June 2020

A practical guide to promoting improved reporting on climate-risks among the European listed Real Estate sector

ENHANCING TRANSPARENCY WITH THE TCFD

EPRA
EUROPEAN PUBLIC REAL ESTATE ASSOCIATION

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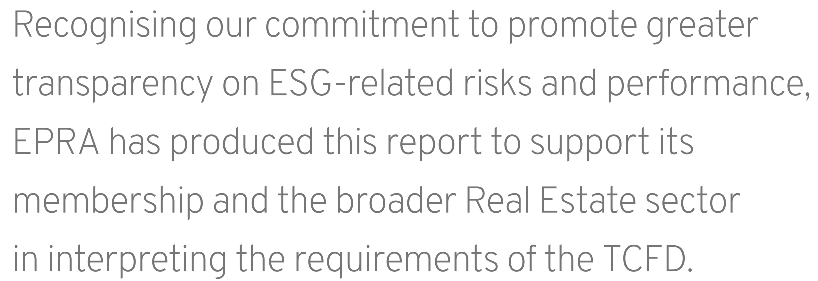

INTRODUCTION

Since their publication in 2017, the Final Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) have grown exponentially among the business and financial community. The acknowledgement that urgent action is required to tackle unchecked climate change and the need for improved transparency in the reporting of climate-related risk has taken root among the international community as we hurtle towards a 2°C warming scenario:

- Almost 800 public- and private-sector organisations have announced their support for the TCFD and its work.
- Some 350 investors with nearly USD 34 trillion in AUM have committed to engage with the world's largest corporate greenhouse gas emitters to strengthen their climate-related disclosures by implementing the TCFD recommendations.
- Thirty-six central banks and supervisors are specifically encouraging disclosures in line with the TCFD.

With a membership comprising 228 property companies and investors, EPRA has long supported public disclosure of environmental, social and governance (ESG) data as a fundamental component of a sustainable approach to real estate. EPRA's commitment to bringing greater consistency and clarity to companies' disclosure of ESG impacts is most clearly communicated through its Sustainability Best Practice Recommendations (sBPR). Since 2011, these have been adopted by more than 70 listed real estate companies representing a market capitalisation of EUR 252 billion.

Recognising our commitment to promote greater transparency on ESG-related risks and performance, EPRA has produced this report to support its membership and the broader Real Estate sector in interpreting the requirements of the TCFD.

The report highlights examples of best practice public disclosure from EPRA membership against the main recommendations of the TCFD. Secondly, we provide detailed guidance for property companies already using the EPRA sBPR on how the Performance Measures and Overarching Recommendations can be used to support the reporting of climate-related risks in line with the TCFD.

Last but not least, we would like to warmly thank JLL, who gave EPRA valuable support in the preparation and achievement of this report. We do hope you will find useful advice here to help you support our common goal of promoting transparency to aid decision-makers and all our stakeholders.

Your sincerely
Hassan Sabir

EPRA Finance and Sustainability Director

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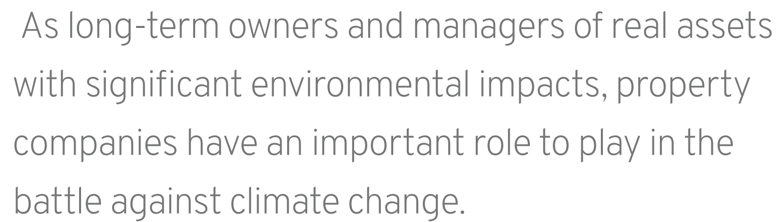

I welcome this important EPRA publication which supports the membership and the broader real estate sector in understanding and complying with the reporting recommendations of the Task Force for Climate Related Financial Disclosures (TCFD). As long-term owners and managers of real assets with significant environmental impacts, property companies have an important role to play in the battle against climate change. Many property companies are responding positively to these challenges and have been further encouraged by the rising expectations of our investors. The publication of the TCFD recommendations in 2017 was an important statement from the investment community of the significance of climate risk for the global economy. However, achieving meaningful change is complex and our industry needs clear guidance to support this critical work. This EPRA publication is an excellent example of such guidance and will help our diverse community of businesses to respond effectively. I recommend it to the membership and wider industry alike.

Louise Ellison
EPRA Sustainability Committee Chairwoman
Group Head of Sustainability at Hammerson

As investors and asset managers, we seek increasing levels of transparency and understanding of the impact of climate change on our investments. This is important to us both in responding to TCFD requirements and in managing the short to medium term asset level risks in our investments. EPRA sBPR performance measures are an important tool for the industry to assist in disclosing clear and comparable information for investors, increasing market transparency and ensuring better insight into emerging risks.

Justin Travlos
EPRA Sustainability Committee Member
Country Head, UK and Global Head of Sustainability at AXA IM – Real Assets

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OVERVIEW

Broader uptake of the TCFD among the European listed Real Estate sector is growing, and EPRA members are starting to reference the TCFD in their public reporting.

In June 2017, the Task Force on Climate-related Financial Disclosures (Task Force or TCFD) released its final recommendations. Uniquely, they provide a framework for companies and other organisations to develop more effective climate-related financial disclosures through their financial and sustainability reporting.

In its report, the Task Force emphasised the importance of transparency in pricing risk - including risk related to climate change - to support informed, efficient capital-allocation decisions. As such, a key objective of the TCFD is for the effects of climate change to become routinely considered in business and investment decisions.

To enable businesses to respond effectively, the TCFD has structured its recommendations around four core elements of how organisations operate:

- **GOVERNANCE:** disclosure of an organisation's governance around climate related risks and opportunities
- **STRATEGY:** disclosure of the actual and potential impacts of climate-related risks and opportunities on an organisation's businesses, strategy and financial planning
- **RISK MANAGEMENT:** disclosure on how an organisation identifies, assesses and manages climate-related risks
- **METRICS AND TARGETS:** disclosure of the metrics and targets used to assess and manage relevant climate-related risks and opportunities

The climate-related risks to be reported upon in these four core elements are divided into two categories that have the potential to affect an organisation's operations:

- Risks related to the transition to a lower-carbon economy, including policy, litigation or legal, technology and market risks
- Risks related to the physical impacts of climate change physical risks can be event-driven (acute floods or hurricanes) or longer-term shifts (chronic or sustained higher temperatures) in climate patterns

Broader uptake of the TCFD among the European listed Real Estate sector is growing, and EPRA members are starting to reference the TCFD in their public reporting. These findings are echoed by the TCFD. In their latest status report (2019), a higher than average percentage of companies included in the Materials and Buildings sector (which includes Real Estate Management and Development) disclose relevant information than other industries.

Eager to support improved transparency among our members and the broader Real Estate sector, EPRA has produced this report with three aims:

- Highlight best practice reporting against the TCFD recommendations among our membership
- Support the continued reporting of climate-related risks in line with the TCFD
- Promote the EPRA sBPR as a tool to support effective TCFD disclosure

The TCFD actively encourages the use of existing reporting frameworks to support the reporting of climate-related risks. We see a strong correlation between the aims and objectives of the TCFD and the EPRA Sustainability Best Practice Recommendations (sBPR). As we highlight in this report, the sBPR provide an effective tool to support the reporting of climate-related risk metrics and targets.

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A GUIDE TO BEST PRACTICES

The TCFD has developed four widely adoptable recommendations on climate-related financial disclosures. These recommendations are structured around four thematic areas that represent the core elements of how organisations operate: governance, strategy, risk management and metrics & targets.

The four Overarching Recommendations are supported by key climate-related financial disclosures – referred to as Recommended Disclosures – that build out the framework with information designed to help investors and others understand how reporting organisations think about, assess and manage climate-related risks and opportunities.

The following section outlines in more detail the key recommendations and Recommended Disclosures for each content element.

The guidance and Recommended Disclosures are drawn directly from the TCFD and the examples provided are drawn from EPRA's membership. They are not an exhaustive list of TCFD best practice in the Real Estate sector. Instead, they are intended to provide practical guidance for real estate companies on how to respond to each recommendation and specific Recommended Disclosures. As our memberships' reporting evolves, we will continue to update this document to ensure it captures emerging best practice and supports the consolidation of TCFD reporting in the sector.

TCFD thematic recommendations and Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organisation's governance around climate-related risks and opportunities.	*Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.*	*Disclose how the organisation identifies, assesses, and manages climate-related risks.*	*Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.*
RECOMMENDED DISCLOSURES	**RECOMMENDED DISCLOSURES**	**RECOMMENDED DISCLOSURES**	**RECOMMENDED DISCLOSURES**
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	a) Describe the organisation's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	b) Describe the organisation's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

LOCATION OF DISCLOSURES — In its Final Report (June 2017), the TCFD recommends that organisations provide climate-related financial disclosures in their mainstream (i.e. public) annual financial filings, where this is compatible with national disclosure requirements[1]. The Recommendations are intended to provide a framework for reporting information regarding climate-related risks in line with national reporting obligations.

The TCFD believes that climate-related risks should be assessed in a manner that is consistent with how they determine the materiality of other information included in their financial disclosures. Where this is not possible, The TCFD encourages organisations to disclose non-compatible elements in other documents and reports that are subject to the same or similar internal governance processes as their financial reporting.

[1] Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures (June 2017)

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A guide to best practice

GOVERNANCE

RECOMMENDED DISCLOSURES [A]

Describe the board's oversight of climate-related risks and opportunities

Governance requires organisations to disclose their governance around climate-related risks and opportunities. It aims to provide investors, lenders, insurance underwriters and other users of climate-related financial disclosures an understanding of the role an organisation's board plays in overseeing climate-related issues, as well as management's role in assessing and managing those issues. This information supports evaluations of whether climate-related issues receive appropriate board and management attention.

The TCFD recommends that, when describing the board's oversight of climate-related issues organisations should consider including a discussion of:

- The processes and frequency by which the board and/or board committees (e.g., audit, risk or other committees) are informed about climate-related issues
- Whether the board and/or board committees consider climate-related issues when reviewing and guiding strategy, major plans of action, risk management policies, annual budgets and business plans. In addition to setting the organisation's performance objectives, monitoring implementation and performance and overseeing major capital expenditures, acquisitions and divestitures
- How the board monitors and oversees progress against goals and targets for addressing climate-related issues

Best practice: **Landsec**

Task Force on Climate-Related Financial Disclosures (TCFD)

Our approach to climate risk and opportunity
This section of our Performance and Data report responds to the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). Here you can find a comprehensive account of our approach to climate risk and opportunity.

Our position on TCFD
We are committed to implementing the recommendations of the TCFD, providing our stakeholders and investors accurate data and insight about the climate-related risks and opportunities which are relevant to our business. We've made a public commitment to assessing and mitigating climate change risks across our portfolio and are one of 580 organisations publicly listed by the TCFD as supporters.

Our approach to climate risk and opportunity is discussed in our Annual Report on pages 40-41, and as part of our principal risks and uncertainties section on page 59. For further disclosures you can access our CDP response at https://www.cdp.net/en.

Governance
Our Chief Executive has overall responsibility for climate-related risks and opportunities. The Board receive an annual briefing on our sustainability programme which includes discussion of risks and opportunities. Ongoing oversight of climate-related issues is carried out by our Sustainability Committee, chaired by the Chief Executive. Our Sustainability Committee is comprised of our Director of Corporate Affairs and Sustainability and our Group HR Director – both members of our Executive Committee – together with our Head of Sustainability, Public Affairs and Health, Safety & Security and senior representation from our portfolio management, development and finance functions.

The committee meets quarterly and is the senior forum for determining our sustainability strategy and reviewing performance. This includes responding to climate-related opportunities such as investment in renewables, improvements in energy efficiency and investment in low-carbon technologies. The committee has oversight for climate-related risks including policy, regulatory and legal risks, as well as the physical risks to our assets. The committee also approves and reviews research and analysis to determine our response to climate-related risks and opportunities.

Our Sustainability Committee is supported by our Investment Committee, London Executive Committee and Retail Executive Committee. Each committee reviews the risks opportunities as described above. This can include reviewing and approving investment in energy efficiency projects and renewables, as well as approving development or refurbishment plans which include climate-related aspects of design.

Our commitment to address climate-related risks is embedded across the business, through an energy reduction Group KPI. The performance against this KPI is linked to executive and management remuneration, aiming to incentivise progress against our science-based carbon reduction target and energy efficiency commitment.

Identifying risks and opportunities
As an owner and operator of property, our business is exposed to both risk and opportunity from climate change. The nature and level of risk is dependent on government, business and society's response in the short and long term. In the event of a strong response to climate change in the short term up to 2030, our business will be affected in positive and negative ways by the transition. With a limited response to climate change, our business will be affected in the long term past 2030 by physical effects such as extreme weather and higher temperatures. Accordingly, our analysis focuses on both transitional risks up to 2030 and physical risks past 2030.

Source: Landsec Sustainability Performance & Data 2019 (page 25)

- √ Description of the processes and frequency by which the board is informed about climate-related issues
- √ A list of board committees that are informed about climate-related issues
- √ How the board and its committees consider climate-related issues when reviewing and guiding strategy
- √ How the board and its committees consider climate-related issues when considering annual budgets and business plans and setting organisational performance objectives

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A guide to best practice

GOVERNANCE

RECOMMENDED DISCLOSURES [B]

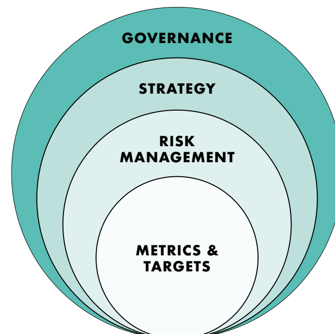
Describe management's role in assessing & managing climate-related risks and opportunities

When describing management's role related to the assessment and management of climate-related issues, TCFD recommends that organisations disclose the following information:

- Whether climate-related responsibilities are assigned to management-level positions or committees and, if so, whether such management positions or committees report to the board or a committee of the board
- A description of the processes by which management is informed about climate-related issues
- How management monitors climate-related issues

Best practice: **Hammerson**

Here we set out our response to the Task Force for Climate-related Financial Disclosures (TCFD) framework in brief, providing references to further detail within this Report and within our Annual Report and Accounts.



GOVERNANCE

Describe the board's oversight of climate-related risks and opportunities

Board level responsibility for climate-related risk sits with the Chief Executive who Chairs the Positive Places CR Board. The Group Head of Sustainability reports at least annually to the Plc Board on progress against strategy including progress against climate-related targets and our exposure and response to climate risk. Climate risks are monitored by our Positive Places Corporate Sustainability Group and are included within our corporate Risk Management Framework. This is overseen by our Risks and Controls committee which reports through our Group Executive Committee to the Plc Board. This process led the Board to approve the implementation of our *Net Positive* targets in 2017, in response to their Board's awareness of the potential for transition risks including carbon-pricing and our exposure to rising energy prices.

Describe management's role in assessing and managing climate-related risks and opportunities

The Group Head of Sustainability is responsible for identifying and assessing climate-related risks and opportunities and reporting these directly to the Chief Executive and business stream leads through the Positive Places CR Board. Each business stream lead is responsible for delivering any relevant climate risk strategy agreed with the Group HoS and Chief Executive.

This includes our energy and carbon reduction strategies and environmental targets for our development programmes. Physical climate risks are assessed on an asset by asset basis and mitigation and adaptation measures developed with the design teams. These are assessed by the Development Manager with support from the Environmental Manager. Progress against specific targets is reported through the CR Development Working Group. Progress is monitored and performance against goals and targets reported to the Group Executive Committee and to the Plc Board by the Group Head of Sustainability.

Source: Hammerson Sustainability Report 2019 (page 20)

- √ List of management-level positions or committees with climate-related responsibilities and board-level reporting
- √ Description of the organisational structure for the governance and management of climate-related risks and opportunities
- √ Description of processes by which management is informed about climate-related issues
- √ How management monitors climate-related issues and list of committees or positions with this responsibility

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A guide to best practice

STRATEGY

RECOMMENDED DISCLOSURES [A]

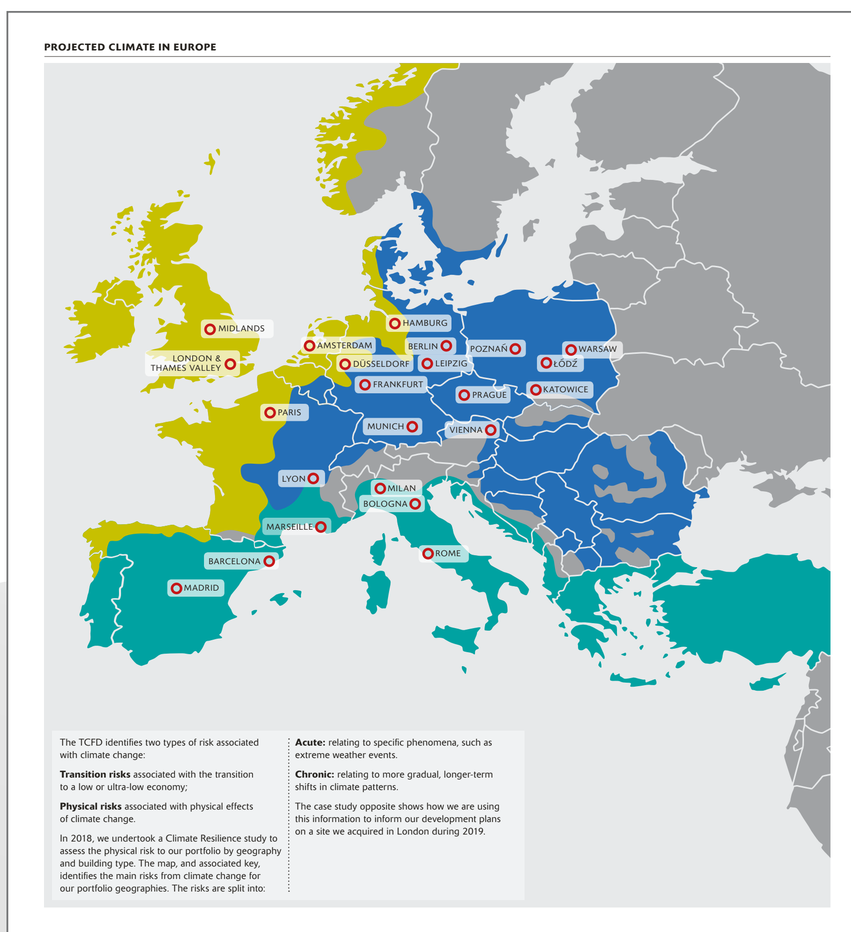
Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term

Strategy requires organisations to disclose information on the processes in place to help investors and other stakeholders understand how climate-related issues may affect an organisation's businesses, strategy and financial planning over the short, medium and long term. Such information may be used to inform expectations about the future performance of an organisation with respect to climate-related risks and opportunities.

The TCFD recommends that organisations should provide a description of:

- What they consider to be the relevant short, medium and long-term time horizons when assessing climate-related risks and opportunities
- The specific climate-related issues for each time horizon (short, medium and long-term) that could have a material financial impact on the organisation
- The process(es) used to determine which risks and opportunities could have a material financial impact on the organisation

Best practice: **SEGRO**



Source: SEGRO 2019 Annual Report and Accounts (Pages 60-61)

- √ Definition of short, medium and long-term time horizons
- √ List of specific climate-related issues for each time horizon
- √ Description of processes used to determine which risks and opportunities could have a material impact
- √ List of risks and opportunities by sector and/or geography

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STRATEGY

RECOMMENDED DISCLOSURES [B]

Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning

Building on Recommended Disclosure, the TCFD requires organisations to discuss how climate-related issues have affected their businesses, strategy and financial planning. This should consider the following areas:

- Products and services
- Supply chain and/or value chain
- Adaptation and mitigation activities
- Investment in research and development
- Operations (including types of operations and location of facilities)

Secondly organisations should describe how climate-related issues influence their financial planning process, the time period(s) used and how these risks and opportunities are prioritised. When disclosing this information organisations should acknowledge the interdependencies that affect their ability to create value over time. Organisations should also consider including the following areas:

- Operating costs and revenues
- Capital expenditures and capital allocation
- Acquisitions or divestments
- Access to capital

Best practice: **Castellum**

RISK	MANAGEMENT	EXPOSURE
SUSTAINABILITY		PRIORITY: FOCUS DEVELOPMENT:
17. Operational environmental risks Environmental risks directly related to Castellum's operations can include the physical environment that impacts people and properties, as well as prices for natural resources in the form of materials and energy. Castellum estimates that risks related to rising raw materials prices owing to potential resource shortages will increase over the long term. With new construction, expansions and reconstructions there is also a risk that the materials and methods being used could subsequently prove hazardous in the future. In addition, political decisions and general opinion on specific environmental issues could impact Castellum.	• Environmentally certify all new constructions • Develop green relationships with customers • Require more efficient use of resources • Prioritize environmental aspects in all parts of operations • Monitor developments in laws and ordinances	Inadequate management of the work on environmental risks could affect Castellum's brand, legal compliance, and direct costs. Castellum works with environmental certification and environmental inventory to reduce environmental and health risks. 36% of the property portfolio is certified and 65% has undergone environmental in square meters inventory. Efficient management focusing on decreased use of resources reduces the risk of high costs and environmental and health impacts, as well as providing customers with a healthy working environment. Since 2007, energy consumption has been reduced by 32% per square meter and carbon dioxide emissions by 77% per square meter.
		PRIORITY: FOCUS DEVELOPMENT:
18. Risks attributable to climate change Climate change poses a great risk to humanity from a global perspective. From a corporate perspective, climate change implies a risk of property damage caused by weather conditions changing over time, higher water levels and other changes in the physical environment that impact properties. Castellum estimates these risks will potentially increase over the long run. This could mean increased need for investment in properties located in vulnerable areas, so that objects do not become obsolete. In addition, environmental policy decisions could impact Castellum, especially in the form of increased taxes or necessary investments.	• All investment issues are to be reviewed from a climate perspective in order to assess a property's sensitivity to climate change • Environmentally certify all new constructions • Prioritize environmental aspects in all parts of operations • Monitor developments in laws and ordinances • Environmental inventory of existing portfolio and when acquiring properties, in order to identify and address environmental and health risks • Climate scenario analyses were prepared in 2019 and will be updated annually to provide Castellum with tools and knowledge of how climate change could affect Castellum's operations	Inadequate efforts in analyzing climate risks can lead to extensive unforeseen costs for Castellum in the form of emergency measures or obsolete properties, and thus lost rental income. Climate change could also entail operating costs. Investments in the wrong kind of measures in our properties could result in a risk of unprofitable investments, if climate change is not taken into account. Castellum is currently reviewing every investment issue from a climate perspective; we also work with environmental certification to reduce climate risks.

Source: Castellum 2019 Annual Report (pages 117-119)

- √ Impact description of climate-related risks & opportunities on the business and strategy
- √ Description of how climate-related scenarios influence strategy and financial planning
- √ Impact of climate-related risks and opportunities on financial planning
- √ Demonstration of the interdependencies between risks, opportunities and mitigation measures

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A guide to best practice

STRATEGY

RECOMMENDED DISCLOSURES [C]

Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

TCFD recommends organisations describe how resilient their strategies are to climate-related risks and opportunities, taking into consideration a transition to a lower-carbon economy consistent with a 2°C or lower scenario and scenarios consistent with increased physical climate-related risks. In doing so organisations should discuss:

- Where they believe their strategies may be affected by climate-related risks and opportunities
- How their strategies might change to address such potential risks and opportunities
- The climate-related scenarios and associated time horizon(s) considered

Best practice: **Landsec**

Two degrees scenario

This scenario is aligned with the IPCC's RCP 2.6, in which there is a high likelihood that global temperatures will not exceed more than 2°C over pre-industrial levels by the end of the century. This scenario unfolds between 2019 and 2030, and in this time period global efforts to mitigate climate change intensify immediately, led and supported by strong policy, regulatory and legal responses.

For this scenario to be possible, rapid investment in low-carbon technology will need to occur, with widespread adoption of sustainable consumption, business practices and lifestyles. Businesses not responding to the transition to a low-carbon economy will quickly become laggards, suffering from reputational impacts as the world changes significantly before 2030.

Beyond 2030 in this scenario, the world will have transitioned successfully to a low-carbon economy but will still be affected by high levels of carbon already in the atmosphere. This concentration of emissions will cause an additional one to two degrees of warming over pre-industrial levels, resulting in some physical changes to climate and weather.

Transition risk

What could happen in this scenario in the lead up to 2030?
— Our customers and communities adopt low-carbon lifestyles
— New policy leads to higher development and operational costs
— Infrastructure installation costs increase to support electric vehicles

In this scenario, zero carbon legislation, planning regulation or a carbon tax could lead to higher capital and operational costs. Investment in low-carbon and renewable construction materials and solutions could be required through the planning system and building regulations. Reducing the carbon impact of developments in both construction and operations could become mandatory, increasing capital expenditures in construction. We would be likely to incur increasing infrastructure and energy costs through widespread adoption of electric vehicles, battery storage technology and other electrical generation, distribution and storage equipment.

Mass adoption of sustainable business practices could begin to occur in this scenario throughout the property industry in the UK. This could lead to marginally diminished competitive advantage which we currently benefit from through our sustainability programme. For example, all new assets brought to market would have compelling sustainability and energy performance credentials, and all retail and leisure destinations would feature electric vehicle charging. This would lead to the requirement for new and innovative technologies and systems to compete for higher rents and valuations. This scenario could lead to higher levels of competition for positive investor favour surrounding ESG, as the standard of disclosure and performance will likely be universally higher.

Opportunities

How could we benefit from the low-carbon transition in the lead up to 2030?
— Higher revenues for sustainable assets from customers
— Higher asset valuation and lower cost of capital
— New subsidies and tax relief for low-carbon solutions

In this scenario, the global adoption of ESG and responsible investment practices could lead to higher valuations and improved availability of capital for low-carbon businesses in the short term. New revenue streams could emerge from investment in renewable energy generation, supported by subsidies or tax relief. We expect property companies offering low-carbon solutions could also benefit from increased capacity to attract customers and improved customer retention.

This scenario could also lead to a long-term benefit after 2030, where our present levels of adoption of low carbon and energy efficiency technologies lead to increased organisational resilience. Specifically, the short payback period and longer asset life of renewable energy generation assets would begin to increase our revenues and avoided costs.

Physical risk
In this scenario, predicted changes in the UK climate are for marginally higher year-round temperatures and lower precipitation in summer. The risk to our business under this scenario from flooding and windstorm remains within the current and natural variability. This means there will be no material change to insurance, repair or other capital and operational costs arising due to the physical impacts of climate change. Our modelling has also determined this will not have a material effect on energy costs for our business or our customers, particularly as there are a several factors which affect energy consumption and costs. In addition, the slight increase in summer cooling costs are offset by lower heating costs in winter.

How we'll need to respond
In the two degrees scenario, based on our analysis, we are confident our current business model allows us to reduce our impact in line with the required mitigation. Our analysis gives us confidence that our business activities, strategy and financial planning mean we are well placed to benefit from the transition to a low carbon economy through to 2030. This includes widespread adoption of low-carbon and renewable technologies, continually driving improved energy efficiency, and engaging our customers and consumers on sustainability and climate change.

We believe our investment in, and development of resilient and efficient assets will help us to mitigate any marginal increase in physical climate risks after 2030. However, we must consider that under this scenario many of our activities will be considered business as usual by 2030, so to continue to derive both reputational and competitive advantage from our sustainability programme, further innovation and investment will be required. We will continue to do this through seeking new product and service offerings from the market and encouraging our consulting and design partners to build in transitional thinking to their advice to us.

Sustainability Performance and Data 2019 27

Source: Landsec Sustainability Performance & Data 2019 (page 27)

- √ List of climate-related scenarios and associated time horizons
- √ Description of parameters, assumptions and analytical choices underlying these climate-related scenarios
- √ Description of whether climate-related scenarios are used to inform strategy and financial planning
- √ Implications of different assumptions and trends used to assess the resilience strategy
- √ How the strategy may be affected by climate-related risks and opportunities and how it might evolve to address climate-related risks and opportunities

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A guide to best practice

RISK MANAGEMENT

RECOMMENDED DISCLOSURES [A]

Describe the organisation's processes for identifying and assessing climate-related risks

Investors and other stakeholders need to understand how an organisation's climate-related risks are identified, assessed and managed and whether those processes are integrated into existing risk management processes. Recommended Disclosures on risk management are intended to support stakeholders in evaluating the organisation's overall risk profile and risk management activities.

TCFD requires organisations to describe their processes for identifying and assessing climate-related risks. An important aspect of this description is how organisations determine the relative significance of climate-related risks in relation to other risks. When disclosing these processes, the TCFD recommends organisations describe whether they consider existing and emerging regulatory requirements related to climate change, as well as other relevant factors.

The TCFD recommends that organisations should also consider disclosing the following:

- The processes for assessing the potential size and scope of identified climate-related risks
- The definitions of risk terminology used or references to existing risk classification frameworks used

Best practice: **Hammerson**

SUSTAINABILITY REPORT 2019: INTRODUCTION

RISK MANAGEMENT

Describe the organisation's processes for identifying and assessing climate related risks

Physical climate risk reviews have been commissioned by the Corporate Sustainability Team and carried out for the UK, France and Ireland portfolios. Using the latest climate change forecasting models, UK CP09 for UK and Ireland and CERFACS in France, exposure to flood, heat and drought were examined under a medium GHG emissions scenario, projected out to 2030 and 2050. The reviews analysed the portfolios' exposure in particular to flooding and overheating as these are the most relevant for our portfolio. This allows us to understand individual asset exposure to potential capital cost improvements and future increases in energy costs to alleviate over-heating in mall areas.

These reviews focus on physical risk out to 2030 and 2050. They enable the business to assess some transitional risk, for example exposure to medium-term energy and carbon pricing, regional zero carbon policies and short-term energy price volatility. The next phase of our climate risk analysis will be to initiate climate scenario work to enable us to extend our business climate risk analysis further into our business value chain within the context of our broader business strategy.

Describe the organisation's processes for managing climate-related risks

Our climate risk strategy is proactive with an intention to ensure early understanding of climate risk for existing and new assets - both acquired and developed. The type and severity of climate risk we are exposed to differs across the short, medium and long term and we reflect this in our approach. Our approach to managing each of these risks is a product of its proximity to our value chain, time-horizon, our investment-horizon for the related asset, the potential cost of mitigation and the benefits that would accrue.

Key risks are therefore those that directly affect our assets , particularly in the short term, and have a material business impact. For example energy price rises – both commodity and non-commodity cost related. These risks are identified through a series of processes: our materiality review, our environmental monitoring of the portfolio and the market, our business planning process and our capital expenditure approvals system. Projects which are timely, relate to our key risks and are cost effective are quickly identified. Projects requiring a longer-term perspective are also easily identified and reviewed in relation to the relevant investment horizon for the particular asset or for the wider business strategy.

Source: Hammerson Sustainability Report 2019 (page 22)

- √ Description of processes used to identify and assess climate-related risks
- √ Whether existing and emerging regulatory requirements are considered
- √ Process for assessing the potential size and scope of identified climate-related risks
- √ How the relative significance of climate-related risks in relation to other risks is determined

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RISK MANAGEMENT

RECOMMENDED DISCLOSURES [B]

Describe the organisation's processes for managing climate-related risks

In responding to this Recommended Disclosure, organisations should describe their processes for managing climate-related risks, including how they make decisions to mitigate, transfer, accept or control those risks. In addition, organisations should describe their processes for prioritising climate-related risks.

In describing their processes, organisations should address both transitional and physical risks:

- Transitional risks may include policy, litigation or legal, technology and market risks related to the transition to a lower-carbon economy.
- Physical risks can include acute weather events such as floods and hurricanes, or longer-term shifts in climate patterns. Either can affect an organisation's supply chain, operations and customers.

A representative example of typical transitional and physical risks affecting real estate companies is provided on page 22.

Best practice: **Castellum**

Risk and risk management

Risks, exposure and risk management
Castellum defines risk as an uncertainty factor that may affect the company's ability to achieve its objectives. Risk management aims at balancing the desire to limit risk and achieving objectives. In order to assess the effect of identified risks, an internal risk rating is conducted in which each risk is assessed, from the perspectives of impact and probability. This process determines if the risk should be further monitored (Monitor), if actions should be taken (Focus) or if it can be handled through standard review and management (Review). We conduct an annual risk survey in which we assess all the company's risks and their likelihood, impact, priority and development. We analyze short- and medium-term risks for a period of up to ten years. In 2019, we also began analyzing various future climate-related risks and possibilities over the long term up through 2050.

To facilitate risk management, Castellum has chosen to classify risks into the following categories:

- Business environment – risks due to the influence of external factors and events
- Strategic risks – risks associated with reputation or the ownership of Castellum's property portfolio
- Operational risks – risks associated with routine administration of Castellum's property holdings
- Sustainability and climate risks – risks associated with the environment, corporate responsibility and/or liability risks
- People – risks associated with our employees and the people in and around our properties
- Financial risk – risks in Castellum's financing and reporting

Source: Castellum 2019 Annual Report (pages 112, see also pages 117-119)

√ Description of the decision-making process to mitigate, transfer, accept or control climate-related risks

√ Description of how it prioritises climate-related risks and how it determines what climate-related information is material

√ Confirmation that it addresses all relevant categories of climate-related risks (i.e. transition risks as well as physical risks)

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RISK MANAGEMENT

RECOMMENDED DISCLOSURES [C]

Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management

Under this Recommended Disclosure organisations should describe how their processes for identifying, assessing and managing climate-related risks are integrated into their overall risk management framework.

This may be achieved, for example, by:

- Explaining the role of the highest body responsible for identifying, evaluating and monitoring risks
- Description of the risk management framework and process by which risks are identified and reported up through the organisation
- Confirmation that climate-related risks are included in this process, and evaluated alongside other risks by the highest body responsible for risk management
- Including material climate-related risks (transitional and physical) with over risk factors included in the main risks chapter of an annual report

Best practice: **IGD**

// FOCUS TCFD

// Risk management

Describe the company's organisational processes for identifying and assessing climate-related risks.

Risks related to climate change are identified and assessed within Enterprise Risk Management (ERM), as described in section 3 of this Report. Identification is carried out by means of specific meetings with the Managers in charge of the Company's main operating and functional areas. Climate change falls within the risk «Catastrophic natural events (earthquakes, flooding, dioxin contamination) and damages to property caused by third parties». IGD assesses this as an «operational risk» and, like the other corporate risks, it is assessed on the basis of the two variables «impact» and «probability» and on the expected safeguard mitigation measures.

Describe the company's organisational processes for managing climate-related risks.

Like the other corporate risks, also those related to climate change are prioritised on the basis of three drivers:

Crossover aspect: Ability of the risk to impact other risks and expand to other corporate areas.

Velocity: Time it takes for the risk to have a significant impact on the Company's business.

Recovery: Company's ability to return to its initial state, to that before the shock.

Following the assessment carried out every year by the bodies appointed by the Company, in 2019 the risk related to climate change resulted as being amongst the top 10 most important for IGD and, like the other 9, it falls within the area "to be monitored" in the matrix that assesses the risk level and control level. For further details on how the risk control system works please refer to the corporate website:

https://www.gruppoigd.it/en/governance/internal-control-and-risk-management-system/

Describe how processes for identifying and assessing climate-related risks are integrated into the company's overall risk management.

The risks related to climate change are an integral part of Enterprise Risk Management (ERM) and are subjected to the same identification, control and monitoring system.

This process, since 2019, has been flanked by the publication of the risks related to the individual material issues (of which climate change is an integral part), as stated in the previous paragraph. They are not included in ERM but they represent a guiding element in the definition of the Company's policies and operating actions.

Source: IGD Sustainability Report 2019 (pages 35)

√ Confirmation of how climate-related risks are integrated into the broader risk management framework

√ Description of how it prioritises climate-related risks and how it determines what climate-related information is material

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METRICS AND TARGETS

RECOMMENDED DISCLOSURES [A]

Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process

Disclosing the metrics and targets used by an organisation allows investors and other stakeholders to better assess how it measures and monitors its climate-related risks and opportunities. Metrics and targets also provide a basis upon which investors and other stakeholders can compare organisations with a sector.

Organisations should provide the key metrics used to measure and manage the climate-related risks and opportunities they have identified. This may include metrics on climate-related risks associated with water, energy, land use and waste management where relevant and applicable. Where possible, the TCFD recommends that organisations should:

- Consider describing whether and how related performance metrics are incorporated into remuneration policies
- Provide their internal carbon prices as well as climate-related opportunity metrics such as revenue from products and services designed for a lower-carbon economy

Metrics should be provided for historical periods to allow for trend analysis. In addition organisations should provide a description of the methodologies used to calculate or estimate climate-related metrics.

Best practice: **Landsec**

TCFD Metrics and targets Table 29

Financial category	Climate related category	Metric	Unit of measure	Landsec 2017/18	2018/19
Revenues	Risk Adaptation & Mitigation	Revenues/savings from investments in low-carbon alternatives (e.g., R&D, equipment, products, services)	£	1,538,662.58	1,918,389.31
Revenues	Risk Adaptation & Mitigation	Avoided energy consumption costs benefitting customers in year, measured against 2013/14 baseline	£	–	£4.0m[1]
Revenues	Risk Adaptation & Mitigation	Percentage of revenues derived from BREEAM certified assets	£	56%	57%
Expenditures	Risk Adaptation & Mitigation	Expenditures (OpEx) for low-carbon alternatives (e.g., R&D, technology, products, services)	£	1,716,526,526.10	1,457,997.84
	Energy/Fuel	Total energy consumption	kWh	265,723,992.15	265,571,273.86
	Energy/Fuel	Proportion of energy consumption from renewable sources	%	64%	66%
	Energy/Fuel	Total electricity consumption	kWh	167,507,064.49	167,590,019.79
	Energy/Fuel	Proportion of electricity consumption from renewable sources	%	93%	96%
	Energy/Fuel	Total fuel consumption (i.e. gas)	kWh	86,337,790.66	81,310,160.07
	Energy/Fuel	Proportion of fuel consumption from renewable sources (i.e. green gas)	%	17%	16%
	Energy/Fuel	Total building energy intensity by floor area	kWh/m^2	144	142
	Energy/Fuel	Forecast change in energy cost by 2100, four-degree scenario	£	–	£0.9m[2]
	Water	Percent of fresh water withdrawn in regions with high or extremely high baseline water stress	m^3	0	0
	Water	Total building water intensity by floor area	m^3/m^2	0.57	0.56
	GHG Emissions	Total GHG emissions intensity by floor area	tCO_2e/m^2	0.052[3]	0.043
Assets	Location	Percentage floor area of portfolio exposed a 10-20% risk of inland, coastal and flash flooding in a ten-year period	% floor area	0.4%	0.3%
	Location	Percentage value of portfolio exposed to a 10-20% risk of inland, coastal and flash flooding in a ten-year period[4]	% Value	1.5%	1.4%
	Location	Insured value of assets exposed to possible significant increase in river flood risk due to climate change	£	£5.7m	£7.0m[5]
	Location	Insured value of assets exposed to possible significant increase in coastal flood risk due to climate change	£	£281m	£257.3m[6]
	Risk Adaptation & Mitigation	Percentage of portfolio which is BREEAM certified	% floor area	40.1%	40.2%
	Risk Adaptation & Mitigation	Percentage of portfolio which is BREEAM certified	% portfolio value	61%	60%
	Risk Adaptation & Mitigation	Investment (CapEx) in low-carbon alternatives (e.g., capital equipment or assets)	£	4,402,019.00	2,377,136.00
	Risk Adaptation & Mitigation	Costs of obtaining Energy Performance Certificates for assets which are not currently certified[7]	£	–	£0.3m

1 Consumption costs measured in 2018/19, based on comparable floor area from 2013/14 portfolio.
2 Increase in cooling costs offset by decrease in gas costs.
3 This figure is based on absolute energy across scopes 1,2 and 3.
4 Based on a return period of 50-100 years meaning there is a 1-2% chance every year or 10-20% in the next 10 years that flooding would occur.
5 Acquired one new asset in river flood risk zone.
6 Divested two assets in coastal flood risk zone.
7 30% of our assets must obtain an EPC before 2023.

Sustainability Performance and Data 2019 29

Source: Landsec Sustainability Performance & Data 2019 (page 29-30)

- ✓ List of metrics used to assess and manage financially material climate-related risks and opportunities
- ✓ Confirmation that performance metrics are incorporated into remuneration policies
- ✓ Measurement of climate-related opportunities, such as revenue from products and services
- ✓ Metrics support the company's scenario analysis and strategic planning process
- ✓ Established methodologies used to calculate or estimate metrics
- ✓ Presentation of meaningful trend analysis

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METRICS AND TARGETS

RECOMMENDED DISCLOSURES [B]

Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks

At a minimum organisations should provide their Scope 1 and Scope 2 GHG emissions and, if appropriate, Scope 3 GHG emissions and related risks.

The TCFD requires GHG emissions to be calculated in line with the GHG Protocol methodology to allow for aggregation and comparability across organisations and jurisdictions. Furthermore organisations should consider providing related, generally accepted industry-specific GHG efficiency ratios.

Secondly, GHG emissions and associated metrics should be provided for historical periods to allow for trend analysis. Finally organisations should provide a description of the methodologies used to calculate or estimate the metrics.

Best practice: **IGD**

// TABLE 6 – GREENHOUSE GAS EMISSIONS (GRI 305-1; 305-2)

GHG emissions (Tonnes CO2e)	2019	2018	2017	Difference 2019/2018	Difference 2018/2017
Italy direct emissions (Scope1) - Abs	2,714	2,556	2,454	6.2%	4.1%
Italy indirect emissions (Scope2) – Abs	20,064	18,492	18,535	8.5%	**-0.2%**
Italy total GHG emissions - Absolute	**22,777**	**21,048**	**20,990**	**8.2%**	**0.3%**
Italy direct emissions (Scope1) – Lfl	2,158	2,518		**-14.3%**	
Italy indirect emissions (Scope2) – Lfl	16,408	17,210		**-4.7%**	
Italy total GHG emissions - Like for like	**18,567**	**19,728**		**-5.9%**	
Romania direct emissions (Scope1)	612	828	748	**-26.0%**	10.7%
Romania indirect emissions (Scope2)	9,651	10,220	10,283	**-5.6%**	**-0.6%**
Romania total emissions	**10,263**	**11,047**	**11,031**	**-7.1%**	**0.2%**
Headquarters - total emissions	**41.19**	**42.20**	**39.73**	**-2.4%**	**6.2%**

NB: The method used to calculate greenhouse gas emissions deriving from electricity consumption is location based.

Source: IGD Sustainability Report 2019 (pages 49)

- √ GHG emissions based on GHG Protocol methodology
- √ Use of industry-standard GHG efficiency ratios aligned with EPRA sBPR
- √ Segmental analysis allows for aggregation and comparability across jurisdictions
- √ Reporting methodology aligned with EPRA sBPR

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METRICS AND TARGETS

RECOMMENDED DISCLOSURES [C]

Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets

Under this Recommended Disclosure organisations should describe their key climate-related targets. These may typically relate to GHG emissions, water usage, energy usage, etc. and be in line with anticipated regulatory requirements, market constraints or other goals.

Other goals may include efficiency or financial goals, financial loss tolerances, avoided GHG emissions through the entire product life cycle or net revenue goals for products and services designed for a lower-carbon economy.

In describing their targets, the TCFD recommends organisations to consider including the following:

- Whether the target is absolute or intensity-based
- The time frame over which the targets apply
- Base years from which progress is measured
- The key performance indicators used to assess progress against targets

Organisations should also provide a description of the methodologies used to calculate targets and measures.

Best practice: **Unibail-Rodamco-Westfield**

2.2 BETTER SPACES

2.2.1 ADDRESS CLIMATE CHANGE

2.2.1.1 CLIMATE CHANGE STRATEGY

As part of its CSR strategy, Better Places 2030, the Group commits to cutting carbon emissions across its value chain by -50% between 2015 and 2030. This strong commitment marked a first in the listed commercial property industry by covering such a comprehensive part of the Group's Scope 3 emissions:

- greenhouse gas emissions generated in the construction of its development projects;
- greenhouse gas emissions due to the private energy consumption of its tenants;
- and finally, emissions due to travel by building occupants and especially visitors to the Group shopping centres.

The Group's carbon target between 2015 and 2030 breaks down into the following three complementary objectives:

- Reduce emissions from construction by -35% by 2030;
- Reduce emissions from operations by -80% by 2030;
- Reduce emissions from transport by -40% by 2030.

The carbon reduction targets of the Group on operations and transport have been updated in 2019 to ensure feasibility in the context of the new Group, now operating in the UK and US.

In 2019, with the support of independent experts, the Group was able to verify that its strategy to reduce greenhouse gas emissions is in line with the mitigation efforts necessary to keep global warming below 2°C. This modelling work was based on the SBTi absolute approach using the IPCC's 5th Amendment Report emissions pathway.

The Group's CSR strategy illustrates its willingness to commit 100% of its standing assets and new development projects to reducing its carbon footprint. These commitments will step up the development of a new generation of more environmentally-friendly buildings, in line with the Group's ambition of excellence and in line with market demand.

Achieving these low-carbon objectives involves the active participation of all the Group's employees within their areas of responsibility and the contribution of the Group's stakeholders in driving change, mainly tenants, suppliers and service providers. It also relies on strong partnerships with manufacturers and start-ups in order to accelerate the pace of transformation, particularly in the fields of low-carbon construction and new sustainable mobility solutions.

– REDUCE EMISSIONS FROM CONSTRUCTION BY -35% BY 2030

Unibail-Rodamco-Westfield was the first company in commercial real estate to commit to significantly reducing its carbon emissions from construction on a broad scope. In concrete terms, reducing its carbon intensity by -35% between 2015 and 2030 means dropping from an average:

- in Europe (including the UK) of 850 kg CO_2eq/sqm[1] constructed in 2015 to 552.5 kg CO_2eq/sqm on average by the end of 2030. The 2015 baseline has been built on the carbon intensity of greenfield/brownfield projects under construction or delivered between 2012 and 2015: Trinity (France), Wroclavia (Poland), Aéroville (France), Majunga (France), Westfield Mall of Scandinavia (Sweden), 3 Pays (France) and Minto (Germany);
- in the US, of 1,294 kgCO_2eq/sqm constructed in 2015 to 841 kg CO_2eq/sqm on average by the end of 2030. This new baseline for the US has been calculated in 2019 following the carbon assessments conducted on the following projects: Westfield UTC, Westfield Valley Fair, Westfield Topanga and Westfield Valencia.

While the US baseline of 1,294 kgCO_2eq/sqm has been calculated using extension projects, the Europe and UK baseline methodology will be fine-tuned in 2020 to consider this typology of projects.

The main levers to achieve the Group's low carbon target on construction are the following:

- a "lean building" approach from the design phase using fewer materials, through optimised design choices: structure, fixtures and fittings, façades, suspended ceilings, reducing number of parking spaces, etc.;
- using new solutions for construction and choice of alternative and low-carbon materials: low-carbon concrete and cement, wood, recycled products, etc., including the choice of suppliers or products based on their location of manufacture;
- developing targeted partnerships with construction firms and manufacturers of building materials for the implementation of innovative solutions.

Those levers are integrated in the Group Sustainability Brief, gathering all the requirements for development projects (brownfield, greenfield, refurbishments, renovations and extensions) to be in line with Better Places 2030. This document, approved in 2019, will be rolled out at the beginning of 2020, and development projects will be assessed against it during key project reviews.

Changes in carbon performance with regard to the targets is presented in a progress graph in Section 2.1.4.1 Summary of the Group's CSR performance.

Source: Unibail-Rodamco-Westfield Universal Registration Document 2019 (pages 62-64)

✓ Targets in line with anticipated regulatory requirements, market constraints or other goals

✓ Confirmation whether targets are absolute or intensity-based, the time frames over which they apply and the base year from which progress is measured

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ROLE OF THE EPRA sBPR IN SUPPORTING ALIGNMENT WITH THE TCFD

The TCFD recommendations were not designed to compete with existing management and reporting frameworks. Indeed, the TCFD strongly encourages the integration of existing reporting frameworks as a tool to support organisations in their reporting of climate-related risks and opportunities.

The TCFD and benchmarks such as the Carbon Disclosure Project (CDP), GHG Protocol, Global Real Estate Sustainability Benchmark (GRESB), Global Reporting Initiative (GRI), Institutional Investors Group on Climate Change (IIGCC) and the Sustainability Accounting Standards Board (SASB) have subsequently sought to align their recommendations and emphasise their compatibility.

As the most widely adopted reporting framework for list real estate, the EPRA sBPR provide a suitable framework to support the industry in meeting the requirements of the TCFD.

In this section, we demonstrate how the sBPR can support TCFD disclosure by providing a framework to report climate-related risks and opportunities that is aligned with both:

1. The TCFD Principles for Effective Disclosure
2. The Recommended Disclosures associated with the communication of metrics and targets

The section concludes with four examples that demonstrate how the sBPR Performance Measures and Overarching Recommendation can communicate the effectiveness of risk mitigations strategies for common categories of transitional and physical risks and opportunities identified by the TCFD.

Alignment of the TCFD and EPRA sBPR

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organisation's governance around climate-related risks and opportunities.	*Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.*	*Disclose how the organisation identifies, assesses, and manages climate-related risks.*	*Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.*
RECOMMENDED DISCLOSURES	**RECOMMENDED DISCLOSURES**	**RECOMMENDED DISCLOSURES**	**RECOMMENDED DISCLOSURES**
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	a) Describe the organisation's processes for identifying and assessing climate-related risks.	**a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.**
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	b) Describe the organisation's processes for managing climate-related risks.	**b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.**
	c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

Environmental Performance Measures track physical and transitional risks related to energy, GHG emissions, water etc

GHG emissions Performance Measures provide a framework to report Scope 1 & 2 emissions, with the option to include Scope3

Overarching recommendations support underlying Principles for Effective Disclosure

Source: Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures (June 2017)

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ALIGNMENT WITH 'PRINCIPLES FOR EFFECTIVE DISCLOSURE'

The TCFD has developed seven 'Principles for Effective Disclosure' that underpin its recommendations and help guide climate-related financial reporting.

When used by organisations in preparing their climate-related financial disclosures, these principles are intended to guarantee accurate and actionable disclosures that enable users to understand the impact of climate change on the reporting entity.

The Task Force encourages organisations to consider these principles as they develop climate-related financial disclosures. These principles align with the 12 Overarching Recommendations that apply to the reporting of individual Sustainability Performance Measures in the EPRA sBPR.

EPRA sBPR Overarching Recommendations alignment with TCFD Principles for Effective Disclosure

TCFD PRINCIPLE FOR EFFECTIVE DISCLOSURES	EPRA OVERARCHING RECOMMENDATION
Disclosures should represent relevant information	• Organisational boundaries • Materiality • Disclosure of own offices
Disclosures should be specific and complete	• Organisational boundaries • Coverage • Estimation of landlord-obtained utility consumption • Boundaries – reporting on landlord and tenant consumption
Disclosures should be clear, balanced and understandable	• Narrative on performance
Disclosures should be consistent over time	• Normalisation
Disclosures should be comparable among companies within a sector, industry or portfolio	• Segmental analysis • Normalisation
Disclosures should be reliable, verifiable and objective	• Assurance
Disclosures should be provided on a timely basis	• Reporting period

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USING THE EPRA sBPR AS THE FOUNDATION FOR REPORTING TCFD METRICS AND TARGETS

The TCFD requires organisations to disclose metrics and targets that allow investors and other stakeholders to understand how they measure and monitor their climate-related risks and opportunities. In its guidance, the TCFD advises that metrics should allow investors and other stakeholders to assess the reporting entity's potential risk-adjusted returns, ability to meet financial obligations, general exposure to climate-related issues and progress in managing or adapting to those issues. The metrics should also provide a basis upon which investors and other stakeholders can compare organisations within a sector or industry.

As a minimum, metrics should meet the following requirements:

1. Organisations must disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and related risks
2. GHG emissions should be calculated in line with the GHG Protocol methodology to allow for aggregation and comparability across organisations and jurisdictions
3. As appropriate, organisations should consider providing related, generally accepted industry-specific GHG efficiency ratios
4. Metrics should be provided for historical periods to allow for trend analysis
5. Organisations should provide a description of the methodologies used to calculate or estimate climate-related metrics

This flexibility provides an opportunity for organisations to build upon their existing reporting of environmental impacts. Real estate companies already using the EPRA sBPR Performance Measures and Overarching Recommendations have an established methodology that meets each of these minimum requirements to disclose their Scope 1 and Scope 2 GHG emissions, in line with both the TCFD and sector best practice (GHG-Dir-Abs, GHG-Indir-Abs and GHG-Int).

Beyond the mandatory reporting of Scope 1 and 2 emissions, the TCFD advises organisations to consider including metrics on climate-related risks associated with water, energy, land use and waste management where relevant and applicable.

The TCFD does not prescribe mandatory metrics for these; instead, metrics should reflect the specific climate-related risks and opportunities identified by reporting entities during their scenario analysis. The TCFD nonetheless provides illustrative examples of key metrics for common sectoral risks and opportunities in its Annex document on 'Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures (June 2017)'. This includes supplemental guidance for the Materials and Buildings Group which includes Real Estate Development and Management.

These metrics – and corresponding EPRA Performance Measures – are summarised in the following table. In each instance, the corresponding EPRA Performance Measure – and accompanying Overarching Recommendations – provide a metric that is consistent with both the TCFD Principles for Effective Disclosure and minimum disclosure requirements.

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EPRA sBPR alignment with TCFD Metrics and Targets

ILLUSTRATIVE EXAMPLES OF KEY METRICS RELATED TO THE IMPLICATIONS OF GHG EMISSIONS, ENERGY AND WATER ON THE FINANCIAL ASPECTS RELATED TO REVENUE, COSTS, ASSETS AND FINANCING COSTS[2] FOR THE MATERIALS AND BUILDINGS GROUP	CORRESPONDING EPRA SBPR PERFORMANCE MEASURE
Total energy consumed, broken down by source (e.g., purchased electricity and renewable sources)	• Elec-Abs & Elec-LfL • DH&C-Abs & DH&C-LfL • Fuels-Abs & Fuels-LfL
Total fuel consumed – percentage from coal, natural gas, oil and renewable sources	• Fuels-Abs & Fuels-LfL
Building energy intensity (by occupants or square area)	• Energy-Int
Percentage of fresh water withdrawn in regions with high or extremely high baseline water stress	• Water-Abs & Water-LfL
Building water intensity (by occupants or square area)	• Water-Int
GHG emissions intensity from buildings (by occupants or square area) and from new construction and redevelopment	• GHG-Int
For each property type, the percentage certified as sustainable	• Cert-Tot

[2] Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures (June 2017)

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APPLYING THE EPRA sBPR TO THE REPORTING OF CLIMATE-RELATED RISKS AND OPPORTUNITIES

The TCFD requires organisations to disclose their material climate-related risks and opportunities in line with anticipated regulatory requirements, market constraints or other trends. Metrics – such as those related to GHG emissions, water usage, energy usage, etc. – should be aligned with the physical and transitional risks and opportunities identified by the reporting entity. These may include risks such as:

- Stricter constraints on emissions and/or pricing carbon emissions and related impact on costs
- Risks related to the increasing frequency and severity of acute weather events or increasing water scarcity that impact their operating environment
- Opportunities for products (or services) that improve efficiency, reduce energy use and support closed-loop product solutions

Climate-related risks are divided into two categories: (1) risks related to the transition to a lower-carbon economy and (2) risks related to the physical impacts of climate change. Transition risks include policy, litigation or legal, technology and market risks. Physical risks can be event-driven (acute: floods, hurricanes) or longer-term shifts (chronic: sustained higher temperatures) in climate patterns. Either of these risk categories can, for example, affect an organisation's supply chain, operations, transport needs and employee safety.

Besides the climate-related risks, the TCFD also recommends organisations report on the opportunities that can result from the efforts to mitigate and adapt to climate change, such as resource efficiency, energy cost savings, improved competitive position through the development of low-emission products and services, access to new markets and improved resilience through improved efficiency, processes and products.

Summary of transitional risks

CATEGORY	EXAMPLES OF CLIMATE-RELATED RISKS FOR LISTED REAL ESTATE
Policy & legal	• Carbon pricing and enhanced emissions-reporting obligations may result in increased operating and compliance costs • More stringent energy performance/efficiency requirements may incur increasing capex to bring properties up to the required standard • A tightening of regulatory framework poses additional risks on high carbon/inefficient assets and could result in restrictions on the letting or sale of buildings that do not comply with minimum standards
Technology	• Technologically obsolete buildings may experience reduced demand and require higher maintenance costs/capex requirements to meet minimum efficiency standards and modern work, leisure and residential trends
Market	• High energy and utility consumption and over-reliance on fossil-fuel derived energy supplies, may increase exposure to energy price fluctuations • Tenant preferences for low or no-carbon properties are likely to reduce demand for inefficient properties. Likewise, shifting investor preferences for sustainable and resilient assets could see valuations favour green buildings • Shifting market demand may put downward pressure on the value of 'brown' assets which are not in line with market expectations, thereby reducing the availability of capital and increasing the cost of debt
Reputation	• Shifts in tenant and investor demand may lead to a reduction in revenues and capital availability • Reputational damage from inaction on climate change may also reduce the ability to recruit and retain talent

[2] Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures (June 2017)

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Summary of physical risks

CATEGORY	EXAMPLES OF CLIMATE-RELATED RISKS FOR LISTED REAL ESTATE
Acute	• Increasing likelihood and severity of extreme weather events such as floods may result in localised shut-downs • Properties in 'high risk' locations may be subject to higher insurance premiums, maintenance and capex costs to increase asset resilience
Chronic	• Changes in precipitation patterns accompanied by rising mean temperatures may result in higher utilities costs due to freshwater availability and cooling demands

Summary of opportunities

CATEGORY	EXAMPLES OF CLIMATE-RELATED OPPORTUNITIES FOR LISTED REAL ESTATE
Resource efficiency	• A move to more efficient buildings may result in lower operating costs for landlords and tenants and reduce exposure to variations in the cost and availability of natural resources • More efficient buildings may also attract higher valuations influenced by improved energy performance
Energy source	• Increasing procurement of energy from renewable sources and a shift to decentralised energy generation can reduce operational costs, compliance costs and exposure to volatile fossil fuel markets • Low and zero-carbon buildings can capitalise on investor demand for 'green' assets
Products & services	• Low and zero-carbon buildings will be better positioned to reflect shifting tenant preferences, positively impacting rents
Markets	• Green assets may improve access to capital and debt, such as green bonds
Resilience	• Increasing resource diversification is likely to reduce energy and supply chain risks associated with construction and property management activities • 'Green' assets may strengthen business resilience by increasing revenue through new products and services that meet market demands

Although the specific risks and opportunities facing each organisation will be different, the following examples demonstrate how the sBPR Performance Measures and accompanying Overarching Recommendations can be used to track the effectiveness of an organisation's management and mitigation of climate-related risks and opportunities.

The Performance Measures selected as examples align with the key metrics and typical risks and opportunities identified by the TCFD for the Real Estate Development and Management sector and include:

- Energy: Elec-Abs & Elec-LfL; DH&C-Abs & DH&C-LfL; Fuels-Abs & Fuels-LfL; Energy-Int
- GHG emissions: GHG-Dir-Abs & GHG-Indir-Abs; GHG-Int
- Water: Water-Abs & Water-LfL; Water-Int
- Building certifications: Cert-Tot

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Reporting transitional risks and opportunities using the EPRA sBPR

EXAMPLES OF RISKS/ OPPORTUNITIES	PERFORMANCE MEASURES	OVERARCHING RECOMMENDATIONS				
POLICY & LEGAL RISKS • Exposure to litigation **ENERGY & RESOURCE EFFICIENCY OPPORTUNITIES** • Use of lower-emission sources of energy • Use of supportive policy incentives • Use of new technologies • Shift toward decentralized energy generation **RESILIENCE OPPORTUNITIES** • Participation in renewable energy programs and adoption of energy efficiency measures	**ELEC-ABS & ELEC-LFL DH&C-ABS & DH&C-LFL FUELS-ABS & FUELS-LFL ENERGY-INT** Absolute performance measures track exposure risks/opportunities by recording total consumption and renewable & non renewable energy Like-for-Like performance measures track evolving exposure to risks/opportunities accounting for impact of efficiency improvements on comparable assets Intensity performance measures impact on resilience opportunities	**ORGANISATIONAL BOUNDARIES** Allows reporting companies to identify relevant information based on operational/ financial control	**COVERAGE** Confirms the scope and completeness of the performance measure	**ESTIMATION OF LANDLORD-OBTAINED UTILITY CONSUMPTION** Confirms completeness and accuracy of the performance measure	**THIRD-PARTY ASSURANCE** Provides assurance that the performance measure is reliable, verifiable, and objective	**BOUNDARIES – REPORTING ON LANDLORD AND TENANT CONSUMPTION** Identifies scope of data that is under the control of the reporting entity
		SEGMENTAL ANALYSIS Ensures performance measure is comparable among peers companies, geographies and asset types	**NORMALISATION (ENERGY-INT ONLY)** Allows consistent reporting over time and enables comparability among peers, portfolios, and asset types	**DISCLOSURE OF OWN OFFICES** Enables relevant reporting for investors by separating corporate office impacts from investment portfolio	**NARRATIVE ON PERFORMANCE** Enables clear, balanced, and understandable reporting around impact of risk mitigation measures and successes	**REPORTING PERIOD** Enables a timely basis for reporting and identification of benchmarked years for the purposes of target setting

EXAMPLES OF RISKS/ OPPORTUNITIES	PERFORMANCE MEASURES	OVERARCHING RECOMMENDATIONS				
POLICY, LEGAL & REPUTATIONAL RISKS • Increased pricing of GHG emissions • Enhanced emissions reporting obligations • Exposure to litigation • Resilience opportunities • Adoption of energy efficiency measures	**GHG-DIR-ABS & GHGINDIR-ABS** **GHG-INT** Absolute performance measures track exposure to policy, legal & reputational risks by tracking total emissions of direct and indirect GHG emissions Intensity performance measures impact on resilience opportunities by using emissions to track energy efficiency measures	**ORGANISATIONAL BOUNDARIES** Allows reporting companies to identify relevant information based on operational/ financial control	**COVERAGE** Confirms the scope and completeness of the performance measure	**ESTIMATION OF LANDLORD-OBTAINED UTILITY CONSUMPTION** Confirms completeness and accuracy of the performance measure	**THIRD-PARTY ASSURANCE** Provides assurance that the performance measure is reliable, verifiable, and objective	**BOUNDARIES – REPORTING ON LANDLORD AND TENANT CONSUMPTION** Identifies scope of data that is under the control of the reporting entity
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Reporting transitional risks and opportunities using the EPRA sBPR

EXAMPLES OF RISKS/ OPPORTUNITIES	PERFORMANCE MEASURES	OVERARCHING RECOMMENDATIONS			
MARKET RISKS • Changing customer behavior **REPUTATION RISKS** • Shifts in consumer preferences • Increased stakeholder concern **RESOURCE FFICIENCY OPPORTUNITIES** • Move to more efficient buildings • Market opportunities • Access to new markets	**CERT-TOT** Reporting on total number of assets with a green building certification measures, and certifications by type, enables reporting entities to track their portfolio's resilience to changing tenant preferences and investor demand for 'green' assets	**ORGANISATIONAL BOUNDARIES** Allows reporting companies to identify relevant information based on operational/ financial control	**COVERAGE** Confirms the scope and completeness of the performance measure	**THIRD-PARTY ASSURANCE** Provides assurance that the performance measure is reliable, verifiable, and objective	**SEGMENTAL ANALYSIS** Ensures performance measure is comparable among peers companies, geographies and asset types
		DISCLOSURE OF OWN OFFICES Enables relevant reporting for investors by separating corporate office impacts from investment portfolio	**NARRATIVE ON PERFORMANCE** Enables clear, balanced, and understandable reporting around impact of risk mitigation measures and successes	**REPORTING PERIOD** Enables a timely basis for reporting and identification of benchmarked years for the purposes of target setting	

Reporting physical risks and opportunities using the EPRA sBPR

EXAMPLES OF RISKS/ OPPORTUNITIES	PERFORMANCE MEASURES	OVERARCHING RECOMMENDATIONS				
CHRONIC PHYSICAL RISKS • Changes in precipitation patterns and extreme variability in weather patterns **RESOURCE EFFICIENCY OPPORTUNITIES** • Reduced water usage and consumption **RESILIENCE OPPORTUNITIES** • Resource substitutes/ diversification	**WATER-ABS & WATER-LFL** **WATER-INT** Absolute performance measures track exposure to chronic risks by measuring resilience to water stress and water costs Like-for-Like performance measure tracks evolving exposure to chronic risk and resource efficient opportunities by recording impact of efficiency improvements on comparable assets over time. Water consumption by source tracks diversification of supply Intensity performance enables tracking of risk mitigation measures over time regardless of changes to the portfolio	**ORGANISATIONAL BOUNDARIES** Allows reporting companies to identify relevant information based on operational/ financial control	**COVERAGE** Confirms the scope and completeness of the performance measure	**ESTIMATION OF LANDLORD-OBTAINED UTILITY CONSUMPTION** Confirms completeness and accuracy of the performance measure	**THIRD-PARTY ASSURANCE** Provides assurance that the performance measure is reliable, verifiable, and objective	**BOUNDARIES – REPORTING ON LANDLORD AND TENANT CONSUMPTION** Identifies scope of data that is under the control of the reporting entity
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USEFUL RESOURCES

- EPRA Sustainability Best Practices Recommendations Guidelines: 3rd edition (September 2017)
- Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures (June 2017)
- TCFD Recommendations Report Annex - Implementing the Recommendations of the TCFD (June 2017)
- Task Force on Climate-related Financial Disclosures: Status Report (July 2019)

ABOUT EPRA

EPRA, the European Public Real Estate Association, is the Voice of the publicly traded European Real Estate sector. With more than 270 members, covering the whole spectrum of the listed real estate industry (companies, investors and their suppliers), EPRA represents over EUR 600 billion of real estate assets* and 94% of the market capitalisation of the FTSE EPRA Nareit Europe Index.

EPRA's mission is to promote, develop and represent the European public Real Estate sector. We achieve this through the provision of better information to investors and stakeholders, active involvement in the public and political debate, promotion of best practices and the cohesion and strengthening of the industry.

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