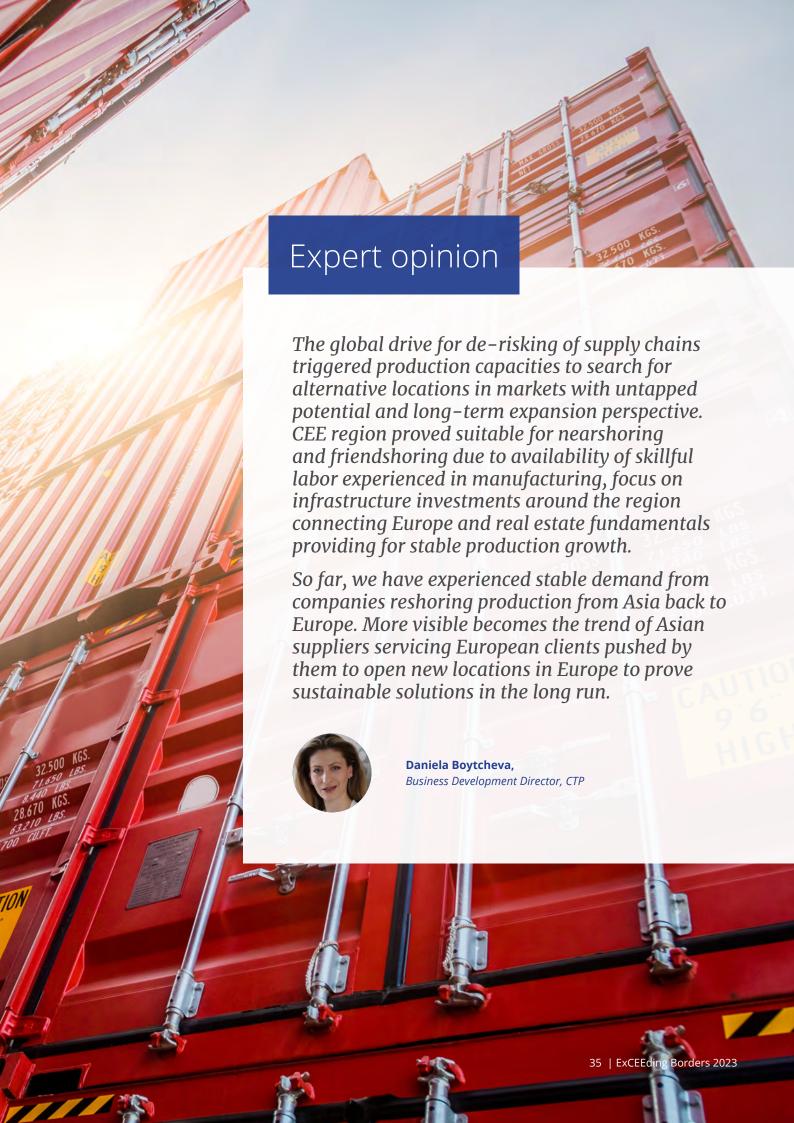
Among the most important production sectors in Bulgaria, we can include automotive, electronics and food processing.

The majority of production facilities are entirely owner-occupied with only a small share being leased long-term following a built-to-suit development. In the past few years, there have been some producers who have decided to sell and leaseback their premises.

Construction process time frames - production space







Czech Republic

Overview

Czech Rep.

Total stock (m²)

10.8 M

Supply U/C (m²)

1.2 M

Vacancy rate (%)

0.9

Gross Demand (m²)

2.2 M

Prime headline rents (EUR/m²/month)

7.5 - 7.9

Prime yields (%)

4.75



Prague

Total stock (m²)

3.4 M

Supply U/C (m²)

222,300

Vacancy rate (%)

0.6

Gross Demand (m²)

623,500

Prime headline rents (EUR/m²/month)

7.5 - 7.9

Prime yields (%)

4.75



Selected largest schemes under construction in 2022

Project name	Size (in m²)	
Panattoni Park Cheb	233,700	
Panattoni Pilsen Digital Park	102,000	
Logistické Centrum Přehýšov	85,400	

Selected largest lease agreements in 2022

Project name	Tenant	Size (in m²)	Type of deal
Panattoni Park Cheb	Confidential	233,700	pre-lease
Prologis Park Prague-Jirny	Globus	61,500	renegotiation
Panatoni Park Cheb East	Confidential	60,600	pre-lease



Production data

Share of production lease agreements in the last 5 years (%)



36

Rental rates for production space (EUR/m²/month)



6.0 - 6.5

Top 3 industrial sectors by turnover





- Machinery and equipment
- Computer, electronic and optical products

Source: Colliers based on Eurostat

The Czech industrial stock overtook 11 million sqm in Q1 2023, reaching another important milestone in development, as the construction boom continues – over 1.3 million sqm of new modern industrial space was under construction at the end of Q1 2023. In 2022, the demand stayed high and prices soared and peaked at just above EUR 7.50. Because of continuously low vacancy rates (around 1%) for the past year and a half, pre-leases dominated the market. The past two quarters saw a slowdown in leasing activity, as all actors in the market assess the impact of new economic realities on their operations.

Economic impact on the I&L market

The price increases in construction as well as overall had a direct impact on the rapid rental growth in the past 12 months but they were only a part of the story. Rents grew by 30% since the end of 2021, while yoy price inflation was just 17% yoy at year end. The low availability in the market has helped the rent increases overtake inflation. At this point though, the prime prices seem to appear too high for most tenants and we are expecting a slight rental decrease, also because of the unfavourable economic situation.

While financing and the situation in some companies got overall more challenging, the impacts are yet to be seen in the market. We are now observing a slowdown in leasing activity but not yet any major waves of tenants leaving or subleasing their spaces (there is only very anecdotal evidence). If there will be any such effects, we expect it to be more pronounced in H2.

ESG development on the I&L market

EGS in the I&L in CZ was a big topic at the end of 2021 and 2022. In 2022, most of the projects focused on alternative energy source solutions as effects

of price increases & war in Ukraine took place. But otherwise, the big developers in the market all took steps to create an ESG strategy before this and now, there is not much new activity in the market. Most of the newly constructed space is certified (BREEAM) and it has become a standard. Developers also use the BREEAM In-use certification to certify their older stock.

Production sector

In commercially leased warehouses, production companies take around 35% of total space annually. Most of the spaces are specialised for specific production and thus must be modified according to the occupiers' needs. Some share of the total facility footprints is also typically used for storage purposes. As the buildings tend to be atypical with their equipment, the property owners usually prefer longer leases for these built-to-suit projects (typically 10 to 15 years). As the development of production facilities is a bit more complex than with simple logistic/warehouse facilities, the whole development process (including permitting) could take a bit longer than with standard industrial buildings.

Traditionally, production companies preferred to occupy their own space. With the development of the I&L market in recent years, the dynamics has shifted, and we are seeing increased number of producers who prefer to lease their space. However, most manufacturing companies remain in the owner-occupied premises - due to the specificity of their needs and buildings. This naturally includes all A-class and B- to C-class properties. As we do not monitor this section of the market, there is unfortunately no way of knowing the precise numbers and market shares. This situation can be further disrupted by lack of available space and plots suitable for construction of new production facilities forcing the occupiers to look for another solution. Combined with cashflow aspects, market volatility and ownership preferences, this can lead to companies preferring leasing new space instead of owning it.





Expert opinion

The Czech Republic, due to its location and relatively lower labor costs, has traditionally been a focus for German companies or suppliers aiming to target Western European markets, which are already established in the region and seeking to strengthen their position in the Central European region. Based on our experience, production companies generally do not sign contracts shorter than 10 years. As a general rule of thumb, the higher the investment in technology within the building, the longer the lease term. It is common for the financial investment in new technology to be double or triple the price of the hall itself. This can be seen throughout the market, not only in the manufacturing sector. Companies are nowadays looking at how to optimize their business model and have to be prepared to invest in new technologies, robotics, and automation not only to improve their operations but also to mitigate labor shortages.

The discussion on the future is shaped in two main lines, automation on one and sustainability on the other. The discussions on ESG, PV panels on the roof, heat pumps instead of gas heaters, increased insulation, and an overall trend to minimize ${\rm CO}_2$ footprint have become part of almost every negotiation and construction on new industrial premises.



Štefan Bohoš, *Commercial Manager at Panattoni*

We are seeing increasing interest from manufacturing companies in our CTParks in response to world events such as the energy crisis and the conflict in Ukraine. Many companies are rethinking their strategies and planning to return or partially transfer production back to Europe. Central and Eastern Europe remains an attractive region for manufacturing companies due to its skilled, affordable workforce, modern and sustainable facilities and favourable business conditions. The growing trend of manufacturing companies relocating their plants to CEE continues to confirm the fact that it is a key region for manufacturing. We are ready to continue to support the development of the manufacturing sector and logistics companies and provide ideal conditions for our clients in our CTParks.



Jakub Kodr, *Head of Business Development, CTP Czech Republic*

Estonia

Overview

Estonia

Total stock (m²)

2.5 M

Supply U/C (m²)

208,000

Vacancy rate (%)

3.2

Gross Demand (m²)

Prime headline rents (EUR/m²/month)

5.0 - 6.5

Prime yields (%)



Total stock (m²)

1.9 M

Supply U/C (m²)

162,000

Vacancy rate (%)

2.7

Gross Demand (m²)

81,400

Prime headline rents (EUR/m²/month)

5.5 - 6.7

Prime yields (%)

6.75



Selected largest schemes under construction in 2022

Project name	Size (in m²)	
Makita Logistics Centre	25,000	
Rimi Logistics Centre	25,000	
EFG Farmacy Factory	19,300	

Selected largest lease agreements in 2022

Project name	Tenant	Size (in m²)	Type of deal
Rimi Logistics Centre	Rimi	25,000	Built-to-suit
Solina production facility	Solina	15,000	Built-to-suit
EST NORD production facility	EST NORD	9.000	Built-to-suit



Production data

Share of production lease agreements in the last 5 years (%)



Rental rates for production space (EUR/m²/month)

4.9 - 6.7



Top 3 industrial sectors by turnover





- Food products
- Fabricated metal products, except machinery and equipment

The industrial and logistics property market remained stable between 2020 and the first half of 2022 in terms of new developments, demand and vacancy. Due to growing construction costs, rent rates for newly built premises started to trend upwards since the second half of 2021 (starting from EUR 5.5 per sqm/month), and continued to climb further in 2022. As a result, tenants started to look more for existing buildings / older premises and/ or renew their lease agreements in their current locations, although at higher rents (EUR 5.8 - 6.5 per sqm/month), while vacancy fell to a record low level (below 3%) by the end of 2022. The majority of demand is generated by retailers (incl. grocery chains), service providers and distributors. 2022 saw an increase in leasing activity from the healthcare (both distribution and production) segment. By the end of 2022, the estimated total stock of modern industrial and logistics facilities in Tallinn and the Tallinn region exceeded 1.91 million sqm (of which 35% is speculative and 65% is BTS).

Economic impact on the I&L market

Rising construction, energy and utility costs, as well as disruptions to supply chains began to heavily impact asking rents for new premises in H1 2022, which in turn affected leasing and development activity in the segment. Starting from summer -autumn 2022, tenants started to reconsider their plans for 2022-2023 due to the increased construction and utility costs and overall high uncertainty on the market. Developers were also not ready to sign a lease agreement with fixed rental levels and expected prospective tenants to be flexible in rent negotiations / corrections in case of new developments. As a result, the number and volume of new projects started during Q2-Q3 2022 have eased, while some new development plans were put on hold.

ESG development on the I&L market

ESG in Estonia is slowly evolving. Attention to sustainable buildings, the green economy and energy saving issues are growing (especially in terms of utility costs), although still at a slow pace.

Production sector

Industry is the largest sector of the economy and an important driver of economic growth in Estonia. The sector deals predominantly in the production of food products, chemical products, textiles, machinery, equipment, electronics, oil shale energy and timber. In the Tallinn region, approximately 45% of production space is developed and continually occupied by owners. Bigger players (especially in the production of food products and wood products) mostly prefer the owner-occupation approach.

Share of total turnover in manufacturing and production:

- Production of wood and of products made of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (23.2% of the total turnover of manufacturing)
- Production of food products (12.7%)
- · Production of fabricated metal products, except machinery and equipment (10.7%)
- Production of computer, electronic and optical products (7.5%)
- Production of electrical equipment (5.5%)

In Tallinn region, approx. 45% of space in production is developed and continually occupied by owners. Bigger players (especially in the production of food products and wood products) mostly prefer the owner-occupation approach.

Developers see a potential in the production segment, but major threats / challenges are:

- · a decline in industrial production accelerated at the beginning of 2023.
- · High uncertainty on the market
- Growing prices energy, utilities, construction, labour
- · Labour and skills shortages
- Increased rents for newly built premises
- · Loss of competitiveness in the sector
- · Lack of available large vacant land plots in the Tallinn region





Hungary Overview

Hungary

Total stock (m²)

4.6 M

Supply U/C (m²)

740,900

Vacancy rate (%)

4.2

Gross Demand (m²)

848,900

Prime headline rents (EUR/m²/month)

5.5 - 6.0

Prime yields (%)

6.0



Total stock (m²)

3.1 M

Supply U/C (m²)

608,700

Vacancy rate (%)

3.8

Gross Demand (m²)

679,700

Prime headline rents (EUR/m²/month)

5.5 - 6.0

Prime yields (%)

6.0



Selected largest schemes under construction in 2022

Project name	Size (in m²)
CTPark Sziget	118,400
HelloParks Paty	58,400
HelloParks Maglod	46,000

Selected largest lease agreements in 2022

Project name	Tenant	Size (in m²)	Type of deal
CTPark Sziget	Confidential	118,400	pre-lease
CTPark Budapest West	Confidential	28,300	new lease
Prologis Park Budapest - Gyal	Syncreon	22,200	renewal



Production data

Share of production lease agreements in the last 5 years (%)



17

Rental rates for production space (EUR/m²/month)



Top 3 industrial sectors by turnover





- Computer, electronic and optical products
- Food products

High energy costs have made their impact felt in the case of logistics properties, leading to an increasing interest from investors and tenants (manufacturers) into green and energy-efficient logistics real estate. Increased demand for warehouses during 2022 was primarily driven by sectors related to the automotive industry and disruptions to supply chains. At the end of 2022, total net take-up in Budapest reached 526,800 sqm, surpassing the volume registered in the previous year by 20%. Currently, within the speculative industrial real estate stock outside of Budapest, 134 buildings can be identified, totalling 1.4 million sqm. The vacancy rate at the end of 2022 in Budapest and its surroundings was 3.9%, which means an increase of 0.8 pp. yoy, which is still low. In the case of big-box logistics parks along the highway, the vacancy rate is 3.8%, while in the case of city logistics, it is 4.5%. At the end of 2022, a total of 120,100 sqm of logistics space was vacant, of which, 5 buildings have vacant space exceeding 5,000 sqm. The countryside vacancy rate amounts to 5.0%. A total of 169,200 sgm of tenant demand was recorded in rural regions, which means an annual increase of 64%. Headline rents in Budapest and its surroundings for A-class big-box logistics buildings typically range from EUR 5.35 - 6.0 per sqm/month. In the case of existing, older, city logistics properties, rents are around EUR 4.9 -6.5 per sqm/month, while rents for new urban logistics developments are up to EUR 5.5 - 7.5 per sqm/month.

Economic impact on the I&L market

In 2022, the diminishing effects of the pandemic were felt in the I&L market, despite the Ukrainian-Russian war, and the increased financing, construction and energy costs, there was remarkable activity on both the supply and demand sides. Overall, it was one of the best-performing segments in the Hungarian real estate market. In parallel with the economic performance in 2022 (+4.6% GDP growth yoy), industrial production increased by 5.8%, but at the same time, car production,

and the production of electronic components (e.g. battery production), which has an increased role in the countryside industrial real estate market, were able to expand by 14.6% and 36% respectively.

ESG development on the I&L market

There has been an increased appreciation for the improvement of energy efficiency and the reduction of carbon footprints in case of industrial properties, both from the perspective of tenants and investors. This trend reflects the growing awareness and commitment towards sustainability and environmental responsibility in the industrial real estate sector. One of the international developers aim to make all of its developments carbon-neutral by 2025. By 2030, they plan to achieve the same goal in their operations, and by 2040, they aim to extend this objective to their entire supply chain. To achieve this, they envision gradually sourcing materials in a more localized manner to reduce the negative environmental impacts of transportation, which can also expedite their developments. However, there are challenges such as lengthy permitting processes and the emergence of material shortages due to the war. Nonetheless, alternative solutions have been identified for these material difficulties, but pricing remains highly volatile. This process is supported by the amendment of the construction law in 2021, which requires providing mechanical solutions for new buildings that guarantee a minimum of 25% renewable energy usage. This amendment has played a significant role in promoting the adoption of renewable energy sources and improving the overall energy efficiency of new constructions. By mandating the integration of renewable energy solutions, the law encourages the development of more sustainable and environmentally friendly buildings in Hungary.







in the demand for manufacturing space within Hungary. We are witnessing a substantial increase in inquiries from tenants in the manufacturing sector, surpassing those from the logistics sector. Particularly, there has been a surge in inquiries from the automotive industry, primarily focused on EV battery-related endeavors. Moreover, over 50% of CTP's business stems from our existing customers, who require additional space to accommodate their expanding operations. Our customers exhibit a preference for establishing their facilities in Europe, leading to a rising number of successfully executed projects. This shift towards Europe can be attributed to trends like nearshoring and friendshoring, alongside other influencing factors. Notably, there has been a significant rise in Chinese and Korean investors over the past few years.

At CTP, we maintain an optimistic outlook on the industrial and logistics market, which drives our ambitious expansion plans.



Ferenc Gondi *Managing Director, CTP Hungary*

Expert opinion

There is currently high demand for manufacturing space in Hungary. Most of Panattoni's requirement comes from this sector. Currently, the automotive and related sectors are growing rapidly in Hungary. There are several battery factories entering the country (such as CATL, SK or EVE), and suppliers of BMW, Mercedes and Audi are looking for new BTS opportunities. The Hungarian government is supporting the automotive and battery sectors with various benefits. Tenants are mainly opting for Big Box facilities, but we have recently seen more inquiries at Panattoni for smaller modules of 2,500 to 5,000 sqm. Compared to the logistics sector, the length of leases in manufacturing facilities is higher, ranging from 7 to even 15 years. In both the manufacturing and logistics sectors, rents are rising, but the market as a whole continues to grow.

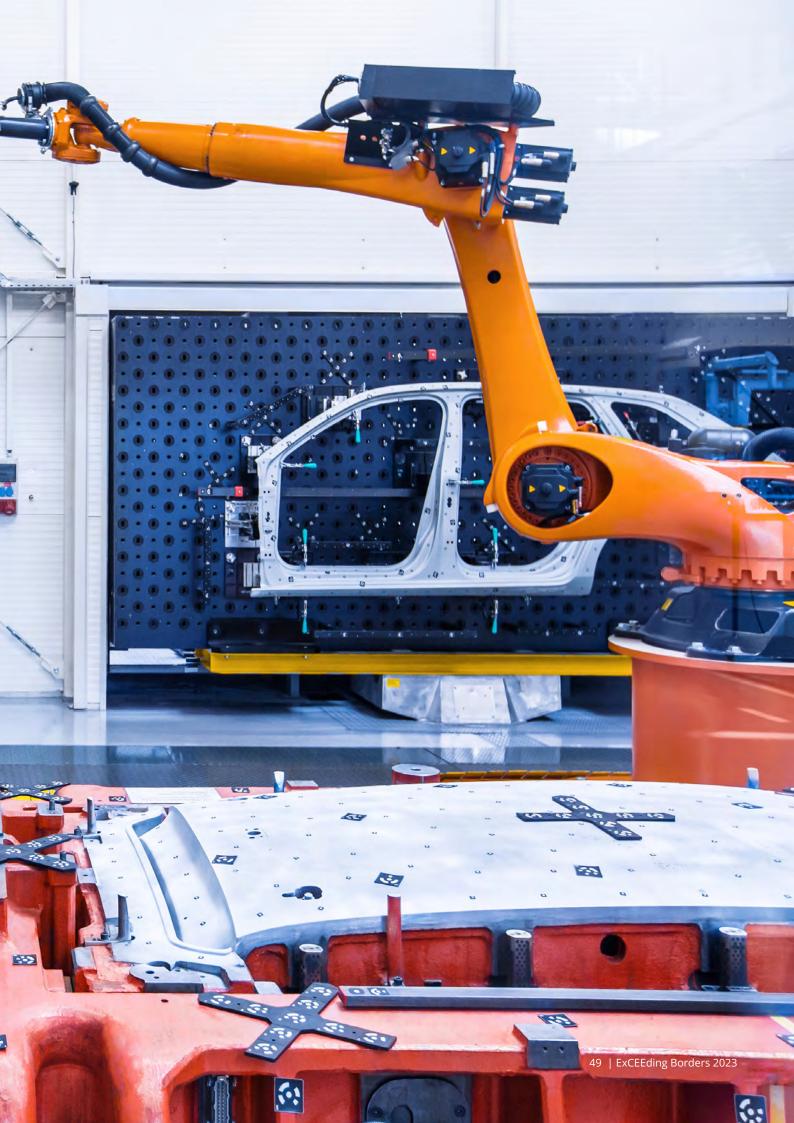


Mariann Tóth Leasing Director, Panattoni Hungary

At HelloParks, we have observed a growing demand for manufacturing spaces with substantial electricity requirements. These tenants prioritize buildings that meet ESG requirements. Our buildings are and will be certified as BREEAM Outstanding, and our goal is to achieve net zero-emission. Manufacturing tenants are not necessarily looking for large spaces (BigBoxes), but instead prefer buildings with lower internal heights, increased flexibility, and smaller units starting from 2,000 sqm. In comparison to the logistics sector, lease durations are generally longer, ranging from 8 to 15 years. We have noticed an increase in manufacturing tenant inquiries, predominantly from China and South Korea.



Istvan Pozderka Business Development Director, HelloParks



Latvia

Overview

Total stock (m ²)

Latvia

_

Supply U/C (m²)

Vacancy rate (%)

_

Gross Demand (m²)

-

Prime headline rents (EUR/m²/month)

4.2 - 5.2

Prime yields (%)

6.5

Riga

Total stock (m²)

1.1 M

Supply U/C (m²)

122,000

Vacancy rate (%)

1.0

Gross Demand (m²)

110,500

Prime headline rents (EUR/m²/month)

4.2 - 5.2

Prime yields (%)

6.5



Selected largest schemes under construction in 2022

Project name	Size (in m²)	
VGP Park Riga	41,000	
VGP Park Tiraines	28,000	
Rumbula Logistics Park III	25,000	

Selected largest lease agreements in 2022

Project name	Tenant	Size (in m²)	Type of deal
A6 Logistics Park	Latakko	20,000	Expansion
Dominante Park	Hallgruppen	8,600	New Occupation
Green Park I	Confidential	8,000	Relocation



The industrial RE segment in Riga continues to remain active. 81,000 sqm of new industrial premises entered the market in 2022 and the total stock is projected to expand by an additional 11% by the end of 2023. Low availability of vacant speculative premises and high demand in the market has led to unprecedentedly low vacancy rates, currently sitting at 1.0% for prime properties. As such, recent periods have seen a notable shift towards custom solutions and pre-lease deals with approximately 60% of the total area commissioned during 2022 being built-to-suit developments. Demand is driven by the relocations of existing tenants and the share of vacant premises within older developments is on the rise as newer, high-quality projects are being commissioned.

Economic impact on the I&L market

Several projects, which were scheduled to enter the market during 2022 have been delayed due to rising energy & development costs. However, as market conditions clear, development activity continues, and developers are actively moving forward with construction. Although leasing activity was temporarily disrupted during the start of 2022 due to the geopolitical and economic uncertainty surrounding the region, this did not leave any long-term effects on the industrial segment in Riga. High inflation and rising construction costs, coupled with strong demand, have had an upwards pressure on rental rates, especially in new developments, where the upper bounds of asking rates in prime objects have increased from EUR 4.7 - 5.2 per sqm/ month since the beginning of 2022.



Lithuania

Overview

Lithuania

Total stock (m²)

1.5 M

Supply U/C (m²)

172,000

Vacancy rate (%)

2.0

Gross Demand (m²)

-

Prime headline rents (EUR/m²/month)

4.3 - 5.5

Prime yields (%)

_



Total stock (m²)

664,900

Supply U/C (m²)

172,000

Vacancy rate (%)

0.5

Gross Demand (m²)

85,600

Prime headline rents (EUR/m²/month)

4.6 - 5.5

Prime yields (%)

6.5





At the end of 2022, the total modern industrial and logistics stock in Lithuania amounted to 1.77 million sqm, of which 52% was situated in the capital region, 28% in the Kaunas region, and 20% in the Klaipeda region. Overall, the Lithuanian industrial and logistics market in 2022 was the most active compared with all previous years in terms of new development. New supply in the country totalled 208,500 sqm. At the end of 2022, the pipeline of new warehouse buildings under construction in Lithuania stood at a record high of 230,100 sqm, while 2023 should be even more active in terms of commissioning than 2022. This shows strong confidence among developers in market activity. The significant size of stock under construction is due to delayed construction commissioning dates from projects which were proposed and with building permits from 2020-2022. The delayed project deadlines were caused by a disturbance in supply chains for building materials and the halting of some projects to due to uncertainty in the market, as well as an increase in interest rates and problems with obtaining building permits.

Currently, more new projects are in planning stages while construction of another 69,100 sqm is expected to start in the first half of 2023 by major developers if, in the current geopolitical and macroeconomic context, they are the ones who will be willing to take the initiative to start construction works.

However, after 2022, the most active year in terms of new project commissioning, the pipeline of new developments has been exhausted. The war in Ukraine and the sanctions placed on Russia and Belarus did not significantly affect the I&L industry. Overall, demand for warehousing slowed down slightly for several reasons: inflation in the region, declining consumer purchasing power, and an imbalance in trade and supply chains. However, the slowdown in trade turnover resulted in a need for more storage, so that warehouses remained very much in demand and vacancies reached an all-time low, as no significant market exits were registered.

In 2022, rental rates increased by more than 10% due to construction costs, increasing interest rates and supply shortages. Looking ahead, in Q1 2023, rental rates in all regions are expected to experience some slight increase of up to 5%, in line with indexation due to inflation. For the coming year, rents are expected to experience some small correction as, with abundant supply, slightly more moderate demand and expectations of a reduction in construction prices, we will see a more tenant-driven market. At the end of 2022, despite a challenging year, the Vilnius region saw vacancy levels remain at an almost non-existent 0.4%, while in the Kaunas region vacancy levels slightly increased to 3.0%, and in Klaipeda, vacancy decreased to 7.9%. Vacancies are expected to see an organic increase in 2023. The total take-up of warehouse premises, together with owner occupation, reached 89,750 sqm in the Vilnius region, 62,700 sqm in the Kaunas region and 45,800 sqm in the Klaipeda region.

Production data

Top 3 industrial sectors by turnover



- Food products
- Chemicals and chemicals products
- Furniture

Montenegro

Overview

Montenegro

Total stock (m²)

15,000

Supply U/C (m²)

Vacancy rate (%)

9.0

Gross Demand (m²)

Prime headline rents (EUR/m²/month)

9.5

Prime yields (%)

9.0



Total stock (m²)

15,000

Supply U/C (m²)

Vacancy rate (%)

9.0

Gross Demand (m²)

Prime headline rents (EUR/m²/month)

9.5

Prime yields (%)

9.0

DMIM.





Despite being geographically well located, Montenegro has a small I&L market. However, with the near completion of the new highway, connecting Montenegro with Serbia and Albania, and with access to the Port of Bar, foreign investors have been showing an increased interest in entering the market, resulting in a gradually increasing demand for additional distribution capacities.

Larger companies functioning in Montenegro have mostly invested in developing their own facilities, often by renovating or reconstructing former state-owned properties located in Podgorica, the capital of Montenegro.

The total modern I&L stock in Montenegro reached a level of 15,000 sqm at the end of 2022, with vacancy 9.0%. It is the smallest I&L market among the CEE-12 countries and currently, there is no space under development.

Due to its low volume the available space is being offered at high rental rates compared to other CEE-12 countries, reaching a level of EUR 9 per sqm/month.

While new investments in the I&L sector have been slow, overall economic performance has remained strong.



Poland

Overview

Poland

Total stock (m²)

28.0 M

Supply U/C (m²)

3.4 M

Vacancy rate (%)

4.0

Gross Demand (m²)

6.7 M

Prime headline rents (EUR/m²/month)

3.2 - 5.5

Prime yields (%)

5.25



Warsaw

Total stock (m²)

5.6 M

Supply U/C (m²)

672,500

Vacancy rate (%)

2.6

Gross Demand (m²)

1.4 M

Prime headline rents (EUR/m²/month)

3.2 - 6.75

Prime yields (%)

5.25



Selected largest schemes under construction in 2022

Project name	Size (in m²)	
Panattoni Park Poznań A2	144,000	
Hillwood Łódź Chocianowice	97,100	
Panattoni BTS Gorzyczki	82,800	

Selected largest lease agreements in 2022

Project name	Tenant	Size (in m²)	Type of deal
Panattoni Park Sulechów III	BestSecret	90,000	New lease
Panattoni BTS Poznań	H&M	82,000	New lease
Pan. P. Wrocław South Logistics Hub	DSV	75.300	New lease



Production data

Share of production lease agreements in the last 5 years (%)



14%

Rental rates for production space (EUR/m²/month)



6.0 - 6.5

Top 3 industrial sectors by turnover



· Motor vehicles, trailers and semi-trailers

Machinery

- and equipment
- Computer, electronic and optical products

The I&L market in Poland is the largest in the CEE-12 region. At the end of Q1 2023, the total supply of modern warehouse space in Poland reached almost 30 million sqm. Throughout last year, developers completed approximately 4.4 million sqm, which is the highest annual result in the history of the Polish I&L market. During the first quarter of 2023, the volume of new supply amounted to almost 1.9 million sqm. Meanwhile, the volume of space under construction reached approximately 2.2 million sqm, which means a decrease of 2.6 million sqm yoy. Since the beginning of 2022, the vacancy rate has been on an upward trend. In Q1 2023 it has reached 6.2%.

2022 was also marked by a high gross demand volume of 6.8 million sqm. In Q1 2023, it amounted to 1.2 million sqm, which was the lowest result since Q1 2020. In Q1 2023, approximately 49% of demand consisted of new lease agreements and 45% were renewals, while in the same period last year these shares were 66% and 27%, respectively. After high fluctuations in rental rates since the beginning of last year, the current year should see them stabilize.

Economic impact on the I&L market

The beginning of 2022 indicated a slow return of the Polish economy to its pre-pandemic condition. However, the Russian aggression in Ukraine and its consequences caused the need to revise all assumptions from the beginning of the year. High raw materials and fuel prices, disruptions in supply chains and the energy crisis and are just a few of the reasons that are significantly hampering Poland's economic growth. In 2022, gross domestic product in Poland was estimated at 5.1% yoy. During last year, an increase in inflation was observed from 9.4% yoy in January to 16.6% yoy in December. Interest rates rose as high as 6.75%. High inflationary pressures have affected yields in the I&L market and significantly increased rents. In addition, high interest rates and high requirements of financing entities have caused developers to opt for less and less new construction over the past year, resulting in a decline in the volume of space under construction.

ESG development on the I&L market

Recently, we can also observe a trend towards 'green' warehouses and factories. With rising energy prices and the current ESG trend, tenants and developers are increasingly investing in green solutions for their buildings. Photovoltaics are now the first of the green solutions tenants are asking for. One of the key issues limiting its installation on large-scale buildings is the load-bearing capacity of the roofs. In early 2023, Panattoni Park Szczecin III was the first I&L property in Poland to receive an "Outstanding" rating under the BREEAM system. The tightening of the EU's decarbonisation policy in Europe and the search for ways to save money by developers and tenants will result in the trend for a 'green' I&L market to continue.

Production sector

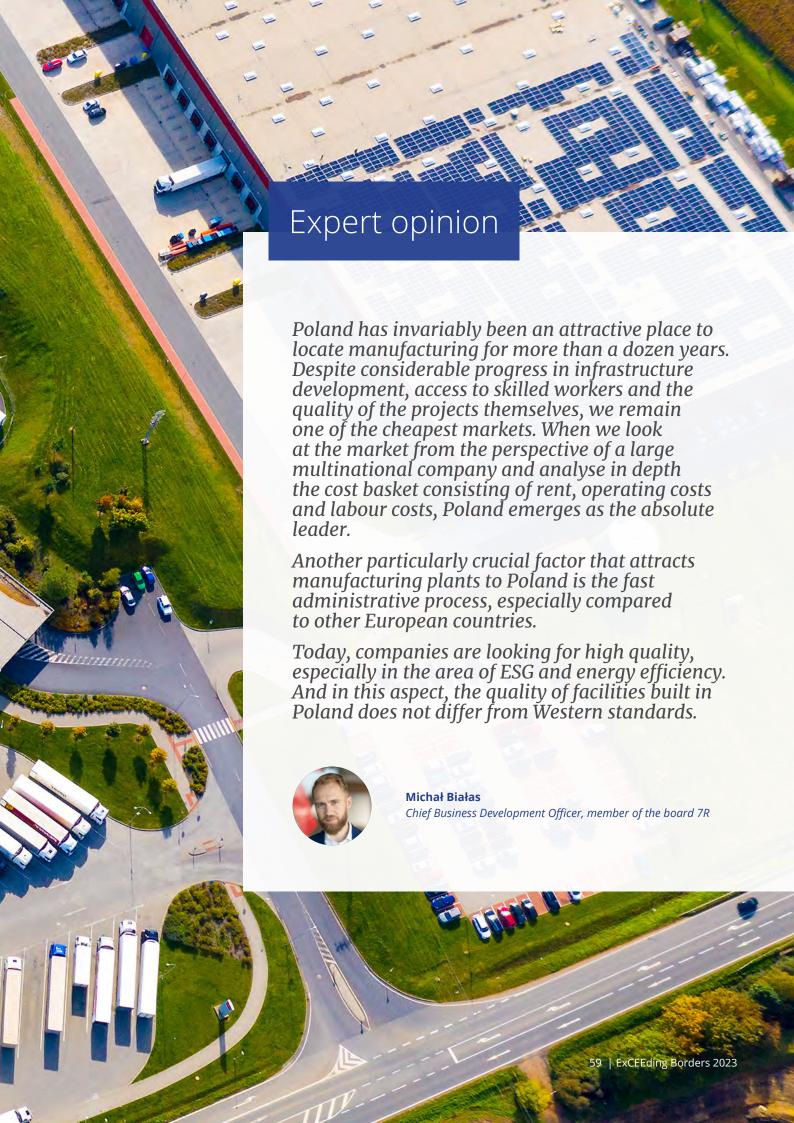
Since the beginning of 2018, the share of manufacturing tenant contracts in total gross demand has reached 14%. In Q1 2023 alone, it was 7.9%. Typically, tenants look for space that is as tailored to their operations as possible, so they opt mostly for BTS facilities.

Over the past five years, a considerable number of manufacturing tenants have chosen to locate in the Silesian, Wielkopolskie and Łódzkie voivodeships. Among the tenants that have chosen to locate new factories in Poland since 2018 are: Weber-Stephens, K-Flex, Tuopu, BSH, Rockwell Automation, Electrolux and Jingsung. The greatest interest in manufacturing space is shown by tenants from the automotive, FMCG and household appliances sectors.

Historically, I&L schemes were built for companies or by companies for ownership. Since the beginning of the 21st century, however, this trend has reversed, and more facilities are being built for lease. In terms of manufacturing, one particularly developed area in Poland is the Silesian voivodeship, where there are a substantial number of owner occupied manufacturing facilities, among which companies in the automotive sector are continually active.







Romania

Overview

Romania

Total stock (m²)

6.3 M

Supply U/C (m²)

650,000

Vacancy rate (%)

6.0

Gross Demand (m²)

Prime headline rents (EUR/m²/month)

4.0 - 4.5

Prime yields (%)

7.5



Total stock (m²)

3.2 M

Supply U/C (m²)

310,000

Vacancy rate (%)

5.0

Gross Demand (m²)

Prime headline rents (EUR/m²/month)

4.0 - 4.5

Prime yields (%)

7.5

JUJM.





Production data

Share of production lease agreements in the last 5 years (%)



15

Rental rates for production space (EUR/m²/month)



Top 3 industrial sectors by turnover



- Motor vehicles, trailers and semi-trailers
- Food products
- Coke and refined petroleum products

The I&L segment in Romania has been the most dynamic among major CRE sectors, with the overall stock of modern leasable warehouses more or less doubling in the last 5 years. This has been justified by several factors, mostly the severe undersupply that Romania had relative to the economy's fast pace of growth. Still, a growing trend has been that of Romania being increasingly regarded as a regional distribution hub by companies targeting the South-Eastern part of Europe, with a few even setting up shop to target larger areas. Growth in the I&L sector has been mostly focused on Bucharest and industry heavy regions (mostly in Transylvania, but also in other counties like Prahova or Dolj). Meanwhile, fresh investments in infrastructure might help open new areas of the country as viable destinations for logistics or manufacturing operations due to their lower labour costs. The supply gap that we mentioned prior still exists as a significant matter, allowing the stock to grow at a robust expanison of around 10% per year over the medium term, assuming no major economic corrections.

Economic impact on the I&L market

In general, the Romanian economy has been growing at a robust pace, with difficulties caused mostly by external demand for local goods, as internal consumer spending has been a bit more stable. That said, the overall inflationary backdrop and the subsequent higher interest rates have created an unstable backdrop and this uneasiness has fed into all facets of the economy, including the industrial real estate scene. A growing sense of caution has crept in from both developers and tenants, but as of mid-2023, there are no signs of a major negative shift.

Production sector

Romania's manufacturing sector is concentrated in automotive, as the country has two major car producers (Dacia and Ford), plus a plethora of

car parts producers that deliver distinct types of specialized products for vehicles assembled both locally and in other parts of Europe. Most of the production facilities are concentrated in a few areas of the country (notably around the cities of Ploiesti, Pitesti and Craiova, as well as in several parts of Transylvania). While labour costs offer an attractive prospect, Romania's profile has been weighed down by its subpar infrastructure when compared to large regional peers, though the story is set to improve if authorities continue to focus on current investments.

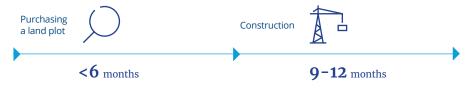
While the manufacturing of petroleum products remains the country's top sector by sheer size, the subsequent sectors are all tied to automotive, be they actual manufacturing of cars or manufacturing of electronics for cars, or various car parts.

A gross estimate would suggest that automotive makes up at least a quarter of the country's industrial output, but this figure is likely to be too conservative. Traditionally, Romania has had a robust heavy industrial sector, but this has been decreasing for some time; other major sectors are the manufacturing of food items, furniture, and appliances.

Historically, most production facilities have been owner occupied, with companies doing lighter industrial activities sometimes seeking to rent warehouses where they can do such operations.

ESG development on the I&L market

Despite the energy price shock easing and reversing, local I&L market participants remain keen on improving energy efficiency, as the short-term increase in costs is seen as clearly outweighed by the longer-term gains. It is worth noting that due to the country's EU membership status and the plethora of (large) international tenant companies, the ESG focus is arguably more or less comparable to other Western countries.







Serbia

Overview

Serbia

Total stock (m²)

5.6 M

Supply U/C (m²)

609,700

Vacancy rate (%)

Gross Demand (m²)

220,000

Prime headline rents (EUR/m²/month)

4.5

Prime yields (%)

8.0



Belgrade

Total stock (m²)

2.7 M

Supply U/C (m²)

190,000

Vacancy rate (%)

Gross Demand (m²)

Prime headline rents (EUR/m²/month)

5.0

Prime yields (%)

8.5



Selected largest schemes under construction in 2022

Project name	Size (in m²)	
Linglong	394,000	
CTPark Belgrade Center	136,000	
Kemoimpex	40,000	

Selected largest lease agreements in 2022

Project name	Tenant	Size (in m²)	Type of deal
CTPark Belgrade Center	Tehnomanija	55,000	expansion
CTP Park Kragujevac	Yanfeng	35,000	new lease
JPAI HOME	Euroroad	26,000	new lease



Production data

Share of production lease agreements in the last 5 years (%)



Rental rates for production space (EUR/m²/month)

4.0 - 5.5



Top 3 industrial sectors by turnover



- Food products
- Coke and refined petroleum products
- Rubber and plastic products

The I&L market in the whole of Serbia, and especially in the surroundings of Belgrade and neighbouring municipalities, showed significantly increased activity during 2022 compared to the previous period. The number of sqm of leased space is significant, so much so that it has now increased by 75% compared to 2021. The amount of new space delivered is not slowing down either. As a direct consequence of the high demand for modern warehouse space, rental levels have increased.

Economic impact on the I&L market

Although the economy in Serbia has slowed down (low GDP growth in the last quarter of 2022), it has not yet started to negatively affect the I&L market sector. One reason for this is the substantial number of foreign investors and tenants who consider Serbia a very favourable territory for investment. Moreover, this positive influence is translating to positive projections for the Serbian economy for the next period.

ESG development on the I&L market

Data on certified green buildings in Serbia show that the first building was registered for certification in 2010 under the LEED system, while the first certificate was received by the "Blue Center" building in Belgrade in 2013 under the BREEAM system. Today in Serbia we have 64 green buildings. Most of these buildings are located in New Belgrade. Today, more and more industrial projects are undergoing certification.

Slovakia

Overview

Slovakia

Total stock (m²)

3.4 M

Supply U/C (m²)

134,800

Vacancy rate (%)

5.0

Gross Demand (m²)

678,500

Prime headline rents (EUR/m²/month)

4.3 - 5.6

Prime yields (%)

6.5



Bratislava Total stock (m²)

1.6 M

Supply U/C (m²)

19,400

Vacancy rate (%)

4.7

Gross Demand (m²)

395,000

Prime headline rents (EUR/m²/month)

4.9 - 5.6

Prime yields (%)

5.85



Selected largest schemes under construction in 2022

Project name	Size (in m²)	
Piešťany - Garbe	18,000	
Trnava - CTP	14,000	
Nové Mesto - CROMWELL	11,800	

Selected largest lease agreements in 2022

Project name	Tenant	Size (in m²)	Type of deal
PNK Park Sereď	Groupe SEB	44,300	new lease
Prologis Park Senec	DM Drogerie	33,400	pre-lease
VGP Bernolákovo	Apollo Tyres	25.000	pre-lease



Production data

Share of production lease agreements in the last 5 years (%)



Rental rates for production space (EUR/m²/month)

5.0 - 6.2



Top 3 industrial sectors by turnover





- Fabricated metal products, except machinery and equipment
- Machinery and equipment

With rising construction costs, rental levels continue to rise and property owners lose their ability to offer rent guarantees. Tenant activity persists with the most sought after areas being prime locations in the Bratislava, Trnava, and Košice regions.

Economic impact on the I&L market

High-interest rates and inflation continue to contribute to significant increases in rental rates for I&L properties across the country. Low vacancy in Slovakia translates to more of a landlords market, which makes it difficult for the new tenants to find offers below the threshold of EUR 5.0 per sqm/month.

ESG development on the I&L market

Developers, especially the large international ones, are ready to fulfil the ESG requirements of tenants (including the provision of solar panels on the roofs, green space requirements, etc.) Compliance with the guidelines, however, comes at a price premium above any standard tenant improvement fee.

Production sector

The automotive industry remains a key source of demand. A considerable proportion of the recent activity is expected to be attributed to the EU-wide switch from traditional engines to electric vehicles, resulting in new entrants of electric vehicle supply chain players from Asia.

The Volvo Cars automotive group has announced that it will build its third production plant in Slovakia, near the city of Košice. The plant, estimated to employ over 3,300 people, is going to specialise in the production of electric vehicles, with a total output of 250,000 automobiles per year. Negotiations with supply chain producers are expected to start in 2024.

The main manufacturing sectors in Slovakia are:

- Machinery & Equipment: as one of the key pillars of the national economy, it is closely linked to the automotive industry, which is the highest accelerator of investments in Slovakia. There are 4 car producers currently represented in the country including Volkswagen, Kia, Stellantis, Jaguar Land Rover with the 5th entrant Volvo looking to start operations in Kosice in the upcoming years. Slovakia is producing the highest number of cars per capita in the world, with the automotive industry amounting to around 11% of the country's GDP.
- Electronics & Electrical Components Industry: The EECI is one of the strongest contributors to the country's GDP, plays a significant role in the industrial output, and is also one of the biggest employers in the country. The sector is concerned with both traditional electronics manufacturing and the latest trends especially connected to the growing automotive industry in Slovakia (electric motors, microelectronics, sensors) reflecting the ongoing shift towards e-mobility.
- Chemicals & Plastics: Slovakia has a strong tradition in all major segments of the chemical industry, including the refining of petroleum, production of chemicals, fertilizers, rubber and plastics. The portfolio of products is also influenced by the strong automotive and electronics sectors, which serve as constant, high-capacity clients.

There is no universal rule on the rent vs ownership decision amongst producers when it comes to industrial facilities, but compared to the logistics sector, the percentage of owner-occupied premises is significantly higher. The general breakdown for the market can be estimated at around 40% owned and 60% leased.

Market players from Germany, for example, normally prefer owning their premises or buying the facility out after the initial lease period. Some of the producers looking for industrial premises, additionally opt for preliminary comparison studies







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Manufacturing and warehousing sector in CEE-12

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