



# Measuring What Matters: Climate Metrics in Real Estate Investment Decision-Making

July 2026



# Leading investors show strong consensus on the climate metrics most relevant for investment decision-making

## Why this matters

Buildings are responsible for 30 to 40% of global energy use and greenhouse gas emissions. As the world slowly moves towards net zero, this exposes real estate investors to two types of climate risk. The first is physical risk: the chance that a building is damaged or loses value because of floods, storms, wildfires, or extreme heat. The second is transition risk: the chance that a building loses value due to stricter regulation, rising energy costs, or changing tenant preferences as the economy decarbonizes.

Both types of risk could affect the valuation of a building, the income it generates, and the capital needed to keep it competitive. To manage these risks, investors need reliable and comparable data. In practice, however, climate data in real estate is often incomplete, inconsistent, and defined differently by every market participant. [Earlier research by GREEN](#) (then operating as LOTUF) identified gaps between a low carbon real estate market and current market practice, including limited transparency on the energy and carbon performance of buildings. This lack of data makes it difficult to compare buildings and portfolios and to reflect climate risk in investment pricing in a consistent way.

## What we did

To understand how institutional investors deal with these challenges, GREEN surveyed and interviewed 30 of the largest real

estate asset owners and managers globally, together representing approximately EUR 1.1 trillion in real estate assets under management. The participants include both direct and indirect investors in real estate. Most participants are based in Europe and North America, but their portfolios are generally global. Their investments cover the main real estate sectors, including offices, residential, industrial, and retail. We asked them which climate metrics they consider most relevant for investment decision-making, how they prefer to define those metrics, and whether or how the metrics actually influence investment pricing.

## The climate metrics most relevant for investment decisions

Investors show strong consensus on a core set of climate metrics:

- **Energy consumption and intensity:** how much energy a building uses, in total and per square meter or square foot.
- **GHG emissions and intensity:** the greenhouse gas emissions caused by operating a building, mostly driven by its energy use, fuel use and the carbon intensity of the local electricity grid.
- **Pathway alignment:** a measure that compares a building's performance with a science-based decarbonization pathway which translates global carbon budgets into property-level emissions and energy intensity targets.
- **Sustainability CAPEX:** the (estimated) capital needed to improve a building's sustainability, for example through insulation, heat pumps, or solar panels.

- **Physical risk assessment:** an analysis of how exposed a building is to climate hazards such as flooding, storms, wildfires, and extreme heat, and what the potential financial impact of that exposure is.

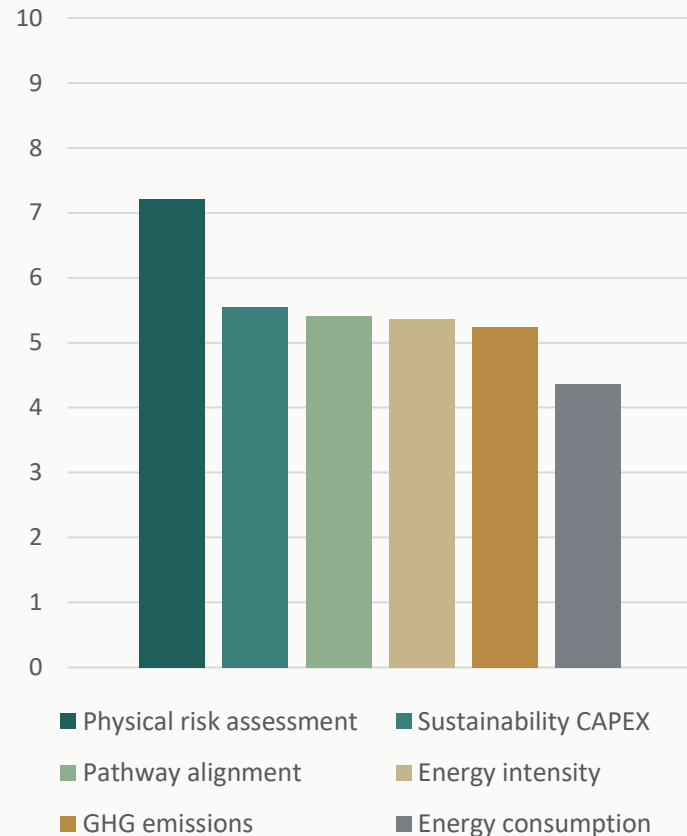
## What investors told us: the main conclusions

1. **There is strong consensus on which metrics matter for investment decision-making.** Physical risk assessment was mentioned most often as relevant for investment decisions, followed by sustainability CAPEX, energy intensity, GHG emissions and pathway alignment. The figure on the next page shows the average likelihood that an investor would use a given metric in their investment decision-making, on a scale from 0 to 10, where 0 means “very unlikely” and 10 means “very likely”. Besides these metrics, no other metrics were consistently mentioned by investors as financially relevant.
2. **The use of climate metrics depends more on where an investor is based than on where the capital is invested.** North American investors are more likely to focus on physical risk and on metrics directly linked to costs, such as energy consumption and sustainability CAPEX. European investors place relatively more weight on transition metrics such as GHG emissions and pathway alignment. Differences between sectors exist but are limited.



# Pathway alignment translates energy and emissions data into a forward-looking view of transition risk

The average likelihood an investor would use a climate metric in investment decisions (0 = very unlikely; 10 = very likely)



**3. Investors are broadly aligned on how energy and emissions should be measured.** The clear preference is for actual measured data rather than estimates, at the level of the individual building rather than the portfolio and covering the whole building rather than only the areas the landlord controls. Estimated data is generally accepted only at the portfolio level, for screening and monitoring purposes when measured data is unavailable. The interviews also highlight the importance of normalized data, adjusted for factors such as tenant characteristics, building use, and weather as this improves comparability. For emissions, most investors ideally want insight into all emission scopes, with a focus on location-based scope 2 emissions and operational scope 3 emissions. Location-based scope 2 emissions reflect the carbon intensity of the local grid and exclude offsets and off-site renewable energy purchases, making them a useful indicator of an asset's underlying exposure to transition and regulatory risk. However, preferences do vary between direct and indirect investors in real estate. For instance, some indirect investors prefer market-based emissions, as these can demonstrate results of active renewable energy procurement.

This points to a clear opportunity: since investors already broadly agree on how energy and emissions should be defined, harmonizing these definitions is a readily actionable step for the industry.

**4. Pathway alignment is the bridge between data and decisions.** CRREM is broadly recognized as the dominant framework. Most European investors already apply it. The preferred way to express alignment is the CRREM Misalignment Year, because it connects directly to investment horizons, net zero commitments, and the timing of renovation budgets. This also aligns with an emerging shift among some investors toward assessing distance to the pathway, rather than using pathway alignment as a binary indicator.

**What is pathway alignment and what is CRREM?**

Pathway alignment compares a building's actual performance with a decarbonization pathway, most often using the CRREM framework (Carbon Risk Real Estate Monitor). The CRREM Pathways are science-based decarbonization trajectories for buildings. They translate global carbon budgets derived from IPCC temperature change scenarios into property-level for both emissions and energy intensity targets for 18 property types across 44 countries. The CRREM Misalignment Year is the projected year when a building's carbon emissions and energy use intensity will exceed its respective CRREM Pathway. It signals the point at which a building becomes misaligned with a 1.5°C temperature change scenario and is often used by the market as a property- and portfolio-level indicator of transition risk. The CRREM Misalignment Year serves as a science-based early warning signal, helping investors and asset managers identify and manage transition risk before it materializes.



# More consistent and comparable data could drive more systematic pricing

5. **Sustainability CAPEX and physical risk show the widest variation in definitions across investors.** Approaches to sustainability CAPEX differ considerably. The approach mentioned most often was the incremental approach, where only the additional cost of making an investment more sustainable than a standard or regulatory-compliant alternative is classified as sustainability CAPEX. Even so, differences remain. Physical risk assessments depend on models and assumptions that are not always transparent. Moreover, indirect effects of physical risks are very difficult to quantify. Many indirect investors also indicated that they lack basic information, such as the geographic coordinates of the buildings in the companies or funds they invest in.
6. **The availability of consistent and comparable data, more than appetite, limits the quantitative use of climate metrics in pricing.** Many investors indicate they would like to reflect climate factors in investment pricing, mostly through exit values and risk premiums. While climate considerations are already often incorporated qualitatively, the lack of consistent and reliable data prevents most investors from translating them into more quantitative pricing adjustments.

## The way forward

Investors already consider climate metrics in decision-making, mostly qualitatively, and agree on which metrics matter most. The challenge now is to make the underlying data available so these metrics can be used robustly in investment decisions. This requires the industry to make these metrics a common part of reporting, further harmonize definitions and methodologies to enable apples to apples comparisons, and improve data exchange between managers and investors. More consistent and accessible data would support more systematic integration of climate considerations into investment decisions and well-informed capital allocation in the transition to a net zero built environment.

GREEN is addressing this systematically, and to do so effectively, GREEN mapped the reporting standards landscape after members and the market flagged inconsistent, poor-quality data: concluding standards do not always align, metrics are often defined only at a high level, driving materially different outcomes, and reporting burdens distract asset managers from what matters most. This report builds on that work by assessing which metrics investors consider most important and where access to consistent climate metrics is most needed. GREEN's next step is to use this foundation to drive the market to further harmonization of these most relevant climate metrics. This is not done by setting new standards, but by sharing the investor voice and best practices and

seeking collaboration with and support standard setters, industry associations and other relevant stakeholders.

This report is an executive summary of a broader research paper, which is exclusively available to interview participants and participating GREEN members. GREEN is a network of direct and indirect institutional investors focused to unlock a low carbon real estate market and to improve climate risks management in the industry. For more information on GREEN and how to join this important work, please contact: [rozemarijn.vanderknaap@green-engagement.org](mailto:rozemarijn.vanderknaap@green-engagement.org) or visit our website: <https://green-engagement.org/>.



# Industry endorsements

*"Based on the latest GREEN survey results, we are pleased to see that the climate metrics most relevant for investment decision making are recognised as the key environmental factors for investment underwriting, in line with INREV's industry initiative. Greater collaboration across the industry remains essential to align definitions of these metrics globally, and INREV believes the ESG SDDS can provide a strong platform for this work."*

**Constantin Sorlescu, Director of Professional Standards and Sustainability at INREV**



*"The conversation is no longer about whether climate and energy metrics belong in investment decisions. It's now about making the data consistent and comparable enough to act on with conviction. Pathway alignment is emerging as a material part of how investors are approaching that. Where a building sits relative to its pathway today matters, but so does the trajectory. That forward looking dimension is what turns a data point into a strategic decision."*

**Andrea Palmer, CEO at CRREM**



*"Consistent and comparable climate risk data is vital for investors to make informed investment decisions, drive efficient capital allocation and ultimately de risk their portfolios and build resilience. This research provides an important foundation for the industry to work together to develop consistent definitions and methodologies, and drive uptake across the real estate sector."*

**Hugh Garnett, Senior Specialist Real Assets at IIGCC**



*"We believe that trusted standards and high-quality data are fundamental to informed decision-making. As climate risks increasingly influence asset performance and investment outcomes, improving the clarity, consistency, and comparability of climate metrics is critical. This collaboration reflects our collective ambition to provide investors with the tools and information they need to assess risk more effectively and build confidence in the transition to a low-carbon and climate-resilient future."*

**Gina Ding, Head of Public Affairs at RICS**



*"As a long term investor, we can only price climate risks properly if the underlying data is reliable and comparable. This research shows the industry already substantially agrees on which metrics matter. The next step is to harmonize definitions and improve access to data, enabling investors to systematically incorporate these metrics in their investment decisions. GREEN plays an important role in this work, by uniting investors and working with standard setters to drive this harmonization forward."*

**Rutger van der Lubbe, Managing Director Global Real Estate at APG Asset Management**



*"Our conviction was always clear: a low carbon real estate market will only emerge if investors can actually measure and compare the climate performance of buildings. This report shows how far that thinking has come: the world's largest real estate investors now agree on which metrics to measure. What remains is to unlock the data, and that is where GREEN's work continues, because once the market can price the transition, capital will flow to the buildings and cities of the future."*

**Mikkel Bülow Lehnby, Co founder and Executive Chairman at Urban Partners**

