PROTECTING VALUE IN REAL ESTATE
Managing investment risks from climate change
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- **Growing regulation** in Europe on climate and sustainability is changing real estate market conditions. Given the sector's potential to deliver cost effective resource efficiency solutions, policy ambitions and market demand will only intensify pressures in coming years.

- **Impacts on value** from green building investment decisions made today are now recognised by leading investors across Europe. Already such decisions are influencing real estate market fundamentals including client demand, void lengths, obsolescence, rate of depreciation, operational costs and liquidity.

- **Investors and occupiers** are developing tools to implement responsible investment and management strategies in order to mitigate these investment risks and enhance long-term value.

- **Understanding and active management** of these investment risks is consistent with institutional investors' fiduciary duty. This includes ensuring their investment managers and consultants are fully integrating sustainability and climate change considerations into their investment and asset management practices. Investors also have a role to engage with policy makers to encourage policies that support scaling up investments in sustainable buildings.

- **Guidance for investors** is included in this document covering key questions and approaches that institutional investors should ask of themselves, their consultants and their property investment managers.
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Note

This paper is aimed at institutional investors with interests in commercial property investments to help them understand how to manage investment risks to real estate from climate change and sustainability. Institutional investors include pension funds, charitable foundations, sovereign wealth funds and insurance companies. The paper is also aimed at supporting investment managers who act as clients to institutional investors in managing direct, indirect and equity investments in real estate. Finally, while not the primary audience, the content is also relevant to real estate companies.

About IIGCC

Institutional Investors Group on Climate Change (IIGCC) is a forum for collaboration on climate change for European investors. It provides investors with a platform to encourage public policies, investment practices, and corporate behaviour that address long-term risks and opportunities associated with climate change. IIGCC currently has over 80 members, including some of the largest pension funds and asset managers in Europe, representing around €7.5 trillion in assets.

The overriding aims of the IIGCC Property Programme are:

• to ensure that considerations of climate change and its implications are integrated into the management and decision-making processes for property investment portfolios; and

• to engage with policy-makers at national and international level to ensure appropriate policy-related policies are put in place which maximise environmental benefits whilst maintaining/protecting property investment returns.

Acknowledgments

IIGCC would like to thank the IIGCC Property Programme members for their inputs and contribution to this document. A special thanks to Tatiana Bosteels, Hermes Real Estate Investment Management, lead author of this publication, and to the following members for their active input: Helena Viltes Fiestas and Felipe Gordillo, BNP Paribas Investment Partners; Andrew Szyman, F&C Reit; Jenny Pidgeon, Henderson Global Investors; James Lloyd and Guy Brogden, Mayfair Capital; Nina Reid and Louise Ellison, PRUPIM.

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Executive summary

For institutional investors and investment managers, the core principle of real estate investment is to create and sustain long-term value. The key step is to understand the market – occupier preferences and changing behaviour, as well as the regulatory framework and legal requirements. It is equally important to adapt and respond to these emerging trends within real estate market cycles.

Growing climate and sustainability regulatory pressure from EU institutions and member states, increased market demand for green buildings, and heightened risks from physical impacts on buildings associated with climate change, are changing real estate market conditions. This paper analyses how these trends are impacting occupier demand and investor practices. We argue that, in order to protect the long-term value of their real estate investments, it is part of institutional investors and their investment managers’ fiduciary duty to understand and address these changes and new risks and to take advantage of new market opportunities.

There is a growing consensus among market professionals that demand for buildings with green characteristics will continue to increase and that such characteristics are already influencing investment fundamentals including client demand, void lengths, obsolescence, rate of depreciation, operational costs, and liquidity. In turn they agree that investment decisions made today will impact the value and financial returns of European real estate investments in the coming years. In response, investors are no longer awaiting empirical evidence of impact to financial performance from valuation analysis; rather they have already started to embed green building programmes in their real estate investment and asset management practices.

Fiduciary duty dictates that investors should understand and actively manage such market shifts. The way forward is to embed sustainability in standard risk assessment methods and, through selection and monitoring processes, to ensure that investment managers and consultants are fully integrating sustainability and climate change considerations into investment and asset management practices. Institutional investors also have a role to engage with policy makers to encourage policies that support scaling up investments in sustainable buildings.

This document offers guidance to support investors in ensuring that their real estate portfolios are managed in a way that addresses the investment risks and opportunities arising from climate change and sustainability.

Definition of ‘green and sustainable buildings’

The terminology covers a wide range of aspects that improve the overall performance and specification of buildings aligned with reasonable occupier demands: flood mitigation, sustainable materials and construction techniques, clean and healthy building components, energy performance, temperature control, natural and efficient lighting, clean and fresh air circulation, water efficiency and reuse, waste management and recycling, chemical product management, adaptability of the building space, green spaces and biodiversity.
Key European sustainability directives targeting buildings

The Energy Performance of Buildings Directive (EPBD): The EPBD was introduced in 2009 and recast in 2012. The Directive requires Energy Performance Certificates (EPC’s) to be exchanged on transactions of buildings (such as sales and leases), with the aim of providing market participants with a transparent indication of the energy performance of their assets. The approach builds on the success of energy labels on fridges, appliances and cars, which has proven successful in building consumer trust and changing market behaviour in these three sectors. In the last five years the implementation of the Directive by EU member states and the associated fiscal measures have initiated a slow but rising transformation of European real estate markets. The effects of the regulation will be further enhanced by the recast of the Directive implemented in late 2012. The revisions strengthen the requirements and legal implications of non-compliance, and have started to address some of the concerns on comparability and robustness of methods underlying EPC calculations.

Nearly zero energy buildings: Further changes on the horizon include the EPBD directive requirement for all new buildings to be nearly zero-energy buildings by December 2020; and new buildings occupied and owned by public authorities to be nearly zero-energy buildings after December 2018. A nearly zero-energy building is defined as “a building that has a very high energy performance. The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby.” While definitions of nearly zero-energy buildings are still to be refined by each member state, this requirement will be a game changer impacting building regulations across the EU.

The Energy Efficiency Directive (EED), signed in November 2012 now replaces the previous Energy End Use Efficiency, the Energy Services and the Cogeneration Directives. The new regulation’s requirement for 3% of the national public building stock to be renovated every year should support an acceleration of renovation of the existing building stock. The requirement for mandatory energy audits for large private sector organisations will include property owners, office and retail occupiers and should foster the development of active management of buildings. Better and clearer provision of data by energy suppliers will enable residential and commercial occupiers to understand their consumption patterns and alter their behaviour.
Changing regulation and market rules

Across Europe, serious concerns over climate change and resource efficiency have led to the adoption of ambitious targets to cut greenhouse gas emissions. This drive is leading to both owners and occupiers of buildings having to comply with ever more stringent sustainability regulations. There are no indications that this regulatory pressure will abate any time soon. Rather, it is likely to intensify further, cementing the resulting shifts in the fundamentals of real estate markets.

The EU’s 20/20/20 targets aim to reduce greenhouse gas emissions by 20%, improve energy efficiency by 20%, and increase renewable energy sources by 20% – all by 2020. While the broader Energy Roadmap adopted by the EU aspires to reduce greenhouse gas emissions to 80-95% below 1990 levels by 2050.

The EU’s declared commitment to achieve these climate targets has cast a strong spotlight on the building sector. Policy makers base their approach on the fact that, taking into account the full lifecycle of buildings, the sector contributes over 40% of final energy consumption and 35% of CO₂ emissions in the EU. Furthermore, they identify the building sector as offering the most cost-effective opportunities for improving energy efficiency and reducing environmental impacts. They refer to current research which shows that implementing existing technologies, such as better insulation, efficient lighting and heat recovery, can cost-effectively reduce a building’s energy consumption by at least 30%, and by up to 80% in deep refurbishment models.

There is also a strong case for governments to target the real estate sector given the major macro-economic advantages attached to introducing energy efficiency to the built environment. According to a study commissioned by the Renovate Europe Campaign, by 2020, energy efficiency investments could generate considerable financial savings to government and society, stimulate economic activity and job creation and deliver substantial health benefits.

The International Energy Agency (IEA) argues that by tackling the existing barriers to energy efficiency investment, governments and markets can realise significant gains for energy security, economic growth and the environment. The potential is such that, even under the most ambitious policy scenario considered today, four-fifths of the potential to improve energy efficiency in the building sector will remain untapped. And yet this could represent halving the growth in global energy demand by 2035. In effect, such measures could postpone by five years the point beyond a 2°C degree rise in average global temperature, at which scientists are cautioning it will become all but impossible to avoid “dangerous” levels of climate change.

Key real estate investment risks and opportunities from climate change and sustainability

- **Climate, energy and building regulations** bring about obsolescence and depreciation faster than anticipated. Investment in operation, maintenance and refurbishment need to be in tune with these changes.

- **Occupiers’ demand** for high performing green assets impacts tenant retention, length of void periods and lease conditions. A clear understanding of changing tenants’ needs and preferences is required to adapt portfolios.

- **Active building management** can help lower operating costs and total occupancy costs, in an environment where energy and natural resource prices are increasing.

- **Sustainable design and refurbishment**, improves resilience, can help reduce costs, while managing natural resource constraints. The use of healthy and sustainable materials improve internal quality and occupiers’ health and well-being.

- **More frequent and extreme weather** and flooding events affect building infrastructure and its internal components. Financial impacts can be mitigated by design, flood management and disaster preparedness.
In the boxes on the following pages, we review relevant sustainability regulations at both European and national levels in order to highlight the growing implications for real estate investment.

The European directives with the greatest direct impact on real estate markets are the Energy Performance of Buildings Directive (EPBD) and its recast version and the Energy Efficiency Directive (EED). Some member states have gone further than others in their ambition to regulate the sustainability of buildings, leading to significant shifts in their national markets. IIGCC has advocated for effective enforcement regimes and strict standards in order to ensure the most efficient and uniform implementation across European regulations and national policies. From October 2012, the Energy Efficiency Directive has obliged member states to develop long term energy efficiency strategies that specifically mobilise investment in the renovation of their existing building stock. The EU has threatened to introduce mandatory energy efficiency targets by 2014, if national strategies are deemed insufficiently ambitious. This will bring further pressure to bear on the real estate sector over the next five years.

Real estate practitioners across Europe have started to take responsibility for implementing voluntary regulatory mechanisms, in particular energy and environmental certification of buildings. It is true that the overall number of certified green building remains relatively low, as certificates have so far been sought mainly for new and highly specified buildings. However, ground is being gained in several northern European markets, where voluntary certification is fast becoming the norm in the new residential, office and shopping centre sectors. Moreover, in a large number of new developments and refurbishment projects, managers are making use of rating systems and assessment models borrowed from certification schemes to improve the sustainable and environmental quality of their projects, whether or not a final certificate is gained.

Renovate Europe Campaign

“The potential savings from renovation of buildings could equal a total of between €100 to €170 billion each year to 2020. Moreover by harvesting these investment opportunities the EU Member States could stimulate economic activity at an appropriate time, which can give rise to jobs for 750,000 – 1,500,000 people.”
Selected EU member states’ sustainable buildings programmes and legislation

Germany has long had very stringent building codes including a wide range of sustainability criteria covering energy, waste, water, air quality, and well-being. Germany introduced additional building energy-saving regulations back in 2002—EnEV (Energiesparverordnung), which are regularly updated with the latest version published in 2012. Germany has one of the most ambitious energy-saving programmes in Europe. For buildings, it aims to double the building renovation rate from about 1% to 2% and reduce the heating requirements by 20% by 2020. A reduction of the primary energy demand by 80% is their 2050 target. Germany’s programme is based on three pillars, a clear legal framework and tight regulation at the national level, financial incentives and communication. They set stringent energy efficiency standards for new buildings and renovation. Backed by incentives and financial support, Germany’s preferential loans for the green renovation programme managed by the German government-owned development bank, KfW, has been a resounding success. The induced investments for all activities during 2008 to 2010 for refurbishment and new building work amount to over €30,000 million, resulting in additional jobs of half a million in those 3 years. Funds to improve the energy efficiency of buildings are to be increased to €1.5 billion a year from 2012 to 2014.

Scandinavian countries: Sweden’s national goals for energy use in buildings aim to achieve a reduction of total energy use per area of 20% by 2020 and 50% by 2050 compared to 1995 for both the residential and commercial sectors. To achieve these objectives, Sweden has implemented the programme for energy efficiency (PFE). Similar to Germany, Sweden has systematically toughened its building regulations, most recently in 2012, increasing energy performance requirements by 20% compared to 2009. The government also plans to provide financial support for ‘near zero energy buildings’ of SEK120 million for 2012/16. Denmark has also focused on strengthening building regulations over the last 25 years, and introduced even more stringent voluntary energy classes for buildings thereby creating further incentives. The building regulations also impose stringent requirements for existing buildings going through refurbishment. Energy rating certificates are mandatory in both countries.

In the Netherlands, the Clean and Efficient energy programme, ‘Schoon & Zuning,’ sets targets of carbon dioxide emission reductions of 30% by 2020 compared to 1990 and energy savings of 2% per year. In practice, minimum energy performance coefficients (EPC) are requested through building regulations with the goal of reaching an EPC level of zero for new buildings by 2020. Since 2008, energy labels are compulsory for sale and rent but have been applied only partially, but new regulations have been introduced for a compulsory energy label for new buildings from July 2012. Leading by example, public sector buildings must be 50% more energy efficient by 2015 and energy neutral by 2018, and from 2013, public buildings will be issued with a visible energy label. In 2008, three voluntary covenants for sustainable buildings and the construction industry where agreed with industry groups. The ‘Meer met Minder’ (“more with less”) programme focuses on the existing stock and aims to achieve 20% to 30% energy efficiency improvements for 3.2 million homes by 2020. The ‘Lente Akkord’ spring agreement on energy savings in new constructions and the covenant on energy saving in the corporate sector, setting voluntary energy reduction targets, 25% by 2011 and 50% by 2015. All those measures were linked in 2011 under the second national energy efficiency plan 2011 ‘Blok-voor-blook.’
In France, the ambitious building plan under the “Plan bâtiment durable,” previously known as Grenelle environmental laws, aims to deliver savings of 38% in energy consumption and 50% carbon dioxide emissions by 2020. The Grenelle laws 1 and 2 require all new buildings to be low energy by 2013 (Label Effinergie) and energy positive (producing more energy than they consume) by 2020; mandated building renovation of over 400,000 existing houses a year from 2013 and 800,000 high energy consumption social housing by 2020; to have by 2012 an energy efficiency refurbishment plan for all public and commercial existing buildings to be delivered within 8 years by 2020; all new commercial leases to include green clauses by 2012. It is not clear how such ambitious requirements will be enforced. These requirements are also supported by an incentive scheme, the ‘eco-prêts’ zero interest rate loans for building renovation.

In the UK, the Climate Change Act, the Energy Bill and the binding Carbon Budgets all list targets to reduce carbon emissions from buildings, with the Energy Bill requiring a reduction of 30% by 2020. The target is supported by a broad mixture of regulations, including energy taxes such as the climate change levy and the carbon reduction commitment; more ambitious and frequently updated building regulations requirements; the introduction of mandated designed-based energy performance certificates for all buildings and operational based display energy certificates for public buildings; the development of the Green Deal programme linking the repayment of energy efficiency measures to electricity bills; timelines for near zero carbon new domestic and non-domestic buildings by 2016 and 2019; and in 2018 using energy performance certificates as minimum energy performance standards during transactions. There is a particular focus on improving compliance with the energy requirements of the building regulations in renovating existing buildings, and the Government has made several proposals to introduce a number of consequential improvement triggers when certain types of works are undertaken to buildings.

EU member states voluntary certification

In many markets voluntary certification is slowly becoming the norm. The voluntary uptake of the German DGNB certificate and “Passivhaus” and the Swiss MINERGIE-P standards across Germany and Scandinavian countries have grown exponentially over the years, mainly for housing but also includes a number of office buildings and schools. The Scandinavian ratings schemes – Sweden’s ‘Miljöbyggnad’, Finland’s ‘PromisE’ and Norway’s ‘Okoprofil’ – are widely used across most sub-sectors. Similar trends can be seen with the French HQE, the UK and Dutch BREEAM, and the US LEED, all of which are quickly growing in their respective and international geographies.
Impact on investment performance

As a result of these regulatory and market changes, a large number of experts in the marketplace believe that investment decisions made today on green building characteristics will impact the financial performance of real estate investments in the near future. This reflects the understanding that sustainable characteristics are already influencing market fundamentals including functional and physical depreciation of buildings, reduced risks of obsolescence, enhanced tenant retention, reduced void periods, and reduced operating costs.

The view is that owner and occupier preferences for buildings which perform better environmentally will lead to those assets experiencing higher net income growth through lower depreciation and operational costs. Buildings with stronger environmental performance are expected to be less exposed to unforeseen costs resulting from step-changes in government regulations imposing retrospective environmental improvements. With rising demand this should make them easier to sell than ‘brown’ buildings, which should support higher prices. As a result, these assets will be rated as less risky and deliver better investment performance. Clearly, the more these issues matter to occupiers and asset owners, the greater this differential in value and prospective performance will be.

Moreover, rising energy prices and carbon taxes are starting to affect occupiers’ energy consumption and influence their behaviour. Rising demand for commodities and natural resources impact the construction costs of refurbishment and new developments, advantaging modern and sustainable methods of construction. Last, but not least, the physical impacts of climate change, particularly flooding, pose increasing and substantial risks to financial values of some properties.

These views are increasingly mainstream, routinely presented at conferences and stated in the annual reports of leading European real estate investment management houses and property companies. In the Urban Land Institute 2013 emerging trend in real estate report, interviewees say that sustainable properties are increasingly commanding higher rents and values. In a survey of AREF-member investment managers in the UK at the end of 2012, just over half of respondents agreed that ESG issues have impacted pricing decisions. In a 2012 survey carried by a French SRI research centre, Novethic, 32% of European institutional investors interviewed, systematically applied ESG criteria for their Real Estate assets, while 12% partially applied ESG criteria. Further, they are integrating key environmental-related risks into their analysis to enhance asset value and prospective investment performance by capturing efficiency gains from usage of resources, namely in energy.

Members of IIGCC’s Property Programme have first hand experience from their own investment activities; a summary of this anecdotal evidence is described in the boxes on the following page.

Paris 17th, 15 rue Galvani / 20-22 rue Vernier, a building of 6,453 m² lettable area last restructured in 1991, was acquired in 2011 for an office value-added fund. An extensive restructuring project was initiated in 2011, aiming for Green certification HQE Renovation. The asset was sold in 2012, with contracts exchanged ahead of completion. The sale to institutional investors secured an attractive pricing level achieved with a premium for HQE certification. (2011-2012)
Multiple IIGCC members report low energy certificate ratings being used to reduce acquisition prices as part of the overall transaction negotiations in France, UK and Germany

In the UK, in One Angel Square office building, the property’s sustainability credentials were central to the deal for the building that forms part of a £800m mixed use development. Sustainability was the driving force in this project, from its location in the new NOMA development project, through the future oriented architecture to the energy-efficient operation of the building. (2012)

In Paris, one investor has noted that HQE certification has achieved premium pricing (see photo captions.)

One IIGCC investor member managed to reduce the acquisition value of a large office building in central London by about 5% on late receipt of an F rated UK energy certificate. (2012)

Energy performance certificates are affecting access to capital, with Eastern & Oriental lending bank forcing the landlord of an office building in London’s Covent Garden to mitigate a poor EPC rating as part of the purchase due diligence on debt negotiations. (2012)

In the UK, a retail warehouse previously converted from an old shed with a roof and cladding - very poor insulation performance, and an EPC ‘D’ rated and ‘typical’ benchmark performance was being sold. The potential acquirer declared that the property was too energy inefficient, and they were concerned with the potential impact of the UK’s Carbon Reduction Commitment policy on costs and operating costs being too high. They were particularly concerned with the implication it might have for tenants in the rent review negotiations due a couple of years after the sale. They proposed a £1.1 million price reduction on a £7.5 million asking price, and the deal fell through. (2012)

In the UK, earlier than expected obsolescence can be seen within industrial specialist units, as energy performance certificate ratings ‘F’ and ‘G’ are a contributing factor to the strategic sale of industrial assets. (2011/2012)

A European investor saw a reduced rent or premium rent negotiated with occupiers during lease re-gear in lieu of landlord capital expenditure on energy efficient measures. This has delivered energy savings for the occupier and valuation uplift, tenant retention and longer leases for the investors. (2012)

A rent review agent for a large bank in the City of London argued for a discounted rent when compared to more energy efficient City buildings, due to higher energy costs and inefficient plant in the subject premises. Outcome unknown. (2011)

Across Europe investors and occupiers in offices and retail units are now more demanding about the provision of green and energy certificates

A number of UK investors report that including requests for energy performance certificates early in the transaction process as part of their standard due diligence processes. (2012)

Office occupiers in central business districts in France, Germany, the Netherlands and the UK, are including certification in their standard description of space being sought for leasing. (2010/2012)

A number of investors are now offering occupiers the facility to monitor and improve their own energy performance as part of the strategy to engage positively with tenants during lease renewals/extensions. (2012)

Climate events and sustainability management are affecting operational costs and insurance requirements and costs

In an industrial estate in a ‘significant’ flood zone (according to the UK environment agency), which was insured within the investment managers’ group insurance deal, a potential tenant was unable to rent a void unit because they could not get their own flood insurance. (2012)

A large UK investor has secured lower quartile insurance costs compared to its peer for the implementation of a robust in-house health and safety and sustainability programme. (2007-2012)

A large UK property company’s removal of air conditioning in one of their large shopping centres contributed to carbon reduction targets, saved costs to owner and occupiers, enabled all shop fronts to increase in height, and former plant room to allow for additional car parking spaces. They now plan to phase out air conditioning from all UK shopping centres. (2009)
A number of empirical studies have aimed to quantify links between sustainability and financial performance of buildings by measuring the impact of a variety of environmental characteristics and green certification on valuations and transactions. The prevalent view is that, while the results remain preliminary and indicative, they show emerging trends indicating a link in certain sectors (namely highly specified office buildings and shopping centres) and in defined geographies. The Principles for Responsible Investment (PRI) produced a comprehensive summary of the latest relevant academic research.20 The review covers a wide range of geographies, in the US, Europe and Asia. It points to evidence that, for office buildings in central business districts where certification has become mainstream there is a convincing case of improved financial performance compared to that of non-certified properties. However, the review acknowledges mixed signals in other geographies and identifies important limitations in the studies themselves.

The different results from such studies can be explained by genuine methodological barriers rather than substantive reasons. First, sustainability performance data is still relatively scarce, and has been collected in recent turbulent market circumstances in a limited number of markets. Second, studies tend to rely on appraised value given the limited access to actual transaction data, but the valuation process often smoothes and is anchored in retrospective data and does not go far enough in back in time to incorporate sustainability assessments. Finally, the values and performance of commercial properties are of course affected by a multiplicity of factors (for example, age, newness, prime location, tenant quality, lease length), forcing analysts to use complex statistical methods to attempt to single out the effect of specific factors. Despite such limitations, these studies are important indicators that help us to understand the direction in which markets are moving. They all point to the need for further research and the industry is actively engaged in this process.

PRI, ‘The environmental and financial performance of buildings’

“On the whole, evidence from the US, the Netherlands and Singapore has begun to demonstrate a convincing case that the financial performance of certified office buildings is superior to that of non-certified properties. However, evidence from the UK and Japan is mixed and evidence from China is inconclusive.”
Changing market behaviour

The evolving regulatory landscape, market preferences and impact on long-term value are causing tangible shifts in market behaviour. Across Europe, leading owners, occupiers, and practitioners are changing their attitudes and taking more proactive approaches to managing the sustainability and green characteristics of their real estate assets and portfolios. Institutional investors and their investment managers are increasingly introducing more responsible governance and sustainability into their investment process.

This trend can be seen in the growing number of signatories – pension funds, insurance companies and investment management companies – to the Principles for Responsible Investment (PRI) covering over 1000 investment institutions representing over US$30 trillion in assets as of April 2012. Such investments cover on average about 6 to 10% of real estate. Building on its success, the PRI is now taking a more robust stance on monitoring and enforcing implementation of those principles by the signatories. From 2013 respondents will have to complete a specific framework for the property asset class.

The sustainable and environmental activities of investment managers have been described in the latest UNEP Finance Initiative’s report, “What the leaders are doing.” The report shows the scale of adoption of such practices, with case studies across the whole process of real estate investment management and its supply chain on a global basis. Investor members of IIGCC’s Property Programme are involved in and implementing similar sustainability initiatives and programmes across their European portfolios. See table on the following page.

Occupiers in Europe are responding to regulatory pressures and consumer demand by implementing environmental, social and governance (ESG) policies. When assessing rental options, they have started to incorporate sustainability characteristics and certification in their requirements. This is important given the role behaviour plays in defining the potential efficiency and performance of a building. Indeed, while there is great potential for improving buildings’ environmental footprint during their operational life cycle through good design and management, this must be supported by responsible behaviour on the part of the occupiers.

Property managers are responding to the demand of their investor clients by creating sustainability management services and developing monitoring and benchmarking tools. Letting and leasing agents are mandated to advertise energy performance certificates in their marketing materials. Valuers have started to take a more proactive role in understanding the new market dynamics and the impact of green characteristics of buildings. These activities and initiatives show the extent to which sustainability characteristics are today being included in investment and asset management processes.
Actions taken today by European real estate practitioners

- Setting minimum responsible management and sustainability standards for investment in a listed or non-listed real estate fund.
- Inclusion of climate change and sustainability criteria in asset allocation and standard investment appraisal processes.
- Investing in dedicated green real estate funds.
- Private equity real estate fund benchmarking companies within selected indexes against a set of precise environmental indicators.
- Investing in companies developing technologies and products that will enable scaling up sustainable buildings and energy efficiency gains.
- Engaging with companies while monitoring companies’ environmental performance.
- Actively contributing to policy and sector wide development of sustainability toolkits and benchmarks.
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<tr>
<th>Property investors with interests in direct investments</th>
<th>Occupiers</th>
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<tr>
<td>• Launching dedicated green real estate funds or embedding responsible investment principles in the core of the investment practises of property funds.</td>
<td>• Large corporate occupiers including as standard minimum sustainable and energy certification levels for building they wish to occupy (BREEAM, LEEDs, HQE, DGNB, Minergie, EPC, DEC).</td>
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<tr>
<td>• Understanding climate and sustainability risks and opportunities to portfolios and building assets, such as assessing portfolio risks to evolving building codes and regulatory changes.</td>
<td>• Acceptance of green leases clauses in standard leases becoming more mainstream and better understood.</td>
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<tr>
<td>• Inclusion of sustainability criteria in stock selection, such as carrying out sustainability risk assessments prior to acquisitions.</td>
<td>• Occupiers bringing their own green clauses to the lease negotiation table.</td>
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<tr>
<td>• Setting minimum sustainability standards for investment in individual buildings.</td>
<td>• Signing up sustainability memorandum of understanding with owners of buildings they occupy.</td>
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<tr>
<td>• Implementing minimum sustainability requirements for refurbishment and developments.</td>
<td>• Including requests for green refurbishment in rent renewal negotiations.</td>
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<td>• Implementing environmental efficiencies in day to day management of buildings to drive operational cost savings.</td>
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<tr>
<td>• Working with tenants to achieve environmental objectives through formal green clauses in standard leases, sustainability memorandum of understanding or informal sustainability groups.</td>
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<tr>
<td>• Implementing responsible supply change policies with suppliers and sub-contractors.</td>
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<tr>
<td>• Actively contributing to policy and sector wide development of sustainability toolkits and benchmarks.</td>
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<th>Property Managers, and Agents</th>
<th>Lawyers and consultants</th>
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<tr>
<td>• Driving the sustainability agenda ahead of their clients in view of the market potential for such services.</td>
<td>• Lawyers advising occupiers and owners on impact of green leases and climate and sustainability regulations such as carbon taxes.</td>
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<tr>
<td>• Actively contributing to sector wide development of sustainability toolkits and benchmarks.</td>
<td>• Consultants advising clients of investment risks from changing sustainability legislation.</td>
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<tr>
<td>• Surveyors including environmental and sustainability assessment in standard building survey services.</td>
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<tr>
<td>• Letting and leasing agents are mandated to advertise energy performance certificate in their marketing material.</td>
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<th>Valuers</th>
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<tr>
<td>• Engaging with owners to collect sustainability data as part of standard valuation assessments.</td>
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<tr>
<td>• Working on Discounted Cash Flow models taking account of sustainability metrics.</td>
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<tr>
<td>• Working with sector organisation to educate the sector. Such as Royal Institute of Chartered Surveyors (RICS) advisory paper on sustainability and valuation.23</td>
<td></td>
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<tr>
<td>• Supporting development of sustainability questionnaires and benchmarks: International Property Databank (IPD) and the Royal Institute of Chartered Surveyors (RICS). Launching the EcoPAS in UK and now expanding to France and the Netherlands.</td>
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In addition to the work done by individual practitioners, numerous associations and sector organisations have emerged to promote, develop and standardise sustainable real estate practice and measurement. Organisations included, without being exhaustive, global and national green building councils such as the European Green Building Council, global benchmarks such as the Global Real Estate Sustainability Benchmark (GRESB), European initiatives such as the Green Rating Alliance (GRA), city level initiatives such as the London’s Better Buildings Partnership (BBP). These organisations and their work play a fundamental role in strengthening the momentum of the responsible investment ‘revolution’ and importantly increasing data availability and comparability across the real estate sector, see table below.

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<td><strong>Green Rating Alliance – The Green Rating tool</strong></td>
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<td><strong>Global Real Estate Sustainability Benchmark (GRESB)</strong></td>
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<td><strong>Global Reporting Initiative Construction and Real Estate Sector Supplement (GRI CRESS)</strong></td>
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<tr>
<td><strong>IIGCC guide for pension funds on climate and sustainability reporting for property investment portfolios</strong></td>
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<tr>
<td><strong>IPD Eco-PAS, Eco Portfolio Analysis Service</strong></td>
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<td><strong>INREV and EPRA</strong></td>
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<td><strong>The International Sustainability Alliance (ISA)</strong></td>
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Guidance on risk management for property investors

In light of the market shifts discussed in this paper, it is now, more than ever\textsuperscript{31}, part of the fiduciary duty of institutional investors and their investment managers to understand and address the evolving investment risks to real estate investments related to climate change and sustainability.

In recent years, IIGCC\textsuperscript{32} has been advising trustees, investors and investment managers on the evolving climate change and sustainability agenda and opportunities for managing the associated risks. More recently, Mercer’s climate scenario study\textsuperscript{33} pointed to real estate as one sector where institutional investors should re-think their risk assessment models given the exposure of this asset class. In the following pages we provide updated guidance on questions institutional investors should ask themselves and their investment managers to account for changes and uptake in the market.

Trustees and investors have a clear opportunity when selecting and monitoring their investment managers to actively engage with them and ensure that they are addressing and managing these risks. In the current context of growing regulatory pressure institutional investors have an important role to engage with policy makers to improve the efficacy and cost effectiveness of the sustainability regulatory process, as argued by IIGCC in its recent paper, ‘Enhancing the real estate sustainability policy framework’.\textsuperscript{34}

In order to protect the long-term value of their real estate investments, it is property investors’ fiduciary duty to understand these changes and new risks now in order to mitigate them ahead of time and to take advantage of new market opportunities. There are many tools and initiatives out there to help the sector adapt. There is also a historical opportunity to add value to real estate investments while scaling up the sustainable buildings and energy efficiency sector to a size aligned with the needs of society today.

\textbf{Mercer climate scenarios study}

“Institutional investors must develop new tools to more effectively model systemic risks such as climate change. [...] The ‘real’ nature of [real estate] investments, tangible assets... increases the importance of climate change risks factors as an extension of evaluating the risk/return profile of property assets.”
## Guidance for institutional investors on integrating climate change and sustainability considerations into real estate investment practices

### Questions institutional investors could ask themselves

<table>
<thead>
<tr>
<th>Questions</th>
<th>Guidance and sample questions</th>
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<tbody>
<tr>
<td>Do we understand enough about the risks and opportunities from climate change and how they affect our commercial property assets?</td>
<td>Do we have an understanding of the potential impacts from climate change and sustainability on their investments (see page 6), and are we encouraging and pursuing opportunities to engage and contribute to dialogue on these issues?</td>
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<td>Are we confident that the regulatory environment is consistent with institutional investors’ risk requirements to support investment in climate change proof and sustainable real estate?</td>
<td>Are we encouraging and pursuing opportunities to engage with policymakers to encourage policies that support scaling up investments in sustainable real estate as well as encouraging our investment managers to contribute to relevant policy and sector-led initiatives?</td>
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<td>Should we, favour investment managers committed to the responsible investment agenda and include specific requirements for responsible investment and sustainability expertise in the selection processes?</td>
<td>Is it appropriate for us to require explanations on how sustainability and climate change issues are managed as a feature of requests for proposals for new segregated mandates?</td>
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<td>Is the way in which we are rewarding our investment managers conducive to encouraging them to address climate and sustainability considerations?</td>
<td>Are the medium to long-term time horizons over which interventions to address climate change are set are consistent with short term performance horizons typically placed on investment managers?</td>
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### Questions and approaches institutional investors could ask of their property investment managers

<table>
<thead>
<tr>
<th>Questions</th>
<th>Guidance and examples of answers being sought</th>
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<tbody>
<tr>
<td>Do our investment managers take into account the direct impacts of climate change and related changes in sustainability policy and regulation throughout the real estate investment cycle?</td>
<td>Social, environmental and economic considerations of climate change and sustainability are being integrated into standard investment appraisal processes and these issues are incorporated in management, monitoring and reporting procedures.</td>
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<tr>
<td>What evidence can the investment manager provide of the policies in place addressing climate change and sustainability, and of the resulting performance in improving the social, environmental and economic impact of climate change and sustainability of the real estate assets under their management?</td>
<td>Investment managers are providing a clear sustainability monitoring and reporting framework as part of the annual and quarterly communications and reporting procedures. This includes descriptions of how they are incorporating environmental and social governance in their investment management practices, track record of data collection, presentation of sustainability performance achieved, contribution to sector wide sustainability benchmarks, transparent disclosure of the industry guidelines being followed and whether performance is externally verified and publically reported.</td>
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<tr>
<td>Question</td>
<td>Answer</td>
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<tr>
<td>What mechanism does the investment manager have in place to embed the</td>
<td>Dedicated sustainability and environmental risk assessment is embedded in standard due diligence processes for acquisitions and disposal of property assets.</td>
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<td>climate and sustainability risks in the buy, hold and sell decisions</td>
<td></td>
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<td>being made on properties?</td>
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<tr>
<td>What actions is the property investment manager taking to reduce the</td>
<td>Sustainability programmes are in place targeting energy, water, waste, transport and adaptation to climate change. These include activities aimed at establishing and maintaining accurate data, the public communication of performance targets, the disclosure of annual performance and the description of the actions that delivered the performance improvement.</td>
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<tr>
<td>environmental footprint of the properties already held in the portfolio,</td>
<td></td>
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<td>through management and leasing of properties and how do these actions</td>
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<td>relate to the need to continue to provide competitive returns?</td>
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<tr>
<td>What actions and what evidence can the property investment manager</td>
<td>The investment manager demonstrates understanding and implementation of measures to address medium term regulatory requirements development activities. For example, minimum sustainability requirements are in place for development and refurbishment projects aligned with market demand in specific geographies.</td>
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<tr>
<td>provide of reducing environmental impacts from its development and</td>
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<td>refurbishment activities in recent years?</td>
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<td>What actions is the investment manager taking to engage and cooperate</td>
<td>An active occupier engagement policy is being implemented including for example green clauses in standard leases, commitment to implement joint sustainability programmes with occupiers, and/or occupier surveys to assess the effectiveness of their implementation.</td>
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<td>with occupiers of the buildings it manages?</td>
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<td>What policies does the property investment manager have in place to</td>
<td>Impact assessments and the resulting policies covering key suppliers are in place, commensurate with the range of the investment manager activities. There is a process to monitor suppliers’ performance and ensure that policies are implemented.</td>
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<td>ensure that those supplying goods and services to the property portfolio</td>
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<td>are doing so in a responsible manner?</td>
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<tr>
<td>How active is the property investment manager in dialogues within the</td>
<td>The investment manager is an active contributor to policy dialogue, consultations and sector-led initiatives that support the commitment to disseminate responsible investment practices across the sector. The emphasis placed on training and learning within the organisation will be reflected in staff’s awareness and knowledge.</td>
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<td>property industry and with government to develop appropriate awareness</td>
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<td>and action to reduce the environmental impact of buildings?</td>
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AP1 (First Swedish National Pension Fund)
AP2 (Second Swedish National Pension Fund)
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AP4 (Fourth Swedish National Pension Fund)
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Baptist Union of Great Britain
BBC Pension Trust
Bedfordshire Pension Fund
BlackRock
BMS World Mission
BNP Paribas Investment Partners
BT Pension Scheme
CB Richard Ellis
CCLA Investment Management
Central Finance Board of the Methodist Church
CF Partners (UK) LLP
Church Commissioners for England
Church of Sweden
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Co-operative Asset Management
Corporation of London Pension Fund
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Earth Capital Partners
Environment Agency Pension Fund
Environmental Technologies Fund
ERAFP
Ethos Foundation
F&C Management Ltd
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Five Oceans Asset Management
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Greater Manchester Pension Fund
Grosvenor Fund Management
Henderson Global Investors
Hermes
Hermes GPE LLP
HgCapital
HSBC Investments
Hudson Clean Energy Partners
Impax Asset Management
Insight Investment
Joseph Rowntree Charitable Trust
Kent County Council Pension Fund
Kleinwort Benson Investors
Legal & General Investment Management
London Borough of Hounslow Pension Fund
London Borough of Islington Pension Fund
London Borough of Newham Pension Fund
London Pensions Fund Authority
Mayfair Capital Investment Management
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Mercer Global Investments Europe Limited
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PRUPIM
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Robeco
Sampension
Sarasin & Partners LLP
Scottish Widows Investment Partnership
South Yorkshire Pensions Authority
Temporis Capital
The Church of England Pensions Board
The Church in Wales
The Roman Catholic Diocese of Plymouth
The Roman Catholic Diocese of Portsmouth
The Roman Catholic Diocese of Salford
United Reformed Church
Universities Superannuation Scheme
West Midlands Metropolitan Authorities Pension Fund
West Yorkshire Pension Fund
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