CRREM SURVEY ON TRANSITION RISK IN REAL ESTATE

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THE CRREM TRANSITION RISK SURVEY

Global market participants form the banking sector as well as international investors kindly participated in the survey '*CRREM* SURVEY ON TRANSITION RISK', providing valuable insights and their market views on the current trends and/or challenges in regard to carbon- and transition-risks. The survey was open from July until end of September 2021.

The survey highlights areas where the market can still take further action. Challenges still remain especially in regard to collecting refrigerant losses, collecting tenant data (especially for residential properties), challenges when dealing with data gaps and reducing asset level assumptions made. Further challenges also include defining uniform measurement units and building areas (e.g. IPMS 2 (International Property Measurement Standard)).

GENERAL INFORMATION AND PORTFOLIO DIVERSIFICATION

Respondents included **investors, pension funds, insurance companies, banks, fund- and asset/investment managers** and **corporates** (owner and occupiers of the assets). The majority of participants comprised of financial institutions as well as fund-, asset- and investment-managers. Regions ranged from **North America**, **EU** and **Asia-Pacific** and including both commercial and residential property-types.

GENERAL VIEW ON TRANSITION & CARBON RISKS

Subsequently, the questions placed a focus on the general view on transition & carbon risks. Climate change and / or sustainability are for the majority (94,1%) of the respondent's topics, which are of **substantial importance within their executive/ board level discussions**.

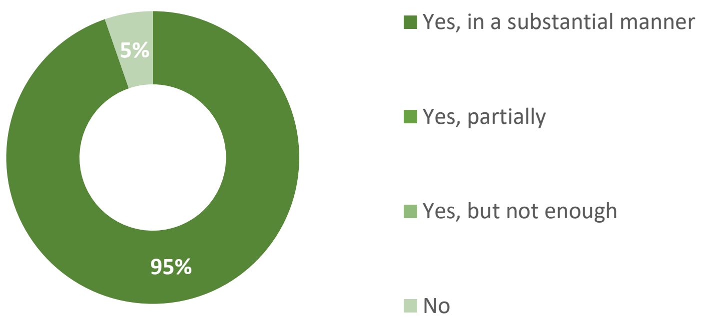
The **key drivers for increasing climate-related topics like transition risk** are in particular:

- **Tightening regulatory framework** regarding energy efficiency and GHG emissions
- Fear of **increasing risk of economic obsolescence** of properties
- Further, a majority also expect further transition-risks such as e.g. **increased carbon price** or **increasing reporting requirements**.

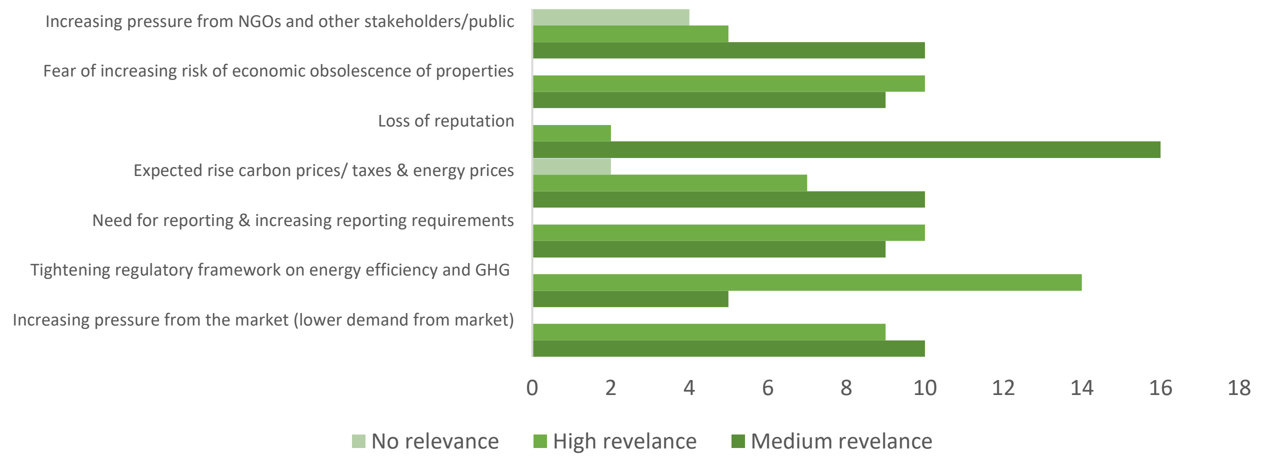
These above-mentioned key drivers are the highest fears of the participants. Further, a majority also expect additional transition risks such as e.g. pressure from the market or increasing energy prices.

The questionnaire illustrates that the increasing pressure from public and the loss of reputation are not key drivers for the increased focus on climate-related topics in the real estate industry. The participants also state that recent events like flooding's, social responsibility and intrinsic motivation of stakeholders are key drivers to focus on climate-related risks.

Is climate change and / or sustainability a topic of board level discussion?



What are the key drivers for increasing focus on transition risk?



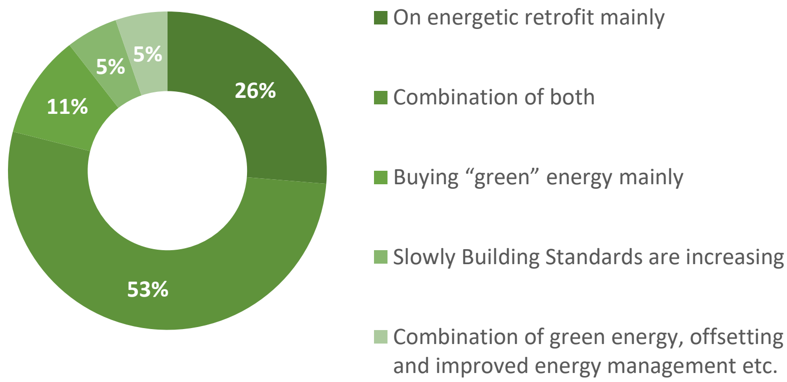
Market participants definitely agree that there will be **rather a combination of energetic-retrofits and in parallel buying green energy** (over 50%). The interpretation is, that the majority does not reply on the energy sector solving the race to net-zero. So just switching to electricity and not reducing energy consumption is not a solution.

Equally the expectation is not that the real state sector reduces energy demand/consumption completely by converting all standing investments to zero-emission-assets. There will be some residual amount of energy consumption remaining also after 2050 which will be produced on site by renewable-energy or the renewables must be procured from the energy grid.

The next poll collected feedback regarding the **carbon pricing for real estate** and its impact on asset values and **strategic decision-making**. The survey reveals that carbon pricing / carbon taxes will have definitely a **significant impact** in the upcoming years, as none of the participants believe that it will have no relevance on the industry.

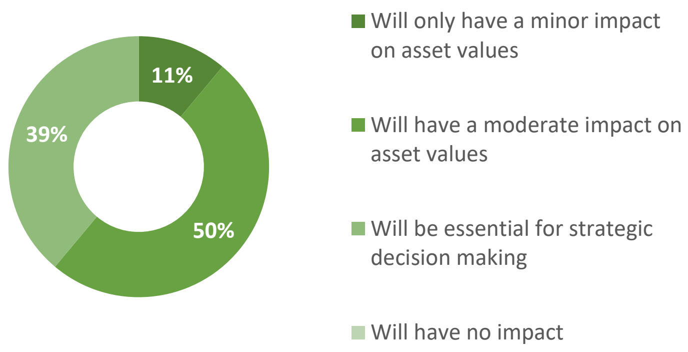
Around 50% state that it will have a moderate impact on asset values, 39% say that it will be essential for strategic decision making.

Do you see an increasing strategic emphasis on building efficiency?



Only 11,1% confirm that it will only have a minor impact on asset values. This thinking aligns with forecasts predicting a further significant increase of carbon prices in the near future. The current level is **expected to rise to around or even over \$150-200 tCO_{2}e by 2050** (World Energy Outlook, 2017). Hence, the `carbon risk` is underestimated: a new study done by Swiss Re indicates for example that the **world economy is set to lose up to 18% GDP if no action is taken.** The stress-test shows that in a severe scenario, Asia would be hit the hardest with losing nearly 24%, America and Europe up to 10% GDP (Swiss Re, 2021).

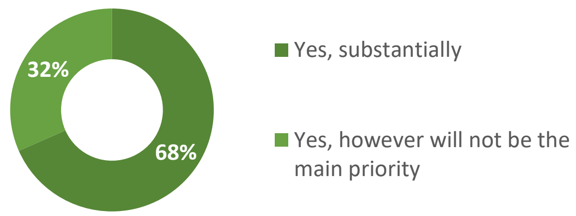
Do you think carbon pricing and /or taxation for real estate in the upcoming years?



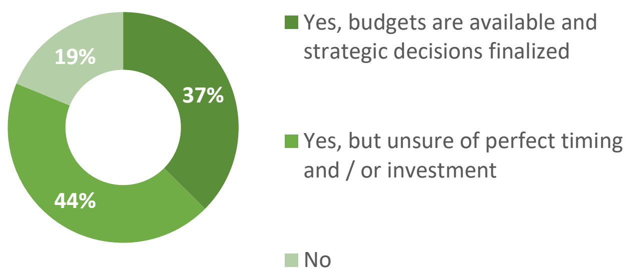
The survey indicates that the importance to focus on **climate risk when making strategic decisions for real estate holdings or lending will increase in the next years**. Around 68% of the participants think that a focus on climate risk is of major importance and 31,6% believe that it will be very important, however, not the main priority. Subsequently, global market players will also **increase climate change risk assessment activities** in the upcoming years. Interestingly this is one of the most significant affirmations. Only an insignificant minority believe a main focus or increased activity may not yet be necessary.

A further question asked `Do you already have refurbishment budgets and capex for energetic retrofits for your properties?' The graph below illustrates that the majority of the participants already have a refurbishment budget but are unsure of the perfect timing and/or budget for investment. While around **37% of the respondents have their budgets already set and finalized**. Just 19% do not yet have a budget and capex for energetic retrofits. It is likely that market demand for material/resources applied to energetic retrofitting will further increase in the upcoming years. In the light of current supply shortages and problems in procurement, it appears worthwhile to focus more on purchasing costs and procurement security as opposed to a specific retrofit strategy. It is questionable whether the costs for decarbonisation of real estate will decrease in the future due to the increased availability of technology (analogous to the development of PV in the past) or whether procurement costs will increase due to the increasing/high demand.

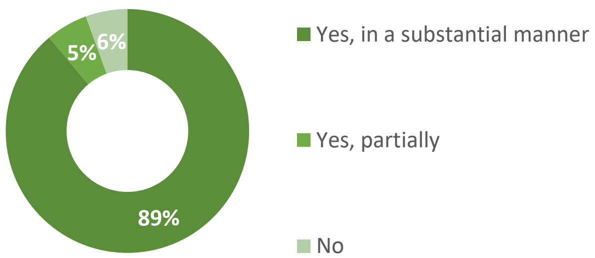
Do you think the importance to focus on climate risk when making strategic decisions for real estate holdings or lending will increase in the next years?



Do you already have refurbishment budgets and capex for energetic retrofits for your properties?

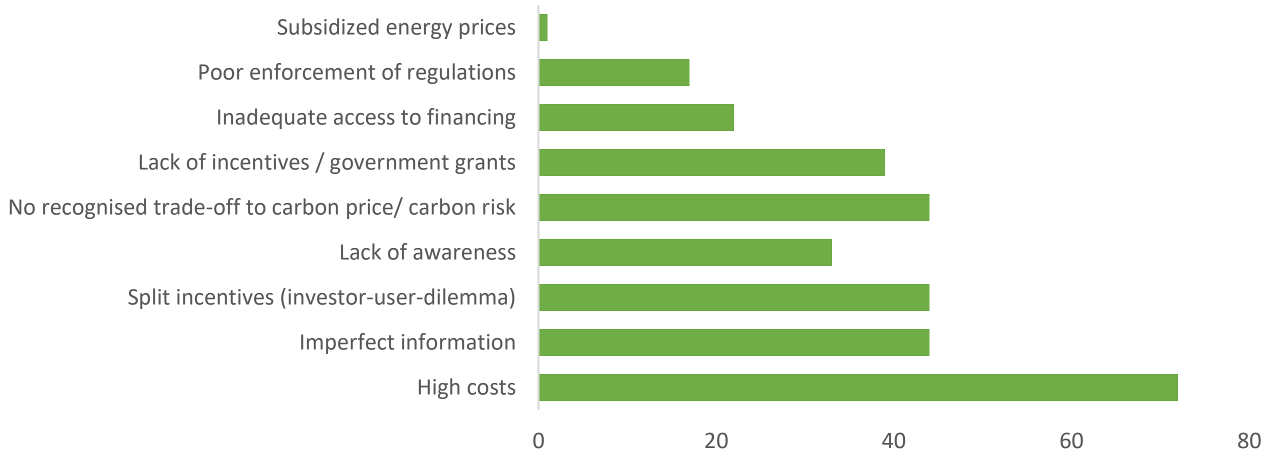


Will you start / increase climate change risk assessment activities in the next two years?



Market feedback shows that **possible barriers for a faster uptake** in renewable energy use on-site as well as faster improvement of general green retrofit technology in real estate is driven by high costs. Additional barriers to implementation also include **a lack of information, split incentives between investors and users, and a failure to recognize the risks posed to asset values by rising carbon prices.**

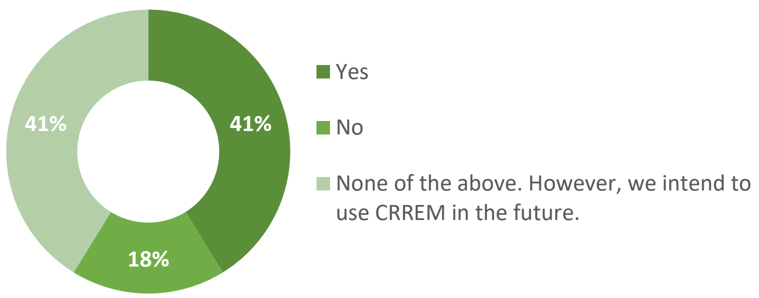
Barriers to a faster uptake of green retrofit technology



CRREM RISK ASSESSMENT OUTPUT

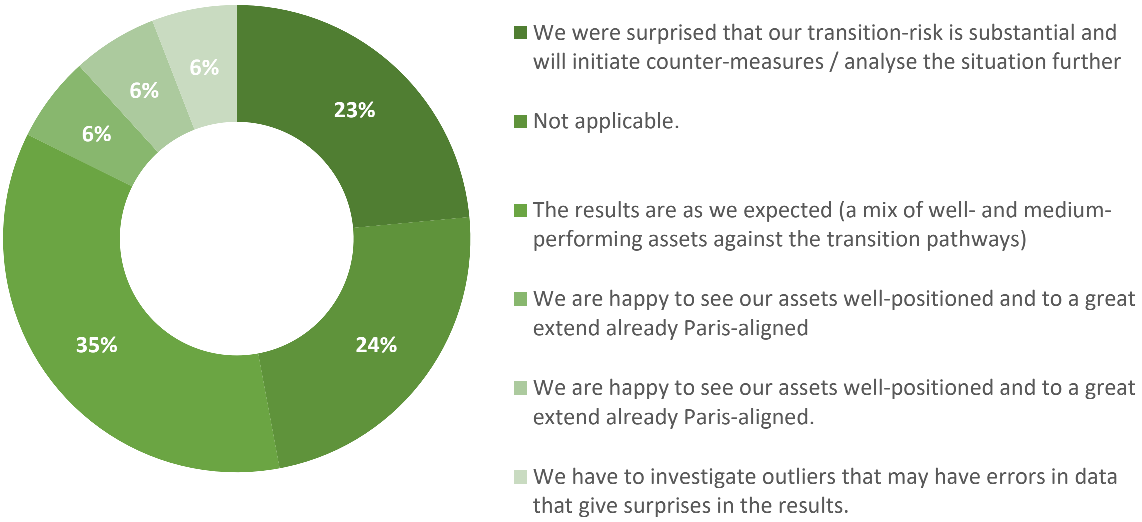
Finally, the third part focussed on the **CRREM Risk Assessment output**. The first question targeted the results of the CRREM tool - if the results support their company in increasing transparency and/or strategic decision making regarding real estate. Approximately **41% of the participants stated that CRREM currently supports them and another 41% say that they intend to use CRREM in the future**.

Did the CRREM results support your company in increasing transparency and/or strategic decision making regarding real estate?



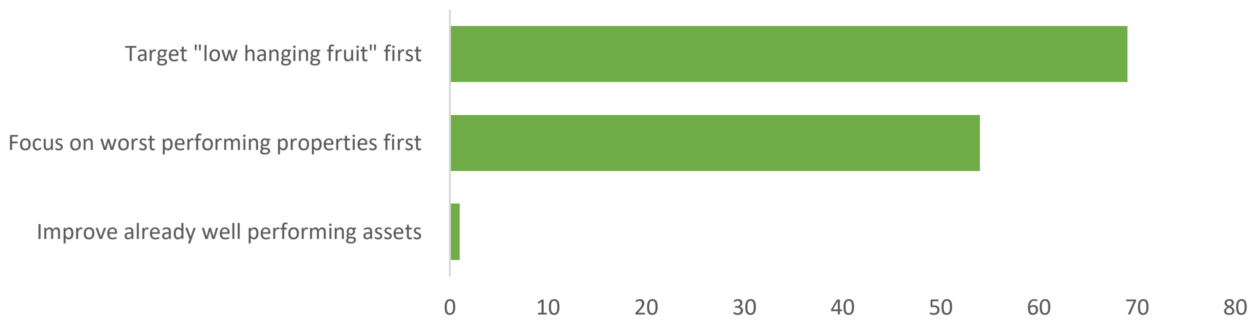
The second question asked: `Did you expect your real estate assets (participating in the pilot) to be Paris-aligned or 'stranded' as the results indicate? `. Here, 35% of participants stated that the results were as the already expected. However, **nearly one quarter stated that they were surprised that their transition risk is substantial** and that they will initiate counter-measures and / or analyse the situation further**.** Further 23,5% state that it was not applicable (since they intend to use CRREM). Only 6% state that they are happy to see their assets well-positioned and to a great extend already Paris-aligned.

Did you expect your real estate assets (participating in the pilot) to be Paris-aligned or 'stranded' as the results indicate?



The questionnaire revealed **views and market feedback regarding which properties may be the priority for energetic retrofits.** The majority of the participants **would target the `low hanging fruits` first.** Still the participants are a bit biased since also approx. half indicated that they would focus on the worst performing properties first**.** None of the participants would improve already well performing properties even further – still we note that looking at a *CRREM* results for 'gold' certified fairly new properties, we see that also most of those are potentially 2-degree ready until 2050 but only a minority would also stay below the 1,5-Paris-aligned decarbonization requirements over the whole period and thus would require energetic retrofit at some point.

Which properties should be your priority for energetic retrofits?



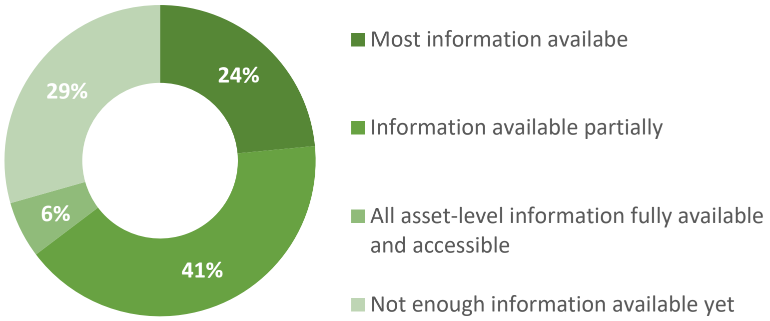
A further question was about the **availability of data**: The majority of the respondents stated that they had the information required for a transition-risk analysis only partially available. The graph below reveals that 29,4% say that they **did not have enough information available** yet. A further 23,5% indicate that most information was available.

Only 5,9% stated that all asset-level information was fully available and accessible.

Therefore, investors, financial institutions, corporates and asset managers are still in the need **of making assumptions and are required to improve transparency in order to collect sufficient data** on:

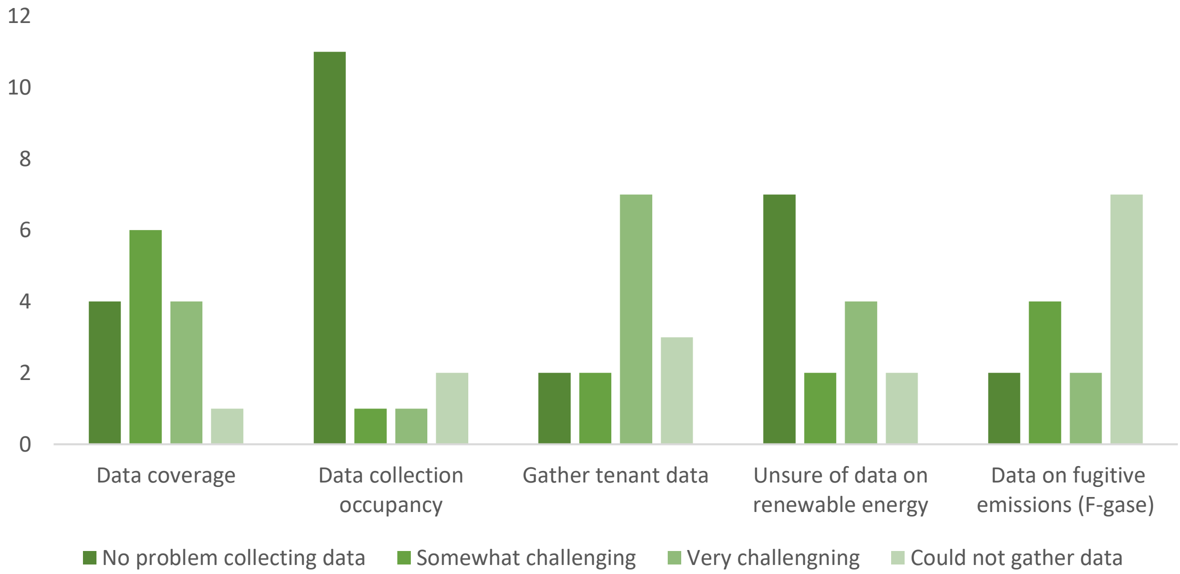
- Whole building data
- Tenant data
- Vacancy rates
- Data on procured energy

Did you have full availability of information at asset-level to carry out the transition risk analysis?



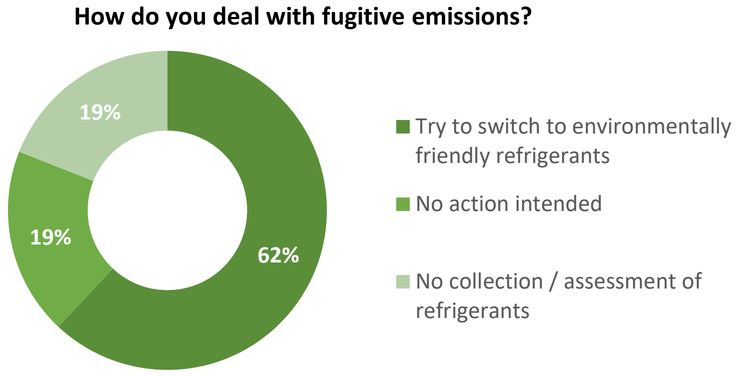
Feedback also underlined that assumptions are difficult to make **and are often based on market averages**. Around half of the participants were required to draw assumptions based on market averages. A better way to deal with missing information/data gaps would be to **develop own assumptions for asset-level data**. Results showed that data regarding occupancy was the easiest to gather, while the **majority could not collect data of F-gases,** which is in fact important with rising cooling requirements in the upcoming years and given the fact that F-gases are far more harming to the environment compared to CO_2 in terms of **Global Warming Potentials (GWP)**.

What was your greatest challenge when collecting asset-level data?

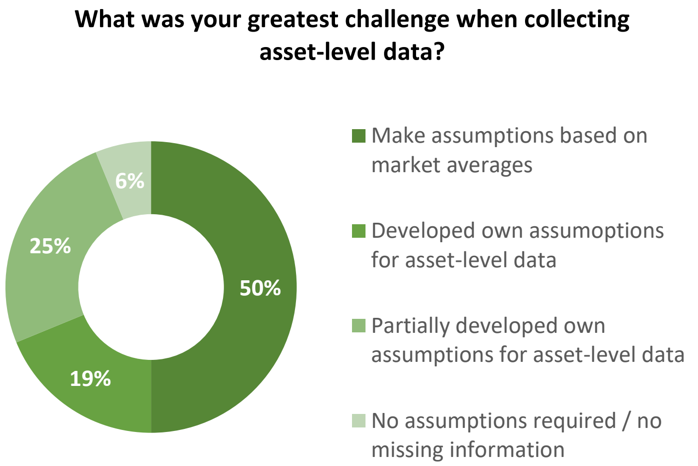


It is essential to not only measure the impact of fugitive emissions, but also to switch to environmentally friendly refrigerants (German Environment Agency, 2021; De Graaf et al., 2021). The switch will lead to the need for new equipment and the replacement of old refrigeration solutions. For new buildings, market participants are increasingly relying directly on alternative coolants or limiting the need for active cooling through additional shading or insulation. In contrast, replacing refrigerants in retrofits can be challenging due to the costs and age of the infrastructure.

Feedback shows that even though most are already trying to switch to environmentally friendly refrigerants, **nearly half state that they do not currently assess the impact of refrigerant emissions at all nor plan to assess it in the future**.

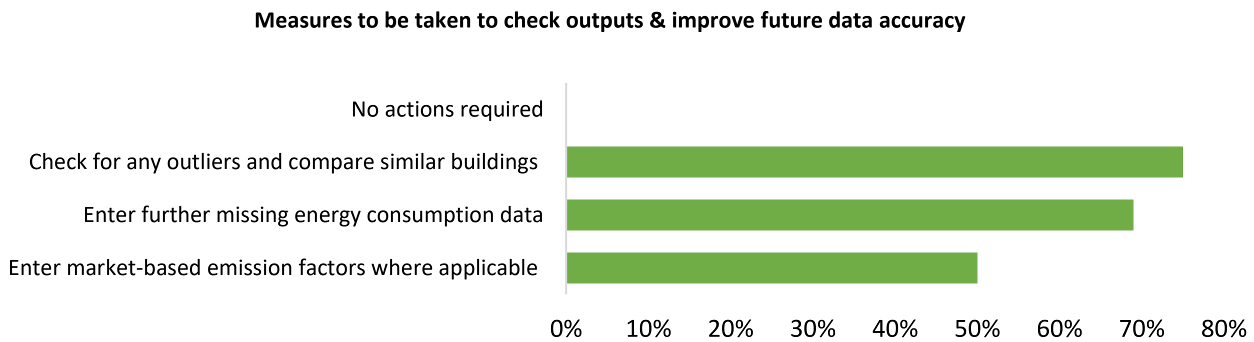


Participants stated that the greatest challenge when collecting asset-level data was the requirement to make **assumptions based on market averages**. Questionnaire responses showed that only a quarter have partially developed own assumptions for asset-level data, while only **6% did not need to make any assumptions and had no missing information**.



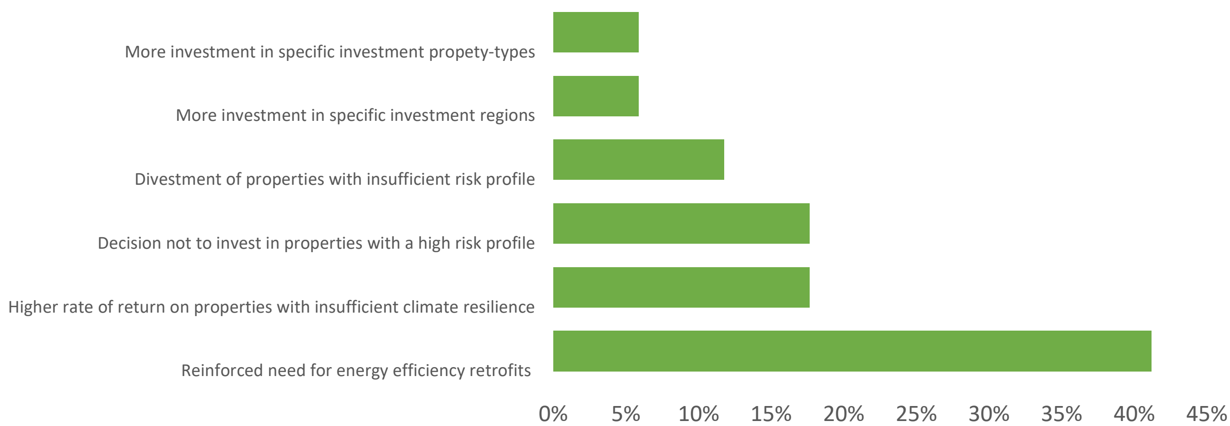
The status quo shows, that to date the **majority of banks and investors state, that they need to further work on identified data gaps on asset-level**. Respondents indicated, **that in 75% of the cases data outliers and anomalies indicated inconsistent data collection across different assets**. Outliers can be **identified by comparing the asset-level results** (i.e., year of stranding) with **similar properties** (that have e.g., a similar year of construction, same building use-type, size, location etc.).

The market finds its especially **difficult to track and collect tenant data**, especially for residential property-types in some regions. This underlines the importance to increase transparence and communication between landlords and tenants. Measures such as green-leases and smart metering could assist in overcoming this issue.



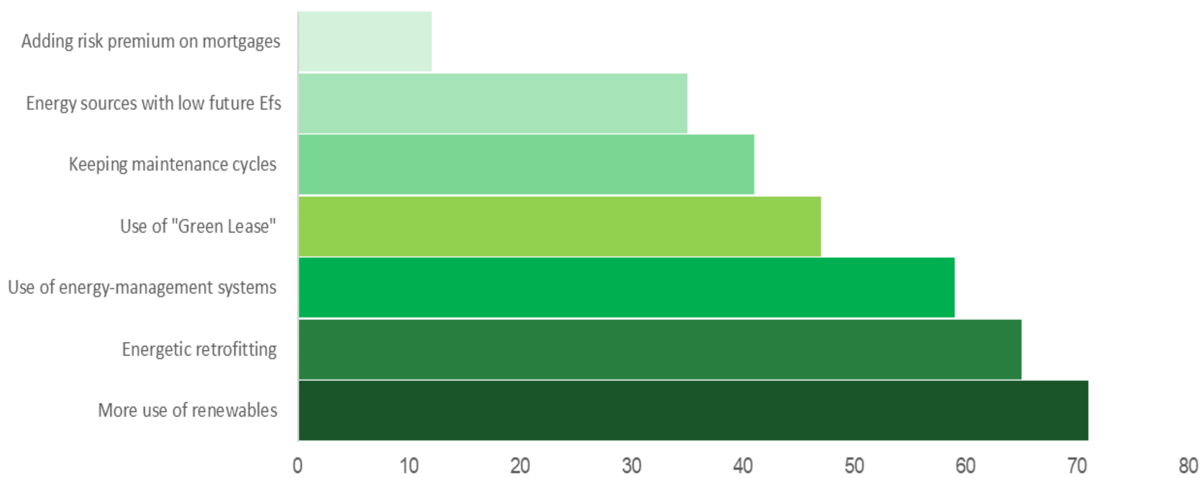
Participants developed a strategic vision for reaching their climate goals, as evidenced by their feedback (graph below). Specifically, that vision requires increased focus on energy efficiency retrofits as a top priority. Further actions include rebalancing portfolios to increase the share of low-carbon property-types and move away from those facing significant transition risks. For those continuing to hold high-risk properties, a higher rate of return o may be required to compensate.

What conclusions have you drawn from the CRREM risk assessment?



It is therefore questionable which well-defined measures one could consider in order to gradually come closer to reaching the Paris-targets. It is clear that **refurbishment roadmaps and other strategic considerations must be made very quickly in order to limit risks and possibly build up competitive advantages**. It is certain that i.e., thermal refurbishment (application of full thermal insulation) is not enough, and ‘buying one's way out’ through compensation or offsetting with certificates is ultimately not a solution either. On the contrary, only the avoidance of one's own emissions will be able to make a direct contribution to achieving the climate goals. Various steps can be taken in order to meet the Paris-aligned targets in the future, this includes a mix of direct and indirect measures. **Direct measures include for example the use of more renewables and energetic retrofits**. On the other hand, **indirect measures can be taken which act as incentives to drive the market towards a greener portfolio**.

Steps to Meet the Paris-Aligned Targets in the Future



BEST-PRACTICE EXAMPLES FROM LEADING REAL ESTATE COMPANIES, INVESTORS & IT COMPANIES

BEST PRACTICE EXAMPLES FROM GLOBAL PLAYERS

I) GPIF (GOVERNMENT PENSION INVESTMENT FUND)

As a Japanese public pension fund, Government Pension Investment Fund (GPIF) manages the reserve fund for beneficiaries with the mission of securing long-term returns with minimal risk. With approximately US$1.7 trillion currently under management and a globally diversified portfolio, GPIF outsources 100 percent of equity and most of its bond investment to external asset managers.

As a universal owner, GPIF is committed to making the capital market sustainable by integrating ESG factors into investment and expecting sustainable returns with a long-term horizon. For more information see www.gpif.go.jp/en/.

"CRREM is a useful tool for a global investor to understand where the portfolio sits against the pathway that aligns with the Paris Agreement in a globally consistent manner. Therefore, GPIF supports the expansion of CRREM to include major real estate markets outside the EU. We expect more fund/asset managers will be encouraged to assess their own portfolios and disclose the result to investors, through which we hope the market as a whole will become more transparent in terms of carbon risk in the long run.

Hideto Yamada, Head of Global Real Estate, GPIF (Government Pension Investment Fund)

COMPANY NAME: GPIF

OBJECTIVES

For GPIF, as a long-term investor, Climate Risk is one of the inevitable issues. Especially, the real estate sector is exposed to significant climate-related transition risk as governments are likely to impose increasingly stringent regulations on energy use and emissions from buildings to meet their own climate goals. We believe that CRREM is a useful tool for a global investor to understand where the portfolio sits against the pathway that aligns with the Paris Agreement in a globally consistent manner.

EXPERIENCE

GPIF supported the expansion of CRREM to include major global real estate markets outside the EU. (CRREM Phase2) As a part of the public consultation for CRREM global pathways, we conducted one-on one meeting with Japanese fund/asset managers and asked them those questions, (1) if each regional pathway seems realistic, (2) what could be the difficulties to apply CRREM, (3) if CRREM helps prepare TCFD aligned report, etc. because CRREM has originally developed in Europe and was new to Japanese managers.

TAKE-AWAYS & LESSONS-LEARNED

In the aforementioned one-on one meeting with an advanced manager, we have found that their current carbon intensity and target was closely aligned with the pathway of CRREM. Then we were convinced that the pathways of CRREM were not easy targets but still achievable with realistic efforts.

We also have found that data collection was one of major difficulties to incorporate quantitative analysis on climate risks. It is essential to collect and analyse the data on energy use and CO_2 emissions generated from buildings. We expect more fund/asset managers will be encouraged to assess their own portfolios and disclose the result to investors, through which we hope the market as a whole will become more transparent in terms of carbon risk in the long run.

REPORTING & DISCLOSURE

GPIF, declared our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in December 2018, expects more fund/asset managers work on Climate Risks and report their current situations in uniformed TCFD aligned manner. We are confident that CRREM is a useful tool for them to perform scenario analysis of transition risks in their TCFD aligned report.

One of our investment managers plans to use the CRREM tool in their Climate Risk analysis and to report to us on the transition risk of the portfolio when the underlying data coverage becomes available.

Contact

Hideto Yamada, Head of Global Real Estate, GPIF (Government Pension Investment Fund)

II) BUILDING MINDS GMBH

BuildingMinds are creating a software-as-a-service solution consisting of a unique combination of an integrated cloud platform, a Digital Building Twin and data-driven insights. By lifting previously unknown data treasures, BuildingMinds support real estate investment companies and corporates to effectively combine sustainability strategies, people satisfaction goals and profitability KPIs that will future-proof the real estate businesses in a sustainable way.

COMPANY NAME: BUILDINGMINDS

The CRREM pathways provide clear guidance on the required decarbonization of the real estate sector and led towards an unprecedented level of transparency influencing acquisition decisions as well retrofit planning. Reducing emissions to net zero in less than 30 years might be the most ambitious challenge our entire industry has been facing so far. At the same time, sustainability-related performance indicators of buildings cease just being 'non-financial KPIs'. As the CRREM project could demonstrate, transition risks are material and linked to a number of entrepreneurial decisions and assumption regarding future buildings' emissions, carbon prices and abatement costs. This complexity will require a whole new level of transparency, not only at the level of individual assets, but across entire portfolios. In our experience, especially owners of large portfolios depend on digital tools, supporting the assessment of their current sustainability performance, target setting and finally decision making. Complex and dynamic calculation models need to be created, implemented and monitored. The models have to incorporate CO_2 emissions, taxation and penalties, compliance aspects, investment planning, the local availability of low-carbon energy sources (geothermal, solar, district heating), retrofit impact analysis, valuation, rental/leasing conditions, transactions, materials, technology etc. When it comes to calculating carbon risks, real estate portfolio managers simply cannot afford to underestimate the effort required to accumulate, collate and evaluate the data they will need. To build a viable data foundation in real estate, data from all sources has to be integrated and processed through a single pane of glass – no matter which ERP software, CRM system, industry applications or customized extensions are used. Thus, any ESG strategy will have to go hand-in-hand with an organizational restructuring and a digitalization strategy. This literally means to digitize as much information as possible – be it ESG-related information or not. But the more digital data a company has gathered, the more crucial it is to structure it in a standardized way and to make it accessible via a centralized data platform in an individually tailored way for each user. Digitization doesn't mean to put each business unit's numbers in a digital spreadsheet. A data silo remains a data silo and only breaking these silos will finally create value add. BuildingMinds offers a comprehensive digital building management platform based on the concept of a digital twin (see figure…) and based on the 'Common Data Model for Real Estate'. This so-called CDM is continuously developed by the international consortium IBPDI[1] with more than 55 member companies and founded by RICS, Microsoft, pom+ and BuildingMinds. A standardized data model will help to overcome another typical situation resulting from the fragmented market for Building Information Systems: Usually a lot of information is gathered during the construction stage or acquisition process (technical as well as sustainability due diligence), but almost all of this information is lost, since the new owner is just not able to handle it because he is using different management systems. What if the entire digital twin (cleared by some business secrets) would be part of a transaction or there would be a digital kind of topping out ceremony or a solemn launch of the digital twin during key delivery? Since a digital twin would be incomplete without transitional climate risks, BuildingMinds has integrated the CRREM methodology as an integral part of its platform, enabling an end-to-end integration from either manual or IoT-based data input, to an automated assessment of carbon footprint, carbon pricing simulation and scenario-based retrofit analytics (see figure below). The transformational achievement of our time will be to consider and manage buildings no longer as static objects but as information ecosystems that build their value on data.

Contact

Jens Hirsch,
Domain Expert Sustainability, BuildingMinds

III) INTREAL INTERNATIONAL REAL ESTATE KAPITALVERWALTUNGSGESELLSCHAFT MBH

INTREAL was founded in 2009 and is the first Service KVG (capital investment company) to focus exclusively on the setup and management of regulated real estate funds for third parties in accordance with the European AIFM Directive in Germany and Europe. All the possibilities of a real estate management company (KVG) can be applied by using our platform – impartially, quickly and efficiently, and without conflicts of interests. This allows our partners to launch funds without having to set up their own management company.

INTREAL ensures full compliance with all legal and regulatory requirements for the operation and administration of a KVG and its funds. Furthermore, new or existing real estate management companies can outsource their back-office functions to INTREAL. With more than 370 employees and based in Germany, the INTREAL Group draws on many years of real estate experience as well as detailed and highly professional fund administration expertise. INTREAL own 1,930 properties with over 46 bn. EUR Assets under Administration.

INTREAL launches and administers all real estate fund vehicles approved by the German Capital Investment Act (KAGB), as well as a full range of investment vehicles under Luxembourg law. These include all open-end and closed end real estate funds (public funds, special funds) approved for real estate, as well as contribution funds, club deals, and individual single-asset structures.

Contact

Annika Dylong,
Head of Risk Management

Dr. Cay Oertel,
Risk Manager

COMPANY NAME: INTREAL

OBJECTIVES

The main obstacle for real estate investment firms in terms of ESG-related risk management is the economic evaluation of transitory risks for the held assets. Therefore, we aim at modelling various impact mechanisms such as CO_2 costs, risk premia etc. for the administrated properties. Essentially, investment firms are obliged by their mandate to translate the notional term transitory risk into concrete financial performance impact on the fund vehicle. With regard to this obstacle, a sound modelling framework to quantify the impact of decarbonization necessities on the financial performance is crucial for the professional administration of third-party investor funds.

In this context, CRREM enables us to compare property CO_2e emissions with scientifically-backed reduction targets. Furthermore, the modelling framework eventually enables us to communicate potential threats as well as chances to other business units to support strategic decisions.

EXPERIENCE

The CRREM modelling methodology represents the indispensable starting point to our transitory risk management implementation. We do not necessarily limit our applied risk management to the excel tool provided by the platform, but we use the underlying logic of the modelling framework to integrate the calculation of the tool for our own fund vehicle management purposes. Therefore, we combine the economic nature of our administrated fund vehicles (such as a given fund vehicle lifespan as well as known target running yields) with CRREM tool outputs to compare and match the funds' targets with the tool's outputs. We therefore adjusted the tool outputs as described above to generate fund-specific indicators, without changing the scientific underlying of the model. In sum, we see the actual construction of the underlying calculation logic as the main intellectual but also practical benefit of the tool.

TAKE-AWAYS & LESSONS-LEARNED

The CRREM modelling framework enabled us to implement a comprehensive risk management process for the ESG-related issues of our administrated fund vehicles. This applies to the transaction of properties as well as the regular reporting. Since ESG-related risk management is a relatively young discipline for the real estate industry, the thoroughly developed modelling background has helped us to communicate the risk exposure of the properties across different internal as well as external stakeholders.

We are still in a process of understanding the different interests across business units like asset and portfolio management as well as investors with regard to the take-aways of the CRREM analysis and portfolio management implications.

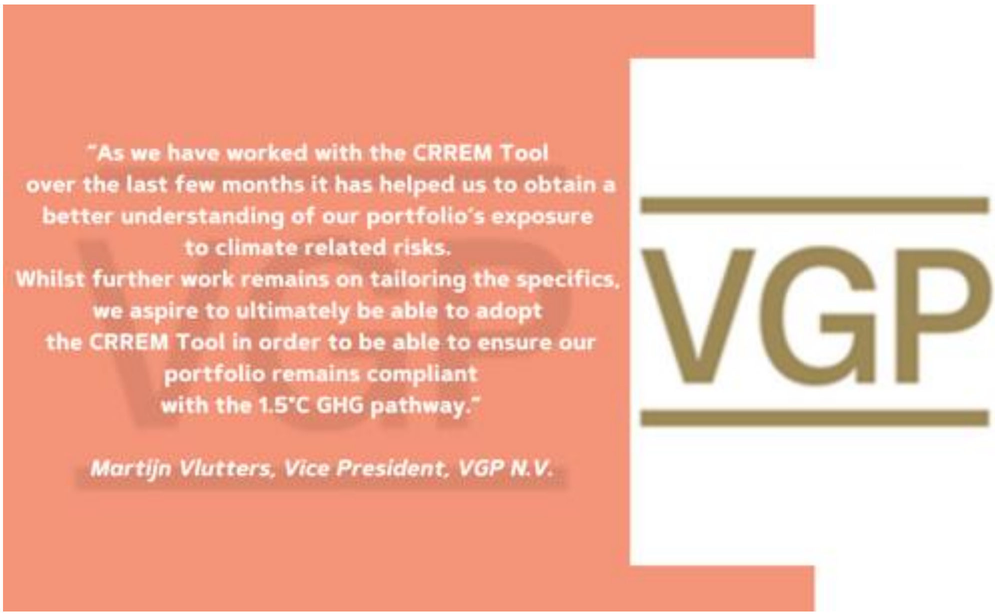
REPORTING & DISCLOSURE

Given the open-source nature of CRREM, it is a valuable tool to use for our own reporting standards from a very practical point of view. Since commercial, external tools are usually not available as open-source and thus adjustable for our own reporting formats, we can use CRREM as an easy to integrate tool in our existing reporting landscape.

IV) VGP N.V.

VGP is a pan-European developer, manager and owner of high-quality logistics and semi-industrial real estate.

VGP seeks to continuously optimize buildings in accordance with the demands of the market and the latest technological innovations. Energy efficiency and sustainability are among the top priorities. VGP knows that it is possible to build, redevelop, renovate and transform logistics properties in a sustainable and technologically advanced way. This is beneficial to both the environment and the wellbeing of the people who work at our locations. VGP and Allianz Real Estate set a joint venture with a target GAV (Gross Asset Value) of EUR 1.7 billion.



COMPANY NAME: VGP NV

OBJECTIVES

VGP is a developer and long-term owner of logistics and semi-industrial real estate and committed to achieving carbon neutrality for its own operations by 2025. With regards to the portfolio, good cooperation with tenants is a critical part of the success in improving the environmental standards as the Group is determined to continue to work towards more sustainable and resilient real estate portfolio. VGP considers using CRREM benchmark energy and CO_2 reduction pathways for measuring transitional risks and setting emission reduction targets for its real estate portfolio.

EXPERIENCE

Over the last few months, we have been working with the CRREM tool to analyse and fine-tune logistic-specific pathways particularly in order to reflect the subsector specifics (e.g., different energy consumption profiles for light industrial users versus ecommerce fulfilment versus 'straightforward' warehousing versus cooling facilities, etc.). Our plan is to ultimately adopt the CRREM tool in order to be able to identify and separate the stranded versus non-stranded assets for the coming years in order to ensure our portfolio remains compliant with the 1.5^{0}C GHG pathway. We have assessed different target-setting options using the CRREM pathways and also consider pathways from other sources and providers. Although further work remains, particularly in order to reflect the subsector specifics, we believe that CRREM provides a good reference framework for setting emission reduction targets for our real estate portfolio.

TAKE-AWAYS & LESSONS-LEARNED

We believe that, once the logistics subsector specifics are well defined within the asset specification characteristics, CRREM provides a very useful tool for target setting purposes. With a high degree of renewable energy sources, the average portfolio performance significantly improves and it becomes visible that, by working with various scenarios of renewable energy generation investments (solar roof projects), the climate improvement measures within the portfolio can be meaningfully addressed. Whilst the tool also offers an analysis of positive effects of general refurbishing it has so far proven difficult to translate the preliminary findings from using the CRREM tool into identifiable and effective property investments as typically the means to improve energy consumption patterns are too situation-specific to be addressed through general capex assumptions. This is amplified by the relatively young age of our buildings (3.9 years on average) and therefore relatively up-to-date sustainable quality standard.

REPORTING & DISCLOSURE

The results from CRREM support us in analysing our portfolio performance, identify scenarios and setting of future emission reduction targets for our portfolio which we expect to disclose as part of TCFD reporting.

Contact

Martijn Vlutters,
Vice President, VGP N.V.

THE RIGHT TOOL FOR THE JOB: TESTIMONIALS OF CRREM USERS

"CRREM addresses the industry need for one global comprehensive science-based route to achieve 'net zero'. With the recent expansion of the tool to cover the Asia Pacific region, the industry now has a truly global (and importantly transparent) set of pathways that will allow us to understand how our current portfolio is aligned to the Paris Agreement but also to inform future investment decisions going forward. We encourage all market participants to use these pathways."

Jonathan Waite,
Senior Responsible Investment Manager,
APG - Asset Management Asia

"Link is pleased to be an early APAC evaluator of the CRREM tool – where we value its transparency, credibility, and synergy with like-minded organisations such as GRESB. We encourage our APAC peers and investors to trial and disclose their experience with this tool in order to further refine its compatibility and application across various geographies in the future."

Dr. Calvin Lee KWAN,
Head of Sustainability & Risk Governance;
LINK REIT

"Transitioning large real estate portfolios toward a lower carbon future requires access to science-based, easy-to-use, and industry-specific tools to prioritize efforts and set concrete targets.

The CRREM tools provide a unique and useful response to this challenge and we look forward to being able to apply these tools to our global property portfolio."

Stephane Villemain,
Vice-president, Corporate Social Responsibility,
Ivanhoé Cambridge

"CRREM is a very useful tool to move forward with our climate change countermeasures.
Although we had assessed our portfolio based on a TCFD scenario analysis to understand the financial implications based on a 2- and 4-degree Celsius scenario, we had no detailed milestones regarding transitional risks toward a net-zero carbon emission by 2050.
As we are focused to enhance stakeholder value in a medium to long term through maintaining our initiatives towards ESG, we feel it is essential for us to test and utilize new technology such as this CRREM tool."

Miki Mitsuoka,
Director in charge of Risk Management and Compliance Department, head of ESG, ORIX

"Especially for AIF management companies, CRREM as an evidence-based tool is indispensable for appraising economic threats to portfolio properties objectively and rationally in the best interest of the investors."

Dr. Cay Oertel, Risk Manager, INTREAL

"An introduction of a carbon pricing, preferred in a market scheme similar to ETS, will lead also in the Real Estate market to a significant and fast decarbonisation, either in the commercial or in the residential buildings.
And it will push the architecture and building technologies to reduce greenhouse gases, during construction and the whole life cycle."

Olaf Schulze,
Director Energy Management METRO and Member of the Task Force for Carbon Pricing in Europe