

2025 Task Force for Climate-related Disclosure (TCFD) Report



Introduction

Ionis is dedicated to operating in an environmentally responsible way, prioritizing the well-being of our employees, the environment and the communities we serve. We have published Task Force on Climate-related Financial Disclosures (TCFD) aligned disclosures in our annual Corporate Responsibility Report since 2022 and are continuously evolving our climate risk management processes as our company grows.

In 2025, Ionis completed a climate risk assessment to identify climate risks and opportunities, assess those risks in two potential future climate scenarios and identify and prioritize resilience measures to address the risks. Through this effort, we are strengthening our company and supporting its long-term resilience.

In this Task Force on Climate-related Disclosures (TCFD) Report, we provide stakeholders with a clearer understanding of our exposure and strategic response to climate-related risk and opportunities. This report complements our Corporate Responsibility Report, and relevant information included below covers fiscal year 2025 (January 1, 2025 through December 31, 2025) unless otherwise indicated in specific disclosures. Aligned with the TCFD Framework, this report includes Governance, Strategy, Risk Management and Metrics and Targets.

Governance

Strong governance of climate-related risks and opportunities is key to our long-term success as a company. Ionis' Board of Directors and executive team recognize this importance, prioritizing robust governance structures to ensure responsible and sustainable operations.

Board Oversight

The Board of Directors has oversight of material risks and opportunities to the Company, including environmental and climate-related risks and opportunities. The Nominating, Governance and Review Committee, as reflected in the [Committee charter](#), has primary oversight of our corporate responsibility strategy and material Environmental, Social and Governance (ESG) risks and opportunities related to environmental sustainability and climate-related issues. The Nominating, Governance and Review Committee and the full Board receive updates from the Chairperson of the Corporate Responsibility Steering Committee (CR Committee) at least once annually, and are engaged on specific topics as needed throughout the year on an ad hoc basis to ensure effective oversight and management of climate and other corporate responsibility-related risks and opportunities.

Management Oversight

Our corporate responsibility initiatives, including those addressing climate-related risks and opportunities, are led by our Chief Executive Officer (CEO) and the executive-level CR Committee. The CR Committee, which includes the Chief Financial Officer, General Counsel, Senior Vice President (SVP) of Development Chemistry and Manufacturing and the Chief Human Resources Officer who oversees Facilities, convenes quarterly to discuss CR issues, including environmental and climate-related issues, and to determine appropriate strategies and policies to address risks and opportunities across the business. At least once per year, the CR Committee reports progress updates to the Board.

In addition, corporate responsibility objectives are integrated into our annual corporate objectives, which are incorporated into the overall compensation structure for management.

Strategy

Ionis completed a climate risk assessment in 2025, during which key stakeholders across the company met to identify, categorize and prioritize climate risks and opportunities.

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

Ionis recognizes that climate change poses both risks and opportunities that may influence our business operations, long-term strategy and financial performance. Through our 2025 climate risk assessment process, we identified unique physical and transition risks and opportunities, including potential financial implications. We are currently working to integrate our findings into our corporate strategy and risk management processes, and recognize the importance of preparing for climate impacts. For climate-related risk analysis, we have defined short-term as within the next three years, medium-term as four to 10 years and long-term as 11 or more years.

See financial implications of identified risks and opportunities in the table on page 2 of this report.

Climate-related risks and opportunities identified over the short, medium, and long term

Type	Driving Force	Risk or Opportunity Impact	Time Horizon	Approach
Physical Risk (Acute)	Increased frequency of extreme weather events, including wildfires	Expenditures – Increased operating or capital costs due to energy, insurance, supply chain impact, facility and equipment repairs; Revenue – Downtime or reduced sales of medicines Ionis’ main operations are in California, an area prone to wildfires. As climate change worsens, wildfires are likely to increase in frequency and severity due to increased droughts, heatwaves and other extreme weather conditions. Wildfires may cause business disruptions, including direct damage to assets, impacts to transportation and supply chain, as well as power outages and smoke.	Applicable across all	We have comprehensive facility emergency response plans and business continuity plans in place including required training for critical employees. Backup electricity and water supplies are stored at many of our sites, allowing continuity of critical operations in the event of a utility disruption.
Physical Risk (Chronic)	Water stress	Expenditures – Increased operating costs due to constraints and/or regulation Climate change may reduce freshwater availability and increase water stress in certain regions, including California. Where water is critical to operations or the supply chain, this could lead to higher costs, operational disruptions and stricter usage and reporting requirements.	Medium, Long	We actively monitor and evaluate water use at each facility, identifying opportunities for reduction and reuse. We are committed to monitoring and, where possible, reducing water use across our operations.
	Rising mean temperatures	Expenditures – Increased operating costs; Decreased employee productivity and continuity Climate change is projected to increase the frequency and severity of heatwaves, posing risks to employee health, productivity and operational continuity. Rising cooling demands will elevate energy use, emissions and costs. Increased pressure on the power grid may heighten the risk of outages, disrupting critical operations and supply chain logistics, with potential impacts on revenues, costs and overall business performance.	Medium, Long	Rising mean temperatures may increase energy demand across operations. We are exploring ways to mitigate these impacts through onsite renewable energy generation and potential investments in energy-efficient technologies to improve energy resilience.
Transition Risk (Policy and Legal)	Enhanced reporting obligations and other regulatory requirements due to climate change	Expenditures - Increased operating costs and investment in compliance and reporting Enhanced regulation associated with climate change reporting in California and other geographies will increase reporting requirements for Ionis over time. Operating costs are likely to increase as we dedicate resources to develop robust data collection, risk management and governance processes to ensure compliance with evolving regulatory standards. If we fail to comply with applicable laws and regulations, we may face non-compliance or late filing fees or be subject to other governmental enforcement activity.	Short, Medium	We have built internal ESG expertise and engage external resources to ensure compliance with current and emerging regulations. We voluntarily publish our Corporate Responsibility Report, aligning disclosures with international frameworks, such as TCFD, to prepare for future reporting requirements. We are also assessing our current data collection processes to strengthen our future disclosure readiness.
Opportunity (Resource Efficiency and Energy Source)	Energy opportunities	Expenditures – Reduced operating costs Investing in energy efficiency initiatives and onsite renewable energy generation presents an opportunity to lower emissions and reduce operating costs. By implementing energy efficiency projects and transitioning to lower-carbon energy sources, we can enhance energy resilience and long-term cost efficiency.	Short, Medium	We have capitalized on the use of onsite renewable energy generation at our main operations in California and continue to explore future opportunities for energy optimization.

Resilience of the organization's strategy, taking into consideration different climate-related scenarios

Ionis selected two distinct Network for Greening the Financial System (NGFS) climate scenarios for investigation as part of our 2025 climate risk assessment. We explored what the company would do to respond to the physical and transition risks and opportunities presented by each scenario, and to achieve success over 5-, 15- and 25-year time horizons.

Scenario 1: NGFS Current Policies (3°C end-of-century warming)

This NGFS scenario assumes that only currently implemented policies are preserved, leading to a world where severe physical risks become the dominant business challenge, and transition risks are less prominent drivers. Ionis could strategically respond by strengthening climate governance and risk management, enhancing operational resilience through sustainable facility standards and exploring low-carbon and resource-efficient manufacturing practices.

Scenario 2: NGFS Delayed Transition (1.7°C end-of-century warming)

This NGFS scenario assumes that strong new climate policies are introduced in 2030, leading to a world of significant transition risks and opportunities, along with the lingering potential for residual physical risks. Ionis could successfully respond by prioritizing process efficiencies, proactively anticipating evolving regulatory requirements, advancing circular and resource-efficient practices and strengthening supply chain resilience through sustainable partnerships and diversified supplier strategies.

Risk Management

Working to understand and proactively manage climate-related risks and opportunities is key to our long-term business resilience and strategic success. Our management of these issues is integrated into our broader risk management approach, and we are committed to a continuous process of identifying, assessing and responding to climate-related factors that have the potential to impact our business.

Processes for identifying and assessing climate-related risks

A review of published peer disclosures and industry trends was conducted to inform Ionis' 2025 climate risk assessment, along with key stakeholder engagement to align and prioritize physical and transition risks and opportunities across the short-, medium- and long-term. Ionis plans to periodically review and update its assessment of climate-related risks and opportunities based on evolving policy, market and business developments. The review considered the scope and likelihood of each risk and opportunity in order to arrive at a short list of driving forces.

Processes for managing climate-related risks

Based on the results of the corporate responsibility (CR) materiality assessment we conducted in 2023, Ionis reviewed material risks and opportunities, including those related to climate and the environment. The CR Functional Team developed goals and supporting action plans to address strategic priorities and ensure effective management of material issues, including those related to climate. The responsibility for executing these action plans is shared across teams.

As we continue to respond to the findings of our 2025 climate risk assessment, the responsibility for managing climate-related risks and opportunities will be embedded within the relevant business functions.

How processes for identifying, assessing and managing climate-related risks are integrated into overall risk management

Ionis has an Enterprise Risk Management (ERM) process for identifying material risks to our business. Our ERM includes strategic, financial, operational, reputational and corporate responsibility-related risks, including potential environmental and climate-related risks.

We have a structured process for identifying, evaluating, and addressing ESG risks and opportunities on a regular basis. Effective management requires engagement across departments, business units and external stakeholders to ensure a comprehensive approach. Senior management and the Board of Directors are actively engaged in overseeing and mitigating risks, including those associated with climate change, to ensure business continuity. To date, our ERM process has not identified any significant risks related to climate change.

Learn more about risk management at Ionis in our [2024 Form 10-K](#).

Metrics and Targets

Transparent, consistent metrics are essential for measuring our progress, holding ourselves accountable and providing stakeholders with a clear understanding of our climate-related performance. At Ionis, we use a range of quantitative metrics to assess and manage climate-related risks and opportunities.

Metrics used to assess climate-related risks and opportunities in line with strategy and risk management process

Ionis measures and discloses metrics on climate-related risks associated with GHG emissions, energy, water and waste in our annual Corporate Responsibility Report. These metrics include Scope 1 and Scope 2 (market-based) greenhouse gas emissions (MtCO₂e) calculated using the EPA Simplified GHG Emissions Calculator that is aligned with the GHG Protocol.

For additional information, please see the Environmental Sustainability section of our [2024 Corporate Responsibility Report](#). We intend to continue reporting on our metrics and progress annually.

(As of December 31 of applicable year)

Metric	2022	2023	2024
Scope 1 GHG emissions (MtCO ₂ e) (fuels, natural gas, refrigerants)	2,456	2,695	2,616
Scope 2 GHG emissions (MtCO ₂ e) (electricity use) (Market-based)	1,841	2,788	2,530
Emissions intensity (Scope 1 and 2) (MtCO ₂ e/employee)	5.66	6.11	4.87
Total energy use (MWh)	13,147	13,161	12,038
Renewable energy use (MWh)	6,387	6,691	4,875
Electricity generated onsite (MWh)	1,211	1,129	1,165
Total water consumption (million gallons)	17.61	12.85	18.04
Total waste generated (Tons) ¹ (excludes construction & demolition waste)	635	634	590
Non-hazardous waste disposal (Tons)	370	387	293
Landfilled	216	223	230
Recycled ²	154	164	60
Composted	—	—	3
Hazardous waste disposal (Tons)	265	247	297

Targets used to manage climate-related risks and opportunities and performance against targets

We set a goal in 2023 to responsibly manage our environmental impact as we grow our operations. More information about our corporate responsibility goals can be found in our [2024 Corporate Responsibility Report](#).

We are currently beginning to define our processes for collecting Scope 3 data, and plan to disclose Scope 3 emissions in the future along with integrating metrics into future risk management and planning,

¹ Corrected total waste generated data for 2022 and 2023. Totals were incorrectly reported in Ionis’ 2024 Corporate Responsibility Report
² Transitioned to new vendor with more accurate accounting method in 2024