

108

REAL ESTATE
AGENCY

SUSTAINABILITY

IN INDUSTRIAL REAL ESTATE DEVELOPMENT AND INVESTMENT

CZECH REPUBLIC
2022

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REAL ESTATE

INTRODUCTION

The significance of sustainability has increased sharply during the past two years. With strongly rising energy prices, the focus on strengthening energy efficiency, decreasing energy consumption and opting for renewable energy sources in real estate has gained in importance. The Covid-19 pandemic has increased interest in the social pillar of the sustainability agenda pushing to provide healthy environment for workers.

There is a lot of talk about sustainability and ESG, but also still a lot of confusion. **Nevertheless, the narrative has changed from being a 'nice-to-have' benefit, to being a 'must have'.** Increased regulation, with respect to reporting, has forced companies to consider ESG in a more structured way. This also applies to the Czech real estate market. Nevertheless, **regulation is only one side of the coin.** The EU Taxonomy Regulation helps to increase transparency by setting common standards and avoids green-washing. There is also strong **pressure from financial markets, investors and consumers that want to invest into or buy sustainable products and services.**

This report looks at the **various ESG aspects from the design and construction stage of development, through operations, to investment in industrial real estate.**

We have assembled case studies of outstanding sustainable industrial developments in the Czech Republic. We looked at key sustainability linked trends in industrial real estate from developer and investor-point of view, which are inextricably linked. Future proofing assets, making them environmentally, socially and economically sustainable has a major impact on their value.

LENKA ŠINDELÁŘOVÁ

Capital Markets & Business Development
108 AGENCY



ESG

Despite being an intensively discussed topic of today, the three letters cause a lot of confusion and misunderstanding. The strongest emphasis is put on the E, while S&G have been mostly undervalued.



E as Environmental

According to the World Economic Forum report "Environmental Sustainability Principles for the Real Estate Industry", the real estate sector annually consumes over 40% of global energy, buildings produce 20% of global greenhouse gas emission and use 40% of raw materials.



S as Social

The social impact of real estate can be wide-ranging, from the contribution to well-being and health of employees working in the buildings, to supporting local communities in the vicinity of the properties and the development of affordable homes. At company level, supporting diversity and inclusion is also part of the social sustainability agenda. The impact of the building environment on human health and well-being are measured by the WELL and FITWELL certification systems.



G as Governance

refers to transparency, credibility in decision-making, pursuing integrity, diversity, fairness and accountability. It translates to dealings with business partners, employees as well as towards other stakeholders, the local community and society as a whole.



LEGAL FRAMEWORK

The legal regulation is one of the key drivers of the sustainability agenda. Key EU regulations and directives, which have implications for the real estate sector, are listed below. The aim is to provide clarity regarding what is coming up and the sector has to be prepared for.

Green Deal for Europe - Climate-neutral Europe by 2050 summarizes measures for the transition to a climate neutral, sustainable and circular economy. The Green Deal also includes the Investment Plan for the Green Deal, which envisages investments of min. 1 trillion EUR over the next decade to finance the transition to a climate-neutral European economy.

European Taxonomy Regulation was published mid-2020 representing a classification system, establishing a list of environmentally sustainable economic activities with the aim to better target investments financing sustainable net-zero transition and prevent green-washing. It sets out six objectives:

1. Climate change mitigation
2. Climate change adaptation
3. The sustainable use and protection of water and marine resources
4. The transition to a circular economy
5. Pollution prevention and control
6. The protection and restoration of biodiversity and ecosystem



Source: www.euinasean.eu/eu-green-deal

European Climate Law (package called Fit for 55) writes into law the goal set out in the European Green Deal for Europe's economy and society to become climate-neutral by 2050. The law also sets the intermediate target of reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels.

Regulation on sustainability-related disclosures in the financial services sector (SFDR) 2019/2088 has been valid since 2019, and applied since March 2021. It sets obligations for financial market participants to disclose information about their approach to integrating sustainability risks and the possible negative effects on sustainability. Sustainability risk is an event or situation in the environmental, social or governance areas that, if it occurs, could have a negative impact on the value of the investment. Since 2022, there has been an obligation to publish this information at product level. Therefore, this regulation has an impact on the investment funds investing in real estate as well.

Non-Financial Reporting Directive (NFRD) sets the requirement for large companies to publish reports on social and environmental topics. Large companies are defined as large listed companies, banks and insurance companies ('public interest entities') with more than 500 employees.

Corporate Sustainability Reporting Directive (CSRD) proposal was adopted on the 21st of April 2021. It extends the scope of the Non-Financial Reporting Directive to all large companies and all companies listed on regulated markets, except micro-enterprises. Companies will have to report according to new European standards (ESRS - European Sustainability Reporting Standards). Sustainability information will be subject to audit verification. Together with the CSRD, also a directive stipulating responsibility for the whole supply chain (also called value chain) is being prepared. The CSRD is expected to take effect from the 1st of January 2024. For companies using IFRS reporting standards, these reporting standards are currently being amended to include requirements on sustainability topics.

The Revised Directive on Sustainable Energy increases the overall binding target, 40% of the EU's energy mix should come from renewable sources, buildings should have at least 49% of energy by 2030 from renewable sources.

It also sets an increase in the use of renewable energy in heating and cooling by 1.1 percentage points.

The Energy Performance in Buildings Directive (EPBD) is an essential element of The Renovation Wave Strategy (MEMO) presented in October 2020, which sets out measures aiming to at least double the annual energy renovation rate by 2030. The EPBD (last version from 2018) is currently being revised and will set out audit and energy management responsibilities for larger companies. The aim of the directive is to reduce emissions in buildings by up to 60% by 2030 and promote building renovations whilst unifying basic rules.

It assumes that final consumption will fall by 14% and energy consumption by 18%. The proposal also includes an amendment to the rules on energy labels and a minimum standard. Rating A should correspond to zero-emission buildings, while rating G corresponds to 15% of the worst performing buildings in each country. Public and non-residential buildings will need to be improved to at least energy level F by 2027 and at least level E by 2030. Residential buildings should be renovated from G to at least F by 2030 and at least E by 2033. The EPBD requires that all new buildings, if technically feasible, cover 100% of energy consumption from renewable energy sources by 2030.



Garbe Park Chomutov

SUSTAINABLE DEVELOPMENT IN INDUSTRIAL REAL ESTATE



The first industrial green certified building in the Czech Republic was Hills Pet Nutrition in Hustopeče (LEED Gold) in 2010. Since then the certification progress was relatively slow, with individual buildings being certified first. The company LIKO-S constructed its production hall LIKO-V0 as the first „living production facility“ in 2019 with a green roof, green facade, retention lake and a root waste water treatment plant. The property is able to cool itself and also its surroundings by around 10%.



The progress accelerated from 2020, when developer CTP certified almost its entire portfolio of industrial buildings, which resulted in a strong increase in the total volume and share of certified buildings on stock.

Currently 49% of existing completed industrial stock is certified under a green building rating system (Q2 2022). Of the certified stock, 85% is certified In-Use. BREEAM is the dominant certification in the Czech Republic.

There are few of LEED certified projects, but these are mainly owner-occupied buildings such as Ingersoll-Rand Ovčáry or Hills Pet Nutrition building, Mondelez in Opava Vavrovice and Johnson Controls production plant in Česká Lípa.

LEED CERTIFIED INDUSTRIAL BUILDINGS

PROJECT NAME	CITY	CERTLEVEL	SIZE (SQ M)	CERTDATE
Ingersoll-Rand Ovčáry	Ovčáry, Kolín	Gold	30,165	3/18/2015
Hills Pet Nutrition	Hustopeče	Gold	34,145	8/20/2010
VGP Park Hrádek nad Nisou	Hrádek nad Nisou	Silver	14,587	7/20/2014
Hala Petra, Pardubice I. Phase	Pardubice	Silver	18,837	4/22/2021
JOHNSON CONTROLS production plant	Česká Lípa	Silver	19,317	7/10/2015
Mondelez CR, Hector Project	Opava - Vavrovice	Silver	49,337	10/27/2016
EAME Overhaul Reman Center	Žatec	Certified	15,637	1/31/2013

Source: www.usgbc.org/projects

PROJECTS WITH HIGHEST RATING - BREEAM OUTSTANDING CERTIFICATION

PROJECT	SCORE	CERTIFICATION TYPE
Kaufland E-commerce Cheb	90.7%	International 2016 New Construction
CTPark Prague East NU3	89.6%	In-Use
Prologis Park Prague Airport DC3	88.3%	International 2013 New Construction
Prologis Park Prague Rudná DC18_2	88.1%	International 2013 New Construction
Logistics Centre Lidl Buštěhrad	85.5%	In-Use

Source: www.greenbooklive.com

GREEN CERTIFICATION OF INDUSTRIAL STOCK, SQ M



Source: 108 AGENCY, H1 2022



KEY TRENDS IN SUSTAINABLE INDUSTRIAL DEVELOPMENT

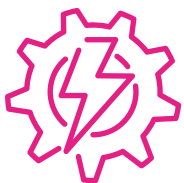


The year 2020 was a watershed year for Environmental, Social and Governance (ESG) as pandemic- and climate-related disruption, along with growing recognition of social inequity, prompted companies to adopt a more robust approach to sustainability-related risks. With ESG now playing a much more prominent role in how companies operate, they are much more strongly embedding ESG considerations into real estate decisions with regards to every aspect of the property, from building certification to work conditions and from CSR to governance.

ADAM TARGOWSKI, GROUP HEAD ESG MANAGEMENT, CTP

Industrial developers are responding to increasing demand of occupiers for sustainable developments and energy efficient solutions, which are helping to reduce operational costs for the building users. There are several key areas occupiers and developers are focusing at:

ENERGY MIX OPTIMISATION & SUSTAINABLE ENERGY SOURCES



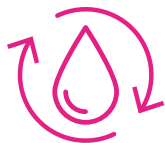
Due to rising costs of **energy**, energy efficiency and energy systems used in buildings are of major concern to tenants and building owners. Nevertheless, every solution has to be tailor-made to occupiers' individual needs, including photovoltaics. The new Amazon distribution centre in Kojetín uses **heat pumps in combination with photovoltaics**, which are an integral part of the property and the lease. The energy is consumed predominantly in the building. According to Panattoni, photovoltaics offers 20 times lower carbon footprint than energy produced from coal and 10 times lower than the standard energy mix in the Czech Republic.

Developers and owners of industrial assets are now preparing for photovoltaics installations in their portfolios. Excess energy can be supplied also back to the grid or used for EV charging stations to support sustainable transport of employees and company car fleets. Due to rising energy costs, the pay-back periods for photovoltaics and heat pumps have shortened as well. The economic sustainability of applied technologies should be verified by a life cycle assessment and economic studies.

According to Jan Pavlík, Energy Director of Accolade, **“By installing photovoltaics on the roofs of industrial building within our portfolio, up to 30% of energy consumed by tenants can be generated from our own green resources.** Accolade is planning to gradually phase out gas and install heat pumps and solar panels instead. Additionally, to the benefit of the environment, the current energy crisis has also shown economic and existential benefits of the green transition.”

P3, the developer and long-term owner of industrial assets, is providing systems of remote monitoring of energy consumption to tenants. This online solution provides increasing transparency and helps to optimise energy consumption.

WATER



Water management is another area, which industrial tenants are scrutinising. Also for smaller tenants smart water management solutions can translate into significant operational savings. Key measures include rainwater harvesting and its use for toilet flushing or watering greenery on site; reduction of water leakage and reductions of water use by flow restrictors. Water retention on the sites can be enhanced by planting greenery that helps to retain water or by creating green roofs.

CARBON FOOTPRINTING



A key trend is the increased demand for carbon footprinting. Tenants are starting to show interest in the **carbon footprint** of the properties and their operations. The carbon footprint agenda will inevitably increase in importance in the future. **Carbon footprint tracking and its subsequent optimisation will become a standard.** In industrial real estate, carbon footprinting of construction, operation and building technologies will be transferred into the products and services of the building users – the tenants – and hence will be of key concern to occupiers and investors alike.



Reducing embodied carbon in construction within building materials is currently challenging. Few suppliers produce construction materials with certificates that tell developers about their carbon footprint, so embodied carbon is easy to measure. Currently, there are no effective solutions for recycled concrete for our business. Czech legislation, in some ways, also hampers progress by enforcing thick insulation of buildings where sometimes it would not be entirely necessary. However, there are some effective steps developers can already take to reduce emissions on construction sites, for instance, by measuring and addressing the CO₂ produced by the transport of building materials. This has helped to reduce construction emissions.

PAVEL FOJTÍK, SUSTAINABILITY MANAGER CZ, PANATTONI

BROWNFIELD REGENERATION & BIO-DIVERSITY



With decreasing availability of land and its rising cost, brownfield regeneration has become not just an environmentally sustainable solution but also an increasingly economically sustainable solution as well.

Green roofs and green facades, planting greenery on site as well as providing habitat for local species and insects are features helping to improve bio-diversity and improving well-being for workers and local community. Additionally, these measures are also preventing heat-island effects and aiding water retention on site.

CASE STUDIES

REAL DIGITAL CHEB (KAUFLAND E-COMMERCE)

Developer: Panattoni CZ

Investor: Accolade

BREEAM®
OUTSTANDING

The 27,000 sq m property has obtained **BREEAM Outstanding** rating with a record score of **90.68%**. It is thus the most environmentally friendly industrial building in the world according to the BREEAM 2016 New Construction standards.

The Property is situated on a brownfield of a former manufacturing plant in Cheb. The city cycle path was extended to connect to the industrial complex, an outdoor gym for employees was installed, together with an outdoor resting place. A beetle loggery was created, local bio-diversity was supported by planting indigenous vegetation.

KEY FEATURES

- + **Implementation of the rainwater toilet flushing system, implemented despite complications connected with the installation of the tank in the local area**
- + **Over 90% of waste from demolition and construction was diverted from landfills. Concrete and bricks were sorted and crushed to the required parameters directly on the construction site by using special crushers. This also decreased transport emissions. Materials were then tested and most of the demolition waste could become a building material again**
- + **Use of materials, finishes, and fittings with low levels of TVOC and formaldehyde emissions**
- + **Large openable windows in the office areas, and thermal comfort features**

KEY RESULTS

- + **The daily consumption of drinking water has been reduced by 83.88% referred to the baseline thanks to the installed rainwater flushing system**
- + **Primary energy consumption has been reduced by 55.61% referred to the baseline**
- + **CO2 emission rate of the building has been reduced by 57.88% referred to the baseline**
- + **Around 12% of installed materials used ISO 14001, BES or FSC certificates**



CASE STUDIES

LOGPORT PRAGUE WEST, JINOČANY

Developer: Logport
Logspace (22,862 sq m)
Logbox (17,674 sq m)

This under construction project combines logistics space, smaller units and retail spaces in a business park concept. The project should be the first achieving both **BREEAM New Construction** and **BREEAM In Use certification** simultaneously with the level Excellent.

KEY FEATURES

- + Solar panels on the roof, which will cover 100% of the energy consumption of the tenant, they are integral part of the building and part of its technical specification, all energy created is used by the tenant
- + Water retention tanks are placed under each building
- + 80% of water consumption will be covered by own wells. The mineral rich water from the wells will be treated in the water reservoir
- + The park will have its own water cleaning station
- + Out of 320 parking spaces, 90 will be dedicated for EVs, 14 will be fast-charging
- + 3 cycle paths running through the park
- + Green facades will decrease the heat island effect





CASE STUDIES

CTPARK PRAGUE WEST, BUILDING CHR2

Developer and owner: CTP

In CTPark Prague West, CTP Invest recently handed over the building CHR2 to the logistics company, Rhenus. It is **expected to achieve BREEAM Outstanding**, with a score of around 95%. The building incorporates technologies for reducing water waste, monitoring systems for water leaks and usage, LED lighting, FSC & EPD certified materials including timber, low-emission heating and cooling systems etc.

It was constructed using a sustainable procurement plan, with biological supervision during construction. Water retention, charging stations for electric vehicles, bike shelters as well as green outdoor areas for employees are included outside the building.





SUSTAINABLE INVESTMENT IN INDUSTRIAL REAL ESTATE

The analysis of ESG has evolved into an important factor of real estate investment decision making and ESG audits are becoming an integral part of the due diligence process. Also, for industrial investors following ESG criteria, it has evolved from a 'nice to have' to a 'must have'. Energy efficiency of the buildings is scrutinised and CapEx requirements for green retrofitting are included into investment considerations. A „non-green discount” has also occurred in investment transaction negotiations. Rating systems are being used by investors to evaluate prospective investments. By doing so, investors are seeking to minimise risk by **opting for future-proof assets**.

The portfolio of the Accolade Industrial Fund is 100% BREEAM certified. Accolade committed to ensuring that all of its new buildings will achieve BREEAM Excellent rating as a minimum, the second highest possible level. The share of brownfield revitalisations increased to 35% of this industrial investor's portfolio reaching a total of 870,000 sq m.

Jan Pavlík, Energy Director Accolade, confirms that the market is currently at the starting position. From the rather voluntary disclosure of ESG information, moving towards tougher requirements under SFDR regulation, investors and banks will be pushed further.



For investors, building efficiency measures play an important role, as do our own company's activities, regarding climate transition risks. As we build to own and manage long term, and not to build and sell or trade, we have a long-term investment horizon.

ADAM TARGOWSKI, CTP



Sustainable industrial properties have demonstrated **higher levels of occupancy and tenant retention, with higher rental levels achieved. All this has a direct impact on the value of the investment. This is reinforced by lower CapEx requirements** for future proofing or retrofitting of the assets. All the aforementioned aspects contribute to higher liquidity of the product in the investment market.

A common goal for **new developments to obtain at least BREEAM Excellent and the older stock to achieve at least BREEAM Very Good** is also confirmed by David Svoboda, Head of Asset Management Czech Republic & Slovakia Cromwell Property Group. As well as dealing with waste and rain water, energy balance, green certification, green roofs, facades and well-being features for tenants, Cromwell will assess the possibilities to decouple from gas heating and opt for alternative sources due to current energy crisis. The aim is to become zero-carbon by 2040 and have at least two photovoltaics in operation by 2025.

Investors are increasingly motivated to go green by the necessity to obtain financing for their acquisitions.

The banking sector has transformed significantly due to tightening regulations and banks are looking to increase their exposure to green clients and green assets, while decreasing their exposure to „non-green“, „brown“ clients. Since mid-2021 banks are obliged to evaluate ESG impacts for new loans and for revaluations. Since mid-2022 this obligation is extended to the entire portfolio. The ESG rating is part of the complex rating of the client.

Some banks are currently only providing financing for green projects or for green retrofitting, which has to be thoroughly monitored and reported. Green certifications are required for financing of new projects. Some banks are providing a favourable green rate for financing green projects. Over the last couple years, green bonds have been used by some large players in the market to finance and re-finance their portfolios, as was done by CTP in 2020 and 2021.



OPPORTUNITIES AND CHALLENGES



The **carbon footprint agenda** will inevitably increase in importance and carbon footprint tracking and subsequent optimisation will become standard.



Collection and analysis of structured data about the building and its operation will enable predictions and optimisation of the operation. It will be further utilised to cut the carbon footprint, increase energy efficiency and increase well-being of building users.



Progress is likely in the area of **building materials and their recycling**.



A key challenge and obstacle in building towards a more sustainable and greener future is the complexity, length and rigidity of the Czech construction approval process, including for example, problems in approving roof-top photovoltaics or water wells and so on.

DAVID VAIS, CEO LOGPORT

To **avoid green-washing and to enable a like-for-like comparison** for banks, investors and tenants clear reporting frameworks are necessary. The EU Taxonomy is a step in the right direction, however markets will need to adjust. There are also various tools available, which make transparent portfolio reporting possible such as GRESB. It includes ESG benchmarks and a reporting framework.

ESG undoubtedly **impacts the value of real estate**. In particular, investors which have a long-term holding strategy see the strongest pay-off of sustainability investments. The impact on property valuations is being discussed heavily in the real estate industry.

However, there is no unified and structured approach as how to reflect this in property valuations. This is likely to improve going forward, as the wealth of ESG data and benchmarks will grow. According to the RICS Sustainability Report 2022 Survey: “Almost three-fifths of Europe-based contributors report that buildings not classed as green or sustainable are subject to a discount in rents and prices. A third suggest the discount is likely to be up to 10%, while around a quarter suggest that it could be higher. Around 55% also noted that the gap in rents between green and non-green buildings has widened.”¹

CTPark Prague East



Major challenge still has limited impact on valuation. When ESG will be properly modelled into valuations, the business case will be clearer in all fields.

ADAM TARGOWSKI, CTP

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