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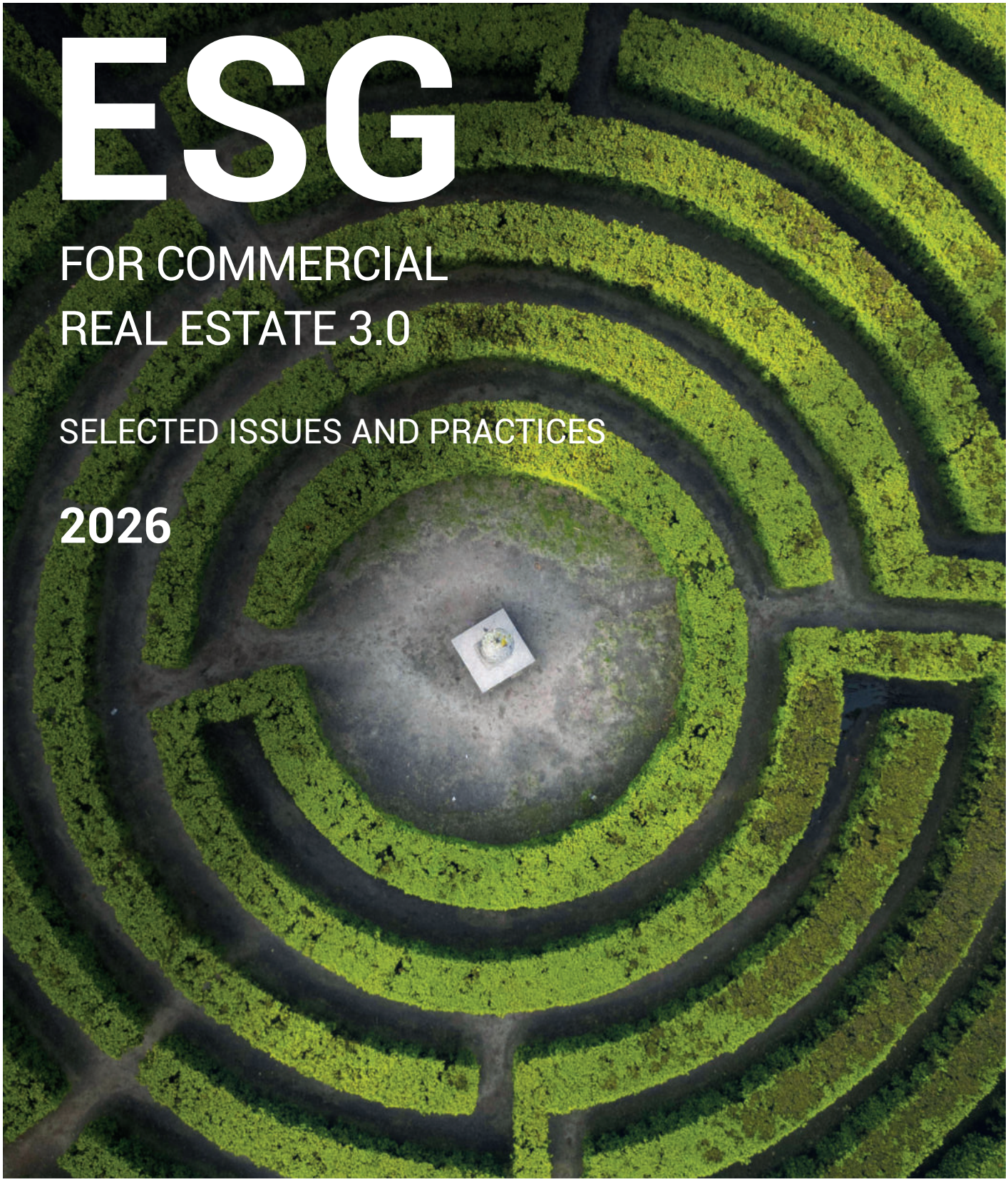

ESG

FOR COMMERCIAL REAL ESTATE 3.0

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In recent years, ESG has become one of the key reference points for investors, developers, property managers, and tenants. Today, however, it is increasingly clear that its role goes far beyond reporting obligations. ESG is becoming a tool for risk management, value creation and shaping the future of cities. The ESG for Commercial Real Estate 3.0 publication was developed at this very moment of transformation – as an attempt to structure the most important challenges, trends, and directions of change in the commercial real estate market.

This publication is the result of cooperation between four organisations that have long helped shape market standards: the Polish Chamber of Commercial Real Estate (PINK), the Polish Council of Shopping Centres (PRCH), the Royal Institution of Chartered Surveyors (RICS) and the Urban Land Institute (ULI). Bringing together the experience of investors, property owners, managers, and market experts has made it possible to present a multidimensional picture of the sector's transformation.

The authors of the study demonstrate that ESG is increasingly influencing fundamental business decisions – from managing climate risks within real estate portfolios, through the decarbonisation of existing buildings, to the development of new zero-emission assets. New operating models are also gaining importance, including the circular economy and the redefinition of real estate as a form of social infrastructure.

The publication also analyses the evolving regulatory landscape, including the development of European ESG regulations and the EU Taxonomy. At the same time, it highlights the growing role of data, technology, and cooperation between building owners, tenants, and technology providers in enabling the sector's transformation.

This publication would not have been possible without the involvement of partners and sponsors representing various segments of the real estate market. Their experience demonstrates that ESG transformation is no longer merely a strategic concept but is increasingly becoming an everyday business practice.

We present this compendium not only as a review of the most important trends, but also as a practical guide to the directions of change that are already shaping the future of the real estate market.

Anna Jarzębowska
Expert at
Polish Chamber of
Commercial Real Estate

Climate Risk Assessment and ESG Risk Management in Real Estate

Climate hazard risk varies with property type and depends largely on the property's location and resilience. A climate risk assessment is essential for analysing a property's compliance with the EU Taxonomy and is increasingly required by banks, insurers, and investors. A climate risk assessment is also mandatory for tenants, owners, and investors who must report under the Corporate Sustainability Reporting Directive (CSRD).

According to the European Environment Agency (EEA, 2024), extreme weather events caused economic losses to assets in the European Union estimated at €738 billion between 1980 and 2023, of which over €162 billion (22%) occurred between 2021 and 2023. According to the EEA, the last three years are among the five years with the highest annual economic losses caused by natural phenomena.

The growing risk for commercial real estate

Between 2016 and 2021, insurance companies reported 273 events to the Polish Financial Supervision Authority (KNF) that they assessed as catastrophic and paid PLN 3.622 billion in compensation. In 2021 alone, the value of claims paid for natural disasters amounted to PLN 994 million, the majority of which – PLN 970 million – was allocated to cover damage caused by torrential rains, flooding, storms, hail, and hurricanes.

According to the International Labor Organization, the world will lose the equivalent of 80 million full-time jobs (2.2% of global working hours) by 2030 due to heatwaves. This translates to a loss of $2.4 trillion annually.

Climate change has become a significant threat affecting the commercial real estate sector. Extreme weather phenomena that previously did not affect some regions, are now becoming increasingly common in Poland. Physical risks such as flash floods, droughts, and storms are leading to increased in-

vestment, insurance, and property operating costs. According to data from the report: Climate Change: Implications for Offices (CBRE 2024), the costs associated with these events in the European Union exceeded €163 billion between 2021 and 2023.

Additionally, the effects of climate change impact the attractiveness of buildings for tenants, their financial liquidity, and their market value. According to the 2024 European Office Tenant Sentiment Survey (CBRE 2024), over 40% of organisations say that office location decisions are based on the property's resilience to climate change-related risk and plans for a low-emission, environmentally sustainable transition. In response to these challenges, real estate investors and managers are implementing strategies and actions to mitigate risk and adapt to the impacts of climate change.

What do we mean by climate change and climate risk?

Climate change is the exponential increase in global atmospheric temperature since the time of the industrial revolution, resulting from greenhouse gas emissions and the rising concentration of carbon dioxide in the atmosphere (also referred to as global warming).

Average surface temperatures of the Earth have already risen by more than one degree Celsius compared to pre-industrial levels. From January to December 2023, they were the highest since standardised global measurements began in 1850. In Poland, 2024 ended with an anomalous average annual temperature of +2.3°C, breaking the 2019 record.

The IPCC report, published in August 2021, provided clear evidence of changing weather patterns and, for the first time, proved that human activity has contributed to the more frequent and severe occurrence of extreme climate events, such as heatwaves, droughts, torrential rains, floods, and extreme hurricanes. Global warming has already led to irreversible changes that will last for centuries, such as a rise in the sea level and the extinction of marine species. These conclusions are echoed in the latest

ESG RISK ASSESSMENT

Risk assessment is most often carried out based on the classification proposed in the European Union Taxonomy, which divides the main climate-related hazards into four categories:

1. temperature-related risks, such as heat waves, which can strain building cooling systems
2. wind-related risks, such as hurricanes and severe storms, including hailstorms. These risks can lead to, among other things, roof damage and the wind carrying away of unsecured objects
3. water-related risks, such as floods caused by river overflows and heavy rainfall, leading to local flooding
4. soil-related risks, arising from the geological structure of land, the topography and type of terrain, such as soil erosion, subsidence, landslides, and avalanches

IPCC report (Climate Change 2023, AR6), in which scientists warn that without immediate changes, the allowable limit of +1.5°C of warming will likely be exceeded by 2040.

According to The Global Risk Report 2025 (World Economic Forum, 2025), within the next 10 years, five out of the 10 most severe risks, ranked by impact and severity, will be environmentally related. Extreme weather events are anticipated to pose the greatest threat, given the most likely severity of their impact.

Climate-related physical hazards are divided into:

- **acute events**, i.e. extreme weather phenomena (e.g. floods, natural forest fires, storms, including hailstorms and torrential rains, tropical cyclones, hurricanes and typhoons, landslides, droughts, cold waves and heat waves);
- **chronic events**, i.e. anomalies developing over longer periods and associated with gradual climate change (e.g. a steady, long-term increase in average global temperatures, species extinctions, loss of biodiversity on Earth, and sea level rises).

It's important to understand the difference between acute and chronic hazards, as different strategies are required to manage and mitigate them. Acute hazards require emergency response plans and procedures, as well as insurance. Chronic hazards require long-term planning and adaptive measures, such as infrastructure upgrades.

The process of physical climate risks assessment in real estate

Physical climate risk refers to the potential physical damage and financial losses caused by increasing exposure to climate-related hazards. It is determined by the level of a building's exposure to a given hazard (derived from the probability of the hazard occurring and its impact on the property) and the building's resilience to the hazard.

For example, river flood risk, regarding the potential financial losses to assets resulting from flooding, will be determined based on an assessment of the likelihood and severity of flooding, as well as the level of mitigation measures in place to protect against this threat.

The goal of physical climate risk assessment is to enable individual properties or assets across the portfolio to achieve climate resilience by identifying and understanding the climate risk arising from the three factors mentioned above.

Risk assessments are most often carried out based on the classification proposed in the European Union Taxonomy, which divides the main climate-related hazards into four categories:

- temperature-related risks, such as heat waves, which can strain building cooling systems,
- wind-related risks, such as hurricanes and severe storms, including hailstorms. These risks can lead to, among other things, roof damage and the wind carrying away of unsecured objects,
- water-related risks, such as floods caused by river overflows and heavy rainfall, leading to local flooding,
- soil-related risks, arising from the geological structure of land, the topography and type of terrain, such as soil erosion, subsidence, landslides, and avalanches.

Developing effective adaptation strategies and protecting buildings from the long-term consequences of climate change requires incorporating these factors into a company's risk management strategy. An effective and well-conducted climate risk assessment process includes:

- assessment of the probability of climate change-related hazards in several climate risk scenarios and time horizons, based on climate models and maps, and historical databases;
- assessment of the building exposure to climate hazards and its resilience, as a result of the technological and architectural solutions used;
- risk assessment and adaptation plan, including recommendations for mitigation measures. ◢

Bartosz Silczak
Director of the ESG Risk Office,
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Krajowego

Climate Change and Climate Risk Impacts on Real Estate: the Banking Perspective

Climate change exerts an increasingly significant impact on the real estate sector, which, from a banking perspective, necessitates in-depth analysis and changes to financing procedures.

The floods that occurred in Poland in September 2024 had a profound effect on the business sector. According to data from the Polish Waters report, the total losses and expenditure related to this event were in excess of PLN 13 billion. This figure includes the costs of repairing water engineering structures and roads, the emergency and protective measures taken, and the losses incurred by households, local governments, and businesses. According to the preliminary data from regional authorities the damage to infrastructure in the three most severely affected regions came to over PLN 4.2 billion, with Lower Silesia alone accounting for damage of at least PLN 3.8 billion.

For banks that provide corporate financing, the financial consequences of the floods translate into increased risk due to the deteriorating creditworthiness of SMEs and large corporations. Infrastructure damage, disrupted supply chains, repairs, and liquidity loss are all factors behind delays to repayments and rising insolvency rates.

Beyond the floods, severe winds, storms, and hailstorms can also have major consequences, and accounted for 65% of all catastrophic losses in 2024. Such events lead to increased costs resulting from repairs to production halls, damage to power lines, and disruptions to business operations. Droughts, which are becoming more frequent, longer, and more severe in Poland, contribute to falling groundwater levels, and pose challenges for manufacturing and energy companies.

For banks, this translates into a need to conduct climate risk analyses and a tightening of lending conditions for businesses located in high-risk areas. Banks' climate risk assessments can be divided into three main categories: collateral assessment, transaction-level analysis and portfolio-level analysis.

In collateral valuation, climate risk is considered through enhanced prudence and ESG factor analysis, which may reduce property values over the long term. Basel IV (CRR3) regulations require qualified

> ***The floods that occurred in Poland in September 2024 had a profound effect on the business sector. According to data from the Polish Waters report, the total losses and expenditure related to this event were in excess of PLN 13 billion***

appraisers to prepare valuation reports using transparent assumptions, while excluding temporary and circumstantial factors that may artificially inflate value. Banks will also monitor the deterioration of collateral value resulting from environmental, social, and governance risks, and this will influence credit decisions and collateral acceptance levels.

For all transactions, not just those in real estate, banks will analyse clients' strategic assets for physical risks, with such risks possibly limiting debt servicing capacity. ESG risk analysis includes assessing the vulnerability of key assets and their locations to extreme weather events using geographic data and climate models. The results affect creditworthiness assessments. Regulatory requirements stipulate that banks must identify and monitor climate risks in strategy, liquidity, and risk appetite, and report them across the short- (<3 years), medium- (3–5 years), and long-term (>10 years) horizons. Consequently, banks will examine entire portfolios and conduct stress tests – scenario-based simulations of borrowers' responses to physical risk events such as floods or heatwaves. Banks will model such scenarios at a geographic and sectoral level, as well as their impact on liquidity shortages, portfolio devaluations, and rising NPLs.

Risk control mechanisms include exposure limits for properties in high-risk zones, refusal to accept collateral exposed to flood risk, and higher capital requirements. The perception of increased risk leads to a reduced willingness to finance such properties. At the same time, EBA, PRA, and ECB requirements are being implemented in regard to capital adequacy, environmental risk management, transparency, and ESG stress testing. Banks are adopting procedures that restrict credit availability while improving the quality of collateral analysis.

Ultimately, the climate-driven transformation of the banking system is contributing both to reducing financial risk and to promoting changes to buildings through incentivising investment in resilient structures and technologies. ◢

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Transformation
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Tomasz Oktaba
Project Management
Director, Accolade

The Impact of Climate Change and Climate Related Risks on Real Estate

Climate change is increasingly shaping the way commercial real estate is designed and managed, particularly in the logistics and warehouse sector. Extreme weather events - such as heavy rainfall combined with strong winds - are exposing the limitations of solutions that until recently met all formal technical requirements, but today prove insufficient in terms of safety and operational continuity.

One of the key areas in the adaptation of large-scale facilities is the protection of roofing structures. Intense rainfall, combined with extensive roof surfaces and strong winds, can lead to the uneven accumulation of water and localised structural overloads. In response, Accolade has introduced a new design standard that includes lowered parapets (to approximately 7 cm) and enhanced emergency rainwater drainage systems engineered to above-market standards. These solutions enable faster removal of excess water and significantly reduce the risk of structural damage.

At the same time, water retention and site development are rising in importance. Factors such as increasing biologically active areas, designing retention reservoirs, and conducting in-depth flood risk analyses that take into account the long-term effects of climate change and the growing frequency of extreme events, including surface runoff and groundwater levels, are becoming integral elements of the investment process, often going beyond current regulatory requirements.

Climate change is also reshaping tenants' expectations. More and more frequently, they inquire about safeguards ensuring the continuity of the energy supply, the possibility of connecting backup generators, and intelligent building management systems (BMS). These solutions enable flexible responses to extreme temperatures and sudden weather changes.

An example of this approach is Accolade's distribution centre for the Action retail chain in Dunikowo (Park Szczecin VI). In close cooperation and agreement with the tenant, the aforementioned solutions were implemented, increasing the facility's resilience to extreme weather events. Airtightness tests and thermographic inspections confirmed the high standard of execution and affirmed the design of the HVAC systems, whose efficiency directly depends on the tightness of the building envelope - particularly under extreme temperature conditions. Such experiences demonstrate that adaptation to climate change is no longer solely an environmental issue, but a critical component of risk management and long-term real estate value. ◢

Aleksandra Smith-Kozlowska
Director, Research,
ULI Europe

Climate Risk and Asset Value

For many years, sustainability in the real estate sector was primarily understood as a way to minimise negative impact – a response to regulation, stakeholder expectations, or reputational concerns. Today, this perspective is undergoing a fundamental shift. As climate change is increasingly recognised as a material financial risk, ESG is no longer an add-on to strategy, but a core factor shaping asset values, cash flow stability, and access to capital.

Climate change as a financial risk

For decades, environmental and social issues in real estate were treated as external factors – relevant from a compliance or corporate responsibility standpoint, but rarely central to financial decision-making. Energy efficiency, emissions reduction, and social initiatives were typically justified by regulatory requirements, short-term operational savings, or reputational considerations.

This began to change in 2017 with the publication of the Task Force on Climate-related Financial Disclosures (TCFD) recommendations. TCFD marked a decisive shift by framing climate change explicitly as a financial risk, rather than solely an environmental or ethical issue. It helped the market recognise that while businesses contribute to climate change, they are also financially exposed to its consequences. The recommendations encouraged companies and investors to assess how climate-related risks and opportunities could affect business models – including costs, revenues, asset values, and access to capital.

This convergence of sustainability, risk management, and financial reporting also contributed to the widespread adoption of the concept of double materiality. It requires companies to look at sustainability from two perspectives:

- the impact of business activities on the environment and society (the "inside-out" perspective, or impact materiality) and,
- the impact of sustainability issues on a company's financial performance and future prospects (the "outside-in" perspective, or financial materiality).

This reframing resonated across the investment community but proved particularly significant for real estate – a capital-intensive, long-term sector with strong exposure to location-specific risks.

A new risk landscape

Climate risk is no longer a peripheral concern. It is increasingly recognised as a core driver of future asset performance, investment strategy, and portfolio resilience. Low-carbon and resilience measures are now seen as crucial elements of value creation and preservation, not just capital expenditure that can only be justified with short-term operational returns.

Despite growing awareness, the real estate industry still struggles with quantifying climate risk's impact on asset value, as the sector continues to rely on traditional modelling and underwriting approaches that are fundamentally backward-looking. Historic data on transactions, rental values, depreciation, obsolescence, and yields remain central to forecasting returns, assuming the future market conditions will broadly mirror previous patterns. However, climate change mitigation and adaptation will require the market to respond very differently - and this cannot be extrapolated from prior outcomes. To truly understand climate risk exposure, future impacts on financial performance, and the cost of inaction (as lack of investment in decarbonisation or resilience measures will also come with a cost), the industry needs to get comfortable with looking forward and making some assumptions on how the future is likely to unfold.

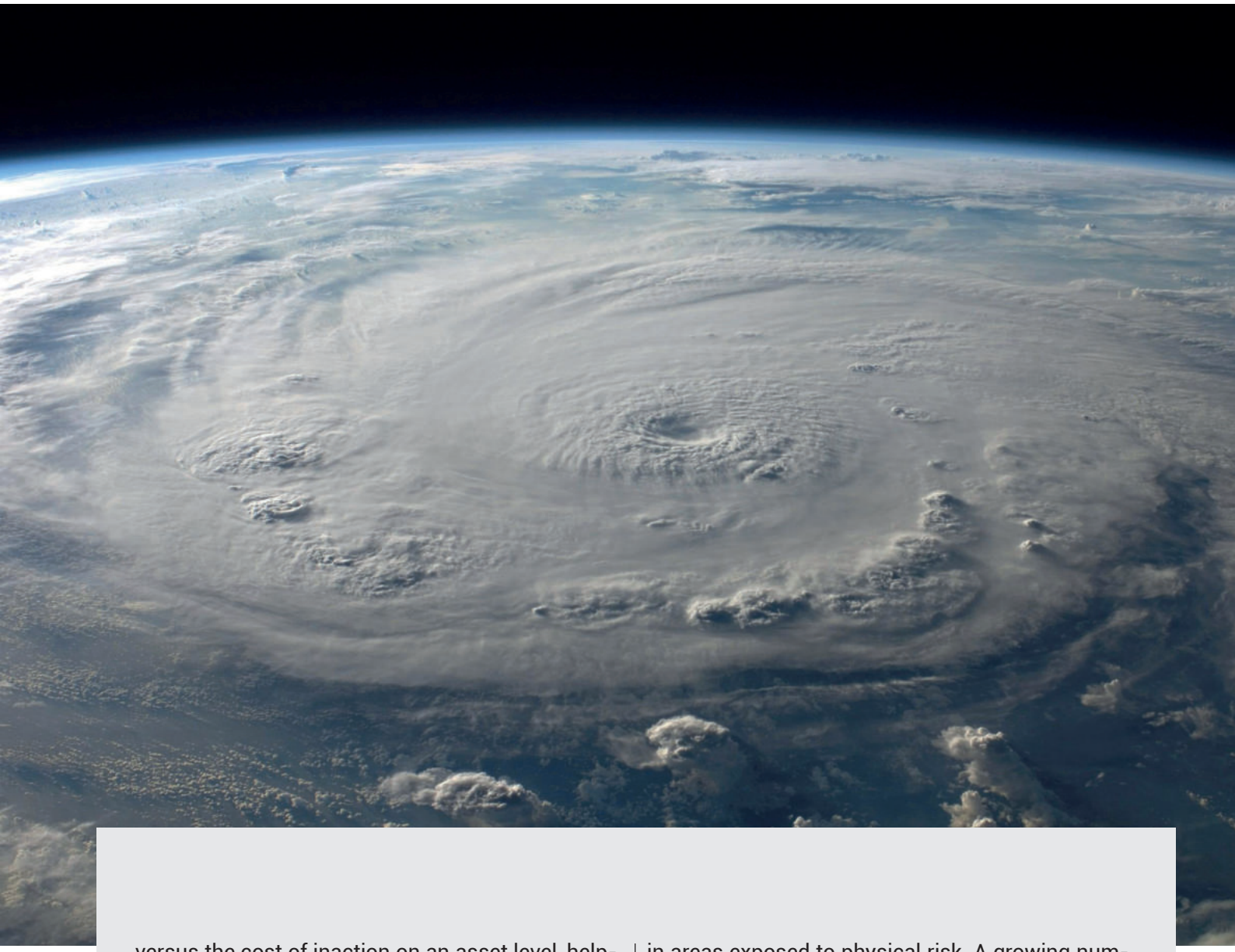
Many leading real estate investors and managers have acknowledged this need, starting to adjust their in-house investment models for future climate risk. This marks significant progress, but still leaves the sector with a couple of important issues. Firstly, each organisation's model follows slightly different methodologies to assess this risk, making comparisons between investment opportunities challenging – which in turn can be met with scepticism from investors who want to see clear, defensible rationale for increased investment in low-carbon, resilient assets. Secondly, at the moment the larger, better-resourced market players have a considerable advantage in being able to assess and price climate risks more accurately. Although many investors and managers are willing to take on the "brown" assets with plans to add value and turn them "green", this imbalance might result in some smaller, less well-resourced market players unknowingly purchasing buildings with higher climate risk exposure, meaning that the climate risk issue is not addressed at an industry level, but pushed further down the line.

To address this, investors and managers need to start speaking the same language when it comes to forward-looking scenario analysis. A consistent, sector-wide methodology for assessing climate risks and integrating them into investment modelling would allow better comparability between investment opportunities, increasing investor confidence in the assessment results and improving transparency around transactions. This has a potential to catalyse the capital flow into decarbonisation and resilience measures which the built environment so desperately needs to keep the hope of meeting the Paris Agreement targets alive.

Climate change mitigation: cost of decarbonisation versus cost of inaction

Transition climate risk is the risk resulting from the market and policy shift towards a low-carbon economy. In the real estate sector, this can relate to investors, lenders, or insurers being more willing to provide capital for low-carbon assets, tenants wanting to occupy low-carbon spaces, national and local governments introducing regulations aligned with net zero, and low-carbon technologies becoming the expected standard, but also the public increasingly scrutinising companies' carbon performance. It is clear that these factors will have an impact on real assets' financing, rental income, depreciation rates, and exit yields, but how can it be quantified in financial terms?

In 2023, the Urban Land Institute (ULI) published the Transition Risk Assessment Guidelines, setting out a standardised approach to integrating risks associated with the transition to a low-carbon economy into discounted cashflow models (DCFs). These guidelines offer a practical and accessible way of quantifying the impacts of decarbonisation on future financial performance of assets. Their adoption at scale can help the industry speak the same language and consistently compare the impact of decarbonisation on investment opportunities across the sector. Currently, the ULI is also developing Preserve, a tool that brings together DCFs and net zero carbon pathways. The tool allows users to compare the cost of decarbonisation



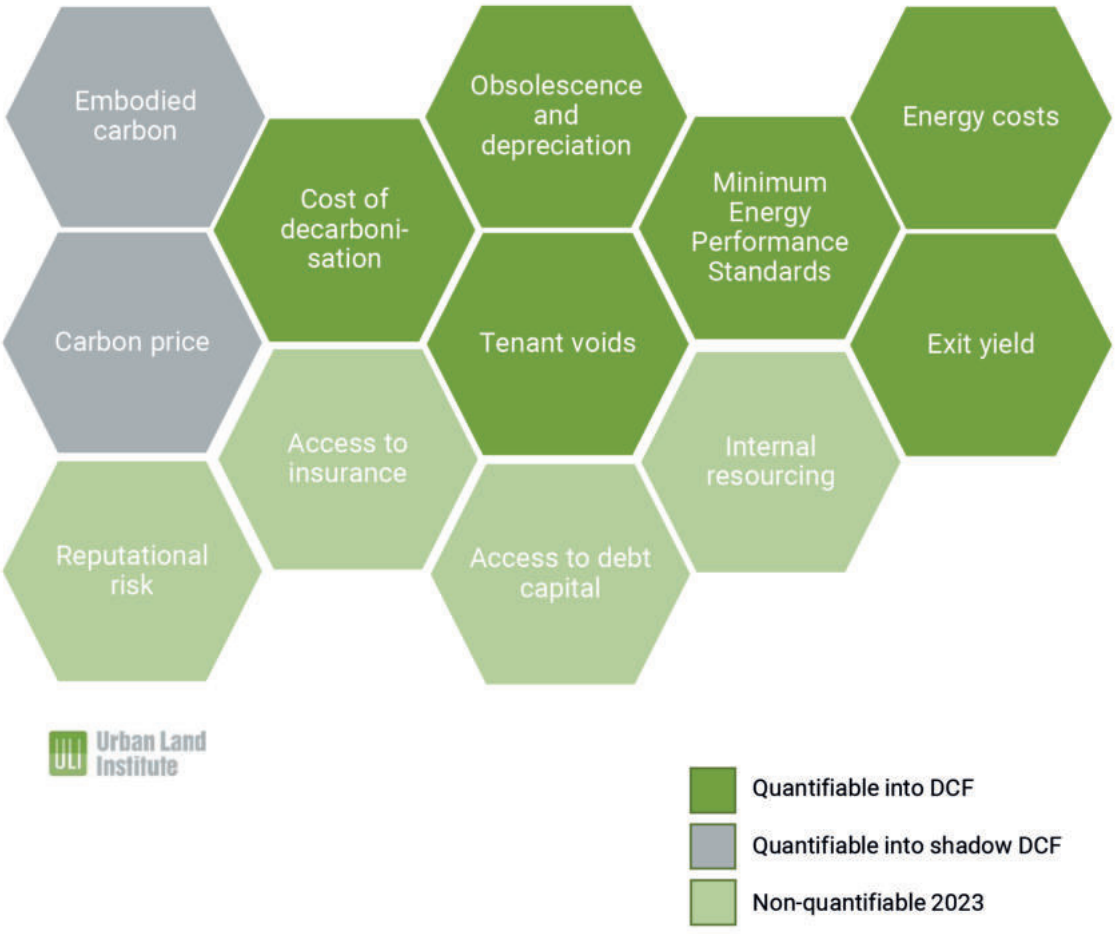
versus the cost of inaction on an asset level, helping investors and managers to price in risks that are currently overlooked, explore how the changing climate might shape the future of the markets, and ultimately, make well-informed investment decisions.

Climate change adaptation: uncertainty is here to stay

Physical risk is the risk associated with the shifts in climate patterns, and we have been witnessing its tangible impacts on buildings, with flooding, wildfires, and heatwaves affecting owners and occupiers across Europe in the recent years. The real estate industry has already experienced higher insurance premiums, higher costs of repairs and maintenance, lost rental income due to extreme weather, or lower demand from tenants and buyers in areas exposed to physical risk. A growing number of specialist providers offer physical risk assessment tools, but their outputs often vary widely. Different assumptions, climate scenarios, time horizons, and modelling approaches can lead to very different risk scores for the same asset, making comparisons difficult and reducing confidence in the results.

Turning this risk awareness into financial numbers that can be used in investment decisions is an even harder challenge. Many asset owners want to understand return on investment in resilience, but there is no one way to calculate it. Comparing the capex required for climate adaptation measures against potential damages and the cost of repairs avoided can be seen as too speculative, given the uncertainty around climate scenarios. Using the increase in insurance premiums is not an accurate proxy either,

STANDARDISED METHOD FOR ASSESSING AND INTEGRATING TRANSITION RISK IN A DISCOUNTED CASHFLOW MODEL



Transition risks in the DCF model

as many insurance companies decrease their coverage rather than driving up their prices. Accounting for the local context in a building-level investment model is another issue. To truly understand an asset's risk exposure, it's crucial to consider neighbourhood-level resilience and what the disruption related to extreme events in the area might mean to rental income and the overall attractiveness of the building to tenants and buyers.

Due to the physical impacts of climate change being uncertain and hyper-local, it is nearly impossible to add physical climate risk as a single forecast cost. Instead, asset owners can rely on scenario analysis and stress testing, adjusting assumptions for different climate outcomes. It is important for the industry to find a common language around this issue as well, to build confidence and improve sector-wide understanding despite the uncertainties, while recognising that the integration of physical climate risk into investment decision-making is still imperfect.

Emerging evidence of climate-driven investment decisions

To have a more complete picture of climate risk exposure (both transitional and physical), real estate owners and investment managers need to step away from basing their return forecasts solely on backward looking variables. Incorporating future-looking scenarios into investment models is essential for future-proofing investments. Although these scenarios might be considered by some as speculative or hypothetical, the industry is already seeing emerging evidence that climate considerations are impacting decision-making across the investment lifecycle.

Some ULI members have already reported that capital providers embed climate-related requirements into their allocation processes and provide discounted loan terms to low-carbon, resilient assets or managers with strong "brown to green" value-added strategies. At acquisition, there have been examples of deals being discounted due to the future cost of electrifying a building, roof structures not being able to support on-site PVs, high-emitting tenants with long leases, or significant future flood risk exposure. Some deals in locations with a carbon-intensive grid and an unsupportive policy environment for renewable energy were abandoned altogether. Sustainability-minded ULI members also reported better relationships with local authorities in terms of planning permissions, faster leasing of green assets, and outcompeting their neighbouring "browner" equivalents. Operationally, there were many examples of decarbonisation measures resulting in savings due to more efficient use of resources (energy and construction materials). Finally, in some cases low-carbon buildings showed higher liquidity and the owners were able to sell them faster even in difficult markets.

Although at the moment much of this evidence is anecdotal and it is impossible to draw industry-wide conclusions, it does provide a signal of possible market conditions to come, especially as the physical impacts of climate change intensify and regulators adjust their policies to mitigate against them.

Exploring a range of plausible futures

Climate risk is reshaping the fundamentals of real estate investment. Reliance on backward-looking models will become increasingly inadequate. Climate change is no longer an abstract, long-term concern, but a material financial factor influencing asset performance and risk management today.

Investors who fail to incorporate forward-looking climate scenarios can misjudge both downside exposure and upside potential. Conversely, those who embed climate risk into valuation and underwriting processes will be better positioned to protect and enhance long-term value.

It is important to note that scenario analysis is not about predicting a single outcome. It is about stress-testing assets and portfolios against a range of plausible futures, identifying future market changes, and understanding where value may be at risk or where it could be enhanced through proactive intervention.

This shift requires new data, new analytical tools, and closer collaboration between sustainability, risk, investment, and valuation teams. It also demands a more explicit recognition that climate risk is dynamic, location-specific, and deeply intertwined with the broader market transformation. Understanding and acting on this is fast becoming a defining challenge - and opportunity - for the real estate industry. ◢

Circular Economy as a Tool for Protecting Asset Value

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Sweco Polska

In the context of rising raw material costs, tightening regulations, and pressure for decarbonisation, the circular economy is becoming one of the most effective ways to protect the value of construction assets. Through adaptable design, easy disassembly, and digital resource management, properties become more resilient to regulatory and financial risks, generate more stable revenue, and retain higher residual value – both today and in the future.

Circular Economy in the Construction Context

The Circular Economy (CE), also known as the Closed-loop economy, emerged in response to the need to manage limited resources, as an alternative to the linear economy, and to reduce the negative environmental impact of economic activity. For Poland and Europe, it is a pathway to reduce dependence on imported raw materials, lower CO_2 emissions, and build more resilient, economically stable cities. For investors and designers, it brings new risks but also new market opportunities: circular products and services are expected to gain value as environmental regulations tighten and awareness among investors and users grows.

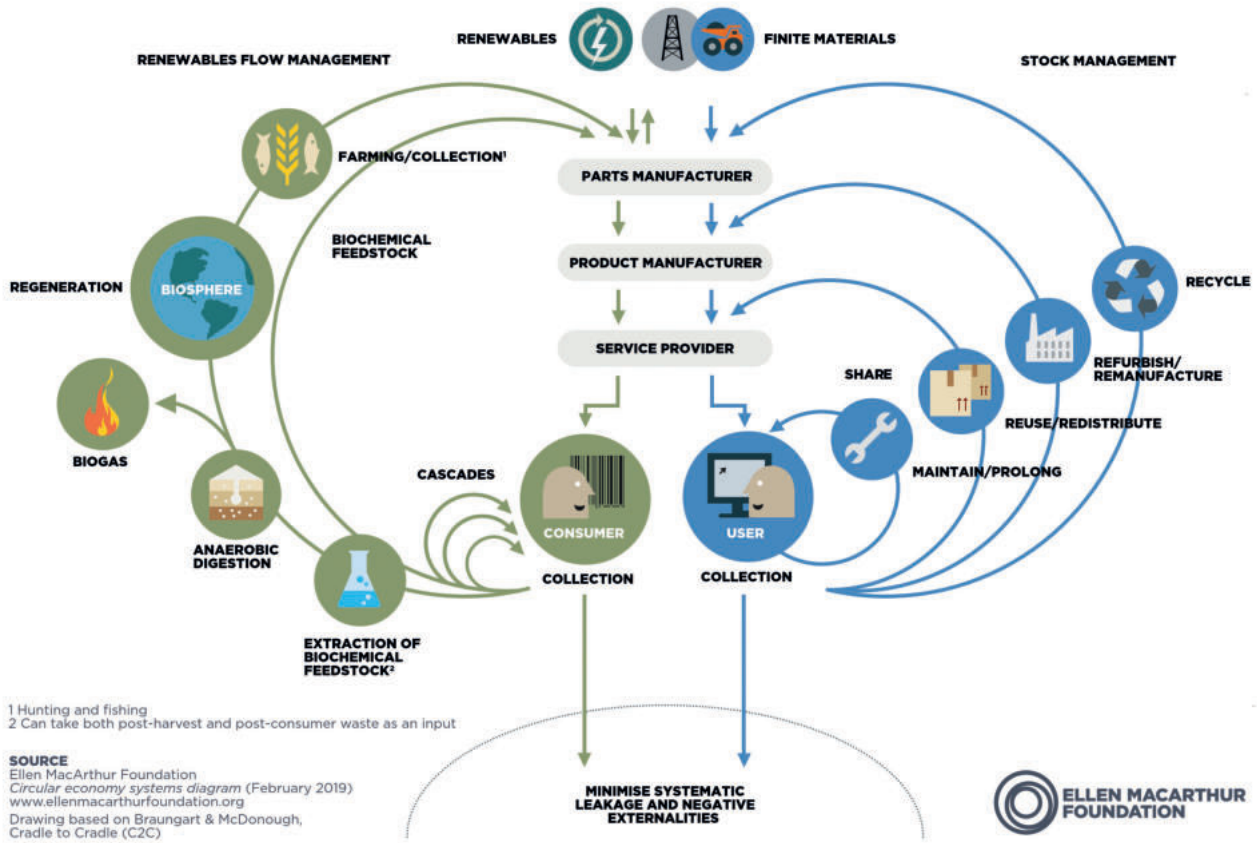
Key Action Areas for Construction

Effective transformation of the construction sector towards a circular economy requires simultaneous action across several key areas: legislation, public procurement, finance, technology, and market competencies. Only through this approach will circular solutions stop being isolated examples of best practice and become a scalable part of standard investment processes.

- Regulations and Public Procurement: design standards promoting demolition-oriented design, mandatory material passports, and circular criteria in public tenders will increase demand for reuse/remanufacturing solutions.
- Modeling and Digitalisation: BIM integrated with material passports and component databases

MAIN CE MODELS

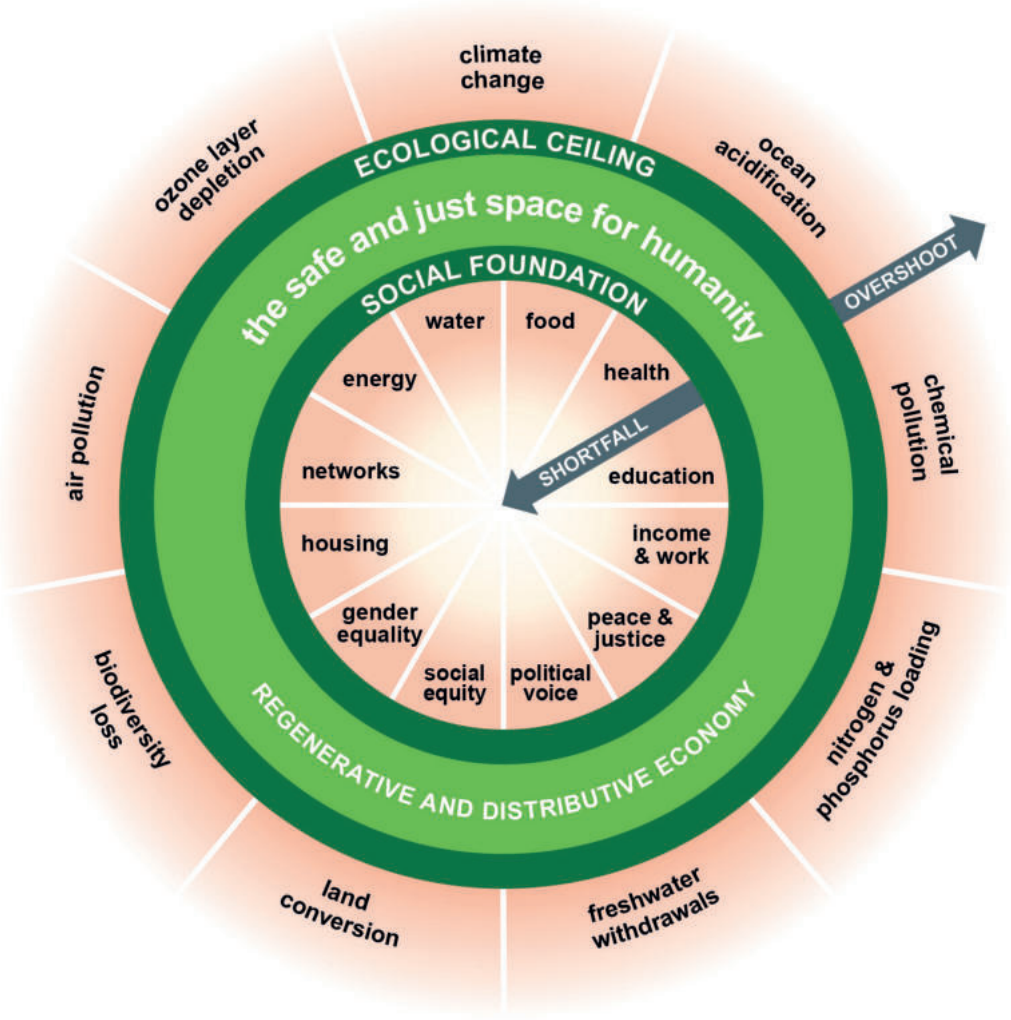
THE BUTTERFLY DIAGRAM



Source: **https://www.ellenmacarthurfoundation.org/circular-economy-diagram**

The butterfly diagram illustrates two coexisting and complementary material cycles – the biological cycle and the technical cycle

DIAGRAM DOUGHNUT ECONOMICS ACTION LAB



The doughnut economics model, applied to the construction sector, shows that the built environment must operate within planetary boundaries while ensuring fundamental social needs are met

Source: **https://commons.wikimedia.org/w/index.php?curid=107409184**, Doughnut Economics Action Lab – **https://doughnuteconomics.org/tools-and-stories/65**, CC BY-SA 4.0

facilitates recovery, reuse, and disassembly planning.

- Design and Technology: modular design, dry assembly, easy connections, and minimising mixed materials simplify recycling and disassembly.
- On-site Resource Management: source segregation, reverse logistics for prefabricated elements, partnerships with recyclers and recovery centres.
- Business Models: leasing and renting elements (e.g., façades, installations), maintenance of building components, secondary markets for components and materials.
- Finance and Economic Instruments: green loans, preferential insurance rates, mechanisms supporting investments in demountable and reusable solutions.
- Awareness and Competencies: training designers, contractors, and investors in circular design,

EXPERT INSIGHT

Monika Chacińska,
Environmental Manager at Skanska, WELL AP, LEED AP BD+C, WiredScore & SmartScore AP, Skanska Property Poland

A circular economy in the construction sector – Skanska's perspective

For Skanska, the circular economy is not a new topic — it has been part of our practice for years, among other things through LEED certification and projects using construction materials that incorporate recycled content. In our projects it has long been standard to use concrete, steel, glass, and aluminum that contain such recycled material content.

As a developer, we aim for all our buildings to comply with the EU Taxonomy requirements, in particular pathway 7.1, which focuses on climate change mitigation. From the design stage we already adopt a circular approach — we design buildings so that their elements can be easily dismantled and reused in the future. Circularity also means the ability of a building to change function, and we address that through our design process. We make use of Level(s) — the European Framework for Sustainable Buildings — which we treat as guidance for designing circular and flexible buildings.

The EU Taxonomy also sets requirements for on-site waste segregation. Skanska has implemented this requirement for a long time, and our internal targets are more stringent than the Taxonomy's. In 2025 our target was to divert at least 96% of construction waste to recycling — and I would stress that these targets change every year and become increasingly demanding.

We try to educate the market and expect building material manufacturers to provide environmental product declarations (Type III EPDs) that disclose the materials' climate and environmental impacts. For us, calculations of embodied carbon are the foundation of every decision. Moreover, every project has a so-called carbon budget that must not be exceeded and is closely monitored.

We carry out selective demolitions of old buildings – from the Mercury building dismantling in Prague we diverted 97% of materials to recycling; 58% of the concrete mass was reused in the production of a new material, Rebetong, where natural aggregates were replaced with demolition-derived material. Glass from the building was sent to a manufacturer of glazed façades. Interior fixtures such as kitchens, furniture and doors were donated to refugee shelters, hospitals, schools and community organizations.

In Warsaw we are preparing for a similar process, for example by creating a 3D scan of the building, which allows us to plan precisely the recovery of individual materials — a task that is not easy and requires experienced partners.

One of the inspiring projects delivered by Skanska is Hyllie Terrace in Malmö, Sweden, where the entire structure was built with lowcarbon concrete and the common areas were designed according to circular economy principles. The designer reused construction waste and furniture production offcuts to create "new" timeless, highly functional furniture with excellent design quality.

This is a great example of the circular economy, but is it feasible in Poland? It should be noted that using lowcarbon concrete generally leads to much longer setting times compared with traditional mixes, which has a clear impact on overall construction schedules. For that reason, in our projects we use lowcarbon concrete only in the underground parts of the building, trying to keep the construction period at roughly two years.

In Poland, using secondary-market elements in interior fit-outs is difficult because of regulations that define what constitutes waste versus a raw material, as well as warranty and durability issues. There is also a lack of information about the properties of the materials from the secondary market, which raises contractors' concerns. The prevailing belief remains that "new means durable," so education is needed — from architects through to end consumers.

In Sweden, local regulations require the implementation of circular economy principles in new buildings. For the Scandinavian countries this is natural. We are waiting for similar changes in Poland.

installation, and disassembly; educating investors on long-term benefits.
- Industrial Symbiosis and Local Supply Chains: collaboration between investors, building material manufacturers, and recycling entities to exchange material streams and reduce transportation.
- Certification and Reporting: standardised indicators and metrics (LCA, recycled content, potential for reuse) supporting investment decisions and transparency.

Building design, construction and management

The circular economy in construction is based on designing and managing resources in a way that extends a building's lifespan, reduces material consumption, and enables their reuse. A key role is played by Design for Adaptability, which allows buildings to respond smoothly to changing functional requirements without costly and resource-intensive renovations. According to ISO 20887, adaptability primarily involves functional flexibility, structural expandability, and modularity of elements. Open floor plans, non-load-bearing partitions, the ability to change the building's function, or structures that allow vertical expansion and façade modifications are all measures that enhance a building's durability and resource efficiency.

Closely linked to adaptability is Design for Disassembly (DfD). ISO 20887 states that DfD principles focus primarily on designing buildings so that components can be separated independently and easily. From the conceptual stage, future dismantling is considered to maximise material recovery and recycling. Mechanical connections are preferred over chemical ones, prefabricated and standardised elements are used, and installations are arranged for quick access without affecting the structure. Integral to the process is a disassembly plan and material passports, which collect data on components, their properties, and reuse potential. Digital tools such as BIM and 3D scanning enable the creation of digital twins of buildings to support their future deconstruction.

The circular approach also involves minimising the use of primary raw materials and promoting the use of secondary materials—first through reuse, then upcycling, recycling, and as a last resort, downcycling. Another important aspect is the management of construction and demolition waste, which represents the largest waste stream in Europe. Polish regulations require selective collection in multiple fractions and the preparation of waste management plans, supporting recovery and reducing landfill disposal. Deconstruction - dismantling in a way that allows component recovery – has become standard practice in projects executed according to circular construction principles and environmental certifications.

Business models supporting the circular economy

Transforming the construction sector towards a circular economy is supported by new business models that maximise resource utilisation, reduce waste generation, and promote product life extension. These include:
- Product-as-a-Service (PaaS) – a model in which the product remains the property of the manufacturer, and the user pays for its function or access to the service. The manufacturer is responsible for maintenance, servicing, and recovery of components at the end of use. In real estate, this model is applied, for example, to lighting or passenger elevators.
- Leasing of Materials and Equipment – applies both to durable elements (e.g., façade components) and to equipment used during construction. It increases resource-use efficiency and reduces the need to purchase new elements.
- Space Sharing – involves increasing resource utilisation intensity by creating multifunctional spaces that flexibly adapt to different uses, reducing the need to construct new buildings.
- Component Trading Platforms – e.g., creating secondary markets for doors, windows, and steel structures, 'urban mining'.

These models, together with other circular strategies such as regeneration, refurbishment, and reuse, serve to extend the life of materials, products, and resources, thereby reducing the consumption of primary raw materials and the environmental impact of the construction sector.

The circular economy redefines value in construction, which should be measured not only as a construction cost but across the entire lifecycle:

EXPERT INSIGHT

Radek Edward Stach
Architect, Facade and Sustainability Consultant, Snøhetta

Circular Philosophy in Snøhetta's DNA

The report Our Common Future, prepared by the World Commission on Environment and Development under the leadership of Gro Harlem Brundtland, introduced the definition of sustainable development: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

This document became a global reference point for architects and designers, including Snøhetta, which adopted this philosophy as a design foundation from its inception in 1989. Three decades later, the firm's goal is to achieve carbon neutrality in its projects through durable, adaptable architecture based on material reuse—aligned with the principles of a circular economy.

Snøhetta's flagship projects—such as the Powerhouse series developed in collaboration with Skanska—prove that architecture can be both energy-positive (producing more energy than it consumes) and materially circular.

A prime example is Powerhouse Kjørbo—a deep renovation of an office building from the 1980s, now generating approximately 200,000 kWh annually, twice its own energy demand, while reducing operational energy consumption by up to 90%.

As the first Powerhouse project, Kjørbo remains a benchmark for comprehensive retrofits: the existing structure was preserved and adapted, complemented by an energy-efficient façade, low-emission glazing, heat-recovery ventilation systems, photovoltaic panels, and geothermal heat pumps. These measures significantly reduced the material carbon footprint and improved energy performance, earning the project the BREEAM-NOR Outstanding certification and numerous awards, including the UN Global Climate Action Award 2023 for pioneering sustainable renovation.

Snøhetta emphasises that implementing a circular model requires holistic collaboration among all stakeholders in the construction process. In projects like Powerhouse, alliances between architects, contractors, investors, and external experts have driven technological and business innovation. Importantly, sustainable buildings have proven not only environmentally responsible but also economically viable—generating savings and new opportunities (such as selling surplus energy)—demonstrating that circular architecture delivers tangible financial benefits.

Snøhetta applies circular principles at every scale: from buildings to details and products. Whether it's a radical office retrofit (Kjørbo), a new energy-producing office building (Brattørkaia, Telemark), or an innovative high-rise based on natural ventilation (Vertikal Nydalen), the common thread is thoughtful design that treats resources as precious and finite. Smaller-scale examples include the S-1500 chair (crafted from locally recycled plastic) and Forite tiles made from crushed glass components sourced from electronic waste. Snøhetta Product Design illustrates upcycling and local material loops that feed back into architectural projects.

Through its projects and philosophy, Snøhetta is shaping a new paradigm in construction: moving away from the linear "design–build–demolish" model toward a circular approach, where buildings are seen as part of a broader natural and economic ecosystem. Lessons from pioneering Powerhouse projects aim to inspire future developments, setting a benchmark for the entire industry.

structural durability, adaptability, energy and material intensity per square meter, and the potential for disassembly and reuse. It also creates real social value, supporting the development of residential buildings with lower operating costs and reduced material footprint, reinforcing public policies and infrastructure investments that simultaneously generate jobs, reduces pressure on natural resources, and promotes more equitable access to goods.

From the perspective of Sweco Poland—a company providing advisory and engineering services at all stages of project delivery—we see how essential it is to consider circular economy principles at every phase of the investment process. As the consulting division of Sweco Poland, bringing together engineers and specialists in fields such as construction, environmental engineering, energy, waste management, finance, and sustainability, we act as a circular economy catalyst by connecting investor ambitions, design vision, contractor practice, the requirements of financing institutions, and societal expectations, enabling resource-optimal solutions to emerge instead of compromises. Leveraging the whole Sweco Group's extensive expertise across Europe, we draw on proven circular construction practices from countries such as the Netherlands, Denmark, Norway, and Sweden to apply them to projects in Poland.

We carry out this role through advisory services and workshops for stakeholders and project teams, conducting life cycle analyses (LCA/LCC), defining measurable circular economy targets and contractual requirements (e.g., design for adaptability), as well as identifying implementation mechanisms—financial, legal, and organisational. This approach helps minimise risks and costs while simultaneously enhancing the potential for long-term, social, and market value of buildings. ◢

EXPERT INSIGHT

Grażyna Kutla,
Bank Gospodarstwa Krajowego (BGK)

Circular Economy aspect in credit and investment decisions

Bank Gospodarstwa Krajowego actively participates in JICE – a joint initiative by EU public banks that focuses on the circular economy – through the financing of circular projects in the construction sector. BGK's new strategy (2025–2030) pursues circular economy objectives to form a transformation pillar for a competitive, zero-emission economy, with the emphasis on the bank's role in mobilising capital for the efficient use of resources and sustainable development.

In the real estate and infrastructure sectors, BGK offers preferential loans for modernising buildings, installing renewable energy sources, implementing low-emission solutions, and renovating municipal infrastructure in line with circular economy principles. Previously, some of these activities were carried out under the now-completed Jessica2 Program, which supported the renovation of run down urban areas. Work is currently underway on the successor to this program.

Other examples of financing include investing in energy efficiency, recycling construction materials, and solutions that enable resource reuse. Banks that support circular economy principles in real estate increasingly require circularity analyses, the use of low-carbon materials, renovation passports, and compliance with the EU Taxonomy, all of which affects the availability of financing and the assessment of investment risk.

BGK applies EIB guidelines and has identified four main areas of the circular economy:

- *Circular design and production (e.g., production of asphalt mixes using reclaimed asphalt paving),*
- *Circular use (e.g. redevelopment and adaptation of unused buildings and former-industrial sites),*
- *Value recovery (e.g. the selective collection, recycling and recovery of materials from building demolitions),*
- *Circular economy support.*

Each project submitted as circular is assessed and needs to meet one of these criteria to qualify for financing.

It is mainly projects that require large amounts of financing where an advanced approach is applied to verifying compliance with circular economy criteria based on circularity analyses, renovation passports, and alignment with the EU Taxonomy where the bank's risk significantly increases. At BGK, this applies to financing for enterprises subject to mandatory sustainability reporting or projects valued at more than PLN 100 million; similar practices can be seen in other banks. In the future, such an approach is expected to become the standard and will be extended to financing for lesser amounts.

BGK also supports the modernisation of buildings listed as historical monuments, to enable them to be restored or adapted to new social, economic, tourism, or cultural uses. The bank finances selective waste collection and recycling by funding the purchase of machinery and equipment or through the comprehensive modernisation of entire plants that use waste as a raw material. One such example is the refinancing and financing of part of the net investment costs for the reorganisation and modernisation of an asphalt production plant.

Another example of circular construction financing is the support provided to a modular building manufacturer whose designs allow for their easy disassembly and relocation.

Additionally, through development loans from EU Funds for 2021–2027, which BGK administers, the bank supports projects aimed at improving environmental efficiency management for a resource-efficient economy and the revitalisation of degraded areas. These loans can finance redevelopment, expansion, or modernisation of degraded buildings, including former industrial and military sites, giving the buildings new uses: such as social, economic, tourism, or cultural, while also developing the surrounding area around the property.

THE IMPACT OF SPECIFIC CIRCULAR ECONOMY SOLUTIONS ON REAL ESTATE INVESTMENTS

Source: own study, Sweco Polska

Solution	Impact
Adaptable design	Reduces the need for costly renovations and new materials; enables quick functional adjustments; shortens downtime and minimises rental interruptions; lowers capital expenditure when changing tenants.
Functional flexibility of space	Enables rapid reconfiguration of room layouts; reduces the need for structural alterations; shortens periods of space unavailability; in commercial properties broadens the pool of potential tenants, increases market attractiveness, and stabilises investor income.
Open floor plan and non-load-bearing partitions	Lower adaptation costs since layout changes do not affect the structure; accelerate functional adjustments or tenant fit-outs.
Movable partitions	Allow real-time functional changes; increase building utilisation; reduce the need to create new floor areas.
Structural potential for expansion	Facilitates adding floors or lateral extensions without façade reconstruction; enables expansion instead of demolition; extends building lifespan when original parameters become insufficient.
Column grid with larger spans	Enhances layout flexibility; reduces the number of components to dismantle; simplifies functional or tenant changes.
Modularity and prefabrication	Speeds up assembly and disassembly; enables relocating modules between buildings; reduces waste and lowers modernisation costs.
Reversible connections (e.g., bolted or clamped joints)	Enable selective disassembly; improve the quality of recovered materials; support component reuse.
Easily accessible installations	Reduce service time and costs; allow replacement of short-life components without damaging walls or ceilings; help maintain operational continuity.
Disassembly plan	Enables predictable, safe and cost-effective deconstruction; supports high-quality component recovery.
Material passports	Ensure full material traceability; enable efficient recovery; increase residual material value and allow future monetisation on secondary markets.
Digital twin	Simplifies component management throughout the life cycle; enables precise planning of upgrades and disassembly; improves recycling efficiency.
Use of secondary aggregates and concrete with fly ash or recycled granulate	Reduces embodied carbon in high-impact materials (large share of building mass); supports waste valorisation.
Waste management plans	Ensure waste reduction control; increase recovery rates; promote adoption and dissemination of circular practices among contractors.
Product-as-a-Service (PaaS)	Reduces waste by keeping ownership with the manufacturer; enables component retrieval and refurbishment; lowers life-cycle costs.

Solution	Impact
Material and equipment leasing	Lowers upfront investment; increases resource efficiency; limits the need for large purchases and overproduction; eliminates the need to buy items used only occasionally.
Space sharing	Increases utilisation intensity; reduces pressure to build new facilities; optimises use of existing infrastructure.

REGULATIONS AND ASSESSMENT FRAMEWORKS DIRECTLY RELATED TO CIRCULARITY IN THE REAL ESTATE SECTOR

Source: own study, Sweco Polska

Tool / Regulation	How It Relates to the Circular Economy (CE)
International Legislation	
EU Taxonomy (for the construction sector)	Depending on the specific activity and the type of criteria (substantial contribution or DNSH), it imposes requirements such as: • mandatory waste sorting in line with EU regulations • conducting a pre-demolition audit • achieving required thresholds for the mass of materials sent for reuse or recycling • calculating and disclosing the building's environmental Global Warming Potential (GWP) • implementing Design for Adaptability principles (functional flexibility, capacity for future changes) • implementing Design for Deconstruction principles (easy, selective disassembly, reversible connections) • using digital tools to describe materials and components
CSRD ESRS E5	CSRD introduces mandatory sustainability reporting for companies. ESRS defines the methodology and structure to ensure consistent and comparable reporting formats. Within the environmental standards, ESRS E5 – Resource Use and Circular Economy focuses on implementing circular economy principles. The standard defines disclosures related to: • quantities of primary raw materials vs. recycled materials • mass and types of waste generated in operations • levels of material reuse and recovery • strategies reducing resource demand (e.g., eco-design, modularity, product life extension) • measures enabling disassembly, repair, and refurbishment • the degree of implementation of circular business models (leasing, Product-as-a-Service, sharing models)

Tool / Regulation	How It Relates to the Circular Economy (CE)
Assessment Standards	
ISO 20887	Defines design requirements enabling disassembly, adaptability, and reuse of building components, with specific rules for connections, modularity, and component accessibility. The standard also outlines methods for assessing repairability, durability, and functional flexibility to extend the building's life cycle and reduce waste.
LEVEL(s)	Indicators under Macro-Objective 2: Resource Efficiency and Circular Economy include: • Indicator 2.1 – Quantity of construction materials • Indicator 2.2 – Construction and demolition waste • Indicator 2.3 – Building element life cycle • Indicator 2.4 – Design for adaptability and disassembly
Multicriteria Buildings Certifications	
LEEDv4, v4.1	LEED categories for new construction related to CE include: • MRc Building Life-Cycle Impact Reduction, covering: – Building and Material Reuse – Maintaining Existing Structural Elements (walls, floors, roofs, envelopes) – Interior Furniture and Nonstructural Elements Reuse – Design for Flexibility and Disassembly – Building or Interior LCA • MRc Sourcing of Raw Materials • MRc Environmental Product Declaration (EPD) • MR Construction and Demolition Waste Management Planning and Management • MRp Storage and Collection of Recyclables Indirectly, several other categories support circularity by promoting brownfield redevelopment, water reuse, and renewable energy. In the LEED O&M scheme for existing buildings, the strongest support for the circular economy is found in criteria related to procurement policies, waste management, building operations and maintenance, extending the service life of building equipment and furnishings, as well as, so-called, green cleaning.
BREEAM International New Construction v6 and the corresponding categories of the system Breeam International Refurbishment and fit out 2015)	System categories supporting CE include: • Mat 01 – Life Cycle Impacts • Mat 03 – Responsible Sourcing • Mat 05 – Durability and Resilience • Mat 06 – Material Efficiency • Wst 01 – Construction Waste Management • Wst 06 – Design for Disassembly and Adaptability Plus indirect categories supporting brownfield redevelopment, water reuse, and renewable energy.
BREEAM In-Use v6	Key CE categories within BREEAM In-Use (Management and Asset parts): • Rsc 02 – Resource reuse and recycling • Rsc 04 – Future adaptation / Functional adaptability • Rsc 05 – Circular procurement practices • Rsc 06 – Optimising resource use, reuse and recycling Indirectly CE is also supported by categories related to resource and materials management (inventory, consumption monitoring), waste management (operational procedures, recycling), maintenance and replacement planning, supply chain oversight, and sustainable procurement.

Tool / Regulation	How It Relates to the Circular Economy (CE)
National Strategic Documents and Regulations	
National regulations on construction waste	Currently covers mainly waste segregation and recovery obligations. There is still no precise regulation regarding CE in design and construction — a "regulatory gap."
Roadmap for Transforming Towards a Circular Economy (Poland)	The CE Roadmap (adopted by the Council of Ministers in September 2019) identifies expected changes in construction, such as: • increased use of secondary raw materials (UPS, biomass) • designing products for long life and disassembly • supporting EPR (Extended Producer Responsibility) • implementing green public procurement • property-sharing models • applying LCA tools Its aim is to align regulation, business models, and circular practices across the real estate sector.
Other CE tools and indicators	
Global Circularity Protocol (GCP) indicators	Key metrics for the real estate sector: • % circular inflow – share of incoming materials from secondary or renewable sources (important for assessing recycled aggregates, recycled steel, low-carbon materials) • % circular outflow – degree of circularity of materials leaving a building (important for deconstruction, concrete recycling, steel recovery, C&D waste management) • % material circularity – combined indicator of circularity of inflow and outflow (useful for ESG reporting) • GHG impact – emission savings enabled by circular strategies (critical due to high embodied carbon from cement and steel) • Actual lifetime – real durability of building components compared to industry averages (key for slowing resource cycles).
LCA (Life Cycle Assessment)	Environmental life-cycle assessment — circular materials reduce embodied carbon and overall environmental impact.
LCC (Life Cycle Costing)	Economic life-cycle assessment — rewards CE solutions such as durability, adaptability, disassembly, and reuse.

Emily Hallworth
Manager, ESG Programmes,
ULI Europe

Unlocking Net Zero in Occupied Buildings Through Collaboration

Decarbonising occupied buildings remains one of the real estate sector's most persistent challenges. While many owners and occupiers have adopted net zero targets, progress at the asset level is uneven because responsibility for emissions is fragmented across multiple parties. Structural issues such as split incentives, data gaps, and behavioural barriers continue to slow progress. ULI research and industry best practice show that collaboration, supported by clear governance and innovative financial models, is now essential to turn ambition into measurable results.

Why traditional approaches fall short

Buildings account for roughly 40 percent of global carbon emissions, and a substantial share of these emissions is generated during daily operation. In commercial real estate, tenant spaces typically represent more than half of a building's total energy consumption, while a significant portion of operational emissions stems directly from occupier activities. This creates a structural challenge because owners carry responsibility for overall asset performance and long-term decarbonisation pathways, yet occupiers exert significant control over the behaviours and systems that determine actual emissions outcomes.

This misalignment has long constrained progress. Some owners who are actively working to decarbonise invest in high-performance base buildings, but emissions reductions can stall when tenant operations, fit outs, and behaviours are not aligned. ULI's Occupiers and Owners: Faster and Further on the Pathway to Decarbonisation Together report shows that traditional landlord–tenant relationships, often transactional and contract driven, are poorly suited to the complexity of climate action. Without trust, transparency, and shared incentives, opportunities for cost-effective operational improvement and behavioural change are routinely missed.

The problem is further compounded by the split incentive embedded in most lease structures. One party, typically the landlord, bears the upfront cost of efficiency improvements while the other, the occupier, receives the operational savings. This dynam-

ic often discourages investment, particularly when the financial case for capital expenditure is difficult to quantify. For many owners and investment managers, the rationale for decarbonisation is becoming clearer as mitigating transition risk and aligning with CRREM pathways are essential to protect asset value. However, this is not yet universally understood. ULI Europe's C Change programme is developing a tool called Preserve to support this step by helping owners evaluate the economic impact of decarbonisation measures and prioritise interventions.

However, understanding why and what needs to happen is only part of the equation. The challenge then becomes how to fund and implement these measures. This is where collaboration between owners and occupiers is critical, and there is rarely a single solution.

Collaboration as a decarbonisation strategy

Owner–occupier collaboration has emerged as one of the most powerful levers for reducing emissions in operational buildings. The following section highlights practical methods for addressing structural challenges such as split incentives, data gaps, and behavioural barriers, helping to align interests and accelerate decarbonisation progress. This draws on research from ULI's Randall Lewis Center for Sustainability in Real Estate, including the Working Toward Net Zero Tenant Engagement primer series, as well as resources from ULI Europe's C Change programme and other industry best practices.

Green leases

Green leases incorporate sustainability and energy efficiency measures into leasing documents, realigning financial incentives between owners and occupiers to improve whole-building performance. ULI's Taking Green Leases to Net Zero primer explains that clauses such as cost recovery, sub-metering, data sharing, and efficiency standards can create accountability on both sides. When combined with energy efficiency improvements, green leases have been shown to improve net operating income, internal rate of return, and long-term asset value, while reducing operating costs.

Adoption, however, is not straightforward. Market differences, limited awareness, and complex negotiations often slow progress. As the Better Buildings Partnership's Green Lease Toolkit notes, legal provisions alone do not guarantee results. A green lease is only effective when both parties commit to its goals and work together to address environmental and social impacts. Done well, it can act as a springboard for broader collaboration beyond the lease terms.

Data sharing

Decarbonisation cannot be managed without measurement. Owners and occupiers face growing pressure to report whole-building emissions and performance to investors, regulators, and company leadership. Yet data privacy concerns, insufficient metering, and lack of trust frequently prevent access to complete information. Collaboration enables both parties to share energy and emissions data, improving reporting compliance while unlocking performance optimisation. Reliable data supports benchmarking, identifies inefficiencies, and informs future investment decisions, transforming sustainability from aspiration into operational management.

Regulatory developments in European markets are accelerating this shift. Environmental performance disclosure and owner–occupier coordination are moving from voluntary practice to formal obligations. In France, for example, landlords and occupiers of tertiary buildings over 1,000 sqm must report annual energy consumption on the OPERAT platform and comply with tightening reduction targets: 40% by 2030, 50% by 2040 and 60% by 2050 compared to a baseline year. These requirements have changed the operating context, creating a clear need for structured processes to coordinate data collection, performance reviews, and delivery at asset level.

Behaviour change

Technical systems alone do not deliver net zero. ULI's Behaviour Change to Achieve Net Zero primer highlights that human behaviour is one of the most powerful levers available. Shifting everyday actions such as equipment shutdown, appliance use, and occupancy patterns can significantly reduce emissions. Education, feedback, incentives, and green nudges help embed low-carbon behaviours into daily routines. When occupiers understand how

their actions affect building performance, sustainability becomes a shared operational responsibility rather than an abstract objective.

Within this ecosystem, property managers occupy a pivotal position. They translate portfolio-level strategy into daily operational reality, coordinate data flows, manage tenant relationships, and increasingly support regulatory compliance and sustainability reporting. Their influence on emissions is substantial. JLL reports that 96 percent of its Scope 3 emissions originate from the properties it manages, underscoring how deeply property management performance is intertwined with climate outcomes. At the same time, property management margins remain tight while sustainability responsibilities expand rapidly. Continuity, skills development, and organisational structure therefore become central to the success of decarbonisation efforts.

Across Europe, a growing number of owners and property managers, including PIMCO Prime Real Estate, IPUT Real Estate, Hines, BNP Paribas Real Estate, Derwent London, Redevco, Pembroke, and Lendlease, are formalising collaboration with occupiers through asset-level sustainability committees. Documented in ULI's Asset Sustainability Committees Best Practice Guide, these forums bring owners, occupiers, and property managers together to share and interpret performance data,

Source: Lendlease Eco-Concierge case study,
Asset Sustainability Committees
Best Practice Guide

align priorities, facilitate peer-to-peer learning among occupiers, and drive collective action on behaviour change. As IPUT Real Estate's Head of Asset Services explains:

"When occupiers see their performance alongside their peers [at a green committee], it shifts the conversation from compliance to collaboration. It's space needed from each other, not pointing fingers."

Low carbon tenant fit outs

Fit outs are a critical but often overlooked driver of emissions. Commercial interiors are typically replaced every three to ten years, and embodied carbon associated with interiors can account for up to 25 to 60 percent of a building's whole-life emissions. Fit out decisions strongly influence operational performance through lighting, HVAC loads, and equipment efficiency. Aligning owners and occupiers early in the design process allows materials, systems, and layouts to be optimised for both operational and embodied carbon reduction across the building's life cycle.

Renewables and energy systems

On-site and off-site renewable energy, combined with storage and grid-interactive systems, further strengthens decarbonisation pathways. Renewables reduce emissions, lower long-term energy costs, reduce exposure to price volatility, and enhance asset resilience. When aligned with tenant demand and supported through appropriate commercial structures, renewable integration delivers both environmental and financial value.

Cost-sharing solutions

Addressing the split incentive requires creative financial solutions. Cost-sharing models and emerging financing structures are beginning to enable landlords and occupiers to jointly invest in upgrades that deliver mutual benefits. Without these mechanisms, structural friction will continue to limit progress even as sustainability expectations from regulators, investors, and corporate leadership intensify.

British Land provides a strong example through its Transition Vehicle, established in 2020 to deliver energy and carbon targets. Funded by an internal levy of £90 per tonne of embodied carbon, the mechanism incentivises low-carbon design and finances retrofitting projects. According to its 2025 Sustainability Progress Report, £19.7 million has been committed to date, with almost 60% recoverable from occupiers through service charge loans. This approach shows how innovative financing and cost-sharing can accelerate decarbonisation, while aligning landlord and occupier interests. A good example of this is the recent project at 2 Kingdom Street, where an air source heat pump was installed.

Achieving net zero in occupied buildings is no longer primarily a technical challenge. It is a challenge of governance, incentives, and relationships. As climate risk reshapes investment strategies and regulatory pressure intensifies, the industry's ability to collaborate will increasingly determine the pace of progress. Structured engagement models, supported by research-based tools that are embedded in day-to-day asset management, offer one of the clearest pathways for translating climate ambition into measurable building-level results. ◢

> ***Owners carry responsibility for overall asset performance and long-term decarbonisation pathways, yet occupiers exert significant control over the behaviours and systems that determine actual emissions outcomes***

Fot. Adam Cieszko

Roland Jarosz
Project Director,
Skanska Commercial
Development Europe

Poland's First Net-Zero CO_2 Commercial Office Building at Operational Level

Nowy Rynek C is the latest phase of our flagship office complex in the heart of Poznań. The Skanska project raises the bar, setting the highest standards for sustainable development in construction. This will be Poland's first commercial office building with net-zero CO_2 emissions at the operational level[1)] and will be completely independent of the municipal district heating network. In this way, Poznań will join the ranks of leading European cities with net-zero emission office buildings.

The 88 points awarded in LEED v4 precertification for a rating of Platinum places our project among the highest-rated buildings in Poland in terms of sustainable construction.

Nowy Rynek C will be powered 100% by renewable energy. It will feature its own heating systems - both air-source and ground-source heat pumps – ensuring complete independence from the municipal district heating network. The ground-source heat pumps required us to drill a record-breaking 10 km of boreholes – an unprecedented market solution that harnesses natural energy resources stored in the earth. This will enable the entire building to be heated in the winter and cooled in the summer without reliance on external infrastructure. The use of innovative technological solutions, including air-source and ground-source heat pumps, will deliver energy consumption reductions of approximately 40%[2)] compared to standard building designs.

The electricity powering the building will be sourced partly from the building itself with Poland's largest photovoltaic installation mounted on a commercial office building - and will also be procured from the energy exchange market, with the sourcing verified through Renewable Energy Certificates.

Nowy Rynek C will consume approximately 18% less energy per square meter compared to a standard Polish household[3)]. Additionally,

Nowy Rynek C will be the country's first commercial office building to achieve net zero operational CO_2 emissions, operating entirely independently of the municipal district heating network

1 Definition of a net-zero emissions building, according to the EPRA & KPMG document from July 2025, encompasses high energy efficiency buildings with zero CO_2 emissions from fossil fuels on-site. Furthermore, in accordance with the applicable Building Directive, buildings qualifying for energy class A+ and A correspond to buildings achieving zero on-site CO_2 emissions from fossil fuels. Nowy Rynek C meets these criteria. The information provided herein reflects the state of knowledge available at the time of project commencement communication.

2 In accordance with the CDE Energy Carbon model performed by an external company using Skanska CDE standards.

3 Assumptions based on data from CBOS and GUS (Central Statistical Office of Poland): One Polish household comprises approximately 90 sqm with annual consumption of 5,000 kWh.

low-carbon materials will be used in its construction, including concrete, glass, and aluminum with a reduced carbon footprint compared to conventional materials. Through these and other solutions, the building aligns with the EU Taxonomy framework and ESG strategy.

Tenants will have access to fresh air through automated operable window panels. The AI-Enhanced Building Management System (BMS), as well as the integrated innovative façade, will enable natural air circulation, particularly at night, allowing for passive cooling of the interior. This delivers operational cost savings and reduces the energy consumption required for air conditioning.

Nowy Rynek C is designed with the health and well-being of its users in mind, as confirmed by its WELL v2 precertification at 84.5 points. The project has also received certification from the Integracja Foundation and been awarded the 'Barrier-Free Building' certificate.

Notably, during the design phase, we collaborated with the Military University of Technology. With their support, we ensured that in the event of an unforeseen crisis, the underground facilities can be rapidly converted to serve as protective shelters. Additionally, Nowy Rynek C will be Poland's first commercial office building equipped with a rooftop terrace adapted for drone-assisted parcel delivery operations. ◢

The project's LEED v4 Platinum precertification score of 88 points places it among the top-rated buildings in Poland for sustainable construction

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Publication available on the partner's website: **www.skanska.com**

Aleksandra Noworyta
ESG Director,
EPP

King Cross Marcelin – An Energy Modernisation Blueprint for Mature Assets

Energy modernisation is crucial to improving the efficiency of legacy buildings and reducing their environmental footprint. The transformation of the 20-year-old King Cross Marcelin shopping centre in Poznań exemplifies how the efficiency of older assets can be enhanced and provides a scalable blueprint for the modernisation of retail properties. As a result, primary energy (PE) consumption dropped by 61% and the building's carbon footprint was significantly reduced.

The property rose from energy class D to B*, becoming more cost-effective to operate and more comfortable for its visitors. Notably, the modernisation work was completed without any operational downtime. The transformation is part of EPP's wider strategy to enhance energy efficiency across its entire portfolio.

Audit as the starting point for transformation

The initial energy performance certificate showed a PE consumption of nearly 224 kWh/sqm/year. Comprehensive energy, technical, and thermographic audits revealed excessive heat loss and the lack of ad-

* Draft regulation of the Minister of Economic Development and Technology on the methodology for determining the energy performance of a building or part of a building and energy performance certificates as of 31 December 2025.

King Cross Marcelin complies with the EU Taxonomy criteria for climate change mitigation, delivering lower operating costs, enhanced user comfort, and a lower carbon footprint

vanced controls for the installations. HVAC systems operated continuously, whilst insufficient metering hindered consumption monitoring. Key areas for improvement were identified in the heating, ventilation, insulation, and utility management systems forming the foundation of the transformation.

Heating and insulation: eliminating losses and stabilising system performance

Insulating the ceiling above the semi-open car park delivered an 18 kWh/sqm/year reduction in PE and final energy (FE) savings of 20 kWh/sqm/year. It also reduced heat loss and condensation risk. Simultaneously, the heating substation was modernisedwith automated modulating control valves, eliminating overheating and reducing heat and electricity consumption. The replacement of hot water heaters with heat pumps yielded further efficiency gains: -19 kWh/sqm/year PE and -6.5 kWh/sqm/year FE. Redesigning the entrances with double sliding doors reduced cold air infiltration, resulting in higher temperatures of +1.5-2°C in common areas without increasing heating costs.

Demand-controlled ventilation

The ventilation system was also part of the comprehensive modernisation work. Replacing air handling units with inverter-equipped devices, CO_2 sensors, and individual metering enabled intelligent airflow management. The system now automatically adjusts its capacity to occupancy levels, significantly reducing energy consumption while improving indoor air quality.

Renewable energy integration and energy independence

The building was equipped with a 1,100 kWp PV installation reducing projected PE consumption by approx. 54 kWh/sqm/year. This trans-

lates to significant emission and operating cost reductions, as well as greater resilience to volatile energy prices.

Digital waste management

In May 2025, the WasteTracker digital system was implemented, monitoring in real-time the weight and types of waste generated by all tenants. The solution enhances proper segregation and enables data-driven decision-making. The system is integrated with the greenhouse gas emissions monitoring platform, allowing both property owner and tenants to precisely measure their environmental impact and systematically improve waste management processes. Currently, the tool tracks 44 tonnes of waste monthly, with a recycling rate of 61%.

Final outcome

Following the modernisation, PE demand dropped to just over 88 kWh/sqm/year from the initial 224 kWh/sqm/year, which represents a 61% reduction. The property meets EU Taxonomy criteria for climate change mitigation whilst offering lower operating costs, enhanced user comfort, and a reduced carbon footprint. The King Cross Marcelin modernisation demonstrates how mature buildings can be effectively transformed into efficient, low-emission assets because a responsible future means giving second life rather than building from scratch. ◢

EPP

EPP is the largest asset manager of retail real estate located in Poland in terms of gross leasable area. The company's portfolio comprises 28 retail destinations and 6 office properties representing approximately EUR 2.9 billion in assets and 1.2 million sqm of GLA. Strategically positioned across a mix of Polish cities with strong consumer demand and growth potential, EPP delivers innovatively managed space that drives tenant business success. The company is owned by Redefine Properties, the second largest Real Estate Investment Trust (REIT) listed on the Johannesburg Stock Exchange.

Publication available on the partner's website:
https://www.epp-poland.com/

Agnieszka Gutowska
Head of Brand Marketing & Communication, Nhood Services Poland

Local Communities in the Spotlight

Sustainable development activities are becoming increasingly important in the business strategies of key players in the ESG market. For 14 years, Nhood Services Poland has been implementing social impact activities through a comprehensive CSR programme for the benefit of local communities, as well as involving them in the design of new developments. In addition, new projects are developed to align with the concept of the 15-minute city, facilitating the daily functioning of communities and improving the quality of life in the immediate environment.

The social dimension of ESG is a key area of responsible business today. So how do you form the basis for a strategy in this area and formulate an effective action plan?

It is worth starting with what is at the heart of making a positive social impact – namely, the relationships with stakeholders. In the commercial real estate industry, we must consider the owners, tenants, investors, end customers, and the residents of the cities where the properties we manage are located, as well as local authorities and associations. We need to reach out to each of these groups using different tools and communication channels. While collaboration within a business environment is part of our everyday life, building good relations with local communities requires a long-term effort.

The comprehensive Good Neighbour programme, developed in dialogue with local communities

Since 2012, our team has been following the original Good Neighbour CSR programme. We created it to offer visitors of our shopping centres and local residents events and activities in response to their real needs. Where did we start?

The managers of the shopping centres we manage are based in various locations throughout Poland. They are in everyday contact with local communities, allowing them to identify local expectations. We also rely on public opinion polls and customer surveys, and consider the views expressed in the public sphere with care, including those in local and social media. Based on such information, we have identified

several areas of importance to local communities, which are covered by five thematic sections of the Good Neighbour programme. These are ecology, the region, culture and education, safety and health, and finally sport and entertainment. These issues relate to specific UN goals, in particular 3: 'Good Health' and well-being, 4: Quality education, 11: Sustainable cities and communities and 13: Climate action.

Five areas – a real impact on local communities

The sections of the programme are intended to complement the activities of institutions, associations, and local authorities so the events on offer to local communities provide access to culture, support the environmental programmes of municipalities, prevent the spread of lifestyle diseases, and nurture the diversity of the regions.

Themes, diverse target groups, and planned topics

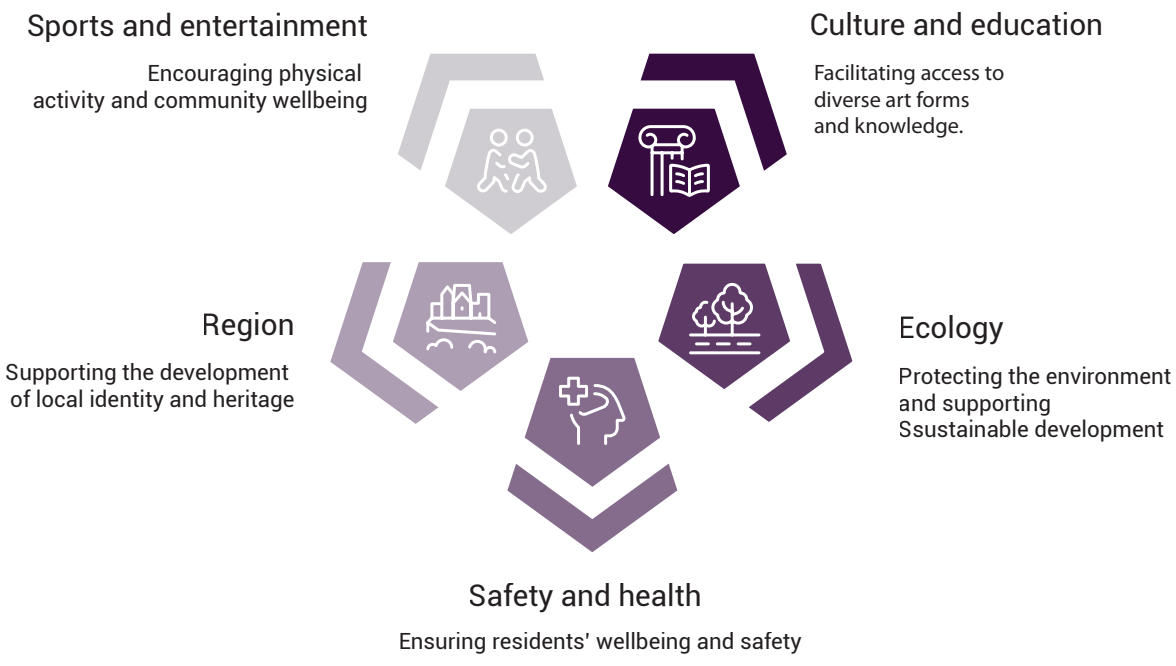
Each of the five thematic areas of the Good Neighbour programme is represented in the events held by the shopping centres we manage. We deal with each region on an individual basis. There are locations where cultural events predominate, while in others we offer local communities more sports or entertainment-oriented activities. In such cases, to assess the effectiveness of our activities, we have to look at the attendance and engagement of those taking part. A good action plan therefore includes the gathering and careful analysis of data.

We also adapt our programme to meet the needs of different age groups. Here, it is important to analyse the customer groups that visit a given centre. This is why we have places where family events are popular, such as family theatres. We organise these in Rumia in Pomerania, Krasne in Podkarpacie, and Mikołów in Silesia. In other centres, workshops for seniors are popular, where they can meet and pursue their interests. We also cater for teenagers, a very demanding social group, for whom, in 2025, we organised meetings with influencers and Fortnite tournaments.

Care for the local community and partnerships with loyal institutions

The calendar of events for the Good Neighbour programme is carefully planned and often draws on local traditions and customs. Our shopping centre

GOOD NEIGHBOUR PROGRAMME



managers often invite local organisations, such as charities, associations, and animal welfare organisations, to co-organise events. Just as with the target group selection, it is important to think locally and reach out to associations, charities, and cultural institutions that operate in the area.

An example of this is Galeria Bronowice (Bronowice Shopping Centre), where an activity programme is being developed with local partners. The centre works with the Krakow Festival Office and the Rydlówka Museum – affiliates of the Krakow Museum and Krakow Art Schools, who run the KSA gallery within the centre and organise many interesting events for shoppers - and the Krakow Library, which supplies books to the reading room. In addition, in the Superhero Zone in the shopping centre, we regularly host organisations that support people in need and help them connect with local communities. Port Rumia in Pomerania also works closely with the Municipal Cultural Centre, to organise regular artistic events for families and senior citizens.

Year-on-year increase in the number of events

The success of the Good Neighbour CSR programme and its popularity among local communities is illustrated by the fact that the number of events it organises is growing year on year. From January to November, 2025, 480 CSR events were held in the shopping centres managed by Nhood Services Poland, 14 per cent more than in 2024. The data above shows how much this programme is integrated into the shopping centre calendar of events and how much it is appreciated by local communities. Every year, the company reports on these activities internally, and, on numerous occasions, the market has learnt about them through our reports prepared in accordance with GRI standards.

Local communities are involved in events organised as part of the Good Neighbour programme. Health campaigns, garage sales, collections, theatre performances, and family workshops have proven particularly popular.

Selected activities from the Good Neighbour CSR programme

The aim of the Mosznowładcy campaign held at the Galeria Bronowice which is, managed by Nhood Services Poland, was to raise awareness of testicular cancer and encourage preventive screening. Men under the age of 40 were offered a testicular ultrasound scan, while older men could have their prostate cancer marker (PSA) levels tested.

Through regular exchanges and neighbourhood sales in Silesia, Nhood Services Poland convinced visitors at the centres of the importance of the circular economy and its impact on the climate and the local community. In 2025, Auchan Shopping Centres in Bielsko-Biała, Gliwice, Katowice, Mikołów, and Sosnowiec hosted Neighbourhood Garage Sales, during which local people could put items up for sale free of charge. These events drew large crowds both of sellers offering retro items, toys, and clothes, and buyers.

Free family theatre performances, which in 2025 were held regularly at the Galeria Łomianki (Łomianki Shopping Centre) near Warsaw and Auchan Shopping Centres in Białystok, Krasne, Legnica, Mikołów, Wałbrzych, and Rumia, also proved very popular. Once a month, throughout the year or at other special times, parents could watch free performances with their children which, in addition to being great fun, were also of educational value and promoting values such as friendship, helping those in need, and respect for nature.

Dialogue and cooperation with local communities in working on new developments

One of Nhood's key business objectives is to create friendly, accessible spaces for city residents. Participatory design is a tool that helps us achieve this.

Wilanów Park is a new development that we are creating in close cooperation with residents, through a series of consultations called Neighbourhood Talks. These allowed us to gather opinions for the city park that is at the heart of this project. Based on these recommendations, we prepared guidelines with the A2P2 architecture & planning studio for an architectural competition for the design concept of a two-hectare park, running the competition shortly after these guidelines were prepared.. The next stage of consultations, conducted from June to October 2025, was to determine the function of the project, what it would offer, and its surroundings. Most of the proposals submitted included design specifications for mixed-use projects in Wilanów.

We took a similar approach with our Góraszka Project. From October to November 2023, residents of Wiązowna told us what they expected from the development and their priorities for protecting the environment in an online survey. The findings of these consultations, reaffirmed the value of the solutions proposed, including a cinema, a DIY store, and a grocery store, all of which meet the real needs of the local community.

A 15-minute city in practice

Around the world, including in Poland, Nhood strives to make urban spaces vibrant places where retail, offices and residential buildings blend harmoniously, creating a friendly environment for their users. Our team not only modernises existing properties, but also changes the way they are perceived, giving them a new, attractive identity.

When designing new projects, we take account the principles of the 15-minute city first proposed by Prof. Carlos Moreno. The concept is polycentric, where every district has a city centre that residents can reach in just 15 minutes on foot or by bicycle. This reduces the divisions in a city between exclusively office, industrial and residential districts, where residents have to spend time travelling between areas.

The proximity of key amenities helps to reduce CO_2 emissions, lower unemployment and improve the quality of life for different social groups. The result is sustainable, well-connected urban structures, such as the mixed-use Wilanów Park development, which our team is currently working on. We are planning for it to be a place bustling with life from morning to evening, through a combination of retail, catering, services, entertainment and office space all surrounded by a 2-hectare city park. Furthermore, the road layout and cycling paths around the development will make it possible to reach Wilanów Park from any part of the district on foot or by bicycle in just 15 minutes.

Sustainable development – investing in the future of communities and cities

Through our activities, we are demonstrating that shopping centres can serve as modern, inclusive social spaces where residents not only shop, but also build relationships, pursue their interests and hobbies, and receive real support in their everyday lives. Our long-term Good Neighbour CSR programme, participatory investment design, and the application of the 15-minute city principle form a coherent strategy for a responsible business that listens to local needs and responds to environmental and social challenges. As a result, Nhood is shaping friendly, vibrant places that strengthen social capital and the quality of life of residents, while also serving as an inspiring model for the commercial real estate industry in Poland. ◢

Izabela Małek
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Omnibus I – Changes in EU Taxonomy Reporting from 2026

On January 8 2026, a new delegated act to the EU Taxonomy Regulation was published in the Official Journal of the EU. It introduces a number of simplifications to reporting under Article 8 of the Regulation, and to applying the DNSH principle to pollution prevention and control.

Materiality threshold

The most significant change in reporting is the introduction of a materiality threshold, exempting financial and non-financial companies from assessing the eligibility and compliance with the EU Taxonomy of economic activities that generate less than 10% of their cumulative revenue, capital expenditure ("CAPEX"), or operating expenditure ("OPEX"). Each exemption must be assessed separately for each key performance indicator (KPI). The introduction of this simplification should result in reducing the overall administrative burden.

For example, until now, if a company subject to reporting requirements owned a building, it was obliged to submit compliance reports in regard to its 'acquisition and ownership of buildings', as the criteria is listed in the climate delegated act. This meant that a company whose main activity was not related to real estate (and might not even be listed in the Taxonomy Regulation) would be obliged to report under the Regulation simply because it owned some building, such as its headquarters. With the new, simplified delegated act, such a company will no longer be obligated to report unless its acquisition or holding of buildings accounts for at least 10% of its revenues, capital expenditure or operating expenditure.

Changes in reporting requirements

Other significant changes include a simplification of the reporting template, resulting in a 64% reduction in the number of data points required from non-financial companies and 89% for financial institutions. In addition, the 'no significant harm' (DNSH) criteria for the use and presence of chemicals (Annex C) have been reduced to facilitate reporting under the Taxonomy Regulation in relation to activities supporting the green transition, such as photovoltaic panels and batteries..

OMNIBUS I

The new Delegated Act provides that, in reporting for 2025, companies may rely on a transitional period and prepare their Taxonomy disclosures under the previous rules.

I encourage you to familiarise yourself with the contents of the new delegated act, which is available in Polish[1)], and the draft FAQ published by the Commission on 17 December 2025[2)]. It states that companies will be able, in their reporting for 2025, to take advantage of a transition period and prepare their taxonomy disclosures under the old rules.

EU scrutiny of technical screening criteria

The changes to the reporting rules are not the only changes that market participants need to prepare for. The European Commission is reviewing the technical screening criteria for specific activities included in the EU Taxonomy, with regard to Delegated Regulation 2021/2139 (the Climate Delegated Act) and Delegated Regulation 2023/2486 (the Environmental Delegated Act). From September to December 2025, the Commission held a series of workshops with stakeholders (EU taxonomy reality checks[3)]) to gather opinions on how the criteria could be simplified. Dedicated sessions were devoted to various sectors including transport, information and communication, forestry and environmental protection, services, waste management, construction and real estate, low-carbon activities, energy, transitional activities, plastic packaging, and pharmaceuticals. Market feedback was also gathered through an open consultation (call for evidence), which ended on 5 December 2025[4)]. Based on the information gathered, as well as parallel consultations with Member States, the Commission is to propose amendments to the climate and environment delegated acts in the second quarter of 2026. ◢

1 Official Journal of the European Union, Commission Delegated Regulation (EU) 2026/73 **https://eur-lex.europa.eu/legal-content/PL/TXT/HTML/?uri=OJ:L_202600073&qid=1767869381782**

2 Draft Commission Notice on the interpretation and implementation of certain legal provisions of the Disclosures Delegated Act under Article 8 of the EU Taxonomy Regulation **https://ec.europa.eu/finance/docs/law/251217-draft-commission-notice-faqs-omnibus-delegated-act_en.pdf**

3 Reality check on the EU taxonomy; **https://finance.ec.europa.eu/events/reality-check-eu-taxonomy-2025-09-01_en**

4 EU taxonomy - have your say! **https://ec.europa.eu/newsroom/fisma/items/907956/en**

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How has 2025 Transformed the ESG Legal Landscape?
as of 19 December 2025

The year 2025 significantly reshaped the ESG legal framework in Europe, shifting the focus from reporting alone to the practical readiness of organisations for a new regulatory reality. For the real estate market, this means both greater regulatory flexibility in sustainability disclosures and growing pressure to align buildings and investment projects with more demanding energy, emissions, and technical standards.

The year 2025 brought a real earthquake in the European ESG legal environment. In February 2025, the European Commission presented the Omnibus[1)] package, which redefines the approach to sustainability, and the EPDS (Energy Performance of Buildings Directive)[2)] – a milestone on the way to decarbonising the construction sector in the European Union by 2050.

The Omnibus is primarily aimed at simplifying the CSRD (Corporate Sustainability Reporting Directive)[3)], the CSDDD (Corporate Sustainability Due Diligence Directive)[4)] and the EU Taxonomy[5)], by way of reducing administrative burdens and competitiveness of market players. The Omnibus marks a new phase in EU sustainability regulations – one that promises greater simplicity, yet also raises important questions and concerns about the future direction of the EU's sustainable development agenda. The European Commission initially estimated that

1 Omnibus I, European Commission, publication on 26 February 2025 - **https://commission.europa.eu/publications/omnibus-i_en**.

2 Directive (EU) 2024/1275 of the European Parliament and of the Council of 24 April 2024 on the energy performance of buildings, OJ L of 2024, p. 1275.

3 Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU as regards corporate sustainability reporting, OJ 2022 L 322, p. 15.

4 Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859, OJ L 2024, p. 1760.

5 Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 2020 No 198, p. 13.

the Omnibus would generate around €6.3 billion in annual administrative cost savings and unlock an additional €50 billion in public and private investment[6]. However, it remains to be seen how these projections will translate into practice.

At the same time, throughout 2025 the pressure continued to mount in the area of building energy performance due to the need to transpose the EPBD into national legal systems. Most member states are undergoing this transition - and Poland is no exception.

In such a rapidly evolving regulatory landscape, market participants face the dual challenge of continuously monitoring legislative developments and, more importantly, actively preparing for their practical implementation.

What new responsibilities and challenges await the market in 2026?

Part I: The Omnibus - the new reality

The first element of the Omnibus package was Directive (EU) 2025/794 of the European Parliament and of the Council ('Stop-the-Clock'), approved by the European Parliament on 3 April 2025. Its purpose is to postpone the entry-into-force dates of the CSRD and CSDDD. At the national level, the act implementing the 'Stop-the-Clock' directive into the Polish legal system entered into force on 12 August 2025[7].

After many months of debate, on 9 December 2025 the European Parliament and the Council of the EU, acting as co-legislators, reached an agreement on the Omnibus package. On 16 December 2025, the European Parliament approved a provisional agreement with the Council[8]. Once the amendments are formally adopted by the Council, they will enter into force 20 days after their publication in the Official Journal of the European Union.

With respect to the CSRD and CSDDD, member states will have until 2028 to transpose the new rules into national law. Notably, the CSRD amendments will require swift action, particularly from those member states that have already transposed the original version of the directive, in order to avoid legal uncertainty.

1. CSRD and Omnibus

The Omnibus introduces a series of important changes to the CSRD relating to non-financial reporting.

One of the most significant amendments is the narrowing of the reporting obligation to entities employing more than 1,000 employees and generating an annual net turnover of more than EUR 450 million. This represents a substantial increase in the thresholds compared to the previous criteria, which already included EU companies with more than 250 employees.

The thresholds have also been raised for non-EU entities. The CSRD will continue to apply to non-EU undertakings with consolidated net turnover in the EU exceeding EUR 450 million (previously EUR 150 million), as well as to their subsidiaries and branches with turnovers above EUR 200 million in the EU. As a result, small and medium-sized enterprises listed on regulated markets in the EU, as well as financial holding companies, are effectively excluded from the scope of the directive.

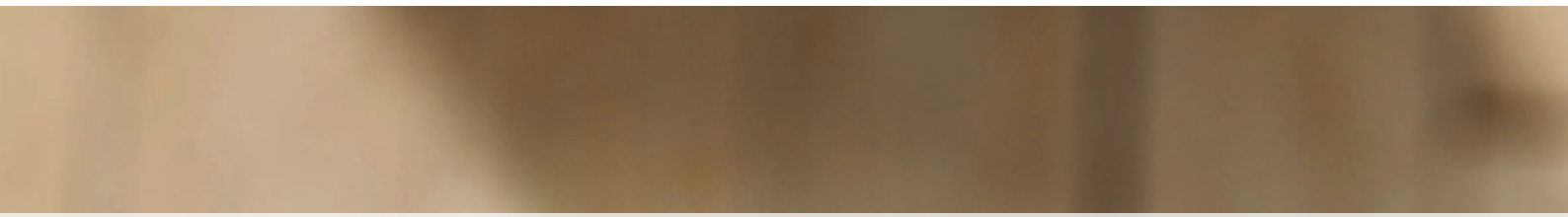
According to available estimates[9], these amendments could exclude approximately 80% of companies previously falling under the CSRD, thereby concentrating sustainability reporting obligations primarily on the largest market actors. Nevertheless, it should be noted that many entities previously covered will still need to report due to their parent companies meeting the new, higher thresholds on a consolidated basis.

6 Commission simplifies rules on sustainability and EU investments, delivering over €6 billion in administrative relief", Press Release dated 26 February 2025 - **https://ec.europa.eu/commission/presscorner/detail/en/ip_25_614**.

7 Act of 9 July 2025 amending the Act amending the Accounting Act, the Act on Statutory Auditors, Audit Firms and Public Oversight, and certain other acts (Journal of Laws of 2025, item 1020).

8 Content of the agreement adopted on 16 December 2025 - **https://www.europarl.europa.eu/doceo/document/TA-10-2025-0324_EN.html**

9 "Commission simplifies rules on sustainability and EU investments, delivering over €6 billion in administrative relief", Press Release dated 26 February 2025 - **https://ec.europa.eu/commission/presscorner/detail/en/ip_25_614**.



Another important change concerns the protection of smaller entities employing fewer than 1,000 people from excessive information requests by larger companies. EU legislators have recognised that SMEs in value chains often face disproportionate reporting demands from CSRD-obliged entities. Under the Omnibus, companies subject to reporting obligations will be prohibited from requesting information from smaller entities beyond certain predefined limits. These smaller entities will also have a statutory right to refuse to provide information that exceeds the boundaries set out in the voluntary sustainability reporting standards, which the Commission is expected to adopt by a delegated act - based on the VSME (Voluntary Sustainability Reporting Standard for SMEs) developed by EFRAG and recommended by the Commission in July 2025. Although VSME standards will apply to entities with fewer than 1,000 employees, CSRD-obliged companies may still request additional information typically provided in a given sector. The Commission has not yet clarified what type of information this may involve, to what extent it may be requested, nor whether the relevant sector should be that of the requesting entity or the entity providing the information.

Additionally, the Omnibus gives member states the option to exempt 'first-wave' entities from manda-

tory CSRD reporting for the 2025 and 2026 financial years. This exemption applies to companies that would have been required to report under the previous thresholds (e.g., entities with more than 500 employees and turnover above EUR 25 million), but which will fall outside the scope once the new thresholds come into effect. However, this discretionary exemption may lead to temporary inconsistencies across the EU, depending on how each member state implements it.

The Omnibus also postpones the application of reporting requirements for companies newly falling under the CSRD - entities previously scheduled to begin reporting in 2026 or 2027 will now have their deadlines pushed back by two years, to 2028.

To support implementation, the European Commission plans to launch a dedicated web portal providing practical information, templates, and guidance for reporting entities.

Furthermore, the Omnibus introduces substantial amendments to the ESRS (European Sustainability Reporting Standards)[10], which form the basis for CSRD-compliant reporting. The planned changes include reducing the number of data points by more than 60% and removing the obligation to apply sector-specific standards. EFRAG presented its proposed amendments in December 2025, and the Commission is now preparing a draft delegated act based on this technical advice.

Finally, the Omnibus also has implications for statutory auditors. Under the CSRD, sustainability reports must undergo assurance by at least one statutory auditor or audit firm, evaluating compliance with the directive's requirements. According to the Polish Chamber of Statutory Auditors[11], the Omnibus does not diminish the role of auditors; rather, it redefines it - shifting the focus from the volume of reports to the quality of data, underlying processes, and internal control systems.

10 Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards, OJ EU L 2023 No. 300, p. 2772.

11 "New Architecture of ESG Regulations: What Changes with the Omnibus I Package", publication on 18 December 2025, **https://www.pibr.org.pl/pl/aktualnosci/2583,Nowa-architektura-regulacji-ESG-co-zmienia-pakiet-Omnibus-I**.

2. EU Taxonomy vs. Omnibus

As a brief reminder, the EU Taxonomy is the commonly used name for Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020, which establishes a framework to facilitate sustainable investment by defining a system for classifying environmentally sustainable economic activities. The Taxonomy also introduced an obligation for non-financially reporting entities to disclose the extent to which their business activities or investments comply with the criteria set out in the regulation.

The Omnibus simplifies several aspects of Taxonomy-related requirements, including by:

- introducing a financial materiality threshold for Taxonomy reporting (a 10% de minimis threshold, meaning that if the share of a Taxonomy-eligible activity in a company's turnover, CapEx, or OpEx is below 10% per year, the company is not required to report the activity as Taxonomy-aligned); and
- reducing the reporting templates by more than 60%.

In addition, entities subject to mandatory EU Taxonomy reporting will be permitted to disclose activities that do not fully meet all technical screening criteria but are only partially aligned. This change is intended to encourage companies to report their progress toward meeting the Taxonomy requirements and, in doing so, to present their broader "transformation story."

3. CSDDD vs. Omnibus

The CSDDD originally introduced two main obligations for entities within its scope:

- the obligation to identify and address actual and potential adverse human rights and environmental impacts, based on a risk analysis covering the entity's own operations, its subsidiaries, and its business partners throughout the value chain;
- the obligation to adopt and implement a climate-change mitigation transition plan to ensure - through due diligence - that the entity's business model and strategy are aligned with the transition to a sustainable economy and the Paris Agreement objectives.

What key changes does the Omnibus package bring to the CSDDD?

First, the implementation of the CSDDD has been postponed by one year. The directive will now apply from 26 July 2029, with transposition into national law required in 2028. While 2029 may seem distant, real estate investment projects are often planned years in advance, meaning these future requirements should already be factored into strategic decisions.

Under the latest Omnibus amendments, fewer entities will fall within the directive's scope. The CSDDD will apply only to companies employing at least 5,000 people and generating more than EUR 1.5 billion in turnover. For non-EU companies, the requirement of generating more than EUR 1.5 billion in turnover within the EU has been maintained.

In its original form, the CSDDD required large entities to prevent human rights and environmental harms across their entire value chain. This entailed identifying and assessing risks arising from both direct and indirect business partners. The Omnibus, however, introduces a risk-based approach that relies on publicly available information instead of systematically requesting data from smaller partners. Under the amended rules, entities will not be permitted to request information from business partners employing fewer than 5,000 people, unless the information is necessary, cannot be obtained otherwise, and there is a likelihood of an adverse impact.

Regarding the second major obligation - the climate transition plan - the requirement to implement the plan has been removed. Originally, companies were required not only to adopt but also to implement these plans, with national authorities responsible for enforcement. This enforcement element has been abandoned. Nevertheless, climate-related planning remains necessary under other EU legislation, meaning the removal of this requirement in the CSDDD does not eliminate the broader need for transition planning.

The Omnibus also removes the harmonised EU-wide civil liability regime originally proposed under the CSDDD, leaving liability rules to national legislators. Member states must still ensure that individuals harmed by an entity's failure to meet its obligations have a right to compensation. Entities subject to the CSDDD may be fined up to 3% of their net worldwide turnover - reduced from the previously proposed 5%.

Part II: Energy Performance of Buildings Directive (EPBD)

The EPBD obliges member states to implement solutions that are primarily aimed at reducing the energy consumption of buildings and ensuring that it comes from low- or zero-emission sources. These measures are expected to lead to the full decarbonisation of the construction sector in the European Union by 2050.

The European Union plans to achieve its ambitious EPBD's target through a variety of measures, from the renovation of buildings, through standardised energy performance certificates, to better information tools, digital infrastructure, and decent databases for greater comparability of information between member states.

More than two years have passed since the entry into force of the directive, and the deadline of 29 May 2026 for transposing the directive into national legal systems is inevitably approaching.

Most EU member states are in the process of transition. How does the Polish legislator deal with the implementation of the EPBD?

Actions aimed at transposing the EPBD into the Polish legal system are complex and multifaceted, requiring the adoption of new acts, but also, in particular, amendments to existing implementing acts.

Among other things, changes are planned in the regulation on the methodology for determining the energy performance of a building or part of a building and energy performance certificates, introducing new definitions of energy, new calculation methodologies, or the integration of renewable energy sources. In accordance with the requirements of the EPBD, a model of the energy performance certificate for buildings[12)] introduced in Poland,

12 Draft Regulation of the Minister of Development and Technology on the methodology for determining the energy performance of a building or part of a building and energy performance certificates - **https://legislacja.rcl.gov.pl/projekt/12386852**.

covers classes from A+ to G (i.e. including buildings consuming a very large amount of energy, the so-called energy vampires). The class of the building assigned in the certificate may have an impact on the decisions of tenants, investors, or the transferability of real estate, and buildings with the lowest energy efficiency will be subject to the obligation to renovate. A high energy class, in turn, can have a positive impact on the valuation of real estate and greater opportunities to obtain financing.

Amendments to the regulation on the technical conditions to be met by buildings and their location[13]. The new technical conditions are to introduce the concept of a zero-emission building - the so-called ZEB (Zero Emission Building) - as a new standard for buildings under construction, which will have a direct impact on the design, obtaining permits, and technical specifications of buildings. The assumption is that the new technical conditions are to be more readable for consumers, adapted to modern construction technologies (including, for example, the issue of energy storage, photovoltaics, etc.), and comply with the EU's requirements.

One of the most important documents that each member state must prepare in accordance with the EPBD is the National Building Renovation Plan (NBRP). According to the provisions of the EPBD, the first draft of the NBRP should be submitted to the European Commission by each member state by 31 December 2025. The final version of the document, however, should be adopted by a resolution by 31 December 2026. The NBRP is to include long-term plans to modernise Poland's building stock to achieve the goal of high energy efficiency and climate neutrality by 2050. According to the information previously provided by the Ministry of Development and Technology, the draft of the NBRP was to be submitted for public consultation in the fourth quarter of 2025. Obtaining an entry in the list of legislative works of the Council of Ministers is the basis for referring the document for public consultations, arrangements, and opinions. However,, as of 19 December 2025, the NBRP is not included in the list of legislative works of the Council of Ministers, so potential delays in the transposition of the EPBD into the Polish legal system can be expected.

In practice, all the above changes will result in the need to adapt real estate investments to more ambitious energy and emission criteria. The implementation of the new regulations resulting from the need to transpose the EPBD into Polish law is associated with potentially high costs, which is why it continues to be widely discussed on the national arena. We will find out what the final wording of the new Polish regulations will be in 2026, but one thing can be sure - the regulations determining the consumption of primary energy, the amount of CO_2 emissions, and the share of renewable energy sources will be more demanding for entities operating on the market than before.

What's next?

The legislative changes introduced in 2025 generated significant discussion across the European Union, including in the Polish market. As the year drew to a close, the final shape of the obligations that entities will need to address remained somewhat uncertain.

In this context, obliged entities face the challenge of strategically rethinking their sustainability strategies and strengthening dialogue with key stakeholders.

On the one hand, the reduction of reporting burdens and the extension of deadlines for implementing new sustainability regulations provide organisations with more time to adapt and allow for more deliberate planning of their sustainability initiatives. This creates an opportunity to organise internal processes and adequately prepare for the changes ahead.

On the other hand, the collection of reliable sustainability data continues to pose difficulties, even under simplified requirements. Many organisations still lack effective tools to manage this area.

It is therefore essential not only to monitor legislative developments but also to remain prepared to implement appropriate solutions. The extended timelines should be used to build the necessary competencies. Ultimately, only a comprehensive approach will enable entities to meet both regulatory requirements and market expectations. ◢

13 Regulation of the Minister of Development and Technology on the technical conditions to be met by buildings and their location - **https://legislacja.rcl.gov.pl/projekt/12398903**.

Seweryna Afanasjew
Head of Poland Advisory Group, RICS

The Sustainability Paradox – Summary of the RICS Sustainability Report 2025

The real estate and construction sector remains one of the most critical areas of the climate transition, accounting for nearly 40% of global CO_2 emissions and raw material consumption. The RICS Sustainability Report 2025[1)] highlights a clear paradox: despite growing awareness of climate-related challenges, the pace of tangible action is slowing. Demand for sustainable buildings is losing momentum, financial and skills-related barriers persist, and whole life carbon measurement is still not a market standard.

The Real Estate Sector at a Turning Point

Real estate and construction play a pivotal role in the global response to the climate crisis. Given the scale of the sector's environmental footprint, its transformation is essential both to reduce emissions and to increase resilience to climate change and biodiversity loss.

The RICS Sustainability Report 2025 is based on research conducted among more than 3,500 professionals across 36 countries through the Global Commercial Property Monitor (GCPM) and Global Construction Monitor (GCM). The findings show that, despite an expanding regulatory framework and growing declarations of commitment, sustainability objectives are increasingly overshadowed by short-term business priorities in a challenging economic environment.

Global Demand for Sustainable Real Estate: A Slowing Trend

The RICS Sustainable Building Index (SBI), which measures global appetite for sustainable commercial real estate, remains positive but is clearly losing

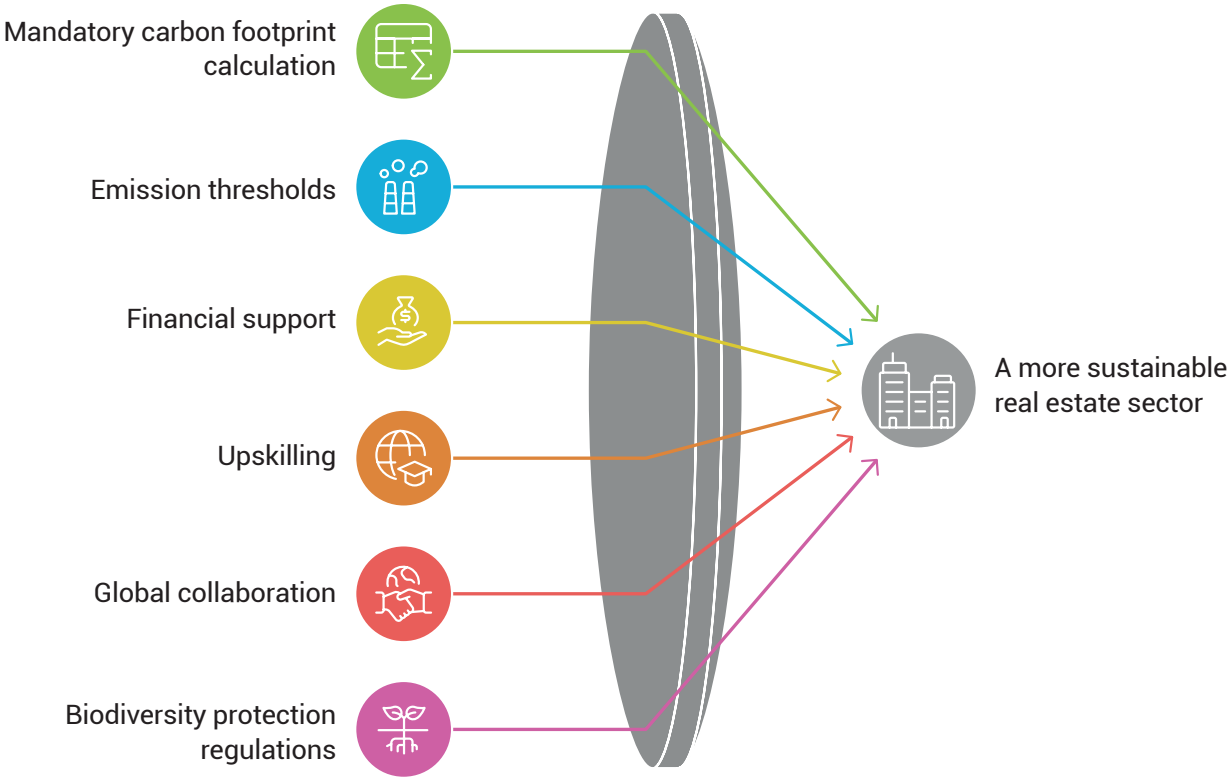
1 For the onlne version **https://www.rics.org/news-insights/current-topics-campaigns/sustainability/sustainability-report-2025**

momentum. In 2025, the global net balance stood at +30, indicating weaker demand growth compared with previous years.

This slowdown is not uniform across regions:

- The Americas recorded the sharpest decline, with the SBI falling from nearly +50 in 2021 to +11 in 2025. This trend reflects lower interest from both investors and occupiers, combined with political uncertainty and a weaker leasing cycle.
- Middle East and Africa (MEA) is the only region where demand for sustainable buildings is clearly increasing, with the SBI reaching its highest level at +52.
- Europe, and Asia Pacific (APAC) experienced a flattening of growth after very strong demand in previous years. In the Americas, around 60% of respondents reported no change in interest in sustainable buildings over the past 12 months.

RICS 2025 REPORT: KEY RECOMMENDATIONS



Diverging Priorities of Investors and Occupiers

One of the key conclusions of the report is the significant gap between investor priorities and the expectations of commercial occupiers.

Investors focus primarily on asset value and risk mitigation. Green building certification (86%) and climate resilience (78%) are considered the most important attributes, with certification serving as a recognised signal of sustainability performance and protection against future asset obsolescence.

Occupiers, in contrast, prioritise factors that directly affect operating costs and workplace comfort. Indoor environmental quality (94%) and energy efficiency (88%) are seen as critical, alongside circular economy practices such as waste reduction and resource efficiency.

The report also shows that sustainability priorities are strongly influenced by local conditions. Water efficiency is particularly important in regions facing water scarcity, while circular economy solutions receive greater emphasis in Europe.

Barriers to Green Investment: Costs and Skills Gaps

Across all regions, high upfront costs remain the most frequently cited barrier to investment in sustainable real estate. Between 35% and 46% of respondents highlight insufficient evidence of long-term return on investment (ROI).

Non-financial barriers are also significant. Knowledge and awareness gaps are particularly visible in MEA and APAC, where many respondents point to a limited understanding of the benefits of sustainable investment. In Europe, regulatory complexity represents a more serious obstacle than the lack of government incentives, as rapidly evolving regulations make long-term investment planning more difficult.

The Carbon Measurement Challenge in the Construction Sector

The RICS report indicates that the construction sector has made limited progress in implementing sustainable practices over the past year. Of particular concern is the lack of widespread carbon measurement and reporting.

Around 46% of construction professionals state that they do not measure CO_2 emissions, a proportion that has increased compared with the previous survey. At the same time, carbon measurement and climate adaptation are recognised as key sustainability priorities, yet 60% of organisations track these metrics in less than half of their projects.

The highest-ranked environmental priorities include waste reduction, the use of low-carbon materials, and the reduction of both embodied and operational emissions. More than 60% of respondents also identify biodiversity protection as a significant challenge in their region.

Conclusions and Recommendations: Time for Systemic Action

The RICS Sustainability Report 2025 clearly demonstrates that voluntary approaches to sustainability are no longer sufficient. Slowing demand for green buildings, persistent market barriers, and limited progress in carbon measurement point to the need for decisive, system-wide action.

Key recommendations include:

- introducing mandatory whole life carbon measurement and reporting,
- setting emission performance thresholds for new and existing buildings,
- expanding financial mechanisms to support energy efficiency investments,
- systematically strengthening ESG skills and competencies across the sector,
- enhancing global cooperation and standardisation,
- implementing robust regulations to protect biodiversity.

Only a comprehensive and coordinated approach can realistically bring the real estate sector closer to achieving its climate goals and significantly reduce its environmental impact. ◢

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Automation as the Foundation of ESG in Real Estate

ESG reporting in the commercial real estate sector still largely relies on manual data collection, spreadsheets, and fragmented information. Meanwhile, the scale of the environmental challenges continues to grow, and regulatory and market pressure requires precision, automation, and collaboration among multiple stakeholders. It is becoming increasingly clear that the future of ESG is technology that moves ESG from the level of reports to the level of everyday decisions and processes.

Fragmented Data as the Main Barrier to Effective ESG

Collecting ESG data in commercial real estate remains one of the greatest challenges for owners, asset managers, and property managers. Although ESG has become a permanent element of many companies' strategies, in practice this process is often reduced to manually rewriting data from invoices, PDFs, and technical reports into Excel. This approach is time-consuming, error-prone, and difficult to scale, especially in the case of large real estate portfolios.

The problem is further exacerbated by the complex structure of the market. Within a single building, owners, property managers, facility managers, ESG managers, and tenants operate in parallel, each responsible for a different part of operations. There is a lack of clear responsibility for environmental data: who collects information on energy consumption, who is responsible for waste, and who aggregates data for non-financial reporting purposes. As a result, ESG becomes a set of inconsistent figures rather than a real management tool.

One of the most challenging areas remains waste management. Volumetric measurement still dominates, which does not reflect the actual environmental impact. However, more and more solutions based on waste weighing and precise classification are emerging, making it possible to better understand the structure of generated waste and more effectively plan reduction measures. An equally significant challenge is the lack of historical technical data on buildings, which hinders the analysis of the so-called embodied carbon footprint.

Against this background, so-called operational ESG is gaining increasing importance. This is a concept that shifts the focus from declarations and strategies to the day-to-day functioning of buildings. A key role is played here by the property manager, who is familiar with the building's technical infrastructure, the location of meters, patterns of space usage, and the actual processes related to utilities and waste. It is precisely at the operational level that data is generated which can have real analytical value.

Technology as the Foundation of Operational ESG

Technology becomes a natural ally of this approach. Automating data collection through integrating systems with utility providers, invoice readings, APIs, or smart metering makes it possible to move away from manual work and obtain data in real time. Systems such as SINGU enable building mapping, meter assignment, analysis of energy, water, or

SCOPE 1	SCOPE 2	SCOPE 3
Direct emissions arising from the asset's own operations	Indirect emissions associated with purchased electricity and heat	Other indirect emissions across the value chain, including waste, transport and tenant operations

gas consumption, and the conversion of this data into emission indicators in line with Scope 1, which are direct emissions resulting from the building's own activities, Scope 2, which are indirect emissions related to purchased electricity and heat, and Scope 3, which are other indirect emissions across the value chain, including waste, transport, and tenant activities[1].

Importantly, this data does not remain material solely for non-financial reports. It is transformed into actionable operational information that can be used on a daily basis by asset managers, property managers, and facility and sustainability management teams. This enables the identification of inefficiencies, comparisons of buildings across a portfolio, faster response to consumption anomalies, and decision-making that simultaneously supports ESG objectives and improves the operational efficiency of properties.

Automation also opens the way to benchmarking and optimisation. Comparing energy consumption between buildings, tenants, or time periods allows inefficiencies to be quickly identified and concrete investment decisions to be made, from replacing lighting to energy modernisation projects. ESG then ceases to be a reporting obligation and begins to function as an operational tool.

All indications suggest that the future of ESG in commercial real estate will be based on partnership-driven cooperation between owners, managers, tenants, and technology. Excel spreadsheets will not disappear overnight, but it is increasingly clear that they are unable to handle the scale and complexity of today's environmental challenges. Automation is no longer an innovation. It is becoming a necessity. ◢

1 Greenhouse Gas Protocol – Corporate Accounting and Reporting Standard (Revised Edition), WRI & WBCSD.

BREEAM In-Use and LEED O+M – Two Certification Systems, One Goal

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How to navigate the world of certifications for existing commercial buildings?

Growing tenant requirements, climate regulations, cost pressure, and the need for transparency—particularly the expectations of financing institutions—have made certifications for existing buildings a market standard. There is also increasing awareness that the certification level and the specific elements assessed by auditors are crucial for investment evaluation.

As a result, owners, property managers, and investors are increasingly facing the question: which system should be chosen and what should not be overlooked when pursuing BREEAM In-Use or LEED Operations and Maintenance certification?

Although both models focus on improving efficiency and indoor environmental quality, they differ significantly in approach, structure, requirements, and market positioning.

Therefore, it is worth taking a closer look at the key elements of both systems: their scope, objectives, certification processes, and the tools used during assessment.

Two traditions, two perspectives on sustainable buildings

Although BREEAM and LEED have coexisted on the European market for many years, they represent different traditions and have developed differently. Understanding these differences helps explain the nature and rationale of the solutions applied in each system.

BREEAM In-Use, present on the market since 2008 and originating in the United Kingdom, places a strong emphasis on building management and day-to-day operational practice. This is primarily due to its division into two assessment parts:

Part 1 – Asset Performance

Part 2 – Management Performance

This structure allows for both an evaluation of technical parameters and a verification of the quality of processes, procedures, and policies applied by the property manager.

LEED v4.1 O+M, with American roots dating back to the late 20th century, focuses on measurability, technical audits and hard data related to energy

and water consumption, indoor air quality, occupant comfort, and building systems. Unlike BREEAM, LEED does not allow for selecting the scope of certification—the entire building must be certified. This simplifies the process but limits flexibility for assets with complex usage structures.

On the Polish market, the quantitative dominance of BREEAM certifications (both In-Use and New Construction) is clearly visible. In the logistics and retail sectors, this dominance is almost exclusive. This results from the system's flexibility, rooted in its European origins and its understanding that buildings developed in different periods and markets vary significantly. These observations are confirmed by practitioners from JWA, the company delivering the highest number of BREEAM certifications in the CEE region.

Shared values, different emphases

Both BREEAM and LEED aim to:

- reduce energy and water consumption,
- improve occupant health and comfort,
- limit environmental impact,
- enhance management quality and operational data.

As a result, certification helps reduce utility consumption and associated costs, while increasing asset resilience.

However, the ways these goals are achieved differ significantly.

- **BREEAM Part 1** includes, among others: comfort analysis, assessment of technical systems, waste recycling, transport impact, and biodiversity of external areas.
- **BREEAM Part 2** focuses on policies, procedures, satisfaction surveys, risk management, and building resilience.
- **LEED O+M** emphasises integrated consumption assessments, energy audits, air quality testing, transport surveys, ventilation system verification, and waste management control. It is more "technical" in nature and heavily measurement- and audit-based.

In both systems, the certification process takes a similar amount of time—typically 4 to 7 months, and certificates are valid for 3 years. Differences arise in prerequisite requirements.

- **BREEAM** requires the building to be in use and supported by an appropriate data base; minimum requirements may include water metering or flood risk analysis (depending on **the certification level).**
- **LEED** requires at least 12 months of occupancy, mandates the absence of CFC refrigerants, and includes several compulsory audits (energy, water, waste, indoor air quality).

Certification levels also differ in naming:

- **BREEAM**: 6 levels, from Acceptable to Outstanding
- **LEED**: 4 levels, from Certified to Platinum

Assessment categories – similar areas, different structures

Although both systems cover management, health, energy, water, waste, transport, external areas, and resilience, BREEAM separates these areas in greater detail, while LEED groups them into more integrated categories, such as Indoor Environmental Quality or Energy and Atmosphere.

MARKET PRACTICE: POPULARITY AND AVAILABILITY

Differences in the number of certified buildings illustrate the scale of development of both systems in Poland:

BREEAM In-Use:	**670** projects
LEED O+M:	only **36**

This significant disparity results, among other factors, from the flexibility of BREEAM scopes, easier entry through Part 1, better alignment with European operational practices and lower certification fees. In LEED, certification costs increase with building size, whereas BREEAM applies fixed fees for Part 1 and Part 2.

Importantly, BREEAM also includes Resilience and Land Use & Ecology categories, which provide a detailed assessment of biodiversity and climate change readiness. LEED, on the other hand, rewards innovation through the Innovation category, granting additional points, among others, for the involvement of a LEED AP O+M expert.

Summary: which system should you choose?

This comparison shows that although both systems pursue similar objectives, they are built on different approaches to building assessment:

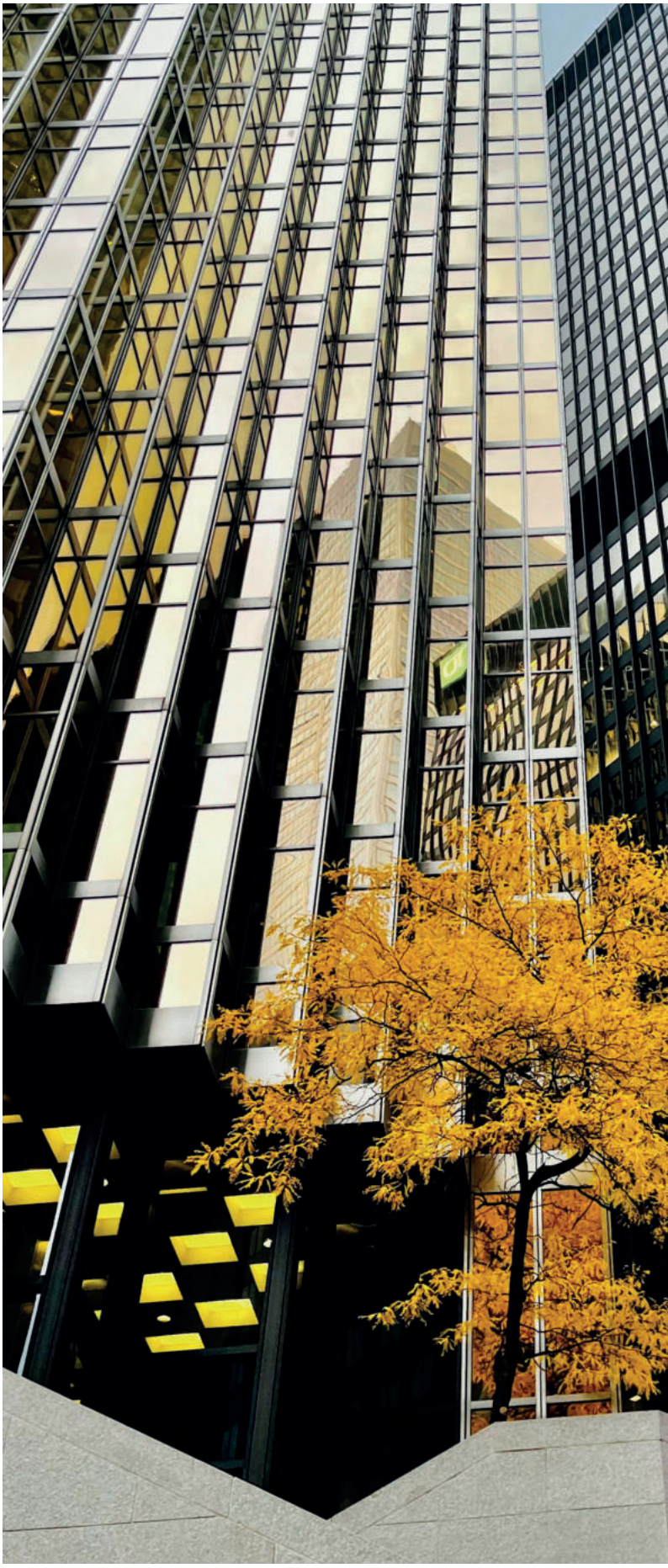
- **BREEAM** is more flexible and modular, well suited to the European market, with a strong focus on management and risk.
- **LEED** is more audit-driven and globally standardised, with a strong emphasis on measurements and precise operational data.

The final choice should depend on the objectives for which the certification is being pursued. It should take into account the building's characteristics, the availability of data, the company's ESG strategy, and the expectations of tenants, and—above all—financing institutions.

Failing to address these aspects may result in reduced asset value and difficulties in attracting demanding tenants (who are also willing to pay for premium space). Most importantly, it affects access to financing, its cost, and the potential exit strategy for the asset.

The use of LEED O+M or BREEAM In Use certification allows for the resolution of several issues that are important for the continuity of asset operations, primarily: the risk of regulatory changes, the risk of loss of value, how tenants perceive the property, and the achievement of their ESG goals, as well as meeting the requirements of financing institutions that take into account decarbonisation and energy efficiency.

It should be remembered that certification is both an international mark of quality and a form of third-party verification, while the optimal effects obtained from its use result from specific solutions that are selected individually based on business needs. ◢



Key conclusions

Certification of existing buildings is crucial for building property value and attractiveness to tenants who expect a higher standard of rental space – in all types of commercial real estate.

The type and level of certification provide investors, tenants, and especially financing institutions with conscious risk reduction and optimisation of operating costs.

A well-chosen certificate and the level of certification achieved ensure that the building is well managed, resilient, and will remain attractive as an asset.

The most important factor in choosing the desired level of certification is understanding the purpose of the entire process, which is usually related to obtaining financing or refinancing, achieving a higher sale price for the asset, or attracting demanding tenants. Defining the goal is crucial for the course and effect of the certification of an existing property.

The market has seen keen interest from financing institutions not only in the possession of a multi-criteria certificate, but also in the specific issues and levels that the assessment takes into account. This is a clear signal to owners and managers to treat the certification process as a kind of important audit, the course and recommendations of which should be treated as guidelines

DETAILED COMPARISON OF SIMILARITIES AND DIFFERENCES BETWEEN THE TWO SYSTEMS

BASIC INFORMATION

	BREEAM In-Use International Commercial v6.0	LEED v4.1 Operations and Maintenance
Certification body	Building Research Establishment (BRE)	U.S. Green Building Council (USGBC)
Certification scheme launch date	2008	1998 - LEED 1.0 pilot version 2003 - first certificate for an existing building
Number of buildings in Poland with certification	670* (within the scope of Part 1 or Part 2 or Part 1 + Part 2) *as of October 31, 2025	36* *as of October 31, 2025
Fees to the unit	Registration: £750 Part 1 fee: £1,180 Part 2 fee: £1,180	Registration: €1,188 Certification: depending on surface area **https://www.usgbc.org/tools/leed-certification/pricing-tool**
Option to choose the scope of certification	Yes: Part 1 (Asset Performance)/ Part 2 (Management Performance)	not applicable
Scope of certification	The entire building, common areas of the building, or the space of selected tenants/ selected floors	The entire building or a single tenant office (Interior)
Certification within the portfolio	Certification of several buildings on a single certificate is permitted when the buildings being assessed are located on a single plot of land, serve the same function, have a similar structure, and are of a similar age	No options for existing buildings

KEY CERTIFICATION OBJECTIVES

BREEAM In-Use International Commercial v6.0	LEED v4.1 Operations and Maintenance
Part 1: • improving user comfort and health; • reducing energy and water consumption (which translates into lower building operating costs); • encouraging users to use sustainable means of transport when commuting to and from the building (which translates into improved local air quality), and in particular promoting walking and cycling (which additionally translates into improved user well-being); • effective waste recycling and efficient management of building materials; • improving the biodiversity of the building's outdoor area; • minimising air and water pollution associated with the building's operation (substances related to cooling and heating equipment, parking lots, generators, etc.); **Part 2:** • effective building management through the development and implementation of appropriate policies and procedures; • surveying building user satisfaction and responding to their needs; • reporting on energy and water consumption, waste generation, and CO_2 emissions; • decarbonisation/improvement of building energy efficiency; • increasing the resilience of the building by undertaking or planning actions resulting from assessments of risks and opportunities related to climate change, energy transition, or social issues.	• comparing the environmental impact (utility consumption, transport-related pollution, waste production) with other buildings; • reducing energy and water consumption (which translates into lower building operating costs); • improving user comfort and health; • controlling air quality in the building; • surveying building user satisfaction and responding to their needs; • encouraging users to use sustainable means of transport when commuting to and from the building; • verifying the ventilation system; • sustainable procurement.

CERTIFICATION PROCESS

	BREEAM In-Use International Commercial v6.0	LEED v4.1 Operations and Maintenance
Certification process time (approximate)	4-6 months	5-7 months
Certificate validity period	3 years from obtaining the certificate	3 years from obtaining the certificate
Classes / Certificate levels	A total of 100% to be earned: Acceptable - from 10% Pass - from 25% Good - from 40% Very Good - from 55% Excellent - from 70% Outstanding - from 85%	A total of 100 points to earn: Certified - from 40 points Silver - from 50 points Gold - from 60 points Platinum - from 80 points
Prerequisites	• At least 80% of the floor area must be finished, and in the case of applying for Part 2 certification, this area must also have been in use for at least 12 months prior to the start of the assessment; • The building must contain at least one room intended for continuous use by building users (for at least 30 minutes per day).	• Building used for at least the last 12 months; • Ban on the use of CFC refrigerants.
Mandatory to comply with	**Part 1:** • Provision of a water meter for the building or plot of land on which the building is located (requiredfor the Good level and above); • Performance of a flood risk analysis from seas and rivers (required for the Very Good level and above); • Provision of a waste storage area that meets specific BREEAM requirements (required from the Outstanding level); **Part 2:** • implementing a purchasing policy (required for the Acceptable level and above); • implementing an environmental policy (required for the Very Good level and above); • developing fire safety instructions (required for the Acceptable level and above); • conducting a building user satisfaction survey (requiredfor the Excellent level and above);	• Conducting ventilation efficiency tests; • Conducting a transport and user satisfaction survey; • Collecting data on water, electricity, and heat consumption for the last 12 months; • Collecting data on the number of users over the last 12 months; • Conducting an energy audit in accordance with ASHRAE; • Conducting a waste audit and air quality test; • No smoking within 7.5 m of the building.

CERTIFICATION PROCESS

	BREEAM In-Use International Commercial v6.0	LEED v4.1 Operations and Maintenance
Categories	Management; Health and Wellbeing; Energy Transport; Water; Resources; Resilience; Land Use and Ecology; Pollution	Location and Transportation; Sustainable Sites*; Water Efficiency; Energy and Atmosphere; Materials and Resources; Indoor Environmental Quality; Innovation * does not apply to interior certification
Additional analyses/ research	**Part 1:** Indoor and outdoor lighting intensity studies (HEA03) Flood risk analysis (RSL01) Resource inventory (RSC03) Functional adaptation strategy (RSC04) Environmental report (LUE02) **Part 2:** Energy audit (ENE22) Assessment of physical climate risks (RSL06) Assessment of transformational climate risks and opportunities (RSL07) Assessment of social risks and opportunities (RSL08) Legionella risk assessment (HEA18) Acoustic report (HEA17) Environmental report (LUE03/04) Safety audit (RSL10)	ASHRAE Level 1 audit Waste audit CO_2 and VOC concentration testing in the air

COMPARISON OF ASSESSMENT CATEGORIES IN THE BREEAM AND LEED SYSTEMS

BREEAM category	BREEAM
Management	Part 1: -
	Part 2: building user guide; user satisfaction survey on indoor environmental conditions and controls, building equipment, and common areas; inspections of installations and key areas; environmental policy
Health and Wellbeing	Part 1: occupational health and safety; user comfort; adaptation to users with special needs
	Part 2: user satisfaction survey on thermal comfort; access to safe drinking water; acoustic testing inside the building; indoor air quality management
Energy	Part 1: energy-efficient HVAC system; energy consumption management in buildings; energy performance certificate; on-site renewable energy production
	Part 2: energy consumption reporting; energy audit
Transport	Part 1: sustainable modes of transport; safe pedestrian and cycling infrastructure; access to amenities near the building
	Part 2: -
Water	Part 1: monitoring water consumption and leaks; preventing water leaks; water-saving fittings and appliances; use of rainwater/grey water
	Part 2: water consumption reporting
Resources	Part 1: assessment of the technical condition of the building; waste management; inventory of resources; adaptation to changes in the function of the building or selected spaces in the future
	Part 2: reporting on the quantity and type of waste generated; sustainable procurement policy
Resilience	Part 1: flood risk assessment; reduction of surface water runoff, including on-site rainwater retention; protection against damage to sensitive building elements/areas; alarm systems
	Part 2: emergency management; climate and social risk management; security audit
Land Use and Ecology	Part 1: provision of green areas and ecological elements within the investment area
	Part 2: improving the biodiversity of outdoor areas by implementing the recommendations of an ecologist
Pollution	Part 1: measures to reduce air and water pollution from substances associated with refrigeration and heating equipment, parking lots, generators, etc.
	Part 2: assessment of light pollution at night; prevention of pollutants entering the environment; refrigerant strategy, soil contamination study
-	-

	LEED category	LEED
	-	aspects related to facility management are included in individual categories
	Indoor Environmental Quality	air quality testing (CO_2, VOCs), user satisfaction survey; safe cleaning practices
	Energy and Atmosphere	energy consumption assessment per square metre and per person; ASHRAE Level 1 energy audit
	Location and Transportation	survey assessing emissions caused by transport to the building
	Water Efficiency	assessment of water consumption per square metre and per person
	Materials and Resources	waste audit; purchasing analysis; purchasing and renovation policy
	Sustainable Sites	flood risk management from overflow or failure of storm water drainage systems; reduction of surface water runoff, including on-site retention of rainwater
	Sustainable Sites	outdoor area management (including appropriate planting, reduction of the heat island effect)
	Energy and Atmosphere Sustainable Sites	selection of refrigerants with low environmental impact minimisation of light pollution
	Innovation	LEED AP O+M in the project team + additional strategy from the USGBC catalogue

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ESG as a Strategic Driver of Value Creation in the Real Estate Market

Contrary to appearances and despite the Omnibus I regulation, properly defined ESG is not losing relevance. A reduction in reporting obligations does not diminish its importance; rather, it shifts the focus from formal compliance to real risks and concrete business decisions.

ESG impacts valuation

At the same time, regulatory pressure on financial institutions is increasing, as they are required to report climate and transition risks within their portfolios. This will directly translate into higher expectations on property owners and developers. In the real estate market, this trend is clearly visible: tenants expect lower energy costs and security of supply, while investors seek assets resilient to climate and regulatory risks. Importantly, ESG does not have to be viewed solely as a cost. Companies that combine sustainability initiatives with tax tools, investment incentives, and green financing instruments can reduce risk, improve financial performance, and strengthen asset resilience. From an investor's perspective, ESG should be treated as a set of measurable environmental, social, and governance factors that generate specific categories of investment risk – particularly climate, transition, and reputational risks – directly affecting asset valuations, the cost of capital, and long-term portfolio stability.

ESG risk areas

Investors are focusing primarily on those ESG factors that have a direct impact on asset value and access to financing. Property owners face the need to address the physical effects of climate change, improve energy efficiency, and implement decarbonisation pathways. Addi-

tional challenges arise from rapidly evolving regulations and growing expectations from banks and tenants.

The key risk categories include:

- Transition risks – arising from regulations and requirements imposed by investors and banks, including energy retrofits, compliance with reporting standards, and alignment with EU Taxonomy criteria.
- Reputational and market risks – including tenant loss, declining competitiveness, reduced asset value, and the so-called brown discount applied to buildings that fail to meet environmental standards.
- Physical risks – linked to increasingly severe weather events such as floods, heatwaves and storms, affecting operating costs, insurance premiums, and the safety of occupants.

Financial regulation accelerates transformation

Despite the narrowing of the scope of CSRD and CSDDD, central banks are tightening requirements for the financial sector. Institutions operating under the scrutiny of regulators such as the EBA, BCBS, the ECB, and the Bank of England are required to provide detailed data on transition risks and decarbonisation risks. This significantly increases the obligation to collect, analyse and report ESG-related data.

For the real estate sector, the implications are clear: as banks must report climate and transition risks within their portfolios, they will require property owners to provide detailed data on energy performance, emissions, decarbonisation plans, and building resilience. Access to financing will become closely linked to the quality of ESG data and the level of asset transformation, accelerating portfolio modernisation.

Tax and state aid instruments

The state also plays a significant role in the implementation of ESG standards. Tax systems may discourage actions inconsistent with ESG principles – for example, by excluding from tax-deductible costs penalties related to environmental or occupational health and safety breaches. At the same time, tax preferences support initiatives aimed at reducing negative impacts, including deductions for donations to social and environmental causes and CSR-related tax reliefs.

Equally important are state aid instruments, including grants and preferential financing. Dedicated EU and national funds support a wide range of projects and initiatives aligned with ESG. For example, there are mechanisms that promote energy efficiency (including thermal modernisation). These instruments can take various forms and originate from different types of aid, many of which are available to property owners, including large scale ones. Using these instruments, whether tax related or subsidy based, can form part of a company's strategy by reducing risk, improving financial performance, and building real resilience across the real estate portfolio.

ESG as the foundation of long-term resilience

Regulatory and market developments clearly demonstrate that ESG is becoming more strategic than ever. A reduction in CSRD and CSDD scope does not signal reduced importance; rather, it reflects a shift towards addressing real risks that directly affect asset value and access to capital. In real estate, this translates into faster portfolio modernisation, improved energy efficiency, and increased building resilience to climate change and regulatory pressure.

The quality of ESG data is becoming a key criterion in financing and transactions. Companies that successfully combine sustainability initiatives with available support instruments gain a competitive advantage. ESG is no longer merely a cost – it has become a core tool for managing value and risk in the new market reality. ◢

PARTNERS

THE PUBLICATION IS AVAILABLE ON THE PARTNERS' WEBSITES

The Polish Chamber of Commercial Real Estate (PINK) brings together representatives from all sectors and services of the commercial real estate market within a single organization, enabling them to exert a tangible influence on the surrounding economic, political, and social environment. PINK serves as both their representative and a platform for the exchange of experience, knowledge, and collaboration. Working with other organizations, it promotes best practices in the commercial real estate market. The association includes developers, investors and asset managers, property managers, project companies, and construction consultants, real estate market advisors, as well as legal, tax advisory, and financial services providers.

PINK's publication can be found at: **www.stowarzyszeniepink.org.pl**

Polish Council of Shopping Centres (PRCH) is the largest non-profit association in Poland, bringing together nearly 200 entities from the retail and services sector.

PRCH has represented the members of the association in the business, political and social environment for 22 years. It works towards the development of the sector by participating in the development of legal solutions and by creating a positive image of retail assets. The Council participates in the creation and promotion of market standards by collecting, analysing, and presenting reliable data on the industry and its development trends. Polish Council of Shopping Centres is a substantive voice of the sector regarding legal regulations

PRCH is a reliable content partner for the media, government representatives and other industry organisations, providing analyses and reports based on reliable shopping centre data. The Council analyses and reviews regulations affecting the operation of retail assets.

More information: **www.prch.org.pl**

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Urban Land Institute (ULI) is a renowned global, member-based educational and research organization founded in 1936, bringing together nearly 48,000 professionals in real estate and urban development worldwide. ULI's mission is to inspire and accelerate positive, transformative change in the built environment through research, knowledge sharing, and dialogue between the public and private sectors. The organization operates as an independent platform focused on sustainable development, the quality of urban space, and long-term investment value.

In Europe, ULI has over 5,500 members across 15 country networks. **ULI Poland**, active since 2014, connects public and private sector experts to share knowledge, best practices, and shape better cities and higher quality standards.

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