



Building a Resilient Future

2023

Report following TCFD
Recommendations



Ivanhoe
Cambridge

Introduction

The Financial Stability Board created the Task Force on Climate-related Financial Disclosures (TCFD) to improve and increase reporting of climate-related financial information.

TCFD is aiming for widespread market adoption of its recommendations to ensure the growth of companies' and investors' understanding of the potential financial implications of climate change. This in turn will ensure more accurate pricing of climate risks and opportunities and reinforce market signals towards the transition to the low-carbon economy and climate resilience.

Ivanhoé Cambridge supports the TCFD as part of its climate commitment. This represents Ivanhoé Cambridge's first public TCFD disclosure.

Ivanhoé Cambridge also actively monitors the International Sustainability Standards Board (ISSB) and of its IFRS S2 Climate-related Disclosures standard.

We encourage our investment partners to enhance transparency on climate-related risks and opportunities by aligning their disclosures with the TCFD recommendations.

Overview

- > We believe that climate change is and will have a significant impact on the real estate sector over the short, medium and long terms, including physical impacts as well as impacts stemming from the transition to a low-carbon economy.
- > These impacts represent both risks and opportunities for our global real estate investment portfolio and future activities. We identify, assess, and manage these risks and opportunities by integrating climate-related considerations in our strategic planning, risk-management and decision-making processes.
- > We have been tracking our carbon performance and exposure to physical climate risks for our global direct portfolio¹ since 2017, and we leverage this data to inform our decision-making.
- > We are committed to mitigating climate risks and leveraging climate opportunities and believe that doing so will help create and protect value over the long term for our portfolio.
- > In 2021, we launched our "Net-Zero Carbon by 2040" strategy and roadmap and we are actively planning for and implementing carbon reduction projects across our global portfolio.
- > This report is structured according to the TCFD framework: Governance, Strategy, Risk Management and Metrics and Targets.

1 Direct portfolio refers to Ivanhoé Cambridge's stabilized properties, both wholly owned and held in partnership, excluding properties held via funds or listed companies.

Governance

Board oversight of climate-related risks and opportunities

- > IC's Board of Directors (Board) and its Investment Committee have overall oversight and responsibility to ensure environmental, social and governance (ESG) factors are integrated into the company's overall investment strategy and strategic plan.
- > The Board's Ethics and Governance Committee (E&GC) is responsible for reviewing Ivanhoé Cambridge's Sustainable Investment Policy and recommending it to the Board for approval. The E&GC also keeps abreast of issues and trends in responsible investing and governance. This committee is updated on ESG issues and progress on a regular basis, for example, in 2022 and 2023, the E&GC undertook training on climate-related risks and opportunities.

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

- > The Board and the E&GC delegate responsibility for assessing and managing ESG factors, including climate-related risks and opportunities, to the Executive Committee.
- > The Executive Committee is composed of the President and CEO, regional Heads of Investment & Asset Management, and global Heads of Operations, Legal, Risk, Human Resources, Financial Performance and Sustainable Investment.
- > The Operations group is made up of the Risk and Research, Strategy and Sustainable Investment teams. The Sustainable Investment team is responsible for assessing ESG risks and opportunities and developing ESG strategies, including Ivanhoé Cambridge's "Net-Zero Carbon by 2040" strategy and its climate-resilience approach.
- > The Sustainable Investment team provides regular updates on ESG risks and opportunities to the Executive Committee as well as the Strategy and Investment committees. This includes updates on the progress made towards achieving Ivanhoé Cambridge's "Net-Zero Carbon by 2040" goal, as well as Ivanhoé Cambridge's risk exposure and management of physical and transition risks.
- > Climate-related risks are also integrated into our global risk-management processes and monitored by the Risk and Research team, which informs the Executive Committee and reports to the Board bi-annually on emerging and material risks.
- > Climate-related risks and opportunities are evaluated for new acquisitions as part of our due diligence process.

Strategy

Climate-related risks and opportunities the organization has identified over the short, medium, and long terms

Ivanhoé Cambridge has identified the following climate-related risks and opportunities:

- > Physical risks resulting from a changing climate, including flooding, severe storms, wildfire, heat stress and water stress.
- > Transition risks and opportunities stemming from the transition to a low-carbon economy.
- > "Short term" is defined as less than 12 months, "medium term" as 1 to 10 years, and "long term" as 10 years or longer.
- > Many of the risks and opportunities described below are already occurring and observable today. These risks and opportunities will probably continue to occur and amplify over the medium and long terms.
- > Both physical and transition risks present an increasing risk of asset obsolescence over the short, medium and long terms; Ivanhoé Cambridge actively works to mitigate the risk of obsolescence through its net-zero transition plan and climate-resilience approach.
- > These risks and opportunities vary greatly across our global portfolio of assets, notably based on asset type and location.

Time Horizon	Physical Risks	Transition Risks	Opportunities
Short Term (<1 year)	Adverse climate-related events, such as flooding, wildfires and heat stress are already occurring occasionally.	Certain carbon pricing and regulations are already in place in certain markets.	Energy savings for property owners and tenants from more energy-efficient buildings.
Medium Term (1–10 years)	Increased size and frequency of fluvial flooding due to increases in extreme precipitation and snowmelt. This increased risk may impact the insurability of properties located on flood plains and increase the capital cost for repairs and adaptation measures. Increased size and frequency of wildfires due to warmer temperatures, drier conditions, and a longer fire season. This may increase insurance premiums and limit the availability of insurance for assets in high-risk areas. Increased temperatures and heat, which may raise cooling demand for buildings and affect thermal comfort, as well as impact operating costs.	Increased operating costs from rises in the price of carbon in Canada, Europe, and certain U.S. states. Reduced revenues from lower demand for energy-inefficient or carbon-intensive buildings. Increased compliance and reporting costs for energy and carbon performance benchmarking and disclosure. Increased capital expenditures to upgrade buildings and replace equipment to meet mandatory energy or carbon performance standards for buildings. Volatile energy prices and potential increases in energy cost due to shifts in global energy markets. This may add pressure to rent regulations for certain residential investments. Increased reputational risk for organizations not seen as being responsive enough to climate change.	Lower operating costs and increased revenues from new technologies that reduce building obsolescence, lower energy consumption, and enhance climate resiliency. New revenue streams from additional building services, such as on-site renewable energy generation or electric-vehicle charging. Increased asset revenues, valuation and liquidity from higher demand for low-carbon and climate-resilient buildings.
Long Term (>10 years)	Increased sea-level rise and local land subsidence may lead to coastal inundation and erosion. This would increase the risk of assets in low-lying coastal areas. Increased water stress due to changes in precipitation patterns and reduced water flows. This may increase operating and capital costs in high-risk water-stress areas. Extended periods of drought may increase the rate of soil subsidence, leading to higher flood risk and rising property damage. Warmer oceans and sea-level rise may increase the intensity of tropical cyclones and associated storm surges. This may increase the risk of severe property damage or permanent loss of property value.	Economic decline in certain cities or regions dependent on carbon-intensive industries, which could impact asset revenues. Capital investments needed to carry out deep energy- and carbon- reduction retrofits. Inability to lease or sell carbon-intensive buildings.	Increase in asset values due to improved energy performance and climate resilience of buildings.

Impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning

The previously outlined climate-related risks and opportunities could have implications for Ivanhoé Cambridge and its business activities. For this reason, we are taking a proactive approach to assess, manage, and prepare for climate risks and opportunities by integrating climate considerations in our strategic planning and investment decisions.

The following table describes the main climate risks and opportunities identified by Ivanhoé Cambridge as well as our specific management response.

	RISKS			OPPORTUNITIES
	Flood Risk	Carbon Pricing	Building Performance Standards	Demand for Lower-Carbon Buildings
Description	Physical damage to assets and business downtime from an increase in coastal or fluvial flooding frequency and intensity.	Policies or regulations that set a carbon price based on energy consumption or carbon intensity.	Policies or regulations that require building owners and managers to meet carbon-related performance targets (e.g., on energy use, carbon emissions, building design and materials criteria for new construction).	Increase in demand for energy-efficient and low-carbon buildings.
Potential Impacts	> Reduced revenue from operational disruptions. > Increased insurance premiums. > Increased capital expenditures to manage physical risk.	> Increased operating costs. > Reduced revenue from lower demand for carbon-intensive buildings.	> Increased compliance and construction costs, > Increased capital expenditures to maintain and decarbonize existing buildings.	> Increased revenues through higher tenant demand for energy-efficient and lower-carbon buildings, notably thanks to lower energy costs. > Increased asset value and liquidity through higher investor demand for energy-efficient and lower-carbon buildings.
Time Period	Medium and long term	Short and medium-term	Medium and long term	Medium term

	RISKS			OPPORTUNITIES
	Flood Risk	Carbon Pricing	Building Performance Standards	Demand for Lower-Carbon Buildings
Financial Implications	Risk of decreased asset value for assets at high risk for flooding.	Risk of decreased value for assets with poor carbon performance located in regions where carbon pricing schemes are or will be in place.	Risk of decreased value for assets with poor carbon performance located in cities/regions where new carbon-related building performance standards are required.	Not yet quantified.
Methodology	Estimated financial impact calculated for the direct portfolio. Annual losses due to climate change resulting from direct damage to the asset and/or lower rental income loss, expressed as a percentage of current asset value. Calculated using RCP 4.5 and 8.5 scenarios.	Carbon-cost model estimates the potential cost over the 2022–2030 period due to national carbon pricing on energy in jurisdictions in which Ivanhoé Cambridge has assets.	Cost of compliance based on currently implemented building performance standards for some regions have been estimated.	
Management Response	Integrate physical climate risks into investment analysis and portfolio monitoring. Increase the resilience of high-risk assets through mitigation or adaptation strategies.	Increase the energy and carbon efficiency of assets to future-proof against carbon pricing. Integrate current or projected carbon pricing into investment analyses.	Increase the energy- and carbon-efficiency of assets to future-proof against potential future building performance standards. Integrate carbon-related capital costs into investment analyses.	Undertake technical audits to identify capital costs and operational savings associated with decarbonization. Active engagement in real estate industry groups and initiatives aimed at better integrating carbon-related performance into asset- valuation methodologies.

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

A scenario analysis was conducted in 2022 to assess the resilience of Ivanhoé Cambridge's strategy for both physical and transition risks.

Physical-risk scenario analysis

Using S&P Global's Climonomics platform, a physical-risk scenario analysis was carried out and evaluated both high-emissions and intermediate-emissions scenarios.

SCENARIOS

- > The scenarios are based on the Intergovernmental Panel on Climate Change's (IPCC) Representative Concentration Pathways (RCPs). RCPs are greenhouse gas (GHG) concentration trajectories that describe distinct climate futures and are categorized by their predicted amount of radiative forcing in Watt/m² by 2100.
- > The scenarios selected for the physical-risk scenario analysis were RCP 8.5, which represents a high-emissions scenario with a mean temperature increase of ~4°C by the end of the century, and RCP 4.5, which represents an intermediate-emissions scenario with a mean temperature increase of ~2.4°C by the end of the century.

TIME HORIZONS

- > Three time-horizons were selected to capture both the medium- and longer-term impacts: 2030, 2060, and 2090.

BUSINESS IMPACTS

- > The level of risk is expressed as the "Modelled Average Annual Loss" (MAAL) which represents annual losses due to climate change resulting from direct damage to the asset and/or rental income loss, expressed as a percentage of current asset value.
- > In 2030, less than 0.5%¹ of Ivanhoé Cambridge's current direct portfolio's gross asset value is considered at high risk to climate change.

¹ According to data from S&P Global's Climonomics using a 4.5 RCP scenario and Ivanhoé Cambridge's internally established threshold of risk.

Transition-Risk Scenario Analysis

Since 2020, Ivanhoé Cambridge has been a supporter of the CRREM (Carbon Risk Real Estate Monitor) initiative, which is a tool for the real estate industry to better understand the decarbonization pathways applicable to individual assets and portfolios in order to meet a 1.5°C future target.

SCENARIOS

- > Ivanhoé Cambridge undertook a transition-risk scenario analysis using the CRREM 1.5°C pathway and a targeted study of transition-risk issues and implications for its direct portfolio.
- > The CRREM tool provides decarbonization pathways consistent with 2°C (IEA 2DS) and 1.5°C scenarios.
- > The decarbonization pathways are defined by increasingly stringent emission targets based on property type and warming scenario selected.
- > Buildings that exceed the carbon emission pathway trajectory are considered no longer aligned with a 1.5°C pathway and the present value of future excess emissions is used to estimate the potential financial impact.
- > The 1.5°C scenario was selected to assess transition risk and the analysis focused on the percentage of no longer in alignment with a 1.5°C pathway.

TIME HORIZONS

- > Ivanhoé Cambridge's exposure to transition risk was assessed over two time horizons: medium term (up to 2030) and long term (2030 to 2050).

BUSINESS IMPACTS

- > The CRREM analysis allows us to identify assets that may have higher transition risks.
- > Given that CRREM is still under development, particularly for the North American market where the majority of our direct portfolio is located, it is not yet possible to disclose business impacts.

Risk management

The organization's process for identifying, analysing and managing climate-related risks

Overall

- > Ivanhoé Cambridge's approach to identify, analyse and manage climate risks combines a top-down strategic view with a complementary bottom-up operational process. In other words, Ivanhoé Cambridge uses global portfolio data to identify where risks and opportunities are most present, and then works to identify and develop solutions specific to each asset or region.
- > Understanding climate-related risks is key to implementing appropriate solutions; that is why in 2022 Ivanhoé Cambridge started to provide employees with climate-change-related training.
- > Progress towards achieving our carbon objectives and reducing our carbon intensity is part of our strategic annual objectives and is therefore part of all employees' compensation.
- > We have also started implementing certain incentive structures (e.g., "green promote") with partners and building managers to provide a framework for carbon-related reporting and targets and incentivize carbon performance that contributes to value creation.
- > Over the past five years we have deployed more than C\$14B in sustainable financing (including green bonds and green loans) and we have some C\$10B in corporate finance that is indexed to our ESG and emissions performance (e.g., sustainability-linked loans).
- > Although our "Net-Zero Carbon by 2040" strategy is primarily focused on carbon emissions associated with the operation of our assets and their energy consumption, we completed a Scope 3 scan in 2022 to better understand the sources and materiality of our various Scope 3 emissions. We are currently working to develop an approach to better measure and reduce our Scope 3 emissions, most notably those associated with construction projects.
- > We also participate in and support various industry-led groups and organizations that are working to promote industry collaboration on climate solutions; including, for example, CRREM, GRESB (Global Real Estate ESG Benchmark) and the UN-convened Net-Zero Asset Owner Alliance.

Investments and Strategic Planning

- > Evaluation of ESG-related risks and opportunities for new acquisitions, which includes an analysis of the carbon performance of the investment as well as an analysis of physical climate risks and resilience features.
- > Projection of carbon emissions according to Ivanhoé Cambridge's multi-year investment strategy and portfolio construction to better understand and anticipate how the company's carbon performance may evolve in the future.

Asset Management

TRANSITION RISKS AND OPPORTUNITIES

- > Annual collection of energy and refrigerant data for the company's direct global portfolio (among other ESG metrics).
- > Annual carbon accounting process according to a defined carbon methodology based on the WBCSD¹ GHG protocol.
- > Third-party review (limited assurance) of our direct portfolio carbon intensity.
- > Data analysis using industry energy performance benchmarks, as well as CRREM to identify carbon hotspots and opportunities for reduction.
- > Regular monitoring of building performance standards and carbon pricing schemes in the regions where we are invested.
- > Development of carbon performance dashboards to help asset managers understand and ultimately drive the carbon performance of assets and portfolios.
- > Net-zero carbon audits on select assets to identify opportunities for carbon reduction and associated financial costs and benefits at the asset level.

PHYSICAL RISKS

- > Modelling of physical climate risks for the company's direct portfolio to identify assets and regions at high risk to climate change.
- > Development of a climate-resilience assessment methodology and annual survey to evaluate the resilience of higher-risk assets. The methodology evaluates various resilience measures, including emergency preparedness, building-level protections, municipal-level protections, and insurance.
- > Climate-risk and -resilience dashboards to help asset managers understand and ultimately improve the climate resilience of assets and portfolios.
- > Deep-dive analysis for certain higher-risk assets or regions to refine our understanding of the climate risk and potential mitigation measures.

1 World Business Council for Sustainable Development (WBCSD)

Processes for identifying, assessing and managing climate-related risks and their integration into the organization's overall risk management

- > Our risk taxonomy places ESG risks as central in our risk-management approach, as ESG risks are intrinsically linked to multiple other risks.
- > ESG risks are assessed in the same way as other risks, according to a standard grid applied internally, allowing various risks to be compared on relative terms.
- > Risk profiles are maintained and updated for various material risks, including physical climate risks and transition risks at the portfolio level.
- > As a proactive risk-management approach, certain climate scenarios are modelled as needed to simulate their potential financial impact on the company.
- > ESG and climate-related factors are part of the criteria analyzed and scored as part of our investment partnerships and partner due diligence.

Metrics and targets

Following are the climate-related metrics and targets against which Ivanhoé Cambridge currently reports for its direct portfolio¹. All metrics are for year-end 2021², unless otherwise indicated.

Metrics

23,919	Scope 1 annual carbon emissions (tCO ₂ e)
95,690	Scope 2 annual carbon emissions (tCO ₂ e)
255,358	Scope 3 annual carbon emissions (related to tenant energy consumption) (tCO ₂ e)
3.41 kgCO ₂ e/sqft	Portfolio carbon Intensity (kgCO ₂ e/square feet, including Scope 1, 2, and 3 emissions listed above)
4.3 GWh representing 0.25% of total electricity purchased	Annual on-site renewable energy generation
135 GWh representing 7.8% of total electricity purchased	Electricity purchased from renewable sources (including power purchase agreements, renewable energy certificates but excluding renewable energy coming from the local electricity grid)
60%	Percentage of direct portfolio's gross asset value with a green building certification
0.5%	Percentage of Ivanhoé Cambridge's current direct portfolio gross asset value at high risk to climate change in 2030 ³

Targets

Achieve net-zero operational carbon by 2040, with the following interim objectives:

- > Reduce operational carbon intensity by **35%** from 2017 baseline by 2025
- > Increase low-carbon investments by more than **\$6B** by 2025 (compared with 2020)
- > Starting from 2025, we aim that all new developments will be **net-zero carbon** (operationally)

For more information, please see Ivanhoé Cambridge's "[Net-Zero Carbon by 2040](#)" strategy.

¹ Direct portfolio refers to Ivanhoé Cambridge's stabilized properties, both wholly owned and held in partnership, excluding properties held via funds or listed companies.

² This represents a typical time lag for estimating carbon emissions in the real estate industry

³ According to data from S&P Global's Climonomics using a 4.5 RCP scenario and Ivanhoé Cambridge's internally established threshold of risk.



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