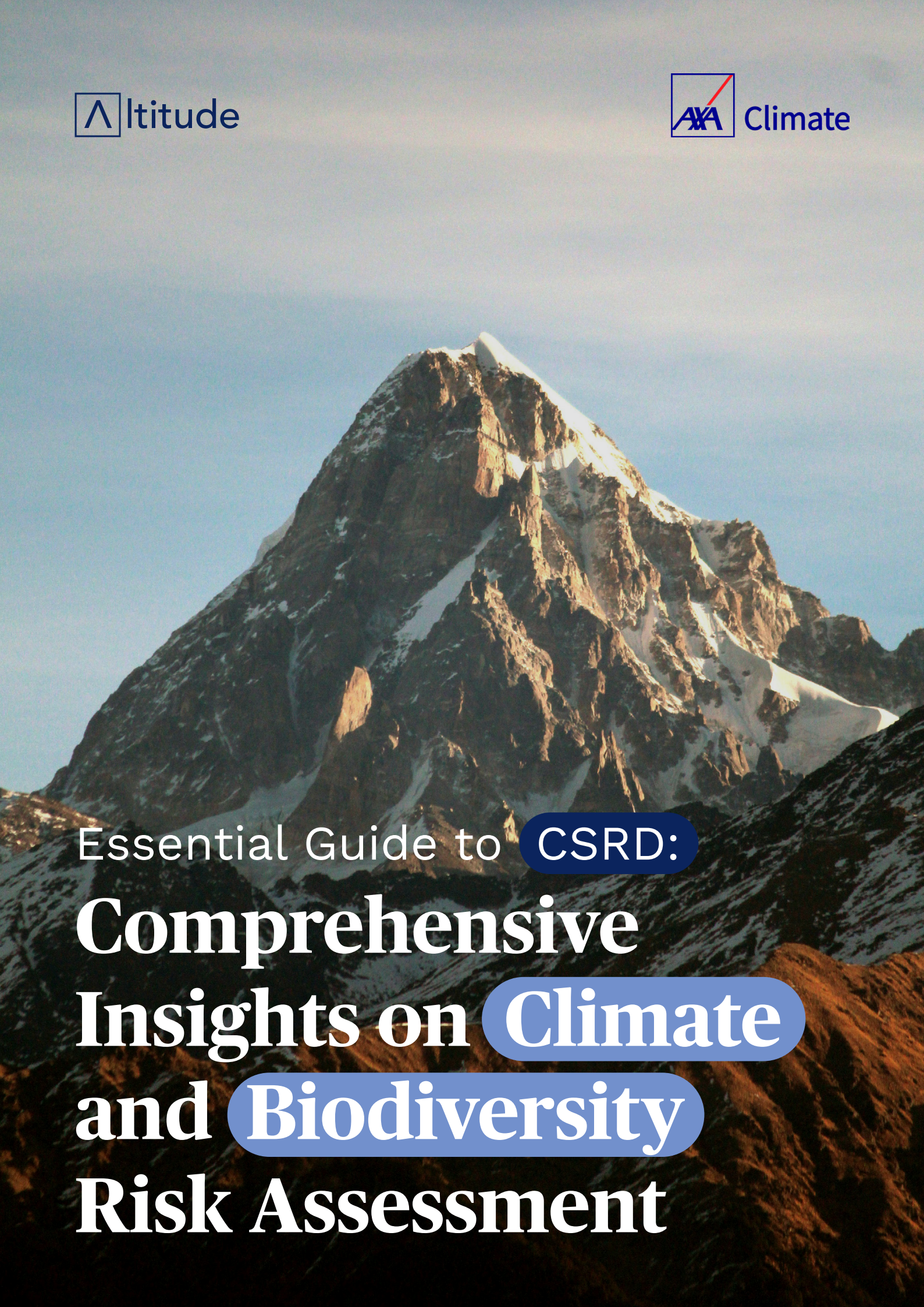
Altitude

AXA Climate



Essential Guide to CSRD:

Comprehensive Insights on Climate and Biodiversity Risk Assessment

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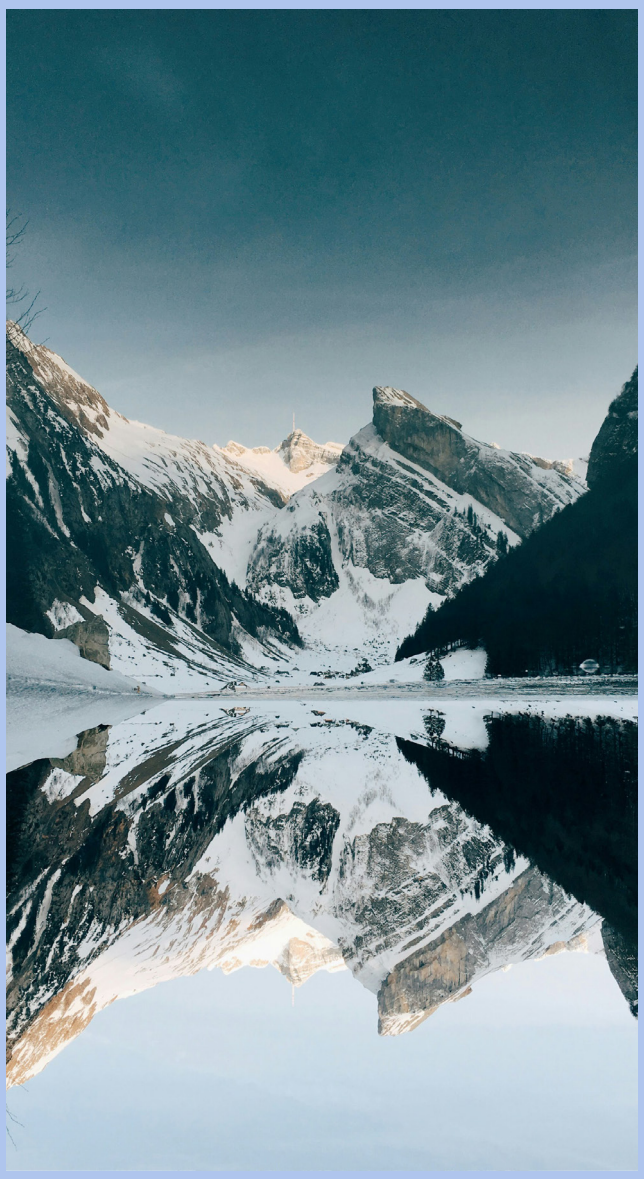
Altitude

is the business unit of AXA Climate, building science-based and data-driven SaaS products.



AXA Climate

AXA Climate is dedicated to making regenerative business the norm. To this end, it offers companies a transformative approach, placing life at the centre of decision-making. AXA Climate supports businesses with over 40 hours of online training, scientifically based digital climate projection tools, consulting services, and climate insurance solutions. Serving sectors such as agribusiness, industry, finance, and the public sector, AXA Climate provides the tools needed to tackle climate change challenges and implement necessary adaptation measures. Operating globally, AXA Climate accelerates the transition to a regenerative economy. For more information, visit climate.axa or @AXAClimate on LinkedIn.

Executive summary

Climate change has catastrophic consequences, significantly impacting people and businesses. In 2022, natural disasters such as floods, wildfires, and heatwaves resulted in estimated global economic losses of $275 billion. The financial assessment of these risks has become a strategic decision-making criterion for companies and investors.

In this context, businesses need reliable, clear, and actionable data to:

→ Better inform their investment decisions by taking climate and nature-related risks into account,

→ Be practical and pragmatic in their climate adaptation strategies,

→ Perform their reporting, especially in the moving context of the EU Green Deal.

The Corporate Sustainability Reporting Directive (CSRD) is a landmark initiative by the European Union to enhance and standardise corporate sustainability reporting across member states. The largest companies already need to report for FY2024. For FY2026, even SMEs will have to comply.

The scope of CSRD, which is broader than NFRD, includes cross-cutting Environmental, Social, and Governance standards. This represents a significant challenge for companies needing to assess and quantify their climate and nature-related risks.

Altitude is a SaaS platform developed by AXA Climate, relying on its network of experts and partners. It enables companies to assess the physical climate and biodiversity risks to which their strategic assets are exposed. Altitude quantifies the potential impacts of the associated costs for their sites and suppliers and offers recommendations for effective adaptation measures.

With Altitude, risk and ESG managers can independently conduct a fast, detailed, and reliable analysis of hundreds of sites. It represents the best way to bridge the gap and become CSRD-ready.

The reliability and comprehensibility of the data have been a priority throughout the development of Altitude to enable the 50,000 European companies concerned by the CSRD to easily understand climate issues and become self-sufficient in completing their reporting. Altitude is an accelerator of the following ESRS on Climate and Biodiversity:

The reliability and comprehensibility of the data have been a priority throughout the development of Altitude to enable the 50,000 European companies concerned by the CSRD to easily understand climate issues and become self-sufficient in completing their reporting. Altitude is an accelerator of the following ESRS on Climate and Biodiversity:

REFERENCE	REPORTING REQUIREMENT	ALTITUDE
ESRS 2 SBM-3	Material impacts, risks, and opportunities and their interaction with strategy and business model	✓
ESRS 2 - IRO 1 - E1	Description of procedures for identifying and assessing climate change impacts, risks, and opportunities	✓
ESRS E1-2	Policies related to climate change mitigation and adaptation	✓
ESRS E1-3	Actions and resources related to climate change policies	✓
ESRS E1-4	Targets related to climate change mitigation and adaptation	✓
ESRS E1-9	Expected financial impacts of significant physical and transitional risks and potential opportunities associated with climate change	✓
ESRS 2 SBM-3	Material impacts, risks, and opportunities and their interaction with strategy and business model	✓
ESRS 2 IRO-1	Description of processes to identify and assess material biodiversity and ecosystem-related impacts, risks, and opportunities	✓
ESRS E4 –1	Transition plan and consideration of biodiversity and ecosystems in strategy and business model	✓
ESRS E4 -2	Policies related to biodiversity and ecosystems	⧖
ESRS E4 -3	Actions and resources related to biodiversity and ecosystems	⧖
ESRS E4 -4	Targets related to biodiversity and ecosystems	⧖
ESRS E4 -5	Impact metrics related to biodiversity and ecosystem change	✓
ESRS E4 -6	Anticipated financial effects from material biodiversity and ecosystem-related risks and opportunities	⧖

This whitepaper sheds light on CSRD, its objectives, and how it concretely changes companies. It also illustrates how companies use Altitude to report on CSRD and tackle climate change adaptation.

part 1

What is the CSRD?

As part of the EU Green Deal[1], the Corporate Sustainability Reporting Directive (CSRD) is a landmark initiative by the European Union to enhance and standardise corporate sustainability reporting across member states. It builds on the existing Non-Financial Reporting Directive (NFRD) to improve the quality, consistency, and comparability of sustainability information provided by companies.

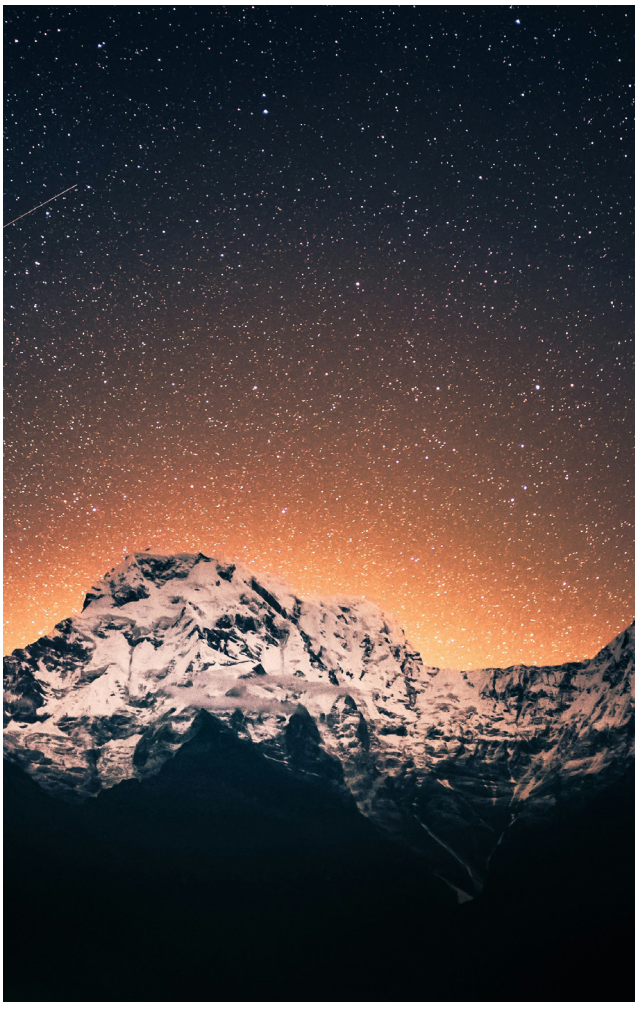
The directive requires companies to disclose information about their environmental, social, and governance (ESG) impacts and performance, allowing stakeholders to assess businesses' sustainability and societal impact more effectively. It also emphasises the importance of sustainability performance in corporate governance and decision-making processes.

[1]The European Green Deal is a suite of new EU laws designed to support a just transition, first to reduce CO2 emissions by 55% by 2030 and with the aim of achieving climate neutrality by 2050 whilst at the same time supporting economic growth along the way. The four key constituents of the Green Deal are (i) the Sustainable Finance Disclosure Regulation (the «SFDR»), (ii) the EU Taxonomy Regulation, (iii) the Corporate Sustainability Reporting Directive (the «CSRD»), and (iv) the Corporate Sustainability Due Diligence Directive (the «CSDDD»).

A.

Key Objectives of the CSRD

Beyond being a reporting obligation, the CSRD can be leveraged as a strategic management tool whose aim is to foster a better understanding of interactions between business models and sustainable development through five main objectives.



Enhanced Transparency:

To ensure stakeholders, including investors, consumers, policymakers, and the public, can access reliable and comparable sustainability information.

Integration of Sustainability into Business Strategy:

To encourage companies to integrate sustainability considerations into their business models and strategies, fostering long-term, sustainable growth.

Stakeholders' engagement:

Foster better dialogue, data management, and collaboration between departments, particularly risk, finance, and sustainability.

Stronger Competitive Advantage:

Stand out from the competition by demonstrating the company's commitments in tangible terms.

Alignment with Global Standards:

To harmonise reporting requirements with international frameworks and standards, such as the Task Force on Climate-related Financial Disclosures (TCFD), the Global Reporting Initiative (GRI), or the ISSB standards.

B.

Key Features of the CSRD

1. EXTENDED SCOPE

Broader Applicability:
The CSRD expands the scope of reporting requirements to include all large and listed companies and then lists SMEs from 2026. This significantly increases the number of European companies required to report on sustainability matters,

from 11 000 to nearly 50 000 companies.

2. DETAILED REPORTING REQUIREMENTS

Environmental Metrics:
Companies must report their impacts on climate change, water, biodiversity, pollution, and circular economy practices.

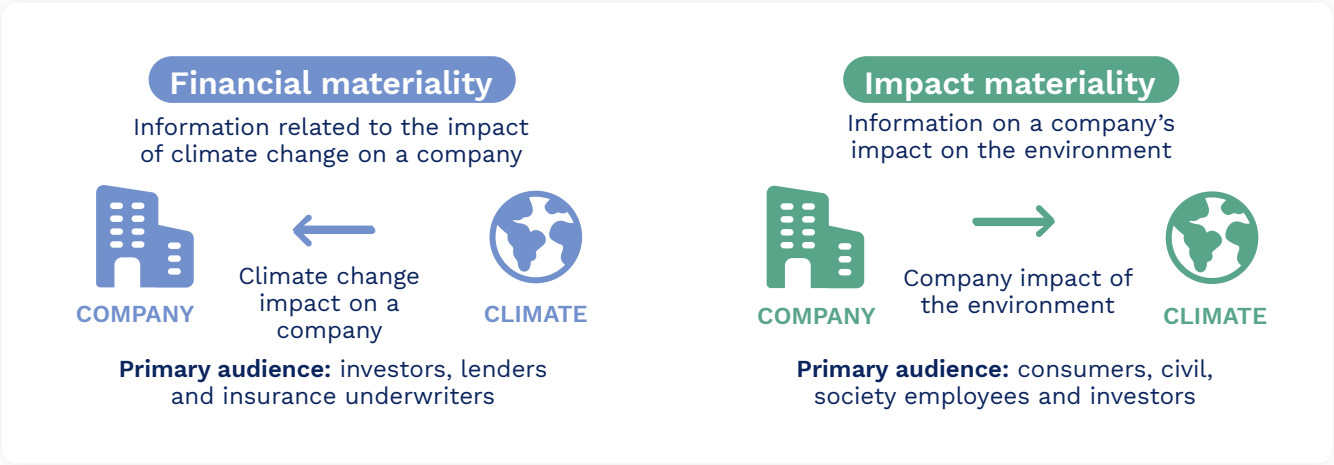
Social and Governance Metrics:
Includes information on human rights, social and worker matters, anti-corruption and bribery, and board diversity.

3. CONCEPT OF DOUBLE MATERIALITY

Companies must consider both:

Financial materiality (Outside-In Perspective): how climate change and other sustainability issues affect a company's financial position, performance, and prospects. It considers the impact of environmental, social, and governance (ESG) factors on the company's value from the perspective of investors and financial markets. For example, how could physical climate risks like extreme weather events impact a company's assets, operations, or revenue streams?

Impact Materiality (Inside-Out Perspective):
What impact does a company have on the environment and society? It encompasses the effects of a company's activities, products, and services on external stakeholders and the natural world. For example, what are the environmental impacts of a company's carbon emissions, or how does its supply chain affect local communities?



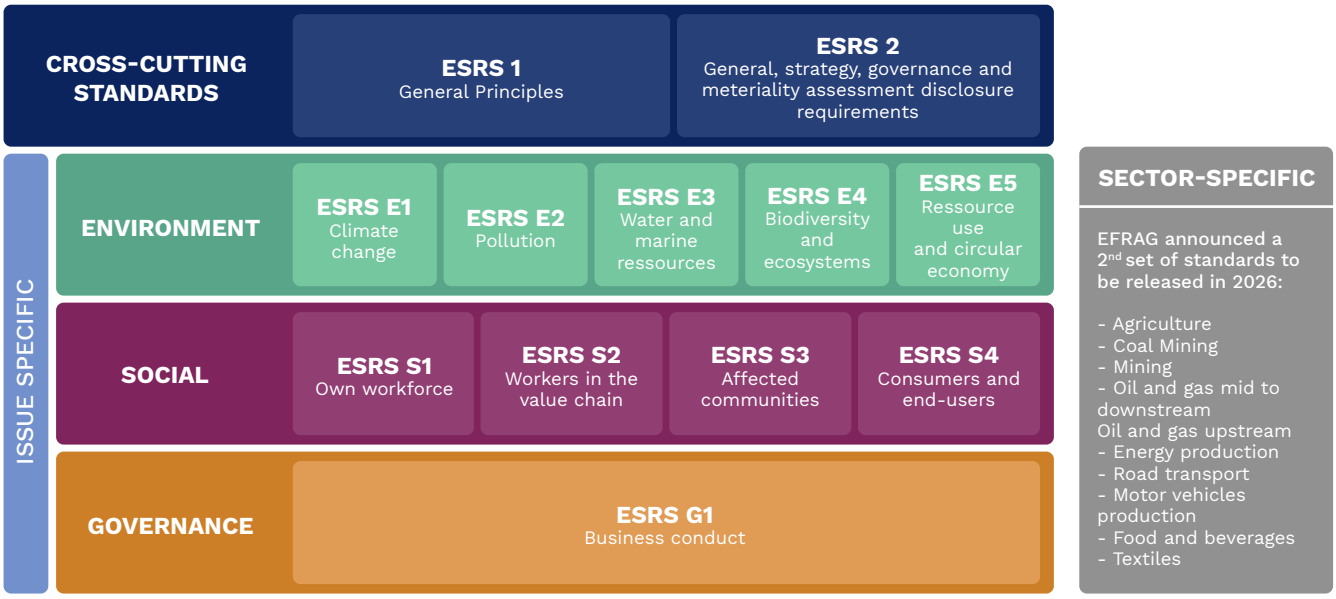
Source: New Guidelines on Reporting Climate-Related Information, European Commission

4. STANDARDISED REPORTING FORMAT

European Sustainability Reporting Standards (ESRS):
Developed by the European Financial Reporting Advisory Group (EFRAG), these standards ensure consistency and comparability across companies and industries.

Digital Reporting:
Mandatory digital tagging of sustainability information using the European Single Electronic Format (ESEF) to facilitate access and comparability.

What are the European sustainability reporting standards (ESRS)?



5. ASSURANCE AND VERIFICATION

Third-Party Assurance:
The CSRD requires limited assurance on sustainability information from an independent party, with a potential move towards a reasonable assurance requirement in the future.

Auditor Responsibility:
The role of auditors is expanded to include verifying sustainability reports ensuring accuracy and reliability.

6. GOVERNANCE AND STRATEGY INTEGRATION

Board Accountability:
Greater emphasis on the board's role in overseeing sustainability matters.

Risk Management:
Detailed disclosures on companies' identification, assessment, and management of sustainability risks and opportunities.

C.

Timeline and Implementation

Adoption and Transposition:
The CSRD was adopted by the European Parliament in November 2022. Member states are required to transpose the directive into national law, with companies expected to start reporting under CSRD requirements for fiscal years beginning on or after January 1, 2024.

Phased Implementation:
Larger companies already subject to the NFRD will be the first to report, followed by other large companies, then listed SMEs, and finally, non-EU companies by 2028.

Who is eligible?

Large companies

- NFRD* Compliant
- Listed in the EU stock market
- 500+ employees

Large companies

- Listed in the EU stock market

at least 2

- 250+ employees
- €25M+ balance sheet
- €50M+ net turnover

Listed SMEs
(small and medium enterprises)

- Listed in the EU stock market

at least 2

- 50+ employees
- €5M+ total assets
- €10M+ net turnover

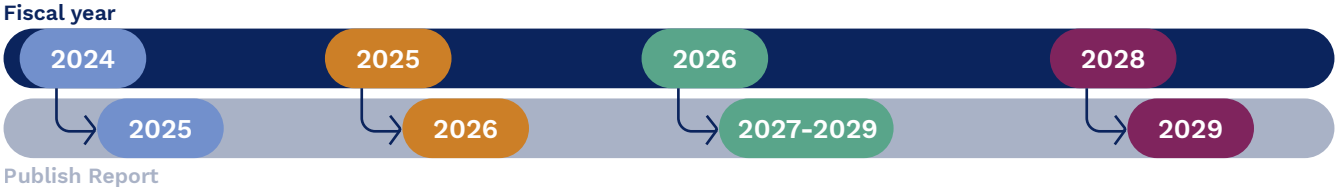
Subsidiaries
of non-EU companies

- Non-EU parent company: €150M+ annual net turnover in the past 2 years

1 or more

- Large company in the EU
- Subsidiary in the EU: €40M+ net turnover
- Subsidiary in the EU: listed in the EU stock market

When?



*The Non-Financial Reporting Directive (NFRD) mandates companies to disclore non-financial reports on their ESG performance alongside annual management reports.

part 2

Climate Adaptation and the CSRD Framework

The CSRD provides investors and other stakeholders with a better understanding of how a company's activity impacts climate change and how climate change affects the company's activity.

In recent years, many organisations have made progress in understanding and managing their impact on climate change by assessing their greenhouse gas (GHG) emissions, setting targets (based on science, SBTs) and taking mitigation action. However, fewer companies have accessed and communicated the impact of climate change on their business and financial performance in the short, medium and long term.

A.

What is climate adaptation?

As per the definition from ESRS E1, Climate change adaptation relates to the company's adjustment process to actual and expected climate change.

In other words, climate adaptation means taking action to prepare for and adjust to the current and projected impacts of climate change. With climate change bringing more frequent and intense extreme weather events such as heatwaves, droughts and floods, individuals and communities can reduce their vulnerability and increase their resilience by adapting now.

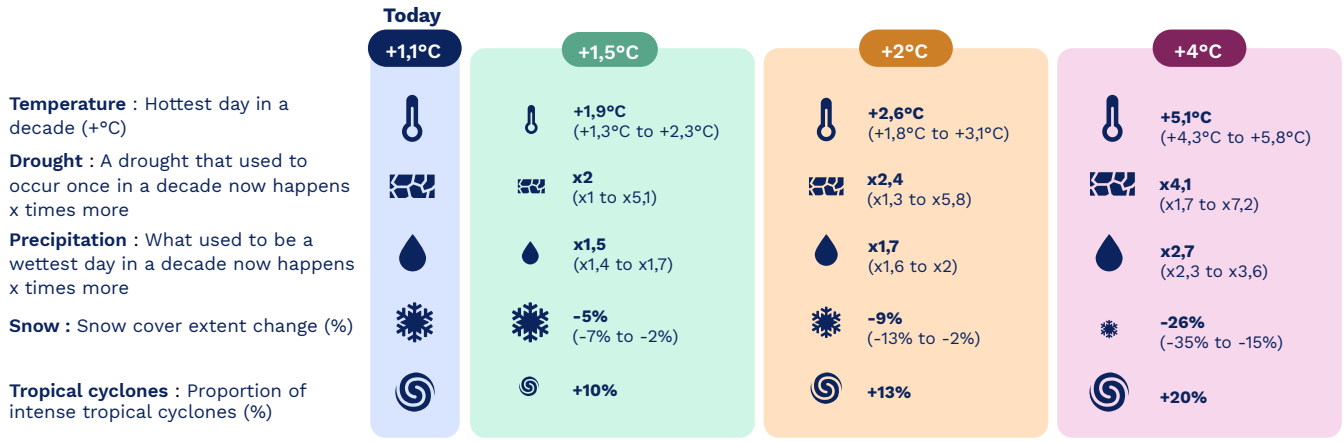
According to climate models, without significant climate action, the world is already headed for a 2.5 to 2.9°C temperature rise (above pre-industrial levels) this century, which is well above the safety limits established by scientists.

With the inertia of the Earth system, every action we take today won't improve the climate before a few decades. In other words, natural hazards already happening today (such as floods, cyclones, heat waves, and droughts) will increase in intensity and occurrence for the next 20 years, regardless of our actions.

With every fraction of a degree of warming, the impacts of climate change will become more frequent and intense – and adaptation will become that much more complex and expensive for people and ecosystems.

Even in very positive scenarios in which we manage to significantly and swiftly cut greenhouse gas emissions, climate change will continue to impact our world for decades because of the energy already trapped in the system. Reducing emissions is only one part of our response to the climate crisis: adaptation is needed to limit the impacts and safeguard people and nature.

Changes get larger with every increment of global warming



Source : GIEC , "Climate change 2021, Summary for all" Version 3, 2022

B.

How to model climate physical risk

Following the IPCC definition, Climate physical risks are a function of three pillars: hazard, vulnerability and exposure.

HAZARD

A hazard can be a natural or human-induced physical event or trend that may cause multiple physical impacts (e.g., damage and loss to property, infrastructure, environmental resources, health impacts...).

These climate-related hazards consist of:

→ **Acute Risks:** These include short-term events like extreme weather, hurricanes, floods, and heatwaves.

→ **Chronic Risks:** These involve long-term changes in climate patterns, such as rising average temperatures, sea-level rise, and shifts in precipitation.

Classification of climate-related hazards
(Source: Commission delegated regulation (EU) 2021/2139)

	Temperature-related	Wind-related	Water-related	Solid mass-related
Chronic	Changing temperature (air, freshwater, marine water)	Changing wind patterns	Changing precipitation patterns and types (rain, hail, snow/ice)	Coastal erosion
	Heat stress		Precipitation or hydrological variability	Soil degradation
	Temperature variability		Ocean acidification	Soil erosion
	Permafrost thawing		Saline intrusion	Solifluction
			Sea level rise	
			Water stress	
Acute	Heat wave	Cyclones, hurricanes, typhoons	Drought	Avalanche
	Cold wave/frost	Storms (including blizzards, dust, and sandstorms)	Heavy precipitation (rain, hail, snow/ice)	Landslide
	Wildfire	Tornado	Flood (coastal, fluvial, pluvial, ground water)	Subsidence
			Glacial lake outburst	

VULNERABILITY

Vulnerability corresponds to the propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.

EXPOSURE

Exposure corresponds to the presence of people, species or ecosystems, infrastructures, and economic, social or cultural assets in places and settings that hazards could adversely affect. (Additional information on exposure, such as the type of asset and its value, can help refine the risk analysis).

C.

How to adapt

Climate change, as we know, has catastrophic consequences. It amplifies the hazards it creates, which can significantly impact businesses.

In 2022, natural disasters such as floods, wildfires, and heatwaves resulted in estimated global economic losses of **$275 billion**.

The financial assessment of these risks has become a strategic decision-making criterion.

Climate adaptation is about reducing the exposure and vulnerability of companies and assets to a changing climate. This can be achieved by relocating, building differently, changing business models, etc.

D.

Assessing Climate Physical Risks & Opportunities into CSRD

The CSRD is a significant step towards ensuring businesses take climate adaptation risks seriously. By requiring comprehensive and standardised disclosures, the CSRD promotes transparency and curtails the risks associated with climate change.

As companies navigate this new landscape, those prioritising effective climate adaptation strategies will contribute to sustainability goals and enhance their resilience and long-term viability in a rapidly changing world.

The directive includes requirements for companies to disclose information related to climate physical risks as part of their broader sustainability reporting. Here are some critical aspects regarding climate physical risks outlined in the CSRD:

1.

Materiality Assessment

Companies are required to assess and disclose material climate-related risks, including physical risks, which may be classified as acute (event-driven) or chronic (long-term shifts in climate patterns).

2.

Risk Management

Organisations must describe how they manage climate risks, including governance structures, processes for integrating climate risk into decision-making, and resilience strategies.

3.

Scenario Analysis

Companies may need to conduct scenario analyses to assess the potential impact of different climate futures, including extreme weather events and long-term climate change effects on their operations and supply chains.

4.

Impact on Financial Performance

Reporting must include how physical climate risks could affect the company's financial position, performance, and prospects over the short, medium, and long term.

5.

Alignment with ESRS

The CSRD requires alignment with the European Sustainability Reporting Standards (ESRS), which include detailed requirements on climate-related disclosures.

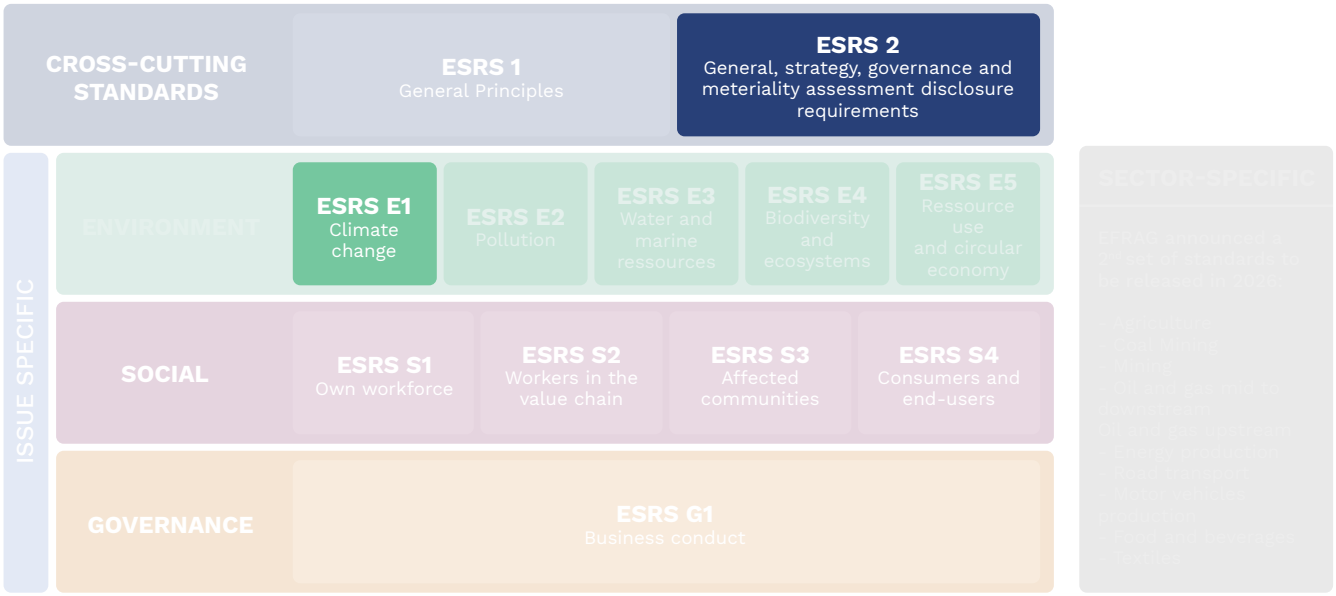
6.

Sector-Specific Guidance

Depending on the sector, companies may need to follow additional guidelines to address specific physical risks relevant to their operations (EFRAG Expected release of sector-specific guidance in June 2026).

These requirements aim to improve transparency and consistency in reporting on sustainability issues, thereby enabling investors and other stakeholders to make informed decisions regarding climate-related risks and impacts

1. WHICH STANDARDS RELATE TO CLIMATE ADAPTATION?



FOCUS ON THE ESRS 2

✔ ESRS 2 SBM-3

Material impacts, risks and opportunities and their interaction with strategy and business model.

→ Explain for each material climate-related risk that the company has identified whether the entity considers the risk a climate-related physical risk or climate-related transition risk.

→ Describe the resilience of the company's strategy and business model concerning climate change. This description shall include:

a. The scope of the resilience analysis.

b. How and when the resilience analysis has been conducted, including the use of climate scenario analysis and the related application requirement paragraphs, and

c. The results of the resilience analysis include the results from scenario analysis.

✔ ESRS 2 IRO-1

Description of the processes to identify and assess material climate-related impacts, risks and opportunities.

→ Description of the process to identify and assess climate-related impacts, risks and opportunities. This description shall include the company's process regarding climate-related physical dangers in its operations and along the upstream and downstream value chain, in particular:

a. Identifying climate-related hazards, considering at least high emission climate scenarios; and

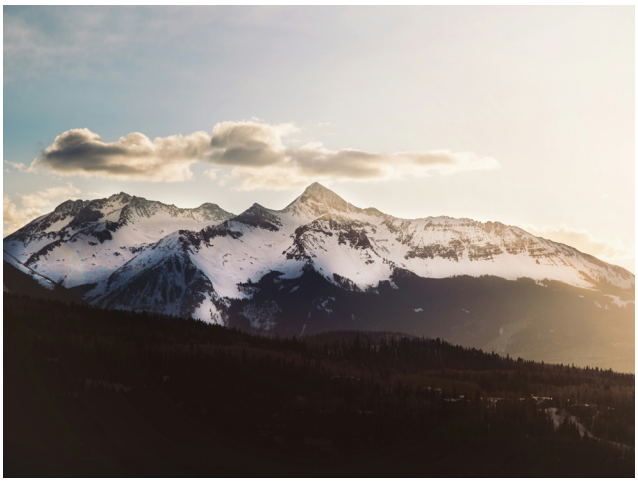
b. The assessment of how its assets and business activities may be exposed and are sensitive to these climate-related hazards, creating gross physical risks for the company.

FOCUS ON THE ESRS E1

The **ESRS E1** describes the CSRD requirements concerning the two aspects of climate change:

→ What is the company's impact on the climate, and what is its strategy for mitigating it (climate change mitigation)?

→ What are the impacts of climate change on the company, and what is its strategy for adapting to them (climate change adaptation)?



✔ E1-2

Policies related to climate change mitigation and adaptation.

→ Description of the company's policies adopted to manage its material impacts, risks and opportunities associated with climate change mitigation and adaptation. The company shall indicate whether and how its policies address the following areas: climate change mitigation, climate change adaptation, energy efficiency, renewable energy deployment, and others.

→ Publication of past, present and planned policies relating to adaptation.

✔ E1-3

Actions and resources in relation to climate change policies.

→ Disclosure of the company's climate change mitigation and adaptation actions and the resources allocated for their implementation, i.e. the main actions taken and planned to manage the significant impacts, risks and opportunities relating to adaptation to climate change.

✔ E1-4

Targets related to climate change mitigation and adaptation.

→ Disclosure of the company's climate-related targets to support its climate change mitigation and adaptation policies and address its material climate-related impacts, risks and opportunities.

✔ E1-9

Anticipated financial effects from material physical and transition risks and potential climate-related opportunities.

Disclosure of:

→ Anticipated financial effects from material physical risks; the objective is to provide an understanding of how these risks have a material influence on the company's financial position, financial performance and cash flows over the short, medium and long- term:

a. The monetary amount and proportion (percentage) of assets at material physical risk over the short-, medium- and long-term before considering climate change adaptation actions, with the monetary amounts of these assets disaggregated by acute and chronic physical risk.

b. The proportion of assets at material physical risk addressed by the climate change adaptation actions.

c. The location of significant assets at material physical risk; and

d. The monetary amount and proportion (percentage) of net revenue from its business activities at material physical risk over the short-, medium- and long-term

→ Expected cost savings thanks to the various climate change mitigation and adaptation measures to obtain a vision of the company's financial performance and possible cash flows over different timeframes.

2. WHICH CLIMATE SCENARIO SHOULD BE USED TO BE COMPLIANT?

The CSRD, in line with other prominent frameworks like the Task Force on Climate-related Financial Disclosures (TCFD) or the EU Taxonomy, requires companies to use climate scenarios as part of their risk assessment and disclosure processes, particularly concerning climate change adaptation. This ensures that companies identify and manage climate-related physical risks effectively. Using climate scenarios helps organisations understand and prepare for future impacts under different climate conditions.

This typically includes:

→ High-Emissions or Worst-case Scenario:

Example: Shared Socio-economic Pathways (SSP) 5-8.5.

Description: This scenario represents a future with high greenhouse gas emissions and limited or no policy interventions to mitigate climate change. It assesses the impacts of severe climate change conditions, including extreme temperature increases, frequent and severe weather events like floods and storms, and a significant sea level rise.

→ Intermediate or Middle of the Road Scenario:

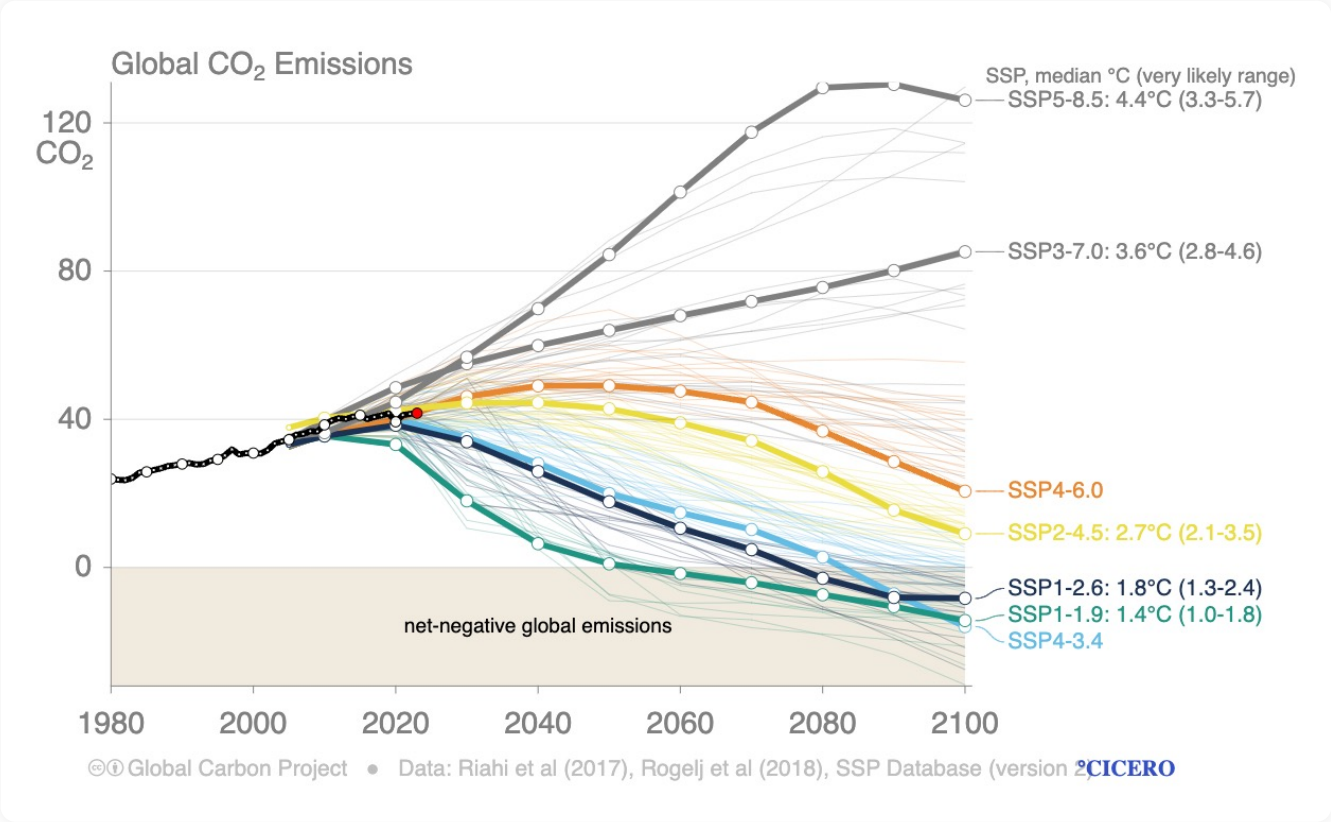
Example: SSP2-4.5.

Description: This scenario assumes moderate efforts to reduce emissions. It projects moderate warming and climatic changes, offering insights into mitigated climate impacts and adaptation needs.

→ Low-Emissions or Optimistic Scenario (Aligned with Paris Agreement Goals):

Example: SSP1-2.6 or scenarios that limit global warming to 1.5°C or 2°C.

Description: This scenario assumes aggressive efforts to reduce emissions in line with the goals set by the Paris Agreement. It projects limited warming and highlights the benefits of strong climate action and the associated physical risks.



Based on the disclosure requirements, the company shall explain whether and how:

a. It has identified climate-related hazards over the short-, medium and long-term and screened whether its assets and business activities may be exposed to these hazards.

b. It has defined short-, medium- and long-term time horizons and how these definitions are linked to the expected lifetime of its assets, strategic planning horizons and capital allocation plans;

c. It has assessed the extent to which its assets and business activities may be exposed and are sensitive to the identified climate-related hazards, taking into consideration the likelihood, magnitude and duration of the hazards as well as the geospatial coordinates specific to the company's locations and supply chains; and

d. The identification of climate-related hazards and the assessment of exposure and sensitivity are informed by high emissions climate scenarios, which may, for example, be based on IPCC SSP5-8.5, relevant regional climate projections based on these emission scenarios.

E.

Steps to Assess and Manage Physical Risks

Addressing climate physical risk assessment for the Corporate Sustainability Reporting Directive (CSRD) involves understanding and evaluating the physical risks of climate change to an organisation's operations, assets, supply chains, and strategies. Here's a step-by-step guide to effectively performing a climate physical risk assessment:

STEP 1

Define the Scope and Collect Data

A. DEFINE THE SCOPE AND BOUNDARIES

- **Identify Boundaries:** Determine the scope of the assessment, including geographical locations, business units, and the types of physical risks (acute and chronic) to be considered.
- **Engage Stakeholders:** Involve relevant stakeholders, including leadership, sustainability officers, risk management, procurement, HR and operational teams, to ensure all business areas are covered.

B. GATHER DATA AND INFORMATION

- **Climate Projections:** Utilise climate models and projections to understand future climate scenarios and their potential impact.
- **Collect Asset Data:** Gather information about physical assets, including their location, condition, and value.

STEP 2

Assess Climate Physical Risks

A. IDENTIFY CLIMATE PHYSICAL RISKS

- **Acute Risks:** Identify extreme climate events such as hurricanes, floods, wildfires, and heat waves.
- **Chronic Risks:** Identify changes in climate patterns, such as rising sea levels, increasing average temperatures, and changing precipitation patterns, leading to frequent droughts or overheating.

B. ASSESS THE SEVERITY AND LIKELIHOOD

- **Scenario Analysis:** Conduct scenario analysis to understand potential future impacts under different climate conditions and time frames.
- **Likelihood Assessment:** Determine the probability of occurrence for each risk identified based on historical trends and climate projection data.

C. EVALUATE MATERIAL IMPACTS

- **Impact Analysis:** Determine how identified physical risks could impact your assets, supply chains, operations, and financial performance.
- **Operational Impact:** Consider how physical risks affect operational efficiency, supply chain disruptions, and workforce safety.

STEP 3

Analyse and Develop Climate Adaptation Plans

A. ANALYSE BUSINESS IMPLICATIONS

- **Financial Impact:** Estimate potential financial losses or costs incurred from physical risks (e.g., damage to property, increased insurance costs, production downtime).
- **Prioritisation:** Prioritise risks and assets based on their severity, likelihood, and potential impact on your business and its sustainability objectives.

B. DEVELOP RISK ADAPTATION STRATEGIES

- **Adaptation Measures:** Identify and implement strategies to enhance resilience, such as infrastructure upgrades, diversifying supply chains, and adopting new technologies.
- **Emergency and Continuity Plans:** Develop emergency response and business continuity plans to address acute risks.

C. UPDATE AND REVIEW

- **Policy and Procedure Updates:** Update organisational policies to integrate climate risk considerations into decision-making processes.
- **Monitoring and Review:** Continuously monitor the effectiveness of adaptive measures and update risk assessments regularly to accommodate new data and changing circumstances.

STEP 4

Report and Act

A. REPORT AND DISCLOSE

- **Transparency:** Clearly report on identified physical risks, their potential impacts, and the measures your company has implemented to manage these risks.
- **Compliance:** Ensure all disclosures align with EU Taxonomy and CSRD requirements.
- **Stakeholder Communication:** Communicate the assessment outcomes and proactive measures to stakeholders, including investors, employees, customers, suppliers and regulators.

B. LEVERAGE TECHNOLOGY AND EXPERTISE

- **Climate Risk Tools:** Utilise specialised software and tools for climate risk assessment to enhance accuracy and efficiency.
- **Consult Experts:** Engage climate scientists, risk assessment consultants, and other experts to ensure comprehensive and accurate analyses.

C. EVALUATE MATERIAL IMPACTS

- **Impact Analysis:** Determine how identified physical risks could impact your assets, supply chains, operations, and financial performance.
- **Operational Impact:** Consider how physical risks affect operational efficiency, supply chain disruptions, and workforce safety.

F.

Interoperability with other climate frameworks

Navigating the landscape of sustainability compliance is becoming increasingly challenging for businesses. The good news for climate interoperability is that the TCFD framework emerged as a basis for climate-related standards across the globe.

In 2024, the TCFD work has been absorbed by the ISSB. As Emmanuel Faber said, “This announcement provides yet further clarification of the so-called ‘alphabet soup’ of ESG initiatives for companies and investors.”

	CSRD	TCFD	ISSB
Objective	Reporting on corporate sustainability and double materiality	Climate-related financial disclosure	Sustainability-related disclosure standards, incorporating climate considerations.
Scope	**ESG** ESRS E1 includes both Physical and Transition Risk	**Climate Focus** Transition and Physical Risk	**Climate Focus** ISSB S2 includes both Transition and Physical Risk
Physical Risk Assessment	Assessment and reporting of acute and chronic physical climate risk	Assessment and reporting of acute and chronic physical climate risk	Assessment and reporting of acute and chronic physical climate risk
Framework	**Four pillars** • Governance (GOV) • Strategy (SMB) • Impact, Risk & Opportunities (IRO) • Metrics & targets (M&T)	**Four pillars** • Governance • Strategy • Risk management • Metrics & targets	**Four pillars** • Governance • Strategy • Risk management • Metrics & targets
Scenario analysis	**Yes** Forward-looking time horizons (short-, medium-, and long-term) and IPCC climate emissions scenarios, from SSP1-2.6 to SSP5-8.5	**Yes** Forward-looking time horizons (short-, medium-, and long-term) and IPCC climate emissions scenarios, from SSP1-2.6 to SSP5-8.5	**Yes** Forward-looking time horizons (short-, medium-, and long-term) and IPCC climate emissions scenarios, from SSP1-2.6 to SSP5-8.5
Financial Impact	**Yes**	**Yes**	**Yes**
Materiality	**Double Materiality**	**Financial Materiality**	**Financial Materiality**

Note that this standard’s disclosure requirements consider the requirements of existing related EU legislation and regulation (i.e., EU Climate Law, Climate Benchmark Standards Regulation, Sustainable Finance Disclosure Regulation (SFDR), EU Taxonomy, and EBA Pillar 3 disclosure requirements).

G.

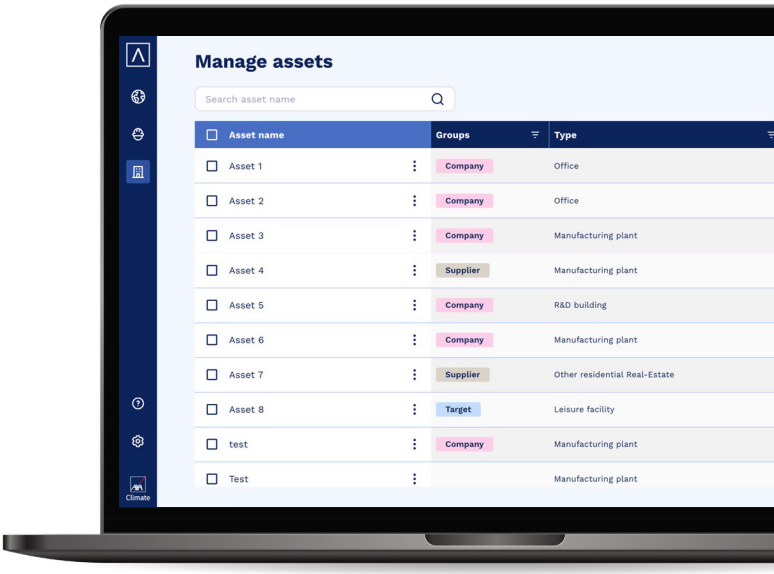
How to leverage Altitude to Assess and Manage Physical Risks

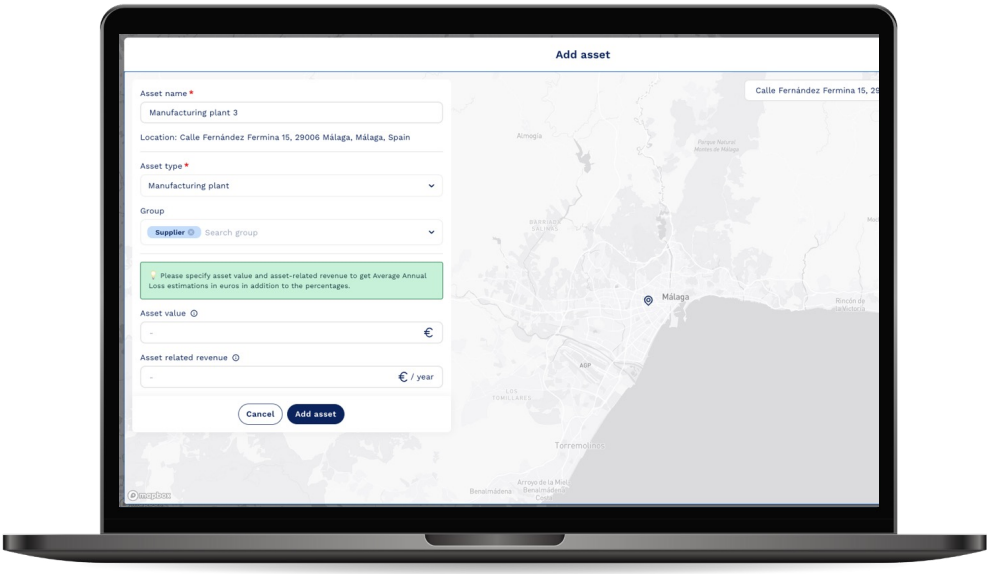
STEP 1

Define the Scope and Collect Data

Altitude supports your Collection of Asset Data:

Gather information about physical assets, including their location, condition, and value. You can easily add assets one by one or by batch in a few clicks and organise them in your portfolio in groups to choose the most pertinent scope for your analysis.



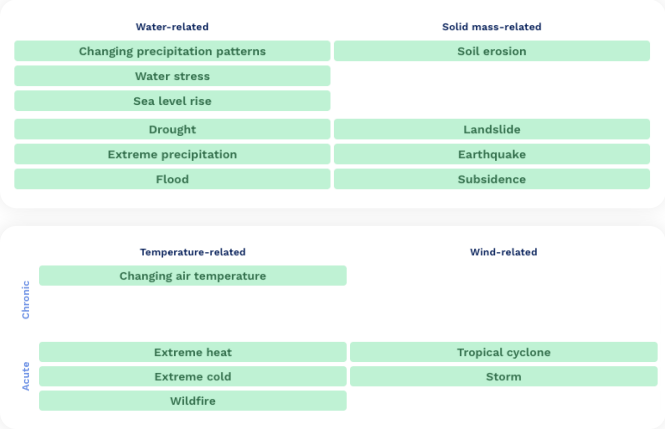


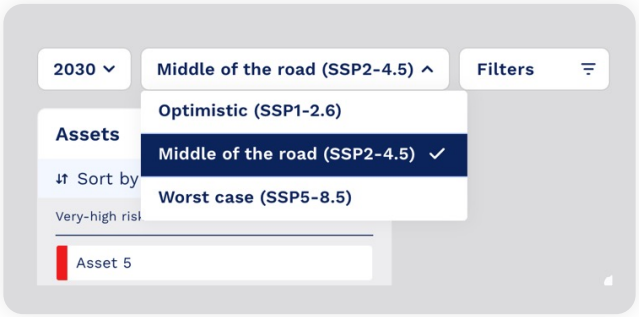
STEP 2

Assess Climate Physical Risks

a. Identify Climate Physical Risks

Altitude covers 16 climate hazards, including both chronic hazards and acute hazards, with detailed analysis at the indicator level for each of them.





b. Assess the Severity and Likelihood

Altitude computes 30-year averages (monthly, seasonally, yearly) around 2000, 2030 and 2050 to monitor the evolution of climate hazards over time. Climate hazards are calculated for three emissions scenarios:

SSP1-2.6 - "Optimistic" scenario: the temperature increase stabilises at around 1.8°C by the end of the century.

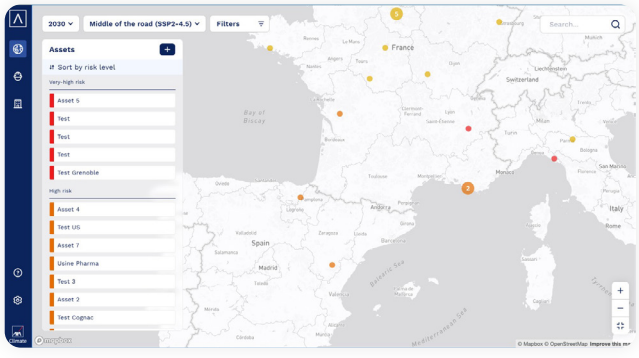
SSP2-4.5 - "Middle of the Road" scenario: this realistic scenario will lead to an end-of-century warming of around 2.7°C.

SSP5-8.5 - "High-emissions scenario: this pessimistic scenario is projected to lead to an end-of-century warming around 4.4°C.

c. Evaluate Material Impacts

To ensure that the double materiality of the climate risk is assessed, it is required to model how climate change will physically impact a company and its contribution to climate change.

To assess climate physical risks, Altitude relies on AXA Climate expertise and data to screen each asset individually: for each asset, Altitude will provide a risk level (low, medium, high or very high) for each climate physical risk considered material for this asset type.



STEP 3

Analyse and Develop Adaptation Plans

Altitude can help you

Financially quantify some climate physical risks through the concept of Average Annual Loss (AAL), meaning the average financial loss per year associated with climate change, varying by climate scenario (SSP1-2.6, SSP2-4.5 and SSP5-8.5) and timeframe (up to 2050). In addition to making the different values per year and scenario accessible, altitude highlights the delta between the baseline and 2050 under scenario SSP5-8.5, representing the worst case regarding the cost of non-adaptation to climate change.

The financial impact of climate physical risks is divided into two different figures:

AAL in Property Damage: representing the Average Annual Loss on the value of the assets caused by an impact of an event on buildings, infrastructure, or inventory.

AAL in Business Interruption: representing the Average Annual Loss on the company revenues caused by an asset stopping its operations because of an event.

STEP 4

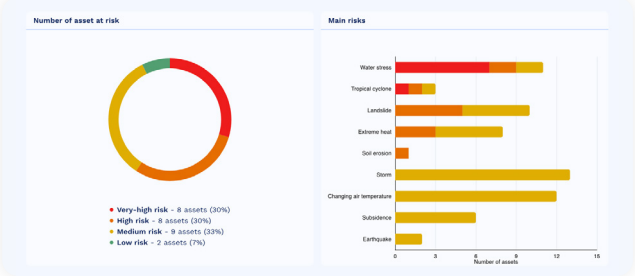
Report and Act

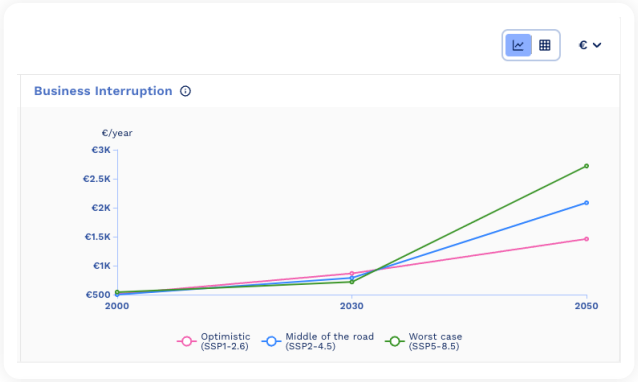
Altitude will support you to Report and Disclose

With total Transparency: Clearly report on identified physical risks, their potential impacts, and the measures your company has implemented to manage these risks.

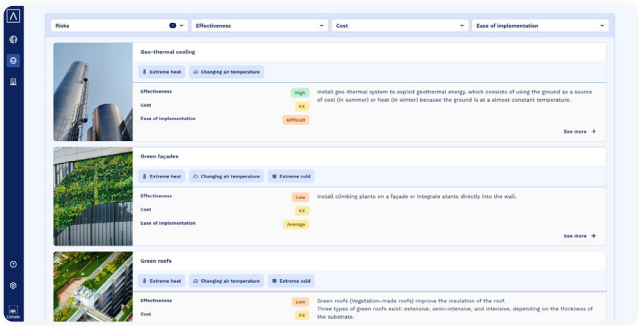
In Compliance with EU Taxonomy and CSRD requirements.

While engaging all stakeholders within the company (unlimited users)





Develop adaptation strategies to climate risks based on the results of the climate risk analysis, thanks to the library of detailed adaptation measures accessible in altitude.



In conclusion, understanding the intertwined relationship between the CSRD and climate adaptation risks is essential for companies operating within the evolving regulatory framework. It presents an opportunity for organisations to not only comply with regulations but also to lead in sustainability practices and contribute to a more sustainable future.

part 3

Biodiversity Risk Assessment and the CSRD Framework

Throughout the last few decades, biodiversity concerns have frequently taken a backseat to climate issues. However, biodiversity is just as worrying—if not more so.

Biodiversity is crucial for the health and resilience of our planet's ecosystems, providing essential services such as pollination of plants, air and water purification, and climate regulation. It also supports ecosystem productivity, ensuring that natural environments can continue to provide resources and benefits to all living organisms, including humans.

The CSRD now opens a new chapter on biodiversity assessment and reporting, the objective being to strengthen companies' understanding of their interactions with biodiversity and thus help them align their business models and operations with biodiversity protection and restoration.

A.

What is biodiversity ?

> The Convention on Biological Diversity defines biodiversity as the variability of living beings of all origins, including, among others, aquatic ecosystems and the ecological complexes they are a part of: this includes diversity within species and the diversity of ecosystems [...].

The concept of biodiversity thus concerns all the components and variations of the living world. Scientists distinguish between three levels:

→ **Ecosystem diversity**

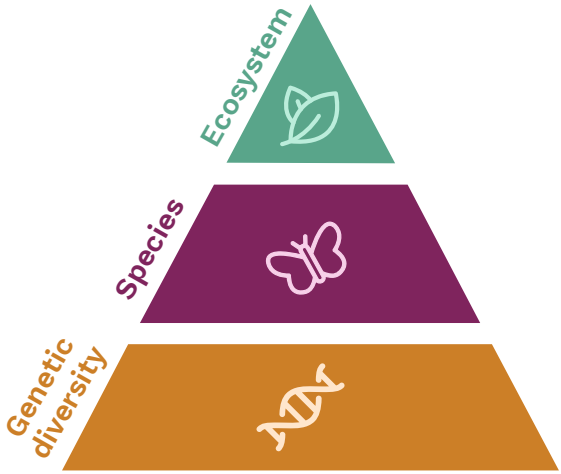
diversity of ecosystems

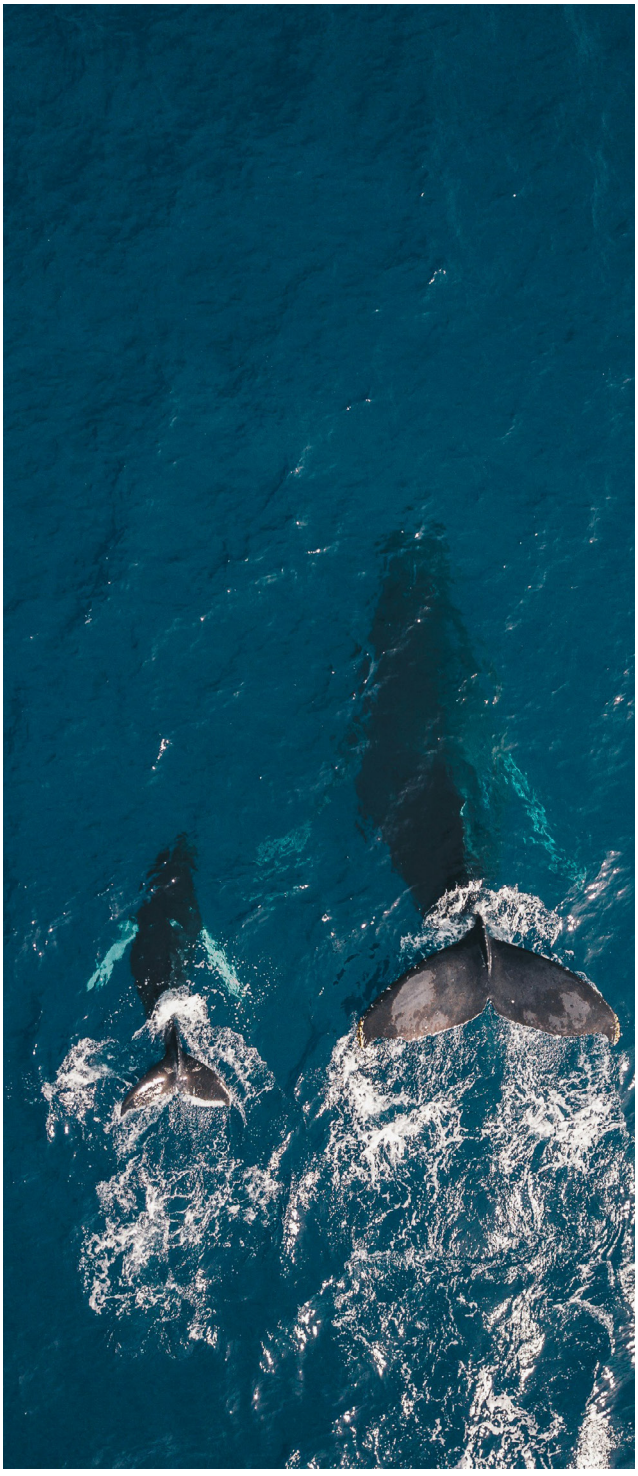
→ **Specific diversity**

diversity of species within an ecosystem

→ **Genetic diversity**

diversity of alleles within a species, an essential characteristic for adapting and surviving





B.

Why should we be concerned about biodiversity?

1. A RAPID DECLINE IN BIODIVERSITY

Biodiversity loss is a critical issue worldwide, and several alarming statistics highlight the extent and impact of this loss. Here are some key numbers and facts that illustrate the current state of biodiversity:

Species Extinction Rates

According to the IPBES, around 1 million species are currently threatened with extinction, many within decades. The current global rate of species extinction is estimated to be tens to hundreds of times higher than the average over the past 10 million years, and it is accelerating.

The decline in Vertebrate Populations

The World Wildlife Fund's (WWF) Living Planet Report 2022 indicates that vertebrate populations (mammals, birds, fish, reptiles, and amphibians) have declined by an average of 69% since 1970. This staggering decrease highlights the dramatic impact human activity has had on wildlife.

Habitat Loss

Approximately half of the world's habitable land area has been converted to agriculture. Deforestation remains a significant threat, particularly in tropical regions home to a vast portion of Earth's biodiversity. The Food and Agriculture Organisation (FAO) reports that about 10 million hectares of forest were lost annually between 2015 and 2020.

Marine and Freshwater Ecosystems

Overfishing has impacted over 34% of the world's fish stocks, now considered overfished or fully exploited. This decline affects the fishing industry, leading to the loss of jobs, reduced incomes for fishing communities, and decreased seafood availability, which can drive up prices and negatively affect food security.

Coral Reefs

Nearly half of the world's coral reefs have been lost in the last 30 years due to ocean warming, acidification, pollution, and destructive fishing practices. These ecosystems support about a quarter of all marine species and provide services worth billions annually to human communities.

Plant Species

According to the 2020 State of the World's Plants and Fungi report by the Royal Botanic Gardens, Kew, about two out of five plant species are threatened with extinction. This loss poses a threat to global food security and agricultural diversity.

Pollinator Declines

Approximately 75% of the world's food crops are pollinated by insects and other animals. However, many pollinator populations, including bees and butterflies, are experiencing significant declines due to habitat loss, pesticides, and climate change.

2. BIODIVERSITY LOSS CREATES NEW RISKS IN THE WAY A CORPORATION INTERACTS WITH NATURE.

These numbers reflect the urgent need for conservation actions and policies to address the root causes of biodiversity loss. Sustained efforts to protect, restore, and sustainably manage ecosystems are crucial to halting and reversing these trends. Addressing biodiversity loss safeguards the natural world and underpins human well-being, economic prosperity, and ecological resilience.

Recent research from the World Economic Forum indicates that **around US$44 trillion, nearly half of the global GDP, is moderately or highly reliant on nature**. However, acknowledging the broader and deeper connections between our economy and the natural world poses a significant challenge for financial institutions and corporations.

For examples:

→ **Poor pollination can reduce crop yields** for fruits, vegetables, and nuts, leading to economic losses for farmers and increased consumer prices. The global economic value of pollination services is estimated at around $235–577 billion annually.

→ **Mangroves protect** against storm surges, support fisheries, and sequester carbon. Their loss increases vulnerability to coastal flooding and storm damage, which can lead to significant economic costs in disaster recovery and loss of livelihoods.

→ **Wetlands provide essential services** such as water filtration, flood protection, and carbon storage. Their loss can lead to increased flooding and water quality issues, resulting in higher costs for disaster recovery and water treatment.

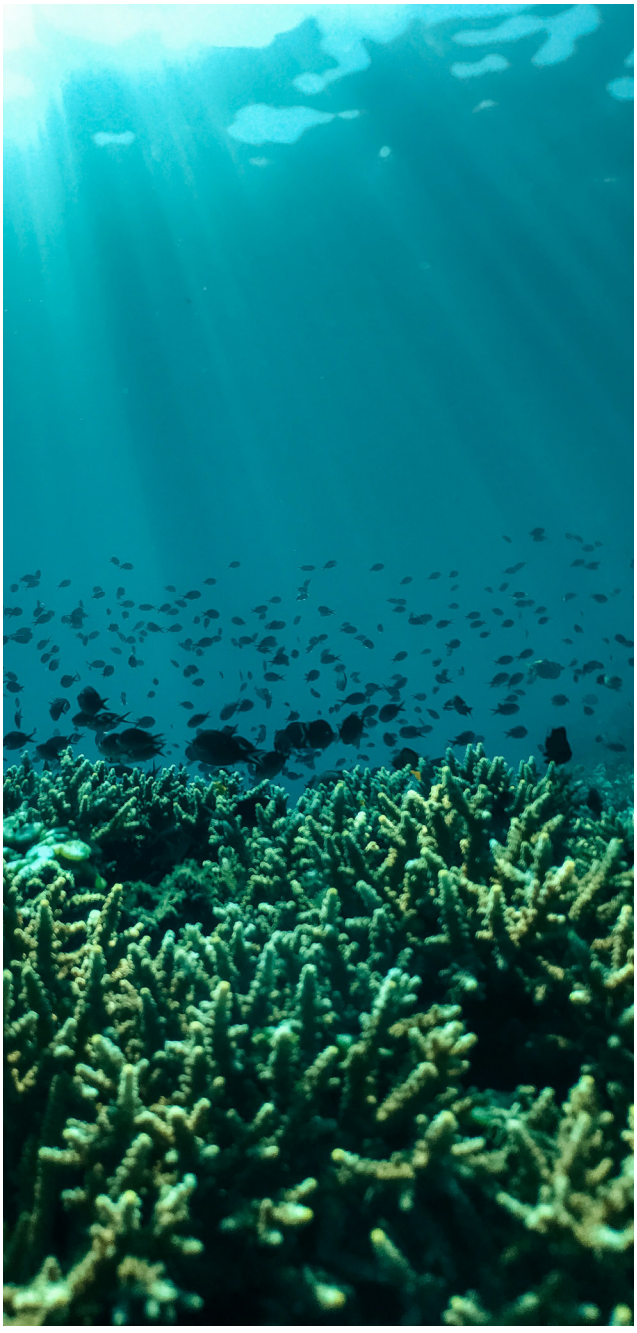
As you can see, biodiversity loss directly affects various sectors of the economy, leading to financial losses, reduced resource availability, and increased costs related to climate mitigation and recovery.

Economic participants must thoroughly understand how their interactions with nature can be measured and managed effectively. This understanding is crucial to lessen their operations' environmental impact, address potential physical and transitional risks and take initial steps towards fostering positive impacts within their ecosystems.

3. HOW DO WE CAPTURE HUMAN AND CORPORATE ACTIVITIES IMPACTING BIODIVERSITY?

To provide a comprehensive framework that captures the various human activities impacting biodiversity. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has identified **five key factors contributing to biodiversity loss.**

These pressures, often called drivers of change, are complex interactions that negatively impact ecosystems and species diversity:



1.
Land Use Change

This is the most significant driver of biodiversity loss globally. It includes deforestation, urbanisation, agriculture, and other land-use changes that disrupt natural habitats and ecosystems.

2.
Natural resource use and exploitation

This includes activities like overfishing, hunting, logging, and poaching, which directly remove species from their natural environments at unsustainable rates.

3.
Climate Change

Alterations in climate patterns affect biodiversity by impacting habitats, food availability, and species distributions. This pressure exacerbates other existing stresses on ecosystems and species.

4.
Pollution

Various forms of pollution, such as chemical pollution (pesticides, heavy metals), plastic waste, and nutrient overload (from agriculture and wastewater), degrade habitats and harm species at multiple ecosystem levels.

5.
Invasive Alien Species

These species are introduced, accidentally or deliberately, into regions that are not native. They can outcompete, prey on, or bring diseases to native species, leading to significant ecological disruptions.

Each of these pressures is interconnected and can intensify the impacts of others, leading to a compounded effect on biodiversity. Addressing these pressures requires coordinated global efforts to implement sustainable practices, conservation strategies, and policies to preserve the Earth's biodiversity and ecosystem services.

4. EMERGENCE OF INTERNATIONAL BIODIVERSITY FRAMEWORKS

The Kunming-Montreal Global Biodiversity Framework (GBF), released after the UN Biodiversity Conference (COP 15) in December 2022, has been instrumental in setting the strategic direction for biodiversity and nature-related standards and frameworks currently under development. The CSRD ESRS E4 disclosure seeks to ensure that business models and strategies are compatible with the GBF targets of no net loss by 2030, the net gain from 2030, and full recovery by 2050.

The EU's biodiversity strategy for 2030 is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030 and contains specific actions and commitments. It is the proposal for the EU's contribution to the upcoming international negotiations on the global post-2020 biodiversity framework and is a core part of the European Green Deal.

C.

Biodiversity in CSRD Framework

One of the CSRD standards that falls within the environmental topic, **the ESRS E4, focuses specifically on biodiversity and ecosystems**. This standard aims to strengthen companies' understanding of their interactions with biodiversity.

The extended scope and importance of biodiversity within the CSRD sends a clear signal to companies on their role to ensure that business activity is aligned to and supports biodiversity protection and restoration. To achieve this, companies will have to adapt their strategies and business models to operate within planetary boundaries and positively impact biodiversity.

Therefore, the CSRD is not only a regulatory exercise. The ESRS E4 offers the opportunity to build a solid biodiversity pathway in line with

→ Respecting planetary boundaries related to biosphere integrity and land system change.

→ The vision of the Kunming-Montreal Global Biodiversity Framework and its relevant goals and targets.

→ Relevant aspects of the EU Biodiversity Strategy for 2030

1. WHICH STANDARDS RELATE TO BIODIVERSITY

Reference	Reporting requirement	Altitude
ESRS 2 SBM-3	Material impacts, risks, and opportunities and their interaction with strategy and business model	✓
ESRS 2 IRO-1	Description of processes to identify and assess material biodiversity and ecosystem-related impacts, risks, and opportunities	✓
ESRS E4 –1	Transition plan and consideration of biodiversity and ecosystems in strategy and business model	✓
ESRS E4 -2	Policies related to biodiversity and ecosystems	⧗
ESRS E4 -3	Actions and resources related to biodiversity and ecosystems	⧗
ESRS E4 -4	Targets related to biodiversity and ecosystems	⧗
ESRS E4 -5	Impact metrics related to biodiversity and ecosystem change	✓
ESRS E4 -6	Anticipated financial effects from material biodiversity and ecosystem-related risks and opportunities	✓

FOCUS ON THE ESRS 2

✔ ESRS 2 SBM-3

Material impacts, risks and opportunities and their interaction with strategy and business model.

→ Disclosure of a list of material sites in its operations, including sites under its operational control, material negative impacts with regards to land degradation, desertification or soil sealing, and whether it has operations that affect threatened species.

✔ ESRS 2 IRO-1

Description of processes to identify and assess material biodiversity and ecosystem-related impacts, risks, dependencies and opportunities.

→ Description of the process to identify material impacts, risks, dependencies and opportunities.

→ Disclose whether and how it has used biodiversity and ecosystems scenario analysis to inform the identification and assessment of material risks and opportunities over short-, medium- and long-term time horizons.

→ Disclose whether it has sites located in or near biodiversity-sensitive areas.

FOCUS ON THE ESRS E4

✔ ESRS E4-1

→ **Transition Plan:** Companies must disclose their transition plan to improve and, ultimately, achieve alignment of their business model and strategy with the vision of the Kunming-Montreal Global Biodiversity Framework and its relevant goals and targets, the EU Biodiversity Strategy for 2030, as well as respecting planetary boundaries related to biosphere integrity and land-system change.

✔ ESRS E4-2

→ **Biodiversity Policies:** Disclosure of strategies addressing biodiversity effects, risks, and opportunities, considering dependencies and activities like production and procurement.

The company must disclose whether it has adopted:

a. Biodiversity and ecosystem protection policy covering operational sites owned, leased, or managed in or near a biodiversity-sensitive area.

b. Sustainable land/agriculture practices or policies.

c. Sustainable oceans/seas practices or policies; and

d. Policies to address deforestation

✔ ESRS E4-3

→ **Actions and Resources:** Details on biodiversity efforts and resource allocation, including measures for biodiversity compensation and whether they're integrated into ongoing practices.

The company may disclose:

a. How has it applied the mitigation hierarchy with regard to its actions (avoidance, minimisation, restoration/rehabilitation, and compensation or offsets)?

b. Whether it used biodiversity offsets in its action plans.

✔ ESRS E4-4

→ **Biodiversity Targets:** Outline objectives, progress, and assessment of biodiversity targets, considering scientific evidence and ecological thresholds.

✔ ESRS E4-2

→ **Impact Metrics:** Disclosure of significant influences on biodiversity, including indicators for changes in species' status and proximity to protected areas.

→ Suppose the company has identified sites in or near biodiversity-sensitive areas that it negatively affects. In that case, the company must disclose the number and area (in hectares) of sites owned, leased or managed in or near these protected areas or key critical diversity areas.

→ It shall report relevant metrics if the company has concluded that it directly contributes to the impact drivers of land-use change, freshwater, and sea-use change.

✔ ESRS E4-6

→ **Financial Effects:** Disclosure of potential financial impacts from biodiversity- and ecosystem-related impacts and dependencies and how these risks have a material influence on the company's financial position, financial performance and cash flows over the short-, medium- and long-term.

Note that "Biodiversity and ecosystems" are closely connected to other environmental matters. The main drivers of biodiversity and ecosystem change are climate change, pollution, land-use change, freshwater and sea-use change, direct exploitation of organisms and invasive alien species.

To obtain a comprehensive understanding of material impacts and dependencies on biodiversity and ecosystems, the disclosure requirements of other environmental ESRS should be read and interpreted in conjunction with the specific disclosure requirements of the ESRS E4 Standard.

The relevant disclosure requirements covered in other environmental ESRS are:

a. ESRS E1 - Climate change addresses, in particular, GHG emissions and energy resources (energy consumption).

b. ESRS E2 - Pollution addresses air, water and soil pollution.

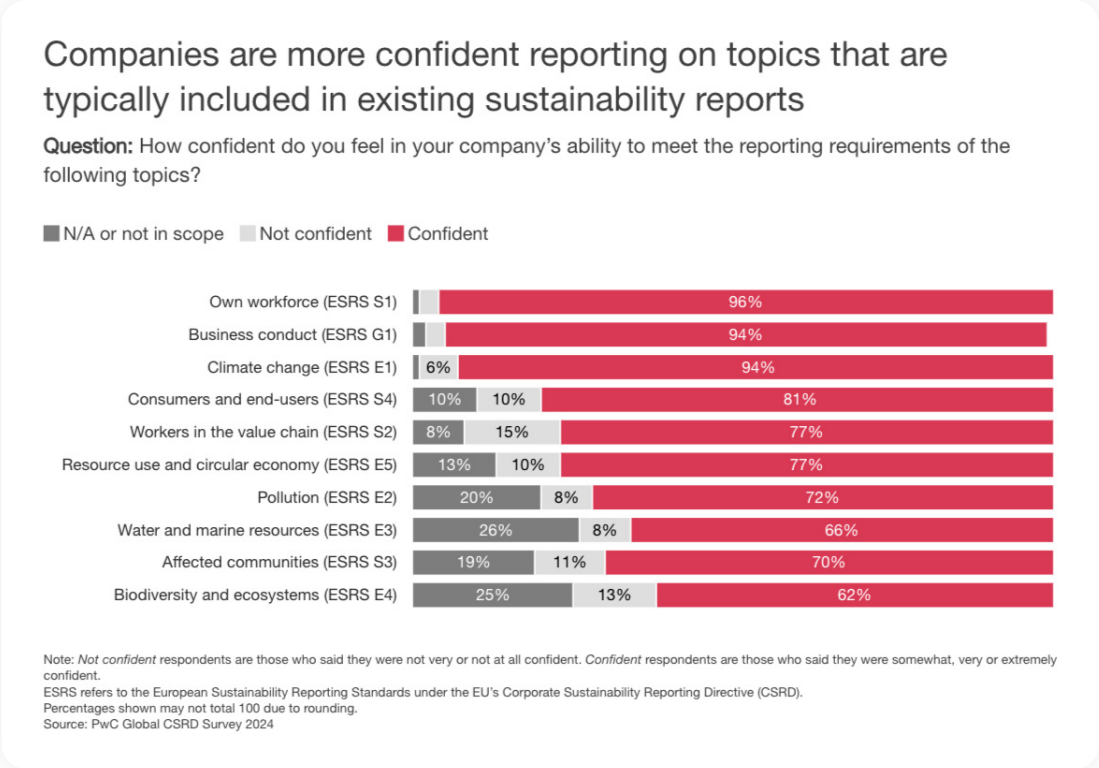
c. ESRS E3 - Water and marine resources, which address, in particular, water resources (water consumption) and marine resources.

c. ESRS E5 - Resource use and circular economy address, in particular, the transition away from extracting non-renewable resources and implementing practices that prevent waste generation, including pollution generated by waste.

2. WHICH COMPANIES WILL BE CONCERNED BY ESRS E4?

The double materiality analysis for biodiversity is a highly multi-dimensional exercise that can be seen as highly complex.

According to the 2024 Global CSRD survey conducted by PwC, biodiversity is among the biggest concerns for companies under CSRD requirements. Respondents reported high confidence levels in existing disclosure, such as workforce (96%) or climate change (94%) while feeling far less confident in their ability to meet disclosing requirements on less familiar topics, including biodiversity and ecosystems. Regarding biodiversity, only 62% of companies expressed certainty that they will meet the reporting requirements.



However, most companies should be concerned about their impact on biodiversity and their dependency on the ecosystem services they provide, directly or through their value chain.

However, it is essential to note that companies with fewer than 750 employees benefit from a grace period of two years, starting from their first year of CSRD reporting, before responding to the ESRS E4. By granting this period, the CSRD recognises the level of expertise and preparation that the biodiversity standard requires.

3. STEPS TO ASSESS AND MANAGE BIODIVERSITY RISK

The Corporate Sustainability Reporting Directive (CSRD) emphasises the importance of sustainability reporting, which includes biodiversity risk assessment as a critical component. Here are the key elements related to biodiversity risk assessment within the CSRD framework:

STEP 1

Conduct a Biodiversity Double Materiality Assessment

→ **Identify Impacts and Dependencies:** Determine how your business operations impact biodiversity and ecosystems. Analyse direct and indirect impacts and assess how your business depends on biodiversity for its operations.

→ **Map Ecosystem Interactions:** Conduct a comprehensive mapping of how your activities interact with local ecosystems and biodiversity, identifying critical species and habitats affected.

→ **Use the first three steps of the methodology developed by the Taskforce on Nature-related Financial Disclosures TNFD, called "LEAP":** Locate – Evaluate – Assess - Prepare

Locate

interfaces with nature, which typically involves mapping sites across the value chain and owned operations and understanding how those interfaces with nature and sensitive locations.

Evaluate

evaluate their dependencies and impacts on nature in those locations.

Assess

Assess risks and opportunities to understand which dependencies and impacts hit the materiality threshold that a company has decided to use.

Prepare

Prepare the reports, develop strategies and actions to manage risks and capitalize on opportunities.

The TNFD LEAP Approach - Phases	Locate The interface with nature	Evaluate Dependencies and impacts	Assess Material risks and opportunities	Prepare To respond and report
ESRS E2 Pollution	Locate where in its own operations and its upstream and downstream value chain the interface with nature takes place (see ESRS E2 paragraph AR 5).	Evaluate the undertaking's impacts and dependencies for each material site or sector/ business unit (see ESRS E2 paragraph AR 6).	Assess material risks and opportunities by identifying (a) transition risks and opportunities in its own operations and its value chain; (b) physical risks; (c) systemic risks; (d) opportunities (see ESRS E2 paragraph AR7; ESRS E3 paragraph AR13; ESRS E4 AR 9; ESRS E5 AR 5).	The fourth phase addresses the outcome of the process. This includes disclosing on strategy, policies, actions and targets related to material dependencies, impacts, risks and opportunities (see ESRS 2, ESRS E2, ESRS E3, ESRS E4, ESRS E5).
ESRS E3 Water and marine ressources	Locate where there are areas at water risk, and aeras where there is an interface with marine resources that could lead to material impacts and dependencies in its own operations and along its upstream and downstream value chain (see ESRS E3 paragraph AR 5).	Evaluate its impacts and dependencies for each priority location identified (see ESRS E3 paragraph AR 8).		
ESRS E4 Biodiversity and ecosystems	Localisation of relevant sites regarding its interface with biodiversity and ecosystems (see ESRS E4 paragraph AR 7).	Evaluate its actual or potential impacts and dependencies on biodiversity and ecosystems for relevant sites (see ESRS E4 paragraph AR 8).		
ESRS E5 Ressource use and circular economy	Phases 1 and 2 rely mainly on the materiality assessments conducted under ESRS E1 (including energy consumption), ESRS E2 (pollution), ESRS E3 (marine resources, water consumption) and ESRS E4 (biodiversity, ecosystems, raw materials) (see ESRS E5 paragraph AR 2).			

ESRS

STEP 2

Assess the resilience of the business model and develop action plans

→ **Indicate** the resilience of the company's business model, especially with regard to legislation and international and national biodiversity conservation targets.

→ **Explain** how the company addresses the causes of biodiversity loss (both at their own site and in the value chain), e.g. in the purchase of products. Information on strategies to protect biodiversity at and around their own sites, for land use or agriculture, oceans/seas, and combating deforestation is expected.

→ **Integrate into Business Strategy:** Embed biodiversity considerations into your overall business strategy and decision-making processes.

→ **Set Targets and Indicators:** Define clear, quantifiable targets for biodiversity conservation, including metrics or indicators to track progress. Develop Action Plans: Create action plans that specify the activities, timelines, and resources needed to achieve your biodiversity goals. This could include initiatives like habitat restoration, offsetting biodiversity impacts, or sustainable resource use practices.

STEP 3

Engage Stakeholders and Monitor Progress

→ **Internal Engagement:** Ensure buy-in from leadership and relevant departments (e.g., procurement, operations, and compliance) to integrate biodiversity strategies across the organization.

→ **External Collaboration:** Work with external stakeholders, such as local communities, NGOs, and governmental bodies, to leverage biodiversity expertise and support conservation efforts.

→ **Report key metrics** like the sites in or near protected areas on which the company has a negative impact, e.g., number and area in hectares. The company must also provide relevant metrics for material land use, freshwater, and marine use changes.

→ **Track Implementation:** Regularly monitor the progress of biodiversity action plans and strategies using the earlier indicators.

→ **Evaluate Impact:** Assess the effectiveness of your biodiversity initiatives, adjusting as necessary to meet objectives and respond to any unforeseen challenges or opportunities.

→ **Calculate the potential financial impacts** of biodiversity and ecosystem-related effects, risks and opportunities. This information can be omitted in the first reporting year.

STEP 4

Report and Disclose

→ **Prepare Reports:** Compile comprehensive disclosures as required by ESRS E4, detailing your biodiversity impacts, dependencies, risks, objectives, targets, and mitigation efforts.

→ **Ensure Transparency:** Provide clear, transparent, and accessible information about your biodiversity strategies, achievements, and challenges to stakeholders.

→ **Third-Party Assurance:** Consider engaging independent auditors or experts to verify the accuracy and reliability of your biodiversity reporting.

→ **Continuous Improvement:** Regularly review your biodiversity strategies and reporting processes to identify areas for enhancement.

→ **Adapt and Innovate:** Stay informed about emerging best practices, technological advancements, and regulatory updates to ensure your biodiversity efforts are impactful and compliant

4. INTEROPERABILITY WITH OTHER BIODIVERSITY FRAMEWORKS

	CSRD	TNFD	ISSB
Objective	Regulatory framework on corporate sustainability and double materiality	Voluntary Framework on nature-related financial disclosure	As part of its 2024-2026 workplan, the ISSB will explore a sustainability framework for biodiversity, ecosystems and ecosystem services (BEES) and work to make ISSB Standards interoperable with ESRS and GRI.
Scope	Biodiversity & Ecosystems	Nature	Biodiversity & Ecosystems
Framework	Four pillars: • Governance (GOV) • Strategy (SMB) • Impact, Risk & Opportunities (IRO) • Metrics & targets (M&T)	Four pillars: • Governance • Strategy • Risk management • Metrics & targets	TBD
Risk Assessment	LEAP-like approach	LEAP approach	TBD
Metrics	Analysis of impact, dependencies, risks & opportunities under materiality assessment Negative implications for sensitive biodiversity areas	14 requested indicators (All reflected in the ESRS) Analysis of effects, dependencies, risks & opportunities	TBD
Materiality	Double Materiality	Double Materiality	TBD

The TNFD was launched in 2021, building on the success of the Task Force on Climate-related Financial Disclosures (TCFD), to support organisations in reporting and acting on their nature-related risks. The organisation published its final recommendations for nature-related risk management and disclosure in September 2023, centred around 14 recommended disclosures aimed at helping inform better decision-making by companies and capital providers on nature and biodiversity-related risks, opportunities, dependencies and impacts.

Among the key commonality points highlighted in the correspondence mapping, are the reflection in the ESRS of all 14 of the TNFD's disclosure recommendations, the inclusion by the TNFD of the double materiality approach required by the ESRS as a recommended approach to materiality, and the ability under ESRS for companies conducting materiality assessments on all environmental standards beyond climate change to use the LEAP approach developed by the TNFD to identify and assess nature-related issues.

	Governance	Strategy	Risk and impact management	Metrics and targets
TNFD Disclosure recommendations	Disclose the organisation's governance of nature-related dependencies, impacts, risks and opportunities.	Disclose the effects of nature-related dependencies, impacts, risks and opportunities on the organisation's business model, strategy and financial planning where such information is material.	Describe the processes used by the organisation to identify, assess, prioritise and monitor nature-related dependencies, impacts, risks and opportunities.	Disclose the metrics and targets used to assess and manage material nature-related dependencies, impacts, risks and opportunities.
ESRS 2 General disclosures	Governance (GOV) The governance processes, controls and procedures put in place to monitor, manage and oversee sustainability matters (see ESRS 2, chapter 2 Governance).	Strategy (SBM) The elements of the undertaking's strategy that relate to or affect sustainability matters, its business model and its value chain; how the interests and views of the undertaking's stakeholders are taken into account by the undertaking's strategy and business model; and the outcome of the undertaking's assessment of material impacts, risks and opportunities, including how they inform its strategy and business model (see ESRS 2, chapter 3 Strategy).	Impact, risk and opportunity management (IRO) (a) The process to identify material impacts, risks and opportunities; and (b) The information that, as a result of its materiality assessment, the undertaking has included in its sustainability statement (see ESRS 2, section 4.1); policies and actions to prevent, mitigate and remediate actual and potential material impacts, to address material risks and/or to pursue material opportunities (collectively, to «manage material sustainability matters») (see ESRS 2, section 4.2).	Metrics and targets (MT) Minimum Disclosure Requirements that shall be included when the undertaking discloses information on its metrics and targets related to each material sustainability matter (see ESRS 2, chapter 5 Metrics and targets).

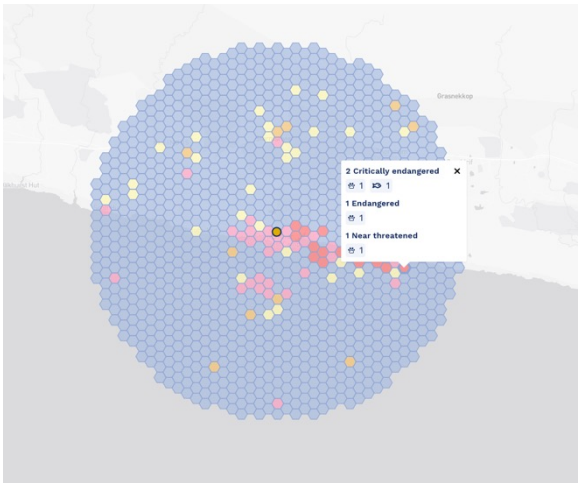
D.

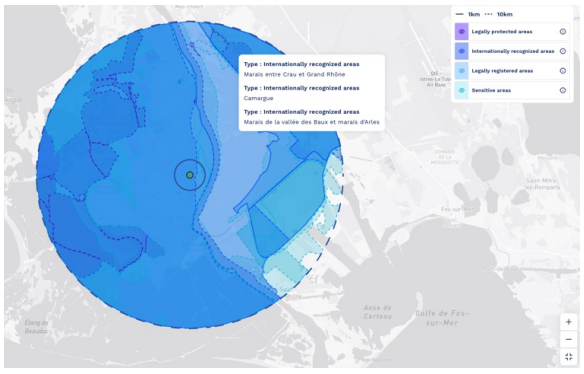
How to leverage Altitude to Assess and Manage Biodiversity Risks

STEP 1

Conduct a Biodiversity Double Materiality Assessment

Altitude helps you identify the zones of interest and the threatened species around each of your assets and the level of risk associated.

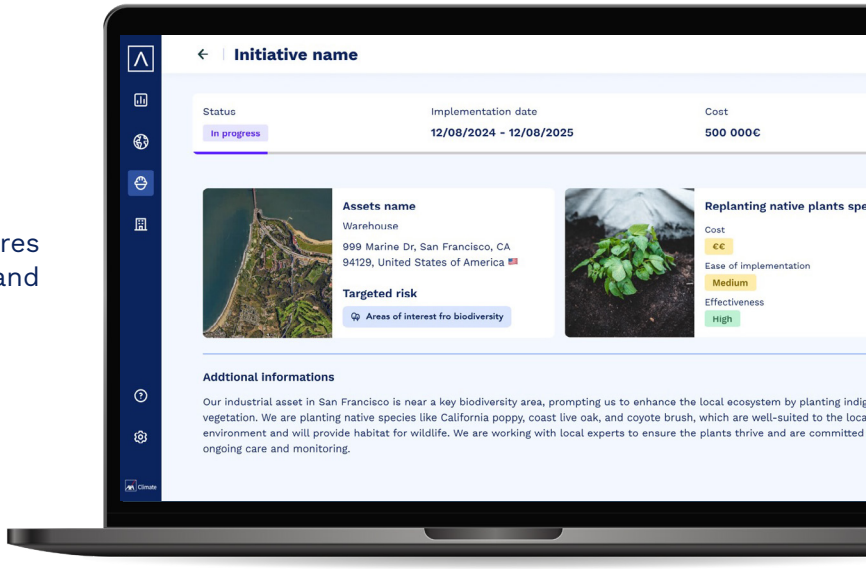




STEP 2

Assess the resilience of the business model and develop action plans

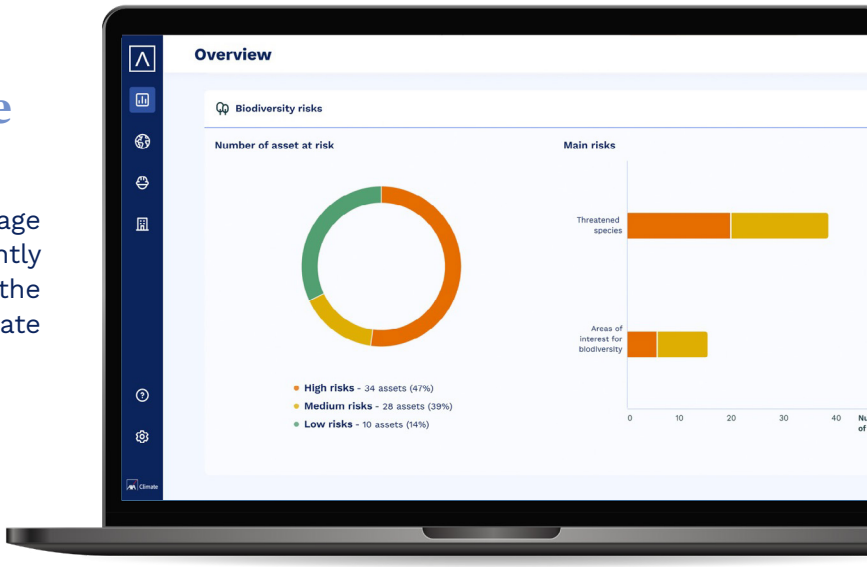
With Altitude, you can add Biodiversity measures to the library, create actions with targets and follow them.



STEP 3

Conduct a Biodiversity Double Materiality Assessment

Thanks to shareable data, you can easily engage your stakeholders to collaborate more efficiently on Biodiversity, report key metrics, track the implementation of action plans and evaluate their impact.



Conclusion

Implementing ESRS E4 requires careful planning, strategic integration, and continuous evaluation. These new biodiversity disclosure requirements are ambitious but will help companies align their operations with biodiversity conservation goals and contribute positively to ecosystem health. Effective biodiversity management mitigates risks and enhances business resilience and reputation, paving the way for sustainable growth.

Conclusion

Climate and Biodiversity risks are fundamentally business risks. As we move toward 2025 and beyond, let's view these new regulations not as the final compliance destination, but as pivotal milestones in a continuous journey to develop sustainable, resilient, and competitive businesses.

Although it presents challenges, the new reporting requirements should be seen as opportunities to enhance transparency, reveal hidden vulnerabilities and create long-term value. This necessitates a well-defined strategy and the appropriate tools to effectively assess, report, and manage climate and biodiversity risks and their associated financial consequences.

The access to reliable, granular and actionable data for decision-making empowers you to produce accurate reports and formulate effective environmental strategies. With robust tools like Altitude, you can turn sustainability reporting into a process that not only fulfill regulatory requirements but also enhances business value, fosters innovation, and leads to a more sustainable economy for us all.

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Essential Guide to CSRD:

Comprehensive Insights on Climate and Biodiversity Risk Assessment