

2025 report on climate and nature



Investing to solve
global challenges



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1. Introduction

Seven of nine planetary boundaries are now breached, and all are moving in the wrong direction. This report sets out how Summa identifies, measures, and manages climate- and nature-related dependencies, impacts, risks, and opportunities across its portfolio – using the planetary boundaries framework to connect investment activity to Earth system outcomes.

We are facing an existential environmental crisis. Climate change, depletion of natural resources, and biodiversity loss are all major issues that need to be addressed. As of 2025, seven of the nine planetary boundaries are breached, with ocean acidification added to the list of boundaries in a critical state for the first time. All breached boundaries are moving further out of the safe operating space, underscoring that the pace and scale of action to date have been insufficient to reverse trends and restore stability and resilience.

Summa Equity (Summa) is a purpose-driven private equity firm that invests to solve global challenges. Founded in 2016 and headquartered in Stockholm, with offices in Oslo, Munich, and London, Summa has raised c. EUR 4 billion in assets, and invests in four themes: Circularity, Energy Transition, Sustainable Food, and Tech-Enabled Resilience. Each theme targets sectors where structural environmental and social pressures are creating durable demand for solutions, and where the delivery of measurable positive outcomes and the generation of competitive financial returns are mutually reinforcing.

Summa's investment approach is grounded in the conviction that companies addressing the defining challenges of this era, climate change, resource depletion, biodiversity loss, and systemic inefficiency in food, energy, and material systems, are positioned to capture long-term value as the global economy adapts to tightening planetary constraints. The firm applies the planetary boundaries framework as its primary analytical lens for assessing environmental impact, mapping both the pressures generated by portfolio companies and the positive contributions their products and services deliver across Earth system processes. This enables a system-level view of how each investment interacts with nature and climate, informing both capital allocation and active ownership throughout the holding period.

As of year-end 2025, the portfolio comprises 18¹ companies operating across more than 300 locations, primarily in Northern Europe and the United States. Summa is a Certified B Corp, a signatory of the Principles for Responsible Investment, and a member of Initiative Climat International. The firm aligns its disclosures with the recommendations of TCFD and TNFD to support consistent identification and management of climate- and nature-related risks and opportunities.

Summa applies a double materiality lens, considering both financial exposure (outside-in) and environmental impact (inside-out), in line with TNFD- and emerging regulatory expectations.

1.1 Scope

During ownership, Summa supports portfolio companies in identifying, assessing, and managing dependencies, impacts, risks, and opportunities, and in improving disclosure quality over time.

This report covers climate- and nature-related issues across 18 portfolio companies as of year-end 2025. It complements Summa's other annual sustainability-related publications, but is specifically focused on TNFD- and TCFD-aligned disclosures. Further information and disclosures related to specific portfolio companies can be found in the Summa Equity Portfolio Report 2025, while additional information and analysis on Summa's planetary boundary impact can be found in the Planetary Boundaries Report 2025.

¹ Excluding minority investments in Zeroavia, Waterise and Sengenics

1.2 Time horizons

The time horizons used by Summa are defined to reflect investment dynamics and system-level change:

TIME HORIZON	PERIOD	RATIONALE
Short-term	1 year	Investment cycle and annual reporting
Medium-term	Up to 10 years	PE holding period and emerging trends
Long-term	25 years	Structural shifts, physical risks, systemic change

1.3 Summa’s planetary boundaries approach

Summa assesses climate- and nature-related issues using the planetary boundaries framework, which defines the safe operating space across nine Earth system processes. The impact of portfolio company activities is estimated and connected to these boundaries to map and quantify environmental pressures and positive contributions.

This approach provides a system-level view of how investments interact with natural systems. It captures impacts beyond climate alone and enables identification of activities that reduce pressure through resource efficiency, pollution reduction, and circularity.

The framework serves both as a diagnostic tool for environmental risk and as a strategic lens for directing capital toward solutions consistent with planetary limits

1.4 Limitations

Analysis in this report is based on the best available data, models, and methodologies at the time of publication. Data quality varies across portfolio companies and value chains, particularly upstream where traceability is limited. In these cases, modelled estimates and proxy data are used, which introduces uncertainty. As Summa’s nature-related measurement methods remain under development, results should be interpreted accordingly.

Methodologies, data and assumptions used across all topics are expected to become more accurate over time and will be updated in the future as necessary.

TCFD and TNFD framework

Overview

Governance ●

- A. Board of Directors
- B. Management
- C. Human rights

Strategy ●

- A. Identified impacts, dependencies, risks and opportunities
- B. Effects on Summa's investment strategies
- C. Scenario analysis
- D. Geographical presence

Risk management ●

- A. Identification of impacts, dependencies, risks and opportunities
- B. Management of impacts, dependencies, risks and opportunities
- C. Integration of climate- and nature-related risks into risk management

Targets and metrics ●

- A. Metrics for assessing risks and opportunities
- B. TCFD: Reporting concerning greenhouse gases TNFD: Metrics of nature-related impacts and dependencies
- C. Targets



2. Governance

Managing climate and nature risk starts with clear accountability. Effective oversight requires environmental considerations to be embedded in the organizational structures where investment decisions are made and strategy is set.

2.1 Board oversight

The Board of Directors (the Board) is responsible for ensuring adequate principles are in place for addressing climate and nature at Summa. The Board regularly receives information about Summa's work on impact and sustainability, including issues related to climate and nature, and considers this information in decision-making processes related to the firm's strategy, objectives, and planning. The Summa Board has four regular meetings per year.

The establishment and oversight of Summa's climate and nature risks and opportunities are outlined in Summa's Environmental and Climate Change Policy, which has been adopted by the Board. It is reviewed annually or whenever a material change is warranted. The Board is accountable for defining and overseeing the implementation of the principles and objectives in the Environmental and Climate Change Policy. Progress updates on the objectives are shared regularly and as part of the recurring Board meetings.

Addressing climate change and nature through impactful investments is a core component of Summa's investment strategy, and consequently thoroughly considered in strategic decisions. In addition, the climate- and nature-related performance of portfolio companies is considered during regular reviews. The Board considers the information on Summa's impact and sustainability work, including the planetary boundaries approach, in decision-making processes related to the firm's strategy, planning and overall risk management.

2.2 Management's role

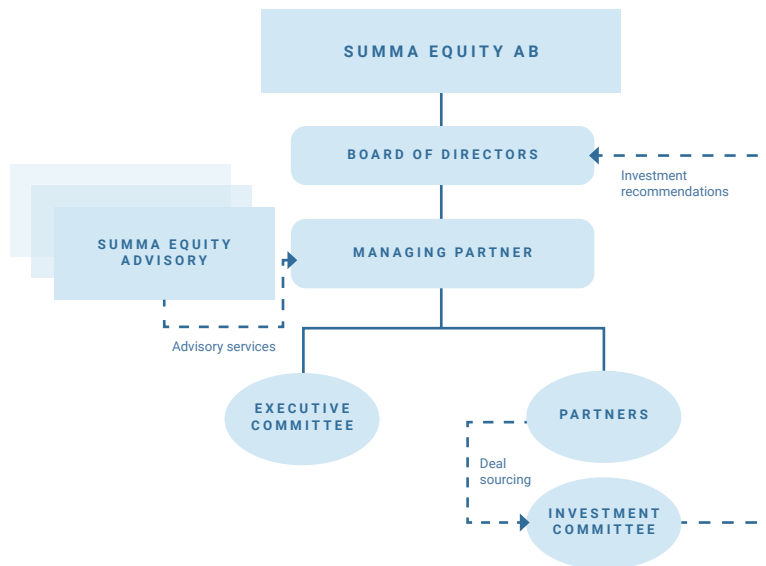
The CEO has the overall responsibility for the implementation of Summa's approach to addressing climate- and nature-related considerations. This involves overseeing the integration of planetary boundary considerations into decision-making processes, setting clear objectives, allocating resources appropriately, and fostering a culture of transparency and accountability throughout the organization to effectively manage impacts and seize opportunities for sustainable growth.

The CEO updates the Board on relevant developments. Policies related to the firm's planetary boundaries approach are reviewed at least once a year. The approach is developed in cooperation with the thematic partners, the management team, and the Impact Director, who support the CEO in ensuring that the firm's climate and nature-related objectives are operationalized and achieved.

The Impact Director, part of the value creation team, leads sustainability efforts by supporting integration across the funds, and reporting on climate- and nature-related dependencies, impacts, risks, and opportunities in line with TCFD and TNFD recommendations. The Impact Director updates the partner group, including the firm's CEO, on a quarterly basis.

2.3 Organizational structure

Summa is owned by its Partners and the Summa Foundation. The Managing Partner holds overall responsibility, supported by the Executive Committee and deal Partners, who source and develop investment opportunities. Potential investments are evaluated by the Investment Committee (IC), which also takes due consideration of material climate and nature-related risks and impacts throughout the investment process. The IC makes recommendations to the Board, which is responsible for making final investment decisions, while ensuring that sustainability factors are considered alongside financial returns. The Summa Advisory companies provide independent advisory services across the deal sourcing and investment processes.



2.4 Human Rights, indigenous peoples, and stakeholder engagement

Summa is a signatory of the Principles for Responsible Investment (UNPRI). Among the principles is a commitment to integrate environmental, social and governance considerations (ESG) into ownership policies and practices, as well as to seek appropriate disclosures from the companies we invest in. We seek to adhere to the 10 principles of the UN Global Compact (UNGC). The four sustainability themes (Human Rights, Labor Rights, Environment, and Anti-Corruption) are integrated into our Code of Conduct, and our due diligence process is founded in the OECD Due Diligence Guidance for Responsible Business Conduct to ensure fit-for-purpose ESG Due Diligence in each investment case. As a Certified B Corp, Summa is expected to meet the highest standards of verified social and environmental performance, transparency, and accountability.

Human Rights principles are outlined in Summa’s general Code of Conduct, and we also have a separate Human Rights Policy describing our approach and commitment. Summa communicates publicly about our approach to human rights. Human rights due diligence, including rights of indigenous peoples and local communities, are embedded in documents that describe Summa’s processes for assessing companies before we invest, and as part of regular assessments of the current portfolio. Human Rights are considered as one of many topics that must be addressed by third parties that carry out pre-investment due diligence on our behalf.

The Summa Board is ultimately responsible for ensuring that adequate principles are in place on nature-related advocacy and lobbying. No contributions will be made to any party on behalf of Summa with regard to this or any other topic. However, the Summa leadership group, impact team and others participate in forums, industry events and conferences advocating for the importance of strong standards, in particular with regard to measuring and addressing impact.

Direct engagement activities are based on materiality. As a Private Equity investment manager, Summa has negligible direct impact on local communities, however we take an active role in ensuring investees have adequate measures in place for stakeholder engagement. Summa does not engage in direct lobbying but contributes to several multinational NGOs and participates in networks that advocate for responsible investment and take into account nature-related impacts and other sustainability factors in all aspects of business and investment, including GIIN, UN PRI, and iCI. Summa is not involved in any ongoing cases concerning nature-related dependencies.

3. Strategy

Climate change and nature loss are redrawing the economic map – shifting costs, demand, and what it means to be a resilient business. Every company depends on natural systems. Those best positioned to create long-term value are those whose business models actively reduce the pressures that put those systems at risk.

3.1 Identified dependencies, impacts, risks and opportunities

Dependencies

Our portfolio depends on a range of ecosystem services, with dependencies concentrated in a limited number of critical functions.

Summa's assessment shows that water-related ecosystem services represent the most material direct dependencies across the portfolio, including water flow regulation, flood mitigation, and water supply. Activities representing more than half of the portfolio rely on stable hydrological conditions, particularly in industrial processes, waste management, and food-related operations. Water purification is a critical dependency in specific segments, particularly food manufacturing, where disruption to natural filtration processes could directly affect operations.

While direct operational dependencies are limited to a few key ecosystem services, material dependencies also arise in upstream value chains, particularly in agriculture, raw material sourcing, and infrastructure systems. Upstream dependencies are further influenced by geographic factors, including exposure to regions where ecosystem services are already under pressure. The concentration of dependencies in a small number of ecosystem services makes them manageable through targeted action, but also means that degradation in those specific services could affect a disproportionate share of the portfolio.

Impacts

The portfolio-wide assessment for 2025 showed that nature-related impacts are not evenly distributed but are structurally linked to certain business models, especially those dependent on natural resource extraction or transformation. While direct operational impacts are generally limited, there are significant environmental pressures concentrated in certain activities, particularly upstream agriculture and materials processing. Land use is the primary driver of negative impact, reflecting its broad influence on ecosystem degradation and biodiversity loss.

At the same time, portfolio companies generate positive contributions by reducing downstream environmental pressure, particularly through circular and resource-efficient solutions. This indicates that companies with higher operational footprints often generate the largest systemic benefits.

The dual perspective, capturing both negative pressures and positive contributions, enables a more complete understanding of portfolio impact.

It supports active ownership by:

- Prioritizing scaling of high-contribution, solution-oriented business models
- Targeting reductions in high-pressure activities within value chains

Across investment themes:

- Circularity delivers the largest positive contribution to reducing planetary pressure, driven by avoided material extraction and waste
- Climate remains the single largest driver of negative nature impact, which reinforces the central role of Summa's Energy Transition theme and the importance of the Climate Action Program
- Land-system change is the largest non-climate driver of negative impact. This is concentrated in food-related value chains connected to assets in the Sustainable Food theme.

Risks

Climate- and nature-related risks are assessed across short-, medium-, and long-term horizons. Risks arise from both dependencies and impacts and are categorized as physical, transition, and systemic.

- **Physical risks** arise from climate change and ecosystem degradation, including acute events (e.g. floods, fires) and chronic shifts (e.g. water scarcity, soil degradation, temperature increases). These risks can disrupt operations, reduce productivity, and affect supply chain stability.
- **Transition risks** result from the shift toward a low-carbon and resource-efficient economy, including regulatory changes, market dynamics, technological disruption, and reputational pressures. These can affect costs, revenues, and valuations, particularly in resource-intensive sectors.
- **Systemic risks** emerge from the combined effects of multiple boundary transgressions, where changes in climate, water systems, land use, and biodiversity reinforce each other and create broader economic instability.

Scenario analysis is used to assess risks across the three categories. Direct physical and transition risk exposure is limited at portfolio level, with average annual loss from physical risk estimated at approximately 1% of revenue in a worst-case scenario. However, risks are concentrated in the upstream value chains of specific companies, particularly those with exposure to agricultural systems and land use, water-dependent processes, and material and energy-intensive supply chains. Identifying these concentrations allows targeted mitigation and engagement.

Opportunities

Opportunities arise from the same underlying systemic shifts that are driving risk. As pressures on climate and natural systems intensify, they are reshaping demand patterns, regulatory environments, and cost structures across the economy, creating new areas for value creation.

Across the portfolio, opportunities are concentrated where business models contribute to reducing dependency on constrained resources, lowering environmental pressure, or enabling system-level efficiency gains.

Opportunities span four key areas:

- **Circular material systems**, where resource constraints and regulation are driving a shift from linear to circular value chains
- **Energy transition**, where demand is accelerating for solutions that enable electrification, grid efficiency, and decarbonization
- **Water and ecosystem resilience**, where increasing scarcity and degradation create demand for treatment, efficiency, and restoration solutions
- **Sustainable food systems**, where the need to reduce land, water, and nutrient pressures is driving innovation across production and supply chains

Summa's portfolio companies are positioned to generate value in these areas by:

- Replacing or reducing reliance on resource-intensive inputs
- Increasing efficiency across value chains
- Enabling customers to operate within tighter environmental constraints

The analysis shows that the largest opportunities are associated with activities that deliver measurable reductions in system-wide pressure, particularly where they address multiple environmental constraints simultaneously. As planetary boundary pressures intensify, demand is expected to increase for solutions that improve resource productivity, reduce exposure to climate impacts, and support compliance with emerging regulatory standards.

Nature-related dependencies, impacts, risks and opportunities

TNFD DIRO summary – Portfolio-level assessment 2025

DEPENDENCIES

- **Water** – most material group: flow regulation (59% AUM), purification (57%), supply (54%) rated medium or above
- **Waste & atmosphere** – solid waste remediation and atmospheric regulation affect ~46–49% of AUM
- **Flood & storm** – 21% of AUM, concentrated in Nordic geographies
- **Upstream** – agriculture, raw materials, and infrastructure systems drive indirect exposure

Dependencies are location-specific and concentrated, with resilience linked to stable ecosystem functions.

IMPACTS

- **Land-system change** – largest pressure source (46%), concentrated in food value chains
- **GHG emissions** – 2,543 ktCO₂e total portfolio (2025); second-largest biodiversity driver
- **Concentration of impact** – 96% of pressure in Circularity and Sustainable Food; 60% of negative impact in 15% of AUM
- **Contribution** – ~1,300m PDF·m²·yr avoided vs. 817m pressure (~1.6× positive ratio)

Higher-impact companies also deliver the largest avoided impacts.

RISKS

- **Flood** – 73% AUM high risk (Norway-driven) High
- **Landslide** – 54% AUM high risk High
- **Air temperature** – 86% AUM high chronic exposure Medium
- **Extreme heat** – 9% AUM high risk (US/Europe) High
- **Financial** – AAL <1% of revenue across scenarios
- **Transition** – 100% low risk at 2030; only GHG pricing flagged as material Low

Low direct risk to assets, but material risks in upstream value chains (agriculture, water).

OPPORTUNITIES

- **Positioning** – portfolio built around planetary boundary constraints and system transitions
- **Solution areas** – circular materials, energy transition, water & ecosystem resilience, sustainable food
- **Quantified upside** – ~1.6× positive ratio of contribution vs. pressure;
- **Active ownership** – SBTi coverage 68% (2025), targeting 100% by 2030

Opportunities are strongest where companies reduce system-wide pressure while scaling commercially.

3.2 Investment strategy aligned with climate and nature opportunities

Summa's thematic investment strategy targets opportunities aligned with planetary boundaries. Dependencies, impacts, risks, and opportunities are assessed early in the investment process through structured theories of change linking system-level challenges to business models. These frameworks help identify high-impact opportunities while systematically assessing risks related to physical exposure, regulatory developments, supply chains, and resource availability.

The strategy is structured around four core investment themes where structural pressures create demand for scalable solutions and where financial returns align with reduced environmental pressure.

Within each theme, Summa targets opportunity sets that are not only resilient but increasingly supported by regulatory momentum, technological change, and shifting demand patterns. Sub-themes and prioritized investment areas are informed by over a decade of thematic research and pattern recognition, as well as an evolving understanding of where system-level constraints translate into investable growth.

1. Circularity

This theme is directly linked to reducing pressure on climate and land-systems from resource extraction and pollution, while enabling circular material flows and improved ecosystem outcomes.

Global challenge: Europe's material system faces structural pressures from resource scarcity, tightening regulation, and increasing waste volumes.

Market opportunity: ~EUR 1.9 trillion by 2040

Sub-themes and prioritized areas:

- **Waste & Recycling:** Sorting and recycling infrastructure, construction and demolition waste, hazardous waste management.
- **Sustainable Materials:** Circular materials and packaging, sustainable building materials.
- **Water:** Water treatment, water infrastructure services, industrial water solutions.
- **Depollution:** Air monitoring and treatment, soil remediation, hazardous waste processing.

2. Sustainable Food

This theme targets opportunities aligned with the reduction of land-system change, improved water use efficiency, and mitigation of other factors driving biodiversity loss across food value chains.

Global challenge: Interlinked health and environmental pressures across the food system, including ocean degradation, land use pressure, and food waste.

Market opportunity: ~USD 740 billion (~EUR 630 billion) by 2035

Sub-themes and prioritized areas:

- **Sustainable Aquaculture:** Sustainable fish farming, aquaculture technology and feed.
- **Alternative Proteins & Ingredients:** Novel protein sources, functional ingredients, fermentation-based solutions.
- **Next-Generation Agriculture & Enabling Systems:** Precision agriculture, input optimization, agricultural technology platforms.
- **Food Waste & Safety:** Food waste reduction technologies, cold chain solutions, food safety and traceability.

3. Energy Transition

This theme captures the central role of climate as a driver of nature-related risk and sustainable energy as a key lever for reducing system-wide environmental pressure.

Global challenge: Energy market volatility, aging infrastructure, and accelerating demand require large-scale decarbonization and system transformation

Market opportunity: ~EUR 560 billion in Europe and North America by 2030.

Sub-themes and prioritized areas:

- **Sustainable Generation:** Renewable energy services, energy efficiency solutions, building energy management.
- **Enhanced Grids:** Grid digitization, infrastructure services, smart metering and monitoring.
- **Industrial Transition:** Industrial decarbonization, electrification of processes, carbon capture enablers.
- **System & Services Flexibility:** Energy storage, demand-side flexibility, energy-as-a-service platforms.

4. Tech-Enabled Resilience

The focus of this theme is not exclusively environmental. However, a core objective is enabling resilience across economic systems, including those increasingly exposed to climate- and nature-related disruptions.

Global challenge: Rising systemic risks related to technological, regulatory, and demographic pressures, including cyber threats, aging populations, and data governance.

Market opportunity: ~USD 1.4 trillion (~EUR 1.25 trillion) by 2030¹.

Sub-themes and prioritized areas:

- **Cyber & Data Security:** Cybersecurity platforms, data protection, SIEM and log management.
- **Governance, Risk & Compliance (GRC):** EHS and compliance software, regulatory technology, risk management platforms.
- **Grid Digitization:** Grid monitoring and analytics, utility software, infrastructure protection.
- **Care Tech:** Digital care platforms, care coordination technology, elderly care systems.

3.3 Climate and nature in the pre-investment process

5. Capital allocation

Capital allocation refers primarily to investment selection and portfolio construction, determining how capital is directed toward sectors, business models, and companies. This is complemented by targeted capital deployment during ownership, where relevant.

Summa's planetary boundaries approach is embedded in the investment process and informs capital allocation decisions across all themes. The main purpose is to direct capital toward investments that combine competitive returns with measurable positive contribution and reduced environmental pressure.

As a result of this approach, capital is allocated toward:

- Business models that improve system efficiency
- Solutions addressing structural constraints in energy, materials, water, and food systems
- Scalable companies positioned to benefit from tightening environmental limits.
- Technology-based platforms that build societal resilience, with low dependency on physical assets and natural resources

¹The majority of this market opportunity not directly linked to climate and nature.

During ownership, additional capital may be deployed selectively to support scaling of solutions, operational improvements, or mitigation of identified risks, where this enhances long-term value creation.

Portfolio exclusions

Certain sectors are excluded due to their high exposure to climate and nature risk or their misalignment with long term system stability.

The exclusion list includes controversial weapons, tobacco, coal (>1% revenue), oil (>10%), gas (>50%), high-GHG electricity (>100g CO₂e/kWh) and companies in breach of UNGC or OECD standards.

EU Taxonomy

Taxonomy eligibility and alignment are used by Summa as additional tool to identify and evaluate investments that contribute to climate- and nature-related objectives. The main purpose is to provide a consistent and comparable classification of economic activities that are aligned with science-based thresholds for environmental sustainability under the EU regulatory framework.

In practice, taxonomy eligibility and alignment support early-stage screening of business models and companies, enabling systematic integration of regulatory definitions of sustainable activities into investment decisions.

In a context where measurement frameworks for nature are still evolving, EU Taxonomy metrics provide a useful, if partial, lens for directing capital toward activities consistent with a transition to a low-impact and resource-efficient economy.

Financial materiality

During due diligence, Summa seeks to understand how climate- and nature-related issues translate into financial outcomes at portfolio company level.

Environmental constraints increasingly affect financial performance through their impact on revenues, costs, capital requirements, and asset values. Resource scarcity, regulatory developments, and physical disruption can increase operating costs and capex requirements, while shifts in demand and policy can affect revenue growth and market positioning.

During due diligence, Summa assesses how these factors influence financial performance through:

- Exposure to physical and transition risks affecting cost structures and operational continuity
- Dependence on constrained resources such as water and land, with implications for input costs and availability
- Sensitivity to regulation and market shifts including pricing, compliance costs, and demand shifts
- Capacity to deliver solutions that measurably improve environmental outcomes and support revenue growth

Risk assessment extends across the value chain, where upstream exposure to ecosystem degradation, resource constraints, and regulatory changes can affect both cost stability and supply chain resilience.

3.4 Climate and nature in the ownership phase

Climate and nature considerations continue to inform strategy during ownership, with engagement priorities guided by company-level risk and impact assessments. While risk assessment results indicate relatively low risk exposure, there are significant untapped opportunities in the markets where our companies operate.

As an active owner, Summa focuses on translating company-specific assessments into operational and strategic improvements at portfolio company level. This includes:

- Implementing science-based approaches to monitor and mitigate negative environmental impact
- Identifying and managing risks related to ecosystem degradation and resource constraints
- Encouraging the implementation of solutions that improve environmental outcomes

Engagement on pressures and dependencies is prioritized where these are most concentrated, for example through initiatives related to material sourcing or energy consumption.

The portfolio-level analysis also shows that companies with larger operational footprints often combine higher direct impacts with significant avoided impacts. This is particularly evident in the Circularity theme, where business models generate system-level benefits by reducing material extraction and waste. This highlights the importance of a balanced assessment of both environmental pressure and positive contribution when defining ownership priorities.

Overall, ownership activities are focused on improving resilience and value creation by addressing material climate- and nature-related risks while strengthening the portfolio company contributions to a more resource-efficient and stable economic system.

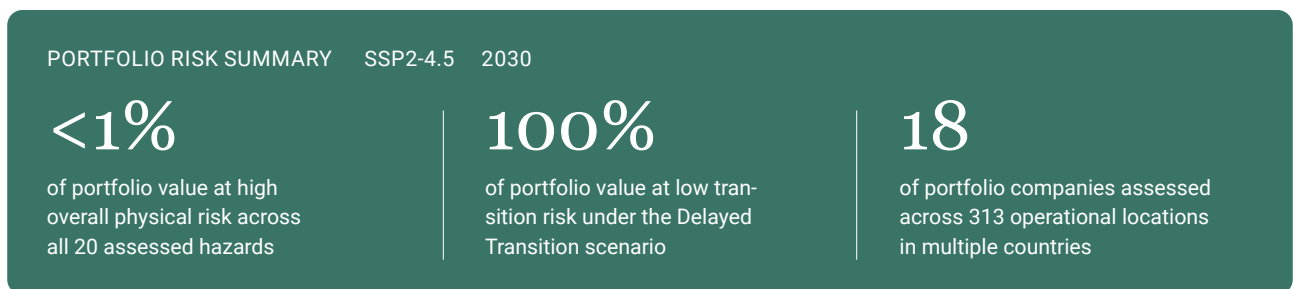
3.5 Resilience and scenario analysis

Summa’s strategy is designed to be resilient to environmental and social megatrends, focusing on industries that are needed across multiple climate change scenarios.

In 2025, we conducted our second comprehensive risk assessment across the portfolio, drawing on both qualitative and quantitative approaches. The assessment uses scenario analysis based on three Shared Socioeconomic Pathways (SSPs) from the IPCC Sixth Assessment Report: SSP1-2.6 (rapid sustainability transition, approximately 1.8°C by 2100), SSP2-4.5 (middle-of-the-road, approximately 2.7°C), and SSP5-8.5 (high-end risk case, approximately 4.4°C). SSP2-4.5 is used as the reference scenario. Physical risks are assessed at the site level across all 313 operational locations of 18 portfolio companies, using science-based hazard modeling and geospatial mapping supported by AXA Climate. Risk scores are generated for each of the 20 assessed hazards under each scenario and aggregated to the company and portfolio level weighted by AUM. Transition risks are assessed under three NGFS scenarios across two time horizons, aligned with TCFD recommendations.

The results show that direct physical risk exposure across the portfolio is limited, with less than one percent of portfolio value classified as high risk when averaged across the assessed hazards. At the same time, a large share of the portfolio depends on the continued functioning of ecosystem services, particularly regulating functions such as flood mitigation, storm protection, and water flow regulation. This indicates that the current risk profile is partly supported by stable natural systems, and that degradation over time could increase exposure.

Transition risk exposure is also low. Under a delayed policy scenario, the full portfolio is classified as low transition risk by 2030. This reflects a strategy focused on companies that provide solutions aligned with structural shifts, with limited exposure to tightening regulation or adverse market re-pricing.



3.5.1. Physical risk exposure

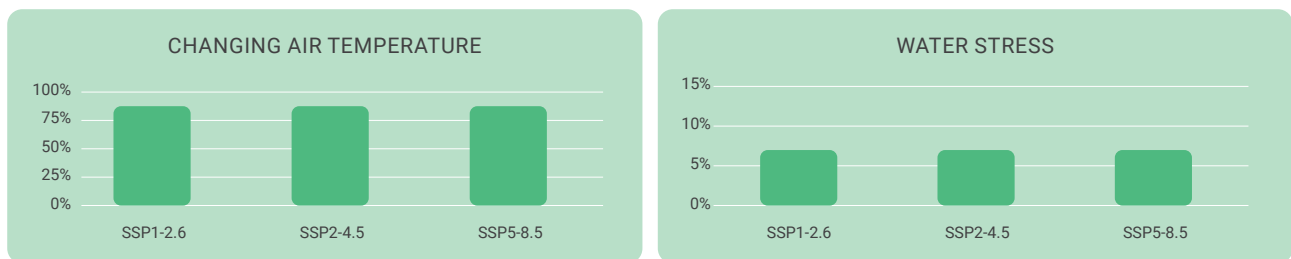
Chronic physical climate risks by 2030

Rising air temperature is the most pervasive chronic climate risk across the portfolio. Under SSP2-4.5 at 2030, 85.8 percent of AUM is classified as high risk. Exposure is consistent across all three scenarios, confirming that near term warming is already embedded in the climate system regardless of future policy choices. The financial impact is gradual but material over time, driven by higher cooling costs, increased stress on infrastructure designed for historical conditions, and reduced operational efficiency where heat affects workforce productivity and equipment performance.

Water stress and changing precipitation patterns show limited exposure at 2030. All other chronic hazards are negligible at portfolio level.

Relative share of portfolio AUM exposed to physical climate risks SSP1-2.6, SSP2-4.5, SSP5-8.5 · 2030

Chronic risks



*Share of total portfolio AUM at high risk per hazard, weighted by invested capital. Three IPCC AR6 Shared Socioeconomic Pathways shown on x-axis. All figures at 2030 horizon. Source: AXA Climate Altitude platform. Hazards showing negligible or zero portfolio AUM exposure are excluded from this chart.

Acute physical climate risks by 2030

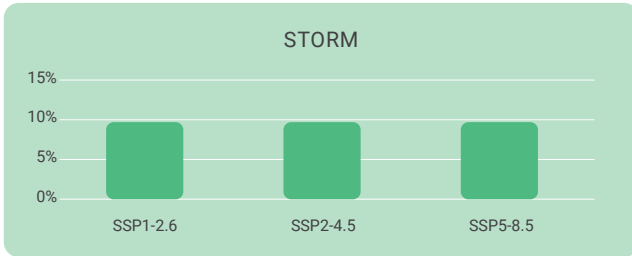
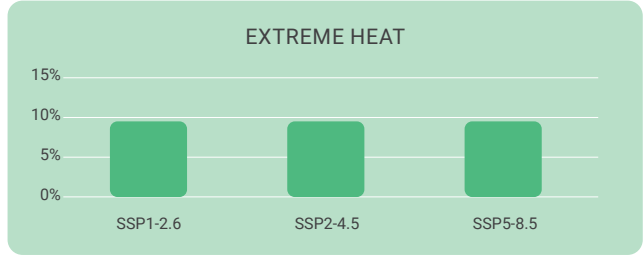
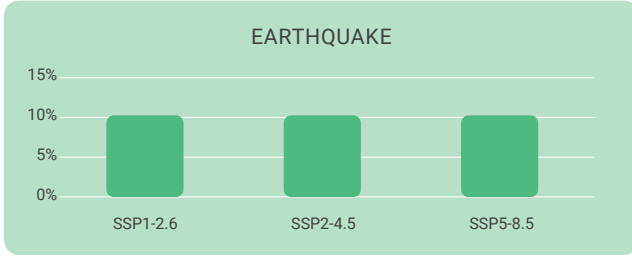
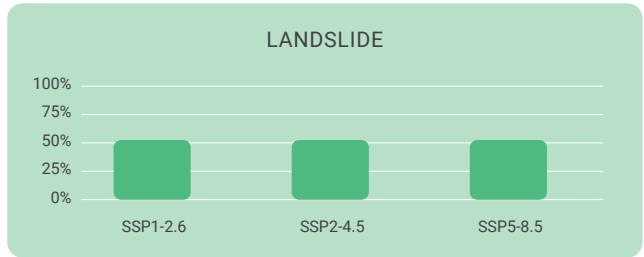
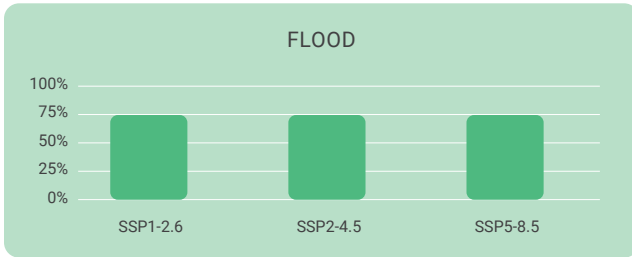
The portfolio shows a resilient acute risk profile overall, with less than 1 percent of AUM classified as high combined physical risk across all 20 assessed hazards.

Flooding is the most significant acute risk. Under SSP2-4.5 at 2030, 73.4 percent of AUM is classified as high flood risk, stable across all scenarios and driven by the concentration of assets in Norwegian geographies. Eleven of the 18 portfolio companies are classified as high risk. Landslide risk affects 53.5 percent of AUM at high risk, driven by the same geographic concentration. Given the shared drivers and response measures, flood and landslide are managed together. The priority is to validate model results against site-specific conditions, assess existing mitigation measures, and where needed strengthen resilience through physical protection, continuity planning, and insurance coverage.

Extreme heat affects 9.4 percent of AUM at high risk under SSP2-4.5 at 2030, concentrated in a limited number of US-based locations. This is the only hazard where risk diverges meaningfully across scenarios over time, with higher warming pathways increasing exposure by 2050. Because chronic temperature rise and extreme heat reflect the same underlying pressure, they are managed together through company-level assessment of exposure and implementation of heat mitigation and operational resilience measures.

Earthquake risk affects 10.4 percent of AUM at high risk. This is driven by asset location and is not climate-related or scenario-dependent. Storm, hailstorm, and drought each affect less than 10 percent of AUM. All other acute hazards are negligible.

Acute risks



*Share of total portfolio AUM at high risk per hazard, weighted by invested capital. Three IPCC AR6 Shared Socioeconomic Pathways shown on x-axis. All figures at 2030 horizon. Source: AXA Climate Altitude platform. Hazards showing negligible or zero portfolio AUM exposure are excluded from this chart.

DELAYED TRANSITION SCENARIO · 2030 · 18 PORTFOLIO COMPANIES

100% of portfolio value classified as low transition risk
Even under a scenario of slow and delayed policy action

By systematically selecting companies on the solution side of structural economic transitions, we have built a portfolio whose exposure to regulatory tightening and shifting market conditions is structurally limited, and whose opportunity exposure **grows as the pace of transition accelerates.**

Source: AXA Climate Altitude platform · NGFS Delayed Transition scenario · EUR 3.08bn total AUM · Of ten transition risk categories assessed, GHG emissions pricing is the only one flagged as a potential area of exposure at 2030.

3.5.2. Transition risk exposure

Transition risk is assessed through both the investment process and quantitative scenario analysis. The results of the most recent assessment confirm a low transition risk profile. Under the Delayed Transition scenario, 100% of AUM is classified as low risk at 2030. Under a Net Zero pathway, greenhouse gas pricing is the only category identified as a potential exposure for part of the portfolio at 2030. All other transition risk categories show limited or negligible exposure across scenarios.

Transition risk is addressed at the portfolio construction level through the theory of change frameworks described above. By investing in companies providing solutions to structural global challenges, the portfolio does not carry material exposure to stranded assets, fossil-dependent business models, or adverse regulatory change in a slow-transition environment.

This is complemented by a quantitative assessment aligned with TCFD recommendations. The analysis uses NGFS scenarios across three pathways and two time horizons. Results should be interpreted alongside the qualitative assessment, as standard industry models do not differentiate between companies driving the transition and those exposed to it.

Of the ten transition risk categories assessed, GHG emissions pricing is the only one flagged as a potential area of exposure under a Net Zero pathway at 2030. All other categories, including mandates on existing products, energy efficiency regulation, litigation exposure, technology transition costs, and stakeholder concerns, show limited or negligible exposure across all scenarios. Where sensitivity to emissions pricing is identified, we engage with portfolio companies to understand underlying drivers and determine whether mitigation actions are required.

Across both physical and transition dimensions, risk exposure remains limited at portfolio level but concentrated in specific locations and value chains, allowing for targeted management through active ownership.

3.6 Location of assets and operations

3.6.1. Acute physical risk by geography

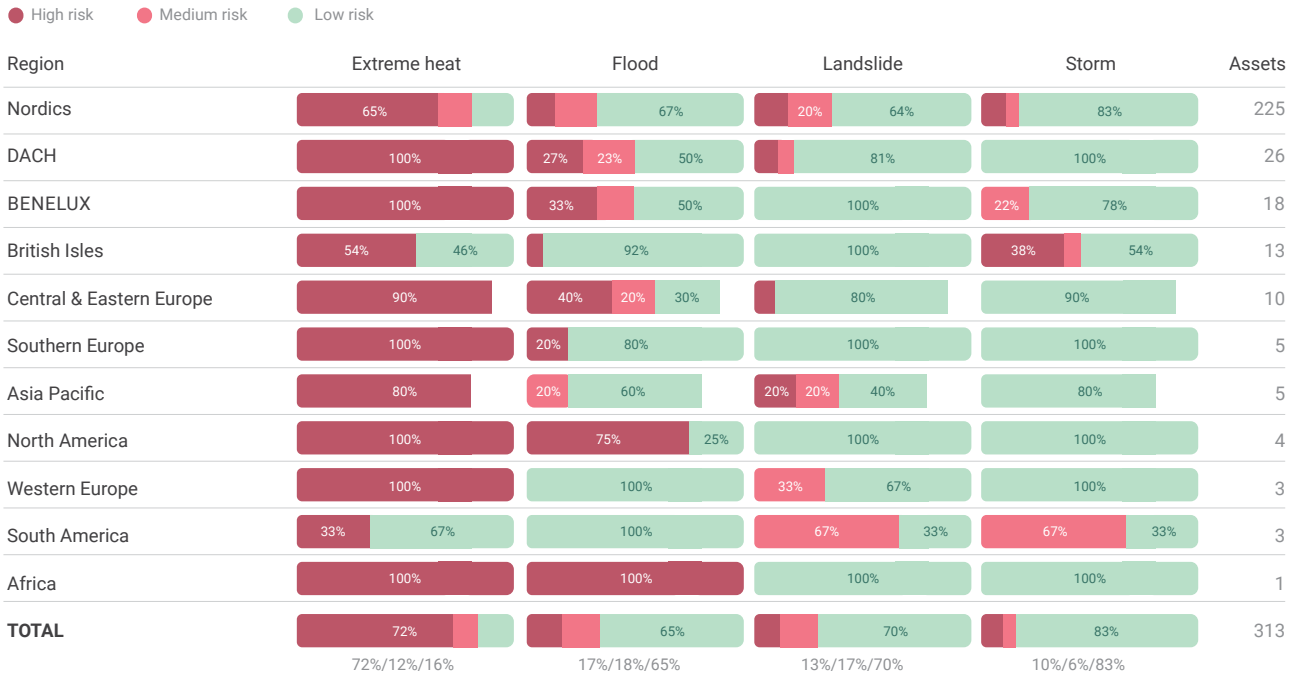
The table below shows the proportion of assessed locations classified at high, medium, or low risk for the four most material acute physical hazards, aggregated by geography under SSP5-8.5 at 2050. The acute hazards shown here are categories where exposure varies meaningfully by location and where targeted risk management is most actionable.

The Nordics account for 72 percent of assessed locations and concentrate the majority of the portfolio's flood and landslide exposure, driven by the footprint in Norwegian coastal and mountainous terrain. Flood risk is high at 30 Nordic locations and medium at a further 44, while landslide is high at 36 and medium at 46. Storm exposure is similarly concentrated along the Norwegian western coast. Outside the Nordics, flood risk is elevated in DACH (27% of locations at high risk), BENELUX (33%), and North America (75%), though sample sizes in these regions are small. Extreme heat is high at 72% of all assessed locations and is the one hazard where long-run emissions trajectories produce meaningful divergence, with high-risk exposure rising materially by 2050 under higher-warming scenarios.

At the portfolio level, the composite physical risk remains below 1% of AUM at high overall risk when all 20 assessed hazards are aggregated and weighted.

Acute physical hazard exposure by geography

Share of assessed locations at high, medium and low risk per hazard (% of regional locations)



Source: AXA Climate Altitude | SSP5-8.5, 2050

3.6.2. Priority locations

Priority locations – physical risk

The map below identifies 50 locations where risk is rated high in four or more of the 20 physical hazard categories assessed under SSP5-8.5 at 2050. This captures sites where multiple hazards converge, as compound exposure can generate consequences greater than the sum of individual hazard exposures. Thirty locations (60%) are in Norway, with a further six in Finland and three in Sweden. The remaining 11 are distributed across Austria, Chile, India, Kenya, Nepal, North Macedonia, Singapore, and the United States. Changing air temperature and changing precipitation patterns are high risk at nearly all priority locations. Risk of extreme heat is high at 37 locations (74%), flood at 30 (60%), landslide at 26 (52%), and storm at 12 (24%). The Norwegian concentration reflects the co-occurrence of flood, landslide, and storm exposure in coastal and mountainous terrain.

These results are used to inform engagement with portfolio companies on physical climate resilience, including review of existing mitigation measures and business continuity preparedness where relevant. The priority location screening is expected to be updated annually as part of Summa’s broader risk monitoring process.



Figure 10: Priority locations – physical risk. Sites with four or more hazard categories rated high under SSP5-8.5 at 2050

Priority locations – biodiversity risk

Summa identifies priority locations based on two dimensions: areas of interest to biodiversity (which captures proximity to protected areas, Key Biodiversity Areas and other recognized biodiversity zones) and threatened species (which captures proximity to habitats of IUCN Red List species). Risk classification are generated by the AXA Climate Altitude platform, which screens each asset’s geographic coordinates against spatial biodiversity databases. Assets are classified based on their distance to the nearest recognized area or habitat, with closer distances producing higher risk ratings. Across the portfolio, the overall biodiversity proximity profile is benign. No company has a high share of locations near threatened species habitats, and no portfolio AUM is classified at high risk on that dimension.

The screening identifies ten priority locations across six portfolio companies in Norway, Sweden, and Germany. Seven locations are classified as high risk for proximity to areas of biodiversity interest, each situated within one kilometer of one or more legally protected, internationally recognized, or legally registered areas. Three additional locations are flagged for medium risk for threatened species with habitat recorded within 100 meters, including proximity to one critically endangered species at two of the three sites. No location in the portfolio is classified as high risk for proximity to threatened species, and there are no identified sites where company operations are assessed as materially affecting protected areas or threatened species habitats.

All ten priority locations are storage, logistics, manufacturing, or office sites with limited direct land-use impact. The geographic distribution, shown in the map below, is concentrated in the Nordic region and reflects the same coastal footprint that drives the portfolio’s physical risk exposure.

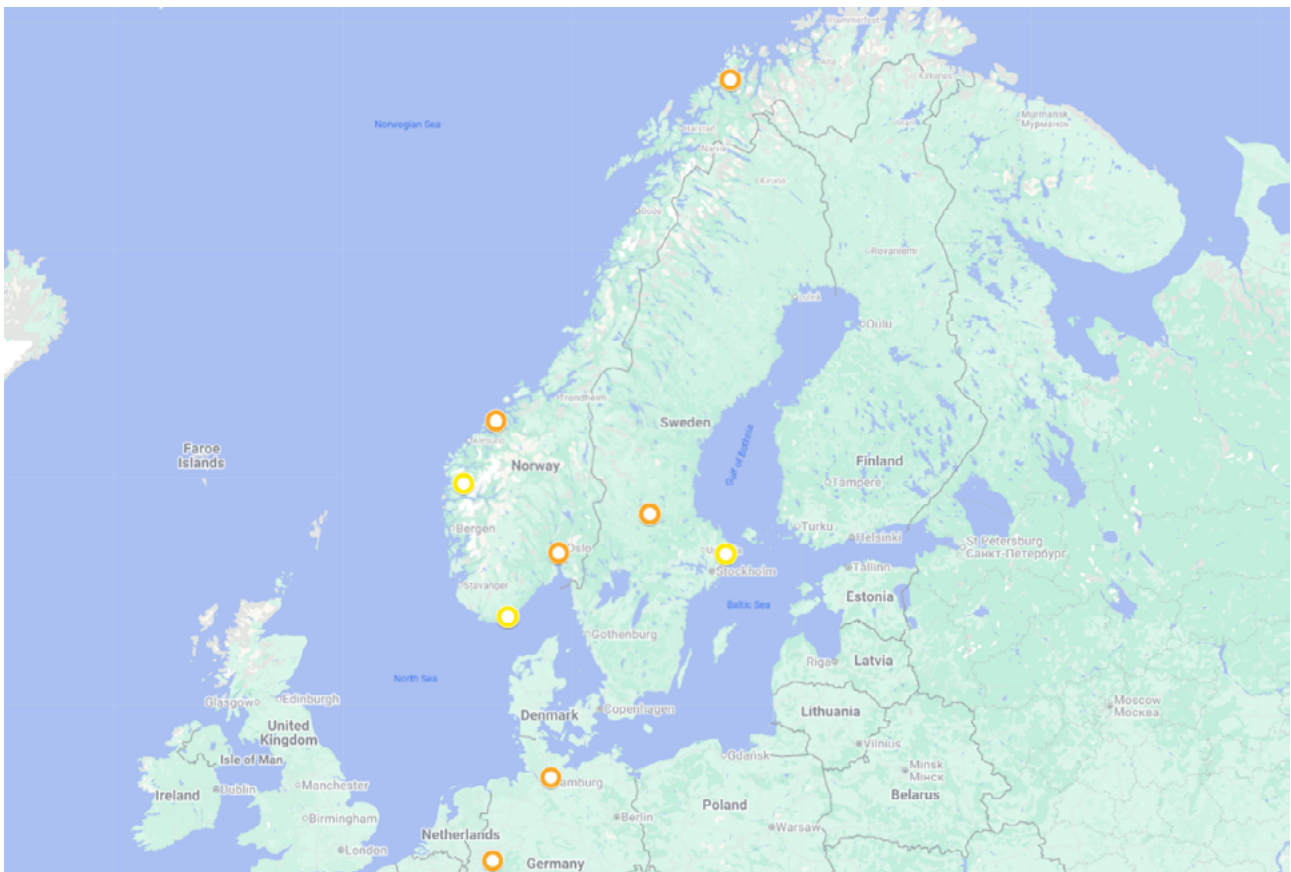


Figure 11 Priority locations – biodiversity risk. Locations rated high risk due to proximity to areas of biodiversity interest, and non-office locations rated medium risk due to proximity to threatened species

It is important to note that proximity does not equate to impact. A location can be located near a protected area without exerting negative pressure. The site-level risk indicators should be read alongside the sector-level impact and ecosystem service dependency ratings (presented separately in this report), which provide the complementary lens on whether portfolio companies’ activities are likely to affect the natural systems located near their operations.

Locations and sites in upstream value chains

Although upstream value chains are a material source of environmental pressure across the portfolio, information on specific locations and sites in these chains is not systematically collected. Instead, upstream exposure is assessed through sector-level screening using ENCORE and through the life-cycle assessment models applied in Summa's planetary boundary impact assessment, which quantifies nature impact across the full value chain. Improving the data on specific upstream location data will be prioritized where relevant.

4. Risk Management

Identifying risk is only useful if it leads to action. Translating portfolio-level environmental analysis into targeted, company-level intervention requires a structured process – one that connects ecosystem dependencies and impact hotspots to concrete ownership decisions.

4.1. Process to identify, assess, prioritize, and monitor climate- and nature-related risks

Summa identifies dependencies, impacts, risks and opportunities through annual assessments aligned with TNFD, integrating consideration of climate and nature-related dependencies and impacts into decision-making. Summa has adopted the LEAP framework as a structured mechanism for translating portfolio-level analysis into company-level action. The framework provides a consistent methodology for identifying, quantifying, and managing climate and nature-related risks and opportunities across the portfolio.

Exposure to climate and nature-related risks is assessed on at least an annual basis. In addition, an initial assessment is conducted during the screening and due diligence process, where we evaluate the physical and transitional risk exposure of a target. Where possible, we evaluate risk exposure in financial terms, such as climate-adjusted EBITDA. We view sustainability risks as business risks and give them equal weight in decision-making. Risks are prioritized by financial impact, with scenario analysis evaluating ecological thresholds. Summa's geographic risk assessment considers risks specific to the region where each facility is located.

4.1.1. Step 1 – Locate: Identifying nature interfaces across the portfolio

The first phase focuses on identifying where portfolio companies interface with nature. Summa applies ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure), complemented by in-house tools and the AXA Climate Altitude biodiversity assessment platform, to screen all portfolio companies for material nature-related dependencies and impacts. This process captures both direct operational interfaces, such as energy use, land occupation, and water withdrawal, and indirect exposures embedded in upstream and downstream value chains, including raw material sourcing, waste generation, and product end-of-life. The screening also identifies which ecosystem services are directly material to each company's operations and supply chain resilience. The output is a prioritized set of companies and impact pathways with the highest likelihood of material nature-related exposure, forming the basis for further analysis.

4.1.2. Step 2 – Evaluate: Quantifying impacts across planetary boundary processes

Building on the location and screening phase, the Evaluate step translates exposures into quantified environmental impacts. For each prioritized company, Summa develops impact models based on life-cycle assessment data, mapping activities across Scope 1, 2, and 3 to a full spectrum of environmental midpoint pressures. The resulting impacts are aggregated into a single environmental pressure endpoint expressed in $\text{PDF}\cdot\text{m}^2\cdot\text{yr}$, and in parallel translated into a regionalized monetary valuation. The same methodology is applied to quantify avoided impacts using conservative baseline and attribution assumptions, capturing the benefits generated by displacing more harmful alternatives. Each pressure is also mapped to the most closely connected planetary boundary. The methodology is described in detail in the Appendix.

Alongside impact quantification, the evaluation assesses the materiality of ecosystem dependencies by examining the degree to which individual company operations rely on the ecosystem services identified in the sector-level screening. Dependencies are evaluated against the status of the planetary boundaries to which they are connected, particularly those that are already transgressed.

4.1.3. Step 3 – Assess: Identifying risks, hotspots, and cross-boundary trade-offs

The Assess phase interprets the results of the preceding steps to identify risks and pinpoint the areas where pressures are most concentrated within each company's operations and value chains. This analysis highlights critical supply chain hotspots, for example emissions-intensive material inputs or environmentally intensive production systems, as well as potential trade-offs across boundaries where reducing pressure on one may increase it on another.

On the dependency side, the assessment identifies which companies face the greatest operational risk from ecosystem service loss, with emphasis on the geographic context of that exposure. Scenario-based physical and transition risk

modeling provides the forward-looking dimension, evaluating how different climate and policy pathways affect exposure over time, as discussed in section 3.5.

4.1.4. Step 4 – Prepare: Translating analysis into action and disclosure

Finally, the Prepare phase ensures that insights are translated into concrete actions and embedded into active ownership practices. For each portfolio company, the analysis yields a set of targeted intervention levers addressing both impact and dependency dimensions. Impact-side interventions may include supplier engagement on sustainable sourcing, operational efficiency improvements, or strategic shifts toward lower-impact customer segments. Prioritized dependency-side actions may focus on building resilience to ecosystem service loss, for example asset-level validation of physical risk exposure, or integration of nature dependency into company-level business continuity planning.

Individual company actions are complemented by portfolio-wide initiatives, including the requirement for all companies to follow Summa's Climate Action Program and to work toward validated Science-Based Targets for emissions reduction.

The cycle from portfolio to planet

The LEAP process is designed as a continuous cycle. The climate and nature assessments are conducted annually, creating a feedback loop of measurement, action, and remeasurement. Each iteration refines the underlying data, updates company-level models with current operational information, and evaluates whether implemented actions have delivered measurable reductions in environmental pressure and whether the portfolio's dependency exposure has been materially reduced. Because both negative impacts and avoided impacts are assessed using the same LCA infrastructure and valuation framework, the approach enables direct comparability between footprint and contribution, expressed both in biophysical terms (PDF·m²·yr) and monetized societal value (EUR). This provides a transparent mechanism for assessing whether capital is being deployed effectively to reduce systemic pressure on the planetary boundaries.

4.2. Sector based materiality ratings: dependencies and impacts

4.2.1. Dependencies

The results of Summa's ENCORE-based portfolio screening reveal a portfolio with moderate overall nature-related dependencies, concentrated in a low number of sectors and ecosystem services. The pattern is consistent with a portfolio anchored in circularity, technology and services, where the heaviest dependencies and impacts are associated with water-dependent activities, materials-handling and upstream agricultural supply chains.

Direct dependencies

The portfolio's most material dependencies relate to water regulation and supply. Water flow regulation is rated medium or higher for activities representing 59% of the portfolio, driven by the prevalence of industrial processes, waste handling, and food-related activities that depend on reliable access to water. Similarly, water purification is rated medium or above across 57% of the portfolio, and water supply 54%. Aquaculture and food manufacturing carry the highest level of dependency, both rated high.

Flood and storm mitigation are rated at medium dependency or above for 21% of the portfolio, concentrated in manufacturing, electric power generation, food retail, food manufacturing and aquaculture.

These results indicate that degradation of water-regulating ecosystem services could translate into physical risk for a significant share of the portfolio, particularly in Norwegian coastal and mountainous regions where steep terrain may amplify flood and landslide exposure. These dependencies are closely linked to the physical hazards identified in the scenario analysis as the portfolio's primary area of geographic risks.

Other dependencies

Solid waste remediation is rated medium or above for 47% of portfolio exposure, reflecting the waste treatment sector's fundamental reliance on environmental systems for processing outputs. Rainfall pattern regulation and atmospheric dilution services show similar exposure levels (49% and 46% respectively), again concentrated in waste-related and food sectors.

Across the remaining ecosystem services, the portfolio shows low to very low dependency. Service-oriented and technology sectors have limited direct operational dependence on ecosystem services as captured by ENCORE. Material dependencies in these sectors are more likely to emerge through upstream value chains, where circularity and food-related activities depend on stable raw material sourcing and agricultural ecosystems.

Link to risks and opportunities

Ecosystem dependencies can manifest as physical risks (water scarcity affecting supply chains), transition risks (stricter regulation of water use or pollution), or systemic risks (broader ecosystem decline affecting multiple sectors). However, they may also create opportunities for portfolio companies that provide the solutions benefitting nature, from circular material recovery to climate-resilient infrastructure. Summa's thematic investment focus (Circularity, Sustainable Food, Energy Transition, and Tech-Enabled Resilience) is deliberately aligned with addressing these dependencies.

Table 1. ENCORE - Portfolio most material dependencies

Very high ● High ● Medium ● Low ● Very low ●

ISEC	Portfolio %	Water supply	Air Filtration	Biological Control	Global Climate Regulation	Local (micro and meso) climate	Soil and sediment retention	Water Flow Regulation	Water Purification	Flood Mitigation Service	Storm Mitigation	Noise attention	Solid Waste Remediation	Rainfall Pattern Regulation	Education, scientific and research	Other regulating and maintenance	Other regulating and maintenance
Waste treatment & disposal	40.3%	●	●	●	●		●	●	●	●	●	●	●	●		●	●
Computer programming, consultancy and related activities	27.2%	●		●	●	●	●	●		●	●			●			
Retail trade not in stores, stalls or markets	7%	●	●		●	●	●	●		●	●						
Aquaculture	5.7%	●	●	●	●	●	●	●	●	●	●		●	●		●	
Wholesale on a fee or contract basis	4.9%	●			●	●	●	●		●	●						
Other professional, scientific and technical activities n.e.c.	4.4%	●				●	●	●	●	●	●	●			●		●
Manufacture of computers and peripheral equipment	5%	●	●		●	●	●	●	●	●	●	●	●	●		●	●
Manufacture of electric motors, generators, transformers & electric distribution & control apparatus	2.7%	●	●		●	●	●	●	●	●	●	●	●	●		●	●
Manufacture of special-purpose machinery	2.6%	●	●		●	●	●	●	●	●	●	●	●	●		●	●
Electric power generation, transmission and distribution	2%	●			●	●	●	●		●	●	●	●	●			
Retail sale of food, beverages & tobacco in specialized stores	1.7%	●	●	●	●	●	●	●		●	●			●			
Manufacture of other food products	0.9%	●	●	●	●	●	●	●	●	●	●		●			●	



Value chain and geographic considerations

Although direct dependencies are low to moderate across the portfolio, material dependencies do occur in upstream value chains. For example, circularity and food-related activities are sensitive to disruptions in raw material sourcing and agricultural ecosystems, while manufacturing depend on reliable energy and water infrastructure. To complete the assessment of dependencies and risks Summa also conducts a geospatial assessment incorporating location-specific factors (e.g., proximity to water-stressed basins and biodiversity-sensitive areas).

4.2.2. Impacts

As part of the portfolio materiality screening, each invested sector is mapped against the impact categories found in the ENCORE database. Pressure materiality is concentrated in two sectors, while the majority of the portfolio carries a lower materiality profile across pressure categories.

Waste treatment and disposal shapes the overall impact profile, with high ratings for GHG emissions, disturbances, and pollutant emissions across soil, water, and nutrient pathways. This sector's weight drives high portfolio-level exposure across multiple impact categories: disturbances at 82% Medium or above, land use at 75%, water use at 65%, GHG emissions at 62%, and toxic pollutant emissions at 59%.

Aquaculture has the most intense impact profile, including a very high materiality rating for biotic resource extraction and high ratings across six additional categories. Toxic soil and water pollutant emissions extend beyond these companies tied to electronics manufacturing, where supply chain pressures drive high ratings.

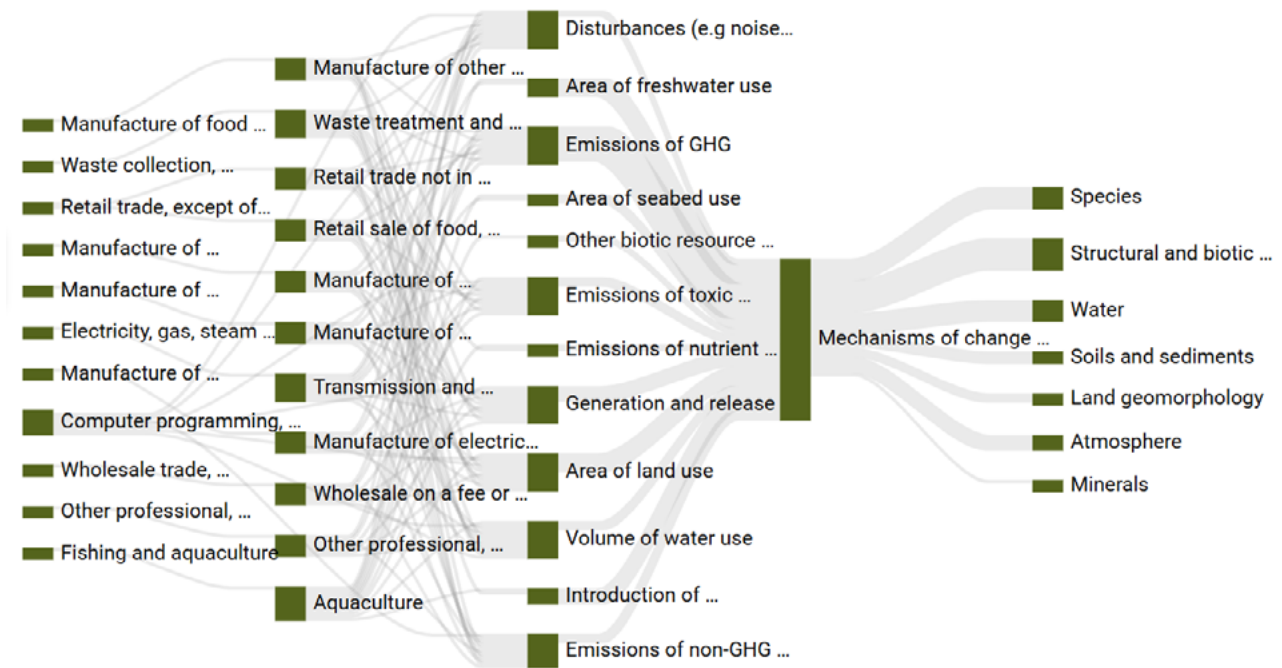
By contrast, the portfolio's larger service-oriented allocations, computer programming (23%), professional services (4%), and online retail (7%), show predominantly very low to low impact materiality, with energy-related emissions as their most notable pathway. Their asset-light operating models result in limited direct environmental pressure.

This screening provides a structured foundation for the prioritization of companies for in-depth impact measurement assessment, and for engagement on the most material pressures.

Table 2. ENCORE - Portfolio sector based pressure materiality rating

Very high ● High ● Medium ● Low ● Very low ●

ISEC	Portfolio %	Disturbances (e.g noise, light)	Area of freshwater use	Emissions of GHG	Area of seabed use	Emissions of non-GHG air pollution	Other biotic resource extractor	Emissions of toxic soil and waste	Emissions of nutrient soil and waste	Generation and release of solid waste	Area of land use	Volume of water use	Introduction of invasivespecies
Waste treatment & disposal	40.3%	●		●		●		●	●	●	●	●	●
Computer programming, consultancy and related activities	22.7%	●		●		●		●		●	●	●	
Retail trade not in stores, stalls or markets	7%	●		●		●		●		●	●	●	
Aquaculture	5.7%	●	●	●	●		●	●	●	●	●	●	●
Wholesale on a fee or contract basis	4.9%	●		●		●		●		●	●	●	
Other professional, scientific and technical activities n.e.c.	4.4%	●		●		●		●		●	●	●	
Manufacture of computers and peripheral equipment	5%	●		●		●		●		●	●	●	
Manufacture of electric motors, generators, transformers & electric distribution & control apparatus	2.7%	●		●		●		●		●	●	●	
Manufacture of special-purpose machinery	2.6%	●		●		●		●		●	●	●	
Electric power generation, transmission and distribution	2%	●		●		●	●	●	●	●	●	●	
Retail sale of food, beverages & tobacco in specialized stores	1.7%	●		●		●		●		●	●	●	
Manufacture of other food products	0.9%	●		●		●		●		●	●	●	



4.3. Integration into Overall Risk Management

Summa integrates climate and nature-related dependencies and risks into its overall risk management framework and Key Risk Indicators (KRI) reporting process. Climate and nature-related risks are systematically identified, assessed, and managed across Summa’s operations and investment portfolios, alongside traditional financial, operational, and compliance-related risks. By incorporating climate and nature considerations into its risk management framework, Summa strives to mitigate potential adverse impacts on financial performance, operations, and stakeholder trust.

The Risk Manager monitors and assesses KRIs related to market risk, credit and counterparty risk, liquidity risk, operational risk, and sustainability risk, including climate and nature-related risks, on a quarterly basis and presents the assessment to the Board. Annual reviews and NGFS scenario analyses inform prioritization, ensuring alignment with financial and operational strategies

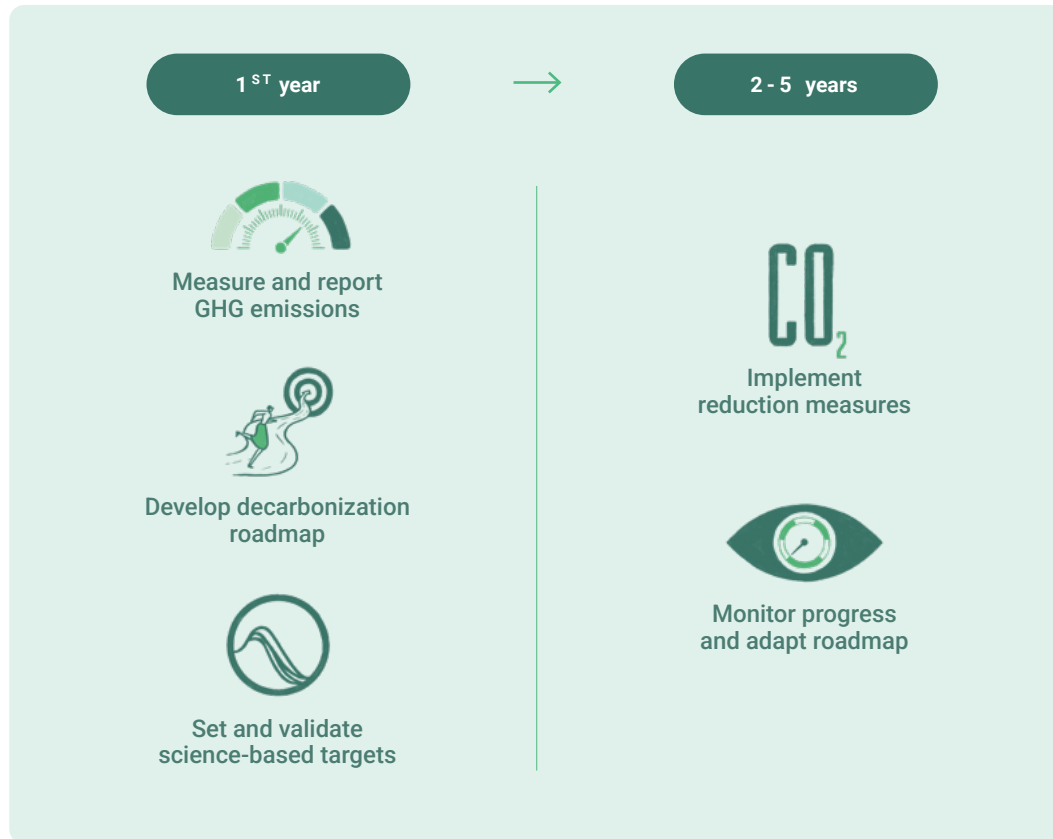
Over the past year we have enhanced our assessments by:

- Deepening location-specific mapping for high-dependency holdings;
- Integrating dependency insights quantitatively into scenario analysis (alongside our climate scenarios);
- Supporting portfolio companies in improving data on upstream dependencies

We encourage portfolio companies to assess and disclose their own climate and nature-related risks using TNFD recommendations and, where relevant, to set science-based targets for nature (SBTN), including science-based climate targets, that address key pressures on the ecosystem services they rely upon.

4.4. Mitigating risks and pressure on nature through Summa's climate action program

Summa's climate action program



GHG emissions are the single largest driver of the portfolio's nature-related pressure and present one of the most direct opportunities for mitigation. Summa's climate action program provides the structure to supporting portfolio companies at every stage of their decarbonization journey. All new portfolio companies participate in the program, with the objective of validating a science-based target within the first 18 months of ownership. Starting this process early is a priority. Because CO₂ accumulates and persists in the atmosphere for centuries, reductions made earlier in the ownership period deliver greater cumulative climate benefit than equivalent reductions made later. Setting targets and decarbonization plans at the outset of ownership gives companies sufficient time to act meaningfully, and progress is reviewed regularly to ensure ambition holds across the full holding period.

1. MEASURE AND REPORT

The program begins with an annual emissions assessment covering Scope 1, 2, and 3, calculated in accordance with the GHG Protocol. Establishing a robust baseline in the first year is the foundation for everything that follows. The quality of this data determines how effectively emission sources can be identified, prioritized, and acted on. In 2025, 90% of emissions were calculated using activity-based data.

2. DEVELOP A DECARBONIZATION ROADMAP

Leveraging a solid baseline, companies develop an SBTi-aligned roadmap that translates ambition into a concrete plan, covering timelines, priority actions, and the capital and operational expenditure required to deliver them. The roadmap is a working document, not a one-time output, and is expected to evolve as companies progress.

3. VALIDATE SCIENCE-BASED TARGETS

All new portfolio companies commit to validating a science-based target with the SBTi within 18 months of entry. Validated targets anchor commitments to climate science and provide external verification that the level of ambition is sufficient.

4. IMPLEMENT REDUCTION MEASURES

With targets and a roadmap in place, companies move into implementation: energy efficiency improvements, renewable energy procurement, product and process redesign, and supplier engagement across the value chain. Summa supports this phase through capital allocation, operational expertise, and peer learning across the portfolio.

5. MONITOR AND ADAPT

Progress is reviewed annually. Targets and roadmaps are updated to reflect new emissions data, acquisitions, and changes in the business. This ongoing cycle ensures that ambition is maintained across the full holding period, not just at the point of commitment.

5. Metrics & targets

Effective stewardship requires measurement that links company activity to planetary outcomes. The challenge is to quantify both pressure and contribution across Earth systems with the same rigor applied to financial performance, and to anchor forward-looking commitments in solid foundation of evidence.

5.1. Overview

Assessing portfolio impact requires a multi-dimensional approach that reflects the complexity of interactions between economic activity and Earth systems. No single metric captures the full extent of environmental pressure or contribution. A combination of metrics is therefore applied to provide a consistent, decision-relevant view of how the portfolio affects nature across the planetary boundaries.

Summa's framework of metrics is designed to link company activities across operations and value chains to system-level outcomes. This enables quantification of both negative pressures and positive contributions, allowing for a balanced assessment of how portfolio companies influence climate and natural systems

The approach combines two layers:

- Risk metrics to assess financial exposure under different scenarios
- Quantitative impact metrics to measure the magnitude of environmental pressure and contribution

Together, these layers provide a structured basis for prioritization, engagement, and target setting building on the sector-level materiality screening.

5.1.1. Risk metrics

Risk is assessed both outside-in, in terms of financial materiality (physical climate risk & transition risk), and inside-out in terms of impact materiality (nature-related risk).

Physical climate risks are assessed at the site level across all operational locations under IPCC Shared Socioeconomic Pathway scenarios, covering 20 hazard categories spanning chronic risks (such as rising temperatures and water stress) and acute risks (such as flooding, storms, and landslides). Each company's sites are classified as low, medium, or high for each hazard and translated into numeric scores that are averaged to produce an overall company risk score. At the portfolio level, exposure is expressed as the share of total AUM invested in companies classified at a given risk level for each hazard.

Transition risks are assessed under three Network for Greening the Financial System (NGFS) scenarios across two time horizons, covering ten risk categories spanning policy, technology, market, and reputational risk. For each company, the most material categories for its sector are identified and scored, then averaged to produce an overall transition risk score classified using the same thresholds as physical risk.

Nature-related risk is assessed across two additional categories beyond dependency and impact materiality:

1. Proximity to areas of biodiversity interest, and
2. Proximity to threatened species.

This assessment is conducted at the location level using AXA Climate's Altitude platform, which screens each operational site against geospatial biodiversity reference datasets.

5.1.2. Quantitative impact metrics

The magnitude of environmental pressures and contributions is measured using three connected and complementary metrics, each capturing a different dimension of impact.

GHG emissions are measured in tCO_{2e} and provide a direct and standardized indicator of pressure on the climate system. Emissions are calculated in accordance with the Greenhouse Gas Protocol covering Scope 1, 2, and 3. As the most mature and widely reported environmental metric, GHG emissions serve as a reference point for regulatory alignment, performance tracking, and target setting under the Science Based Targets initiative.

Broader nature pressure is quantified using the biodiversity impact metric PDF·m²·yr (potentially disappeared fraction of species, per square meter, per year). This is calculated using the ReCiPe life-cycle assessment (LCA) method. PDF·m²·yr aggregates multiple environmental pressures across the value chain, including land use, water use, GHG emissions, and pollution, into a single unit of ecosystem impact. Each pressure is characterized as a contribution to species loss, making it possible to compare pressures that would otherwise be measured in entirely different units and to identify where activities contribute most to ecological degradation.

Summa also maps each LCA pressure category to the planetary boundaries most directly affected, enabling a structured view of how activities contribute to system-level change, while acknowledging that individual pressures often affect multiple boundaries simultaneously.

Finally, environmental pressures are converted into societal impact expressed in EUR. Each pressure is first converted into an impact on human wellbeing, covering pathways such as disease burden, reduced agricultural productivity, degraded water quality, and loss of ecosystem services that underpin economic activity. This is then valued in EUR, quantifying costs and by using country-specific valuation factors that reflect local ecosystem sensitivity and economic context. This monetized metric captures a broader set of effects than the biodiversity metric, including human toxicity, particulate matter formation, and ozone depletion, which affect human health but lack a direct species-loss endpoint in the ReCiPe LCA framework.

Together, these three metrics provide a layered view of portfolio impact. GHG emissions (tCO_{2e}) isolates one of the primary sources of planetary boundary pressures and remain central for regulatory and target-setting purposes. Biodiversity impact (PDF·m²·yr) reflects the physical degradation of ecosystems across multiple pressure categories. Monetized societal impact (EUR) translates these effects into economic and human consequences, making visible the pathways through which environmental pressures affect populations and economies.

5.2. Climate measurement - GHG emissions

Aligned with the TCFD, Summa monitors GHG emissions across all portfolio companies annually, covering Scope 1, 2, and 3 in accordance with the Greenhouse Gas Protocol. Emissions are reported in tonnes of CO₂ equivalent (tCO_{2e}) for both majority and minority holdings. We prioritize activity-based data for accuracy and completeness: in 2025, 90 percent of portfolio emissions were calculated using activity-based data, remaining roughly stable compared to 2024. We actively support portfolio companies in gathering activity-based data, such as quantities of fuel, raw materials, or emissions figures sourced directly from suppliers.

5.2.1. GHG Emissions (Scope 1, 2, and 3)

Summa's total portfolio emissions amounted to 2,543 ktCO_{2e} in 2025. Considering pro-forma updated numbers following NG Group's acquisition of Fortum Recycling & Waste to form a new Nordic circularity champion, NG Nordic. When adjusted for M&A, exits, as well as data quality improvements, 2024 GHG emissions amount to 2,704 ktCO_{2e}, constituting a like-for-like reduction of 6.0% in total portfolio emissions in 2025. The stronger reduction in intensity relative to absolute emissions indicates that portfolio companies are successfully decoupling revenue growth from their carbon footprint, growing their businesses while reducing emissions per unit of output.

Portfolio absolute emissions and financed emissions

ABSOLUTE GHG EMISSIONS (tCO _{2e})			FINANCED GHG EMISSIONS (tCO _{2e})		
	2024	2025		2024	2025
Scope 1	511.619	506.426	Scope 1	218.327	285.649
Scope 2	37.605	36.071	Scope 2	15.066	18.955
Scope 3	2.154.580	2.000.451	Scope 3	722.141	960.105
TOTAL	2.709.804	2.542.948	TOTAL	955.534	1.264.707
<i>Average GHG intensity</i>	<i>930</i>	<i>839</i>	<i>GHG intensity (financed emissions)</i>	<i>599,7</i>	<i>634,89</i>

Source: Portfolio company reporting, 2025. Financed emissions reflect attribution from portfolio company emissions, weighted by Summa's share of enterprise value including cash (EVIC).

Total portfolio GHG emissions are highly concentrated. Five companies account for 96% of the aggregate footprint, reflecting the composition of a portfolio that spans both asset-light technology businesses and companies operating in material- and energy-intensive sectors such as waste processing, food production, and energy retail. The presented GHG figures capture the emissions generated by a company's operations and value chain, but do not account for the emissions that a company's products and services prevent elsewhere in the economy. This asymmetry means that the companies with the largest reported footprints in our portfolio are often the same companies delivering the greatest climate benefit.

5.2.2. Avoided Emissions

The portfolio's total avoided emissions amount to approximately 3.4 million tCO₂e in 2025. NG Nordic is the single largest contributor, accounting for 1.4 million tCO₂e, or 47% of the portfolio total. Operating across the full waste value chain, from collection and sorting to material recovery and recycling, NG Nordic transforms waste into circular raw materials, enabling depollution and decarbonization across industrial value chains. TBAuctions accounts for approximately 1.0 million tCO₂e, or 33%, by extending the useful life of industrial machinery and equipment through secondhand markets, avoiding the emissions embedded in new manufacturing. Bollegraaf contributes a further 425,000 tCO₂e, or 14%, by designing and manufacturing the sorting and recycling technology that enables material recovery at scale. Together, these three companies represent 94% of the portfolio's total avoided emissions.

Quantifying avoided emissions across the portfolio

Avoided emissions by portfolio company (tCO₂e and share of total)

COMPANY	tCO ₂ e	SHARE
NG Nordic	1,401,868	42%
TBAuctions	1,357,616	40%
Bollegraaf	424,828	13%
Tibber	81,818	2%
Holdbart	47,690	1%
EA Technology	27,935	1%
Nutris	11,3567	0%
Oda	4,761	0%
FAST LTA	330	0%
TOTAL	3,358,203	

Source: Portfolio company reporting and the 2025 planetary boundary assessment. Results modeled by Summa and Valuing impact rely on key assumptions, are subject to uncertainty and have not been independently verified. The avoided emissions shown for Tibber in the table does not constitute representation by Tibber regarding its environmental performance.

5.2.3. Climate-related risk exposure

Physical and transition risks are assessed using scenario-based modeling. Physical climate risks are evaluated across all 313 operational locations using the AXA Climate Altitude platform, covering 20 hazards under three SSP scenarios at the 2030 and 2050 horizons. The primary risk metrics include company-level risk scores (an average across all 20 hazards on a 1 to 9 scale), per-hazard AUM exposure figures (the share of portfolio value at high or medium risk for a given hazard), and Average Annual Loss (AAL), which expresses the expected annual financial impact of climate events as a percentage of asset value (property damage) and revenue (business interruption).

Transition risks are assessed under three NGFS scenarios across two time horizons, covering ten risk categories that span policy and legal, technology, market, and reputational dimensions. Alongside the quantitative assessment, nature-related risk exposure is evaluated through ecosystem service dependency scores, biodiversity impact ratings, and proximity to areas of biodiversity interest and threatened species habitats, each scored at the company level and aggregated portfolio-wide.

Physical risk exposure at the location level

Changing air temperatures represent the most common chronic hazard across the portfolio. Under SSP5-8.5, every company assessed has assets rated high or medium for this risk, with Norwegian operations particularly exposed. This illustrates how Nordic geographies amplify exposure to long term temperature shifts.

Exposure to acute physical hazards is more varied across the portfolio. Flood and landslide risks are concentrated among companies with infrastructure in western Norway, where steep terrain and shifting precipitation compound exposure. Storm risk is narrower but significant where it appears, notably for STIM's coastal operations in Norway and Chile. Extreme heat is an emerging concern for companies with offices in southern Europe, South Asia, and the United States.

The key implication is that acute physical risks are geographically concentrated rather than evenly spread. A small number of companies and locations account for most high-risk ratings, providing a clear basis for targeted engagement on adaptation measures and insurance adequacy at those sites.

REGION	LOCATIONS (n)	FLOOD			LANDSLIDE			STORM			EXTREME HEAT			CHANGING PRECIPITATION			CHANGING AIR TEMPERATURE		
		High	Medium	Low	High	Medium	Low	High	Medium	Low	High	Medium	Low	High	Medium	Low	High	Medium	Low
Nordics	225	30	44	151	36	46	143	27	11	187	146	36	43	158	60	7	225	0	0
DACH	26	7	6	13	3	2	21	0	0	26	26	0	0	1	20	5	22	4	0
Benelux	18	6	3	9	0	0	18	0	4	14	18	0	0	0	4	14	4	14	0
British Isles	13	1	0	12	0	0	13	5	1	7	7	0	6	0	2	11	3	10	0
Central & Eastern Europe	10	4	2	3	0	1	8	0	0	9	9	0	0	0	7	2	9	0	0
Southern Europe	5	1	0	4	0	0	5	0	0	5	5	0	0	0	5	0	5	0	0
Asia Pacific	5	0	1	3	1	1	2	0	0	4	4	0	0	3	0	1	4	0	0
North America	4	3	0	1	0	0	4	0	0	4	4	0	0	3	1	0	4	0	0
Western Europe	3	0	0	3	0	1	2	0	0	3	3	0	0	0	2	1	2	1	0
South America	3	0	0	3	0	2	4	0	2	1	1	0	2	2	0	1	1	0	0
Africa	1	1	0	0	0	0	1	0	0	1	1	0	0	1	0	0	1	0	1
TOTAL	313	53	56	202	40	53	218	32	18	261	224	36	51	168	101	42	280	31	0
<i>Share of total</i>		17%	18%	65%	13%	17%	70%	10%	6%	83%	72%	12%	16%	54%	32%	13%	89%	10%	0%

Source: AXA Climate Altitude, 2025. Risk levels reflect asset-level physical climate hazard exposure based on forward-looking scenario analysis. Location counts may not sum to regional totals where data coverage is incomplete.

Financial value at risk

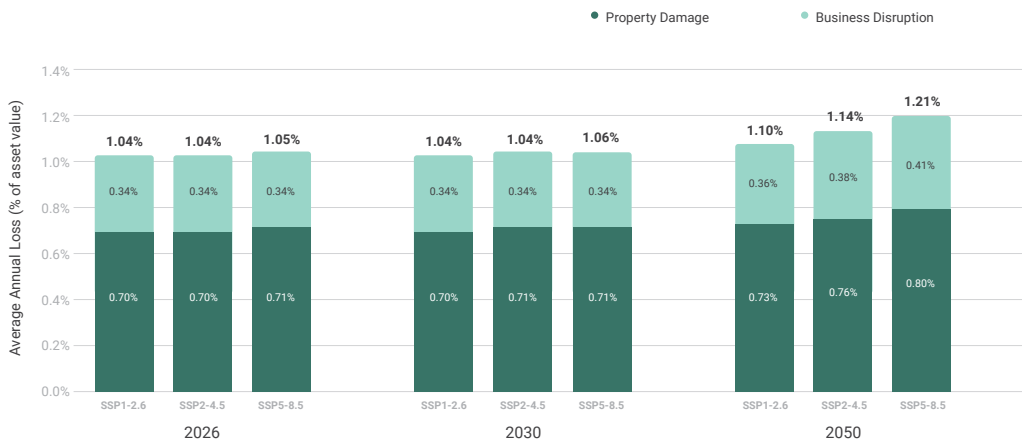
The financial materiality of physical climate risks is assessed through Average Annual Loss (AAL), which represents the expected annual financial impact of climate-related events by combining event probability with estimated costs. AAL is considered across two dimensions: property damage, expressed as a percentage of asset value, and business interruption, expressed as a percentage of asset-related revenue.

Across the portfolio, total AAL from physical climate risks remains well below 1% of revenue under all assessed scenarios. Under SSP5-8.5 at 2030, the most commonly observed total AAL figures at the company level range from 0.3% to 0.7% of asset value for property damage, with business interruption losses typically below 0.1% of revenue. Flood is the single largest contributor to property damage AAL across the portfolio, consistent with the geographic concentration of assets in Norwegian regions with elevated flood and landslide exposure. Storm damage contributes a smaller but stable component, while all other hazards generate negligible AAL.

AAL figures increase gradually over longer time horizons, reflecting the compounding effects of climate change on hazard frequency and intensity. By 2050 under SSP5-8.5, total property damage AAL rises modestly for most companies, but remains below 1% of asset value across the portfolio. The rate of increase is highest for flood-exposed locations in Norway and for heat-exposed assets in Southern Europe and the United States, where scenario divergence becomes more pronounced after 2030.

These results confirm that the portfolio's direct financial exposure to physical climate risk is limited in the near term. However, AAL figures capture only direct physical losses and do not account for indirect effects such as supply chain disruption, reputational impacts, or shifts in insurance costs that may amplify financial exposure over time. The low AAL figures should also be read alongside the broader dependency and scenario analysis, which indicates that the portfolio's current risk profile is partly supported by the continued functioning of ecosystem services, particularly flood mitigation and water regulation, whose degradation over time could widen the gap between modeled and realized losses.

Average Annual Loss across SSP scenarios



Source: AXA Climate Altitude, 2025. Average Annual Loss expressed as a percentage of asset value, aggregated across the Summa portfolio. Property damage and business disruption stacked; near-term horizons show minimal scenario divergence, with meaningful spread emerging by 2050.

5.3. Nature

5.3.1. Proximity to threatened species and areas of interest for biodiversity

Understanding where portfolio companies operate in relation to ecologically sensitive areas is a necessary step in assessing whether those operations could affect the natural systems around them.

Of the 313 assessed locations, 20 (6 percent) are situated within 100 meters of an area of interest for biodiversity and a further 113 (36 percent) within 1 kilometer. The remaining 58 percent are beyond these thresholds. Proximity is concentrated in the Nordics, which accounts for 15 of the 20 locations within 100 meters. For threatened species, no location is classified as High risk. Sixteen (5 percent) are classified at Medium risk, of which 12 are in the Nordics. The relevance of proximity is greatest where the activity involves physical operations such as warehousing or manufacturing rather than offices, which limits the number of locations where proximity is likely to translate into direct ecological interaction.

To date, no portfolio companies have identified locations near sensitive areas where they also exert meaningful negative pressure on those areas. The location assessment should be read as a screening layer; locations far from any recognized biodiversity zone can still generate significant indirect impacts through the supply chain. Summa's 2025 planetary boundary impact assessment provides the complementary view by measuring nature pressures and contributions across the full value chain.

REGION	LOCATIONS (n)	SHARE (%)	PROXIMITY TO BIODIVERSITY AREAS OF INTEREST			PROXIMITY TO THREATENED SPECIES BY RISK LEVEL		
			<100 m	1 km	Beyond 1 km	High	Medium	Low
Nordics	225	72%	15	80	130	0	12	213
DACH	26	8%	2	13	11	0	0	26
Benelux	18	6%	0	5	13	0	2	16
British Isles	13	4%	2	8	3	0	1	12
Central & Eastern Europe	10	3%	0	1	9	0	0	9
Southern Europe	5	2%	0	2	3	0	0	5
Asia Pacific	5	2%	0	0	5	0	1	3
North America	4	1%	0	2	2	0	0	4
Western Europe	3	1%	1	2	0	0	0	3
South America	3	1%	0	0	3	0	0	3
Africa	1	0%	0	0	1	0	0	1
TOTAL	313		20	113	180	0	16	295
<i>Share of total</i>			6%	36%	58%	0%	5%	94%

Source: AXA Climate Altitude, 2025. Proximity classifications based on spatial analysis of portfolio asset locations relative to IUCN-designated protected areas and threatened species habitats. Risk levels reflect site-level biodiversity sensitivity assessments.

5.3.2. Portfolio planetary boundary impact assessment

Measuring pressures and contributions across the planetary boundaries

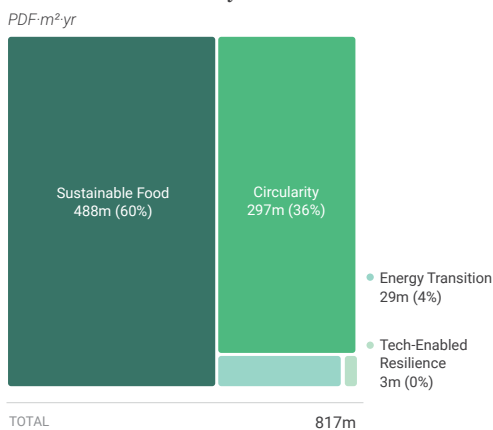
In 2025, Summa conducted its most comprehensive, portfolio-wide assessment of nature impact to date, mapping both the pressures generated by portfolio company operations and the positive contributions their solutions make across the planetary boundaries. The assessment, which is presented in detail in the [Summa Equity 2025 Planetary Boundaries Report¹](#), covers 13 portfolio companies² spanning all four investment themes. For each company, both positive and negative impact pathways were mapped across the value chain using life-cycle assessment data to quantify pressures arising from upstream sourcing, direct operations, and downstream use.

The portfolio's total environmental pressure, expressed in PDF.m².Yr, is driven primarily by land-system change and climate-related pressures. Land-system change accounts for the largest share of negative impact (46%), reflecting the global role of agricultural expansion as a key driver of ecosystem degradation. Climate-related pressures, measured through greenhouse gas (GHG) emissions, represent the second-largest contributor, demonstrating the interconnected nature of climate and biodiversity loss.

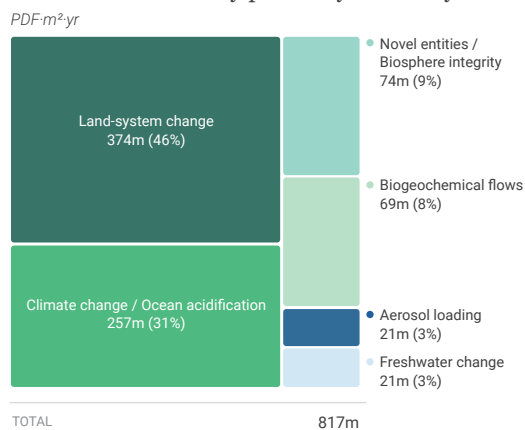
Pressures are also measured across the following boundaries:

- **Biogeochemical flows:** driven by nutrient runoff and industrial emissions
- **Novel entities:** driven by chemical pollution across value chains
- **Freshwater use:** broadly distributed but lower in magnitude
- **Aerosol loading:** driven by upstream production and logistics

Pressure on nature by investment theme



Pressure on nature by planetary boundary



Source: Summa 2025 portfolio planetary boundary impact assessment

96% of negative pressure is concentrated in Sustainable Food and Circularity, reflecting both the scale of Summa's Portfolio Companies operating in these themes, and the nature of the respective value chains. Furthermore, the results indicate that that 60% of the negative impact is concentrated in only 15% of portfolio AUM by fair value. These findings highlight the need for targeted mitigation actions in upstream value chains, particularly in food production and material sourcing.

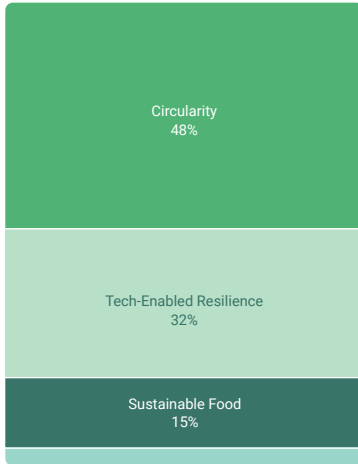
¹ <https://summaequity.com/wp-content/uploads/2026/05/Planetary-Boundaries-Report-2025.pdf>

² Bollegraaf, FAST LTA, Holdbart, Nofitech, STIM, TBauctions, Oda Group, Nutris, NG Nordic, EA Technology, Tibber, guardsix and Axion

Pressure on nature vs. share of AUM by investment theme

PDF-m²-yr

Share of AUM by fair value



TOTAL 100%

Pressure on nature



- Tech-Enabled Resilience 3m (0%)
- Energy Transition 29m (4%)

TOTAL 817m

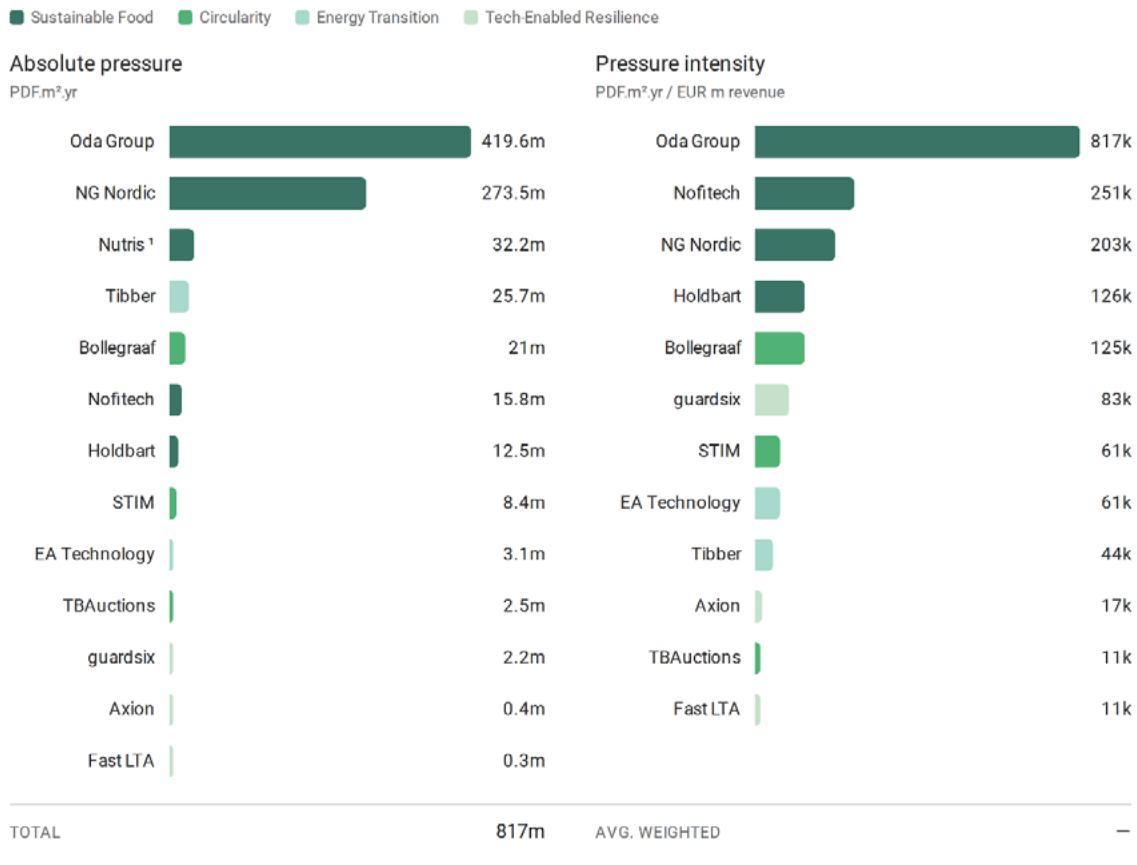
Source: Summa 2025 portfolio planetary boundary impact assessment

Impact intensity

As shown in the graph below, absolute impact and intensity varies significantly across companies, reflecting differences in sector and business models. While asset-heavy and resource-intensive businesses exhibit higher biodiversity impact per unit of revenue, asset-light and service-oriented companies demonstrate substantially lower intensities. This differentiation supports prioritization of mitigation actions in high-intensity industries and targeting of the most material impacts across operations and value chains.

Identifying where nature pressure is concentrated across the portfolio

Absolute pressure (PDF-m²-yr) and pressure intensity (PDF-m²-yr per EUR m revenue)



Source: Summa 2025 portfolio planetary boundary impact assessment

¹ Nutris excluded from intensity ranking (value not comparable)

Positive contribution to nature

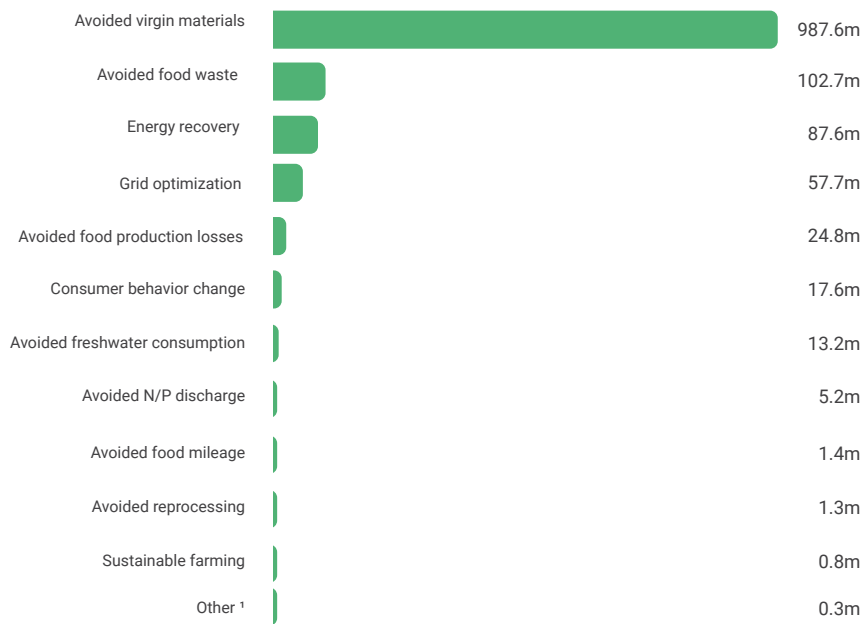
As shown, the portfolio exerts approximately 817 million PDF·m²·yr of negative pressure across the 13 portfolio companies assessed in the 2025 planetary boundary impact assessment. However, by applying the same measurement methodology to positive contributions, it was found that the Summa companies simultaneously enable 1,300 million PDF·m²·yr of avoided ecological degradation through their products and services.

Avoided impacts are concentrated in a small number of companies with strong contributions due to their scale and business models. NG Nordic accounts for 56% of total avoided pressure, mainly driven by the recycling and recovery of waste, resulting in the avoided extraction of virgin materials. TBAuctions and Bollegraaf also contribute by enabling the avoided extraction of virgin materials. Other portfolio companies contribute through e.g. optimization of electric grids, avoided food waste and reduced pressure in food production value chains from lowering freshwater use and nutrient emissions.

The assessment shows that it is both possible to track positive contributions, and that capitalizing on related opportunities can lead to reduced pressure on nature in addition to improved financial returns. However, the results should be interpreted with appropriate caution. Avoided impact estimates are inherently more uncertain than the accounting of exerted pressures, as they depend more fundamentally on assumptions about counterfactual scenarios and additionality. Summa's methodology applies conservative baselines throughout, and the results are most meaningful when viewed as a portfolio-level signal that the direction of capital allocation is aligned with the reduction of pressures, rather than as company-level offset claims.

Quantifying how portfolio solutions reduce pressure on nature

Avoided pressure by activity type (million PDF·m²·yr)



Source: Summa 2025 portfolio planetary boundary impact assessment

Pressure and contribution by planetary boundary

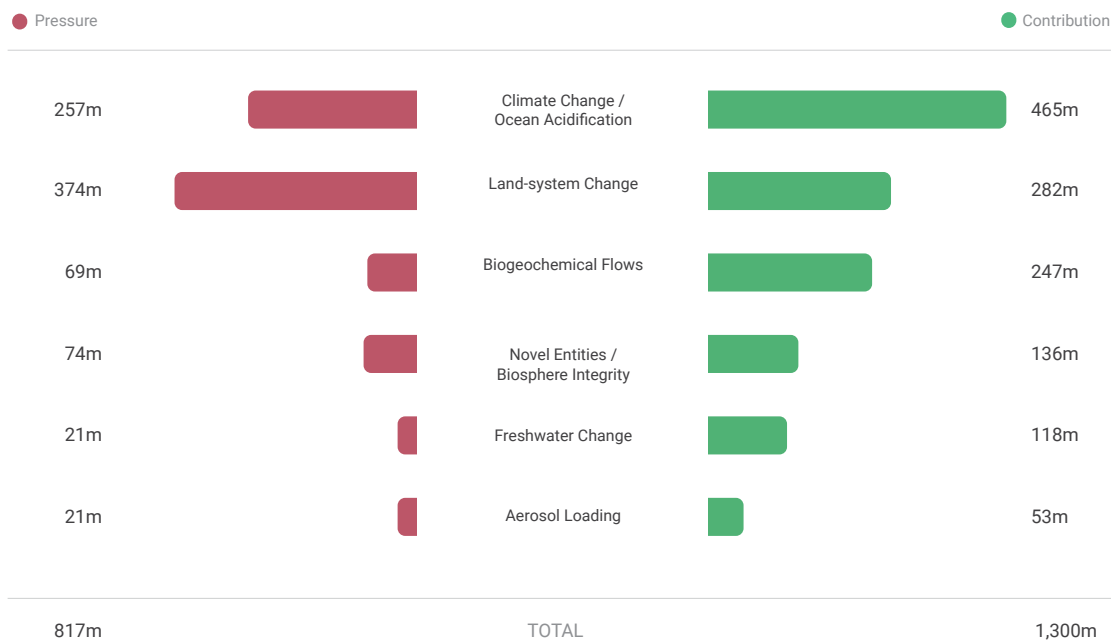
The portfolio's pressures and positive contributions differ across the planetary boundaries assessed, reflecting both the nature of underlying activities and the scale of solutions deployed.

The largest positive contributions are concentrated in climate change and ocean acidification, with 465 million PDF·m²·yr of avoided impact compared to 257 million of pressure. A similar pattern is observed in biogeochemical flows, where avoided impact reaches 247 million against 69 million of pressure. These results are driven by reductions in emissions, nutrient loading, and industrial pollution. Positive contributions also exceed pressures in freshwater systems, novel entities, and aerosol loading, reflecting that many portfolio solutions reduce environmental pressure across multiple boundaries at the same time.

Land-system change remains the most significant source of pressure in the portfolio, with 374 million PDF·m²·yr. This pressure is concentrated in food-related supply chains and reflects structural characteristics of conventional agricultural production, where land conversion and soil degradation remain embedded in sourcing and production systems. The gap highlights where further progress is required. It also points to a clear direction for value creation, through improved sourcing practices, more land-efficient production, and deeper engagement across the value chain.

Overview of pressures and contributions across the boundaries

Portfolio pressure and contribution by planetary boundary (million PDF·m²·yr)



Source: Summa 2025 portfolio planetary boundary impact assessment

Monetized impact – societal value expressed in EUR

Where Summa uses the measurement of species-loss to capture how portfolio activities affect ecosystems, the monetized metric captures what that degradation means for people. This covers a broader set of impacts than the biophysical assessment alone, including human toxicity, particulate matter formation, and ozone depletion, which affect human health but lack a species-loss endpoint and therefore cannot be expressed in PDF·m²·yr.

Across the 13 portfolio companies assessed, the total negative footprint amounts to approximately EUR 386 million, while avoided impacts reach EUR 747 million. This implies an pressure/contribution ratio of 1.9x - for every euro of planetary pressure generated, nearly two euros of societal harm are avoided somewhere else in the economy. These avoided impact results reflect reduced disease burden, preserved productivity, and lower strain on public systems and infrastructure.

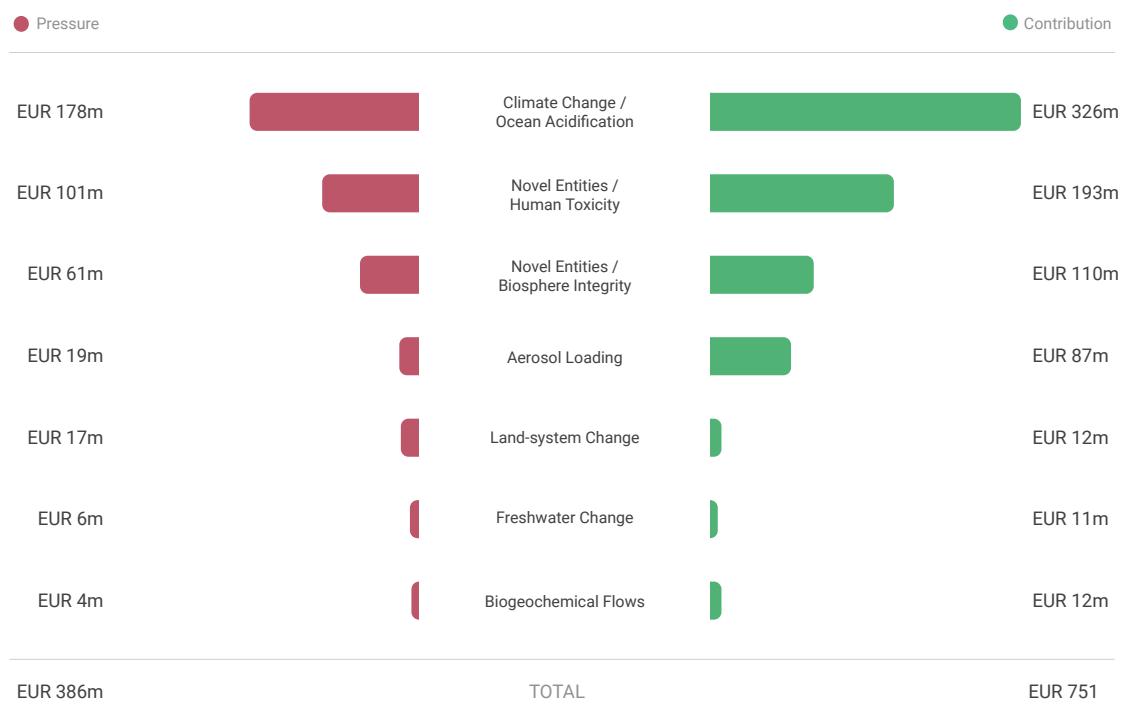
Climate change and ocean acidification account for the largest category when impact is expressed in monetary terms, with a positive contribution of EUR 324 million against negative pressures of EUR 178 million. This reflects the scale at which portfolio companies, particularly in the Circularity theme, displace carbon-intensive activities through circular material flows and food waste reduction.

When human toxicity is included, the novel entities boundary becomes substantially more prominent. The portfolio generates EUR 192 million in positive contributions against a negative pressure of EUR 101 million. This is an area with direct health implications, driven by reduced human exposure to persistent pollutants and synthetic chemicals, which accounts for their prominence in the monetized results. Aerosol loading shows one of the highest contrasts between the positive and negative sides, with avoided impacts of EUR 87 million against a footprint of EUR 19 million.

The monetary framing makes explicit that the planetary boundaries are not only environmental thresholds, but the biophysical foundation on which human wellbeing and economic stability depend. The combined analysis, read alongside the biophysical results, reveals that the most material risks are those where ecological degradation and human harm reinforce each other: climate and air pollution, toxic chemical exposure, and nutrient loading into freshwater systems.

Translating environmental pressure into societal cost and avoided harm

Pressure and contribution expressed in societal value (EUR millions)



Source: Summa 2025 portfolio planetary boundary impact assessment

5.4. EU Taxonomy alignment as an indicator of climate and nature opportunities and contributions

The EU Taxonomy provides a structured, science-based classification of economic activities that contribute substantially to environmental objectives, including climate mitigation, climate adaptation, and, increasingly, broader nature-related outcomes. Within a TNFD-aligned framework, taxonomy alignment serves as a useful complement to impact and dependency metrics by linking portfolio activities to externally defined thresholds for environmental sustainability.

The main purpose of this metric is to provide a decision-useful proxy for the extent to which portfolio companies operate within activities consistent with a low-emissions, resource-efficient, and nature-positive economy. Turnover, CapEx, and OpEx alignment together offer a forward-looking and backward-looking perspective. Turnover reflects the current share of revenues derived from taxonomy-aligned activities, while CapEx indicates the direction of capital allocation and transition, and OpEx provides insight into operational expenditures supporting aligned activities.

It should be noted as an important caveat that EU Taxonomy alignment captures only a subset of environmental performance. The framework focuses on specific economic activities and technical screening criteria and does not fully reflect broader system-level contributions, including positive externalities generated through downstream impact or innovation. Within the Summa portfolio, taxonomy alignment is therefore interpreted as one lens among several to assess exposure to climate and nature-related opportunities. When combined with TNFD-aligned impact, dependency, and risk metrics, it contributes to a more comprehensive understanding of how capital is allocated in relation to planetary boundaries and the transition to a sustainable economic system. Together, these metrics provide a more complete picture of how capital is allocated in relation to climate and nature objectives. The alignment levels in Fund I and Summa Circular reflects exposure to activities linked to circularity and resource efficiency.

EU Taxonomy-alignment across Summa main Fund vehicles, 2025

2025	TURNOVER	CapEx	Opex
Fund I	55 %	55 %	0 %
Fund II	0 %	0 %	0 %
Fund III	29 %	24 %	3 %
Summa Circular	55 %	79 %	N/A

5.5. Targets and transition plan

The data in this report establishes the evidence base for where the portfolio's climate and nature-related pressures, dependencies, and risks are concentrated, and where its positive contributions are greatest. This provides the foundation for the targets and transition plans that will translate those findings into forward-looking commitments.

Climate is one of the two most material dimensions of the portfolio's nature-related impact. The 2025 planetary boundary assessment indicates that greenhouse gas emissions are the second-largest contributor to negative biodiversity impact, after land-system change, and the largest contributor to monetized societal cost. At the same time, the portfolio's most significant positive contributions are concentrated in climate and ocean acidification, where contributions through avoided impact exceeds residual pressure by a factor of 1.8x. This underscores that decarbonization is not only a climate imperative but also the most direct lever for reducing nature-related pressure across the portfolio. Climate targets therefore form the foundation of Summa's transition plan, and these will be complemented by further targets relating to land use, and broader nature-related pressures in the coming years.

5.5.1. Climate targets – Science-Based Targets Initiative

Decarbonizing our portfolio

Summa has a long-standing goal to align our portfolio with the Paris Agreement's 1.5°C target. To meet this ambition, we have committed to the Science-Based Targets Initiative to set validated climate targets across the entire portfolio by 2030, with an interim target of 78% coverage by 2030. To further incentivize implementation of our commitment, the target is part of our ESG-linked revolving credit facility (RCF), a pricing mechanism linked to selected ESG initiatives, where the interest rate will be lowered if targets are met and increased if targets are not achieved.

In 2025, three additional companies, EA Technology, FAST LTA, and guardsix, validated Science-Based Targets, bringing the total number of companies with a validated target to seven. This increased the share of portfolio fair value covered by science-based targets from 54% to 68%, moving closer to the interim near-term target of 78% coverage by 2028. This progress was achieved despite the exit of two portfolio companies with existing SBTi commitments, Milarex and Documaster, to new owners over the course of the year.

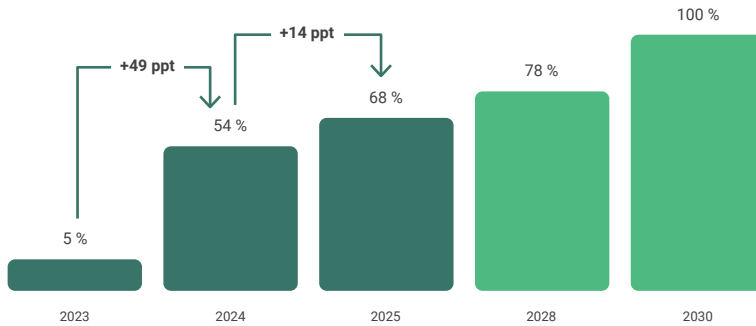
Portfolio science-based targets coverage, 2022-2030

YEAR	SBTi TARGET	COVERAGE ACHIEVED	STATUS
2022	11 %	-	-
2023	22 %	19 %	Below target
2024	33 %	54%	Exceeded
2025	44 %	68 %	Exceeded
2028	78 %	-	Interim target
2030	100 %	-	Final target

Throughout the process, Summa supported the three companies not only through the SBTi validation process itself but also in identifying concrete decarbonization opportunities. All three companies reduced both their absolute emissions and their carbon intensity in FY2025. EA Technology reduced its total footprint by 54% (from 10,036 to 6,501 tCO₂e) and its carbon intensity by 24%. FAST LTA reduced emissions by 20% (from 6,070 to 5,075 tCO₂e) alongside a 16% decline in intensity. guardsix achieved the most pronounced reduction, bringing total emissions down by 47% (from 1,221 to 647 tCO₂e) and halving its carbon intensity. These outcomes indicate that the process of setting science-based targets, when combined with targeted support in identifying reduction levers, can accelerate decarbonization at the company level.

More broadly, 16 of 18 portfolio companies achieved absolute reductions in their GHG emissions in 2025. Of these, 13 also reduced their carbon intensity, indicating that the reductions are primarily attributable to decarbonization efforts rather than lower activity levels.

Portfolio coverage of science-based climate targets – progress (2023-2025) and targets (2028-2023)



Private Markets Decarbonization Roadmap (PMDR)

As a member of the Initiative Climat International (iCI), Summa tracks progress against the Private Markets Decarbonization Roadmap. The 2025 distribution shows continued maturation across the portfolio’s decarbonization journey.

Of the 18 companies currently in the portfolio, four are now classified as aligned to net zero, achieving emissions reductions in line with their validated science-based targets. These are NG Nordic, Vyntra, guardsix, and Axion, up from three in 2024 and representing the most advanced stage of climate maturity in the framework. Three companies are classified as aligned, meaning they have validated science-based targets. EA Technology and myneva have both achieved absolute emissions reductions, though falling slightly short of the year-on-year profile required to meet their SBTi trajectories. One company has set a decarbonization target not aligned with SBTi. Ten companies remain in the reporting emissions stage and do not yet operate under a formal reduction target, down from fourteen in 2024, a shift that reflects both upward movement within the framework and changes in portfolio composition through exits and new acquisitions.

PORTFOLIO COMPANIES BY PMDR STAGE: 2024 VS 2025

2024 (22 companies)



2025 (18 companies)



● Aligned to net zero ● Aligned ● Preparing to decarbonize ● Capturing data ● Not started (0)

5.5.2. Developing additional nature targets

Summa has an overall objective to contribute to improved outcomes for biodiversity, ecosystems, and natural capital, both through reducing residual negative pressure across the portfolio and by investing in companies whose products and services deliver measurable positive contributions.

The 2025 planetary boundary assessment provides the analytical foundation for translating this objective into specific, measurable targets. The results identify land-system change as the boundary where the portfolio's negative pressures most significantly exceed its positive contributions, with this pressure concentrated in upstream agricultural supply chains connected to the Sustainable Food theme. Beyond land use, pressures are distributed across multiple boundaries and value chains, often in ways that are specific to individual companies' operating contexts.

These findings are informing an ongoing process to develop robust, measurable nature targets. Initiatives under evaluation include deforestation and conversion-free sourcing requirements for segments in the portfolio with significant land-system pressure as well as the potential for structured nature action plans at the company level, extending the logic of Summa's climate action program to the broader set of environmental pressures identified in the planetary boundary assessment.

Alignment of potential targets with the Science Based Targets Network (SBTN) framework is being assessed in terms of feasibility, measurability, and impact on Summa's investment strategy. Summa is committed to ensuring that any nature targets it adopts are grounded in sound methodology rather than premature, and that they can be tracked with the same rigor applied to climate. The sequencing is deliberate: climate targets, where measurement infrastructure and verification standards are most mature, provide the foundation. As frameworks for nature-related target-setting continue to develop, Summa expects to formalize specific nature targets and disclose them in a future reporting cycle.

5.5.3. Climate and nature transition plan

Summa's transition plan integrates climate and nature for moving the portfolio toward alignment with the planetary boundaries. The plan is built on four reinforcing pillars:

The first pillar is Summa's investment strategy. This is designed to allocate capital toward companies whose business models reduce pressure on Earth systems, or that create strong societal value with low exertion of pressure. Thematic focus on Circularity, Energy Transition, Sustainable Food, and Tech-Enabled Resilience ensures that the portfolio is structurally positioned on the right side of the global transition to a sustainable economic system. Sector exclusions remove exposure to activities that are fundamentally misaligned with long-term system stability.

The second pillar is measurement and assessment. Every portfolio company is subject to annual GHG emissions measurement across Scope 1, 2, and 3. For companies where data permits, and for all companies where broader nature impact is expected to be significant, full value chain impact is assessed across the planetary boundaries in biophysical (PDF·m²·yr) and monetized (EUR) terms, covering both negative pressures and positive contributions. Nature dependencies and proximity to sensitive areas are screened at the asset level. This approach identifies where pressures are concentrated and where interventions will have the greatest effect.

The third pillar is target-setting and active ownership. Science-based climate targets provide the foundation. Through Summa's climate action program and the LEAP framework, Summa engages with portfolio companies to develop decarbonization roadmaps, improve sourcing practices, reduce upstream pressures, and strengthen the positive nature contributions of their products and services. As described above, Summa is evaluating additional targets covering broader environmental pressures, and expects these to be formalized as the underlying methodologies mature.

The fourth pillar is transparency and iteration. The transition plan is not static but is regularly reviewed and updated as necessary. Each annual assessment refines the underlying data, evaluates whether implemented actions have delivered measurable benefits or reduction of pressure, and identifies where additional effort is needed. Because positive and negative impacts are assessed using the same methodology, the approach provides a consistent basis for tracking whether capital is being deployed effectively to reduce systemic pressure on the planetary boundaries.

Summa recognizes that credible transition planning on nature is still developing across the financial sector. The firm's current plan reflects the state of available data and methodologies, and is designed to strengthen as external frameworks, particularly SBTN, TNFD, and sector-specific guidance, continue to evolve.

Summary

This report presents Summa's approach to identifying, measuring, and managing the climate and nature-related dependencies, impacts, risks, and opportunities across its portfolio. The analysis draws on multiple complementary frameworks, from ENCORE-based materiality screening and AXA Climate's geographic risk modeling to GHG Protocol aligned measurement of emissions across the portfolio and full value chain planetary boundary impact assessment. Together, these assessments provide a comprehensive view of how the portfolio interacts with Earth systems.

The results show a resilient portfolio, where direct physical risk exposure is limited. Less than 1% of portfolio value is classified as high overall climate risk and AAL is below 1% of revenue. Transition risk is also low, reflecting a portfolio oriented toward solutions rather than exposure to stranded assets or regulatory headwinds. At the same time, the portfolio carries material dependencies on ecosystem services, particularly water regulation and flood mitigation, and generates significant environmental pressure through upstream value chains, concentrated in land-system change and greenhouse gas emissions. These pressures are not evenly distributed. 60% of negative impact is concentrated in 15% of portfolio AUM, providing a targeted basis for engagement.

With regard to contributions, the portfolio delivers substantial avoided impact, reducing systemic pressure on the planetary boundaries. This is driven by circular economy solutions that displace virgin material production, food rescue operations that avoid upstream agricultural footprints, and energy transition companies that reduce the carbon intensity of the grid.

Progress on targets is on track. SBTi coverage has reached 68% of portfolio fair value, exceeding the 2025 milestone and advancing toward the 2028 interim target of 78%. 16 of 18 portfolio companies achieved absolute emissions reductions in 2025, and 90% of emissions are now calculated using activity-based data. Summa is evaluating nature-specific targets informed by the planetary boundary assessment, with a focus on land-use pressures and structured nature action planning across material segments of the portfolio.

Summa's approach to climate and nature disclosure will continue to evolve. The planetary boundaries framework, the TNFD LEAP methodology, and the annual measurement cycle provide the infrastructure for continuous improvement, targeting both better data and stronger engagement over time.

Summa's overall objective will remain the same. Capital will continue to be directed where it strengthens resilience, reduces pressure on Earth systems, and generates competitive financial returns.

6. Appendix: methodology notes

6.1. GHG emissions

GHG emissions are calculated in accordance with the Greenhouse Gas Protocol, covering Scope 1, 2, and 3 across all included portfolio companies, both majority and minority holdings. Emissions are reported in tCO_{2e}.

6.2. Scenario analysis

Climate scenario analysis uses IPCC SSP scenarios (SSP1-2.6, SSP2-4.5, SSP5-8.5). Transition risk assessment uses NGFS scenarios (Net Zero 2050, Delayed Transition, NDCs). Physical risk analysis is conducted at site level across all 313 operational locations using AXA Climate's high-resolution hazard modelling and geospatial mapping, covering 20 hazards under each scenario.

6.3. ENCORE screening of nature-related dependencies and impacts

Summa applies ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure), developed by UNEP-WCMC and UNEP FI, as a sector-level screening tool to identify where portfolio companies may depend on or affect natural systems. The screening maps each portfolio company to its corresponding activity under the International Standard Industrial Classification (ISIC) system. ENCORE then provides materiality ratings across two dimensions: dependencies on ecosystem services, and impacts through environmental impact drivers, using a five-level scale from Very Low to Very High. Where no rating applies, the classification is recorded as Not Applicable (NA) or No Data (ND).

To reflect Summa's actual capital exposure, each company is weighted by its share of total assets under management, so that the resulting heatmaps reflect Summa's actual capital exposure rather than treating all sectors equally. The output is two portfolio-weighted heatmaps: one for dependencies across fourteen ecosystem service categories, and one for impacts across four impact driver categories.

Ratings are assigned at the ISIC activity level, meaning all companies mapped to the same code receive the same materiality rating regardless of differences in operational practices, geography, or supply chain structure. The screening therefore captures sector-typical materiality rather than company-specific performance. Because ENCORE's ratings primarily reflect direct operations, Summa supplements each activity with qualitative value-chain annotations that flag where upstream or downstream dependencies may amplify the materiality profile; these are recorded alongside the heatmaps but are not embedded in the quantitative ratings. Where ENCORE's default ratings are generic or where a specific activity diverges from its broader ISIC category, Summa's ratings are informed by sector knowledge, with the rationale documented in a reference workbook.

The ENCORE screening is a portfolio-level prioritization tool, not a substitute for company-level impact analysis. Where it flags elevated dependency or impact ratings, Summa follows up with quantified impact models based on life cycle assessment data, expressed in units such as PDF·m²·yr and monetized damage values. The screening provides breadth across all portfolio companies; the company-level assessments provide the depth needed to inform engagement priorities and value creation plans.

6.4. Nature impact expressed in species-loss (PDF·m²·yr)

Portfolio pressures and contribution across the planetary boundaries is assessed with a portfolio wide impact model built in collaboration between Valuing Impact and Summa, covering 13 portfolio companies for the 2025 assessment. Here, nature impacts are assessed using the ReCiPe 2016 life cycle impact assessment methodology (Huijbregts et al., 2016), where footprint is expressed as species loss (PDF·m²·yr, Potentially Disappeared Fraction of species per square meter per year). For each portfolio company, operational activities and value chain processes are mapped to ecoinvent 3.12 unit processes (cut-off system model), covering Scope 1 (direct emissions), Scope 2 (purchased energy), and Scope 3 (upstream and downstream value chain) following the GHG Protocol classification extended to all environmental pressures. The model combines process-based LCA with environmentally extended input-output analysis (EEIO) for supply chain categories where process-level data is unavailable. This hybrid approach ensures complete value chain coverage while maintaining process-level granularity where data quality permits.

Nine of the 18 ReCiPe midpoint impact categories have a defined pathway to ecosystem quality damage: terrestrial acidification, climate change (GWP100), freshwater ecotoxicity, marine ecotoxicity, terrestrial ecotoxicity, freshwater eutrophication, photochemical ozone formation, land use occupation, and water consumption. Each midpoint result is converted

to a species-yr damage score using the Hierarchist (H) cultural perspective endpoint characterization factors, then translated to PDF·m²·yr by dividing by a terrestrial species density factor of 1.48×10^8 species/m². This yields the area of land on which, on average, one species would potentially disappear for one year due to that pressure. Freshwater and marine indicators are normalized to the same terrestrial species density to ensure commensurability, enabling aggregation of all ecosystem pressures into a single total. The assessment covers pressure categories that connect most directly to the transgressed planetary boundaries: climate change and ocean acidification, land-system change, biosphere integrity, freshwater change, biogeochemical flows, aerosol loading, and novel entities.

6.4.1. Value chain coverage and data sources

The model combines process-based LCA (using ecoinvent unit processes) with environmentally extended input-output analysis (EEIO) for supply chain categories where process-level data is unavailable. This hybrid approach follows standard practice in organisational LCA, ensuring complete value chain coverage while maintaining process-level granularity where data quality permits. Each company model is tailored to its sector and activities.

6.4.2. Mapping of LCA midpoints to the planetary boundaries

Closest Boundary Affected	Midpoint Category (ReCiPe)	Effect on the biosphere	Pressure (PDF m ² year)	Estimated Positive Contribution (PDF m ² year)
Climate change	Global warming potential (CO ² e)	Rising temperatures shift species ranges, disrupt seasonal timing, and can push ecosystems beyond their thermal tolerances	-257.0m	465.3m
Ocean Acidification	Global warming potential (CO ² e)	CO ² dissolves into seawater due to increasing atmospheric levels, lowering pH and impairing the ability of corals, shellfish, and other calcifying organisms to build shells and skeletons. This destabilizes the reef and other ecosystems that support marine biodiversity.	Biodiversity impact not separately quantified, included in GWP	Biodiversity impact not separately quantified, included in GWP
Stratospheric Ozone Depletion	Ozone depletion	Thinning of the stratospheric ozone layer increases UV-B radiation, damaging DNA in plants and marine organisms	Biodiversity impact not quantified in ReCiPe	Biodiversity impact not quantified in ReCiPe
Atmospheric Aerosol Loading	Particulate Matter Formation	Fine particles deposit e.g. toxic compounds onto soils and waterbodies, negatively impacting ecosystems.	Biodiversity impact quantified in ReCiPe	Biodiversity impact quantified in ReCiPe
	Photochemical oxidant formation potential	Ground-level ozone damages plant tissue, reduces photosynthesis, weakens vegetation and degrades habitat.	-21.4m	52.8m
Biogeochemical flows	Terrestrial acidification	Acid deposition lowers soil pH, leaches essential nutrients, degrading conditions for acid-sensitive organisms and dependent species.	-47.7m	175.2m
	Marine eutrophication-potential	Excess nitrogen enrichment of coastal waters fuels algal blooms that deplete oxygen, creating dead zones where most marine life cannot survive.	Biodiversity impact not quantified in ReCiPe	Biodiversity impact not quantified in ReCiPe
	Freshwater eutrophication	Phosphorus runoff triggers algal blooms in lakes and rivers, depleting oxygen and light, driving out sensitive aquatic species.	-21.7m	71.5m
Freshwater change	total water extraction	Removing water from rivers, lakes, and aquifers reduces habitat availability, concentrates pollutants, and eliminates the flows that aquatic and riparian species depend on.	-20.9m	117.9m
Land-system change	Agricultural land occupation	Converting natural habitats to farmland directly destroys ecosystems, fragments landscapes, and is the single largest driver of terrestrial biodiversity loss globally.	-374.4m	-281.6m
Novel entities	Marine ecotoxicity potential	Toxic substances accumulate in marine sediments and food chains, impairing reproduction, development, and survival across a wide range of ocean species.	-3.3m	9.0m
	Terrestrial ecotoxicity potential	Pollutants in soils harm invertebrates, microorganisms, and plants that form the foundation of terrestrial food webs and ecosystem functioning.	-54.7m	87.0m
	Freshwater ecotoxicity potential	Chemical contaminants in rivers and lakes poison aquatic organisms, disrupt food webs, and reduce the diversity of freshwater communities.	-15.8m	39.7m
Biosphere integrity	All	Total impact is the sum of all impacts mapped to the other boundaries	-817.1m	117.9m

6.4.3. Impact monetization

In parallel with the biophysical metric PDF·m²·yr, the model produces a monetary valuation of each midpoint impact using regionalized natural capital valuation factors expressed in EUR per unit of midpoint emission. These factors reflect the country-specific ecological and economic context in which the impact occurs, drawing on published ecosystem service valuation literature. Monetary values are regionalized by country because the damage caused by, for example, one kilogram of acidifying emissions varies significantly depending on local ecosystem sensitivity, population density, and income levels.

The valuation pipeline first converts each environmental midpoint into an impact on human wellbeing, covering pathways such as disease burden, reduced agricultural productivity, degraded water quality, and loss of ecosystem services that underpin economic activity. A country-specific valuation factor then converts the wellbeing impact to EUR. This monetized metric captures a broader set of effects than the biophysical metric, including human toxicity, particulate matter formation, and ozone depletion, which affect human health but lack a direct species-loss endpoint in ReCiPe 2016. Because the biophysical and monetary valuations are derived from the same underlying LCA infrastructure, negative pressures and positive contributions are measured on a consistent and comparable basis.

6.4.4. Avoided impact methodology (Scope 4)

Companies in the Summa portfolio operate with an explicit impact thesis, meaning their products or services are designed to generate measurable environmental and/or social benefits. With regard to the environment, the assessment includes avoided impact modeling to capture the benefits these companies enable for beyond their operational footprint. These “avoided impacts” are referred to as “avoided pressures” or “contributions”. Avoided impact is defined as the difference in environmental pressure between a counterfactual scenario (what would happen in the absence of the company’s product or service) and the actual scenario enabled by the company.

The calculation follows a consistent structure: Societal value = Output × Baseline × Drop-off × Attribution × Outcome × Valuation factor. Output is the physical quantity of the avoided activity (for example, tonnes of displaced virgin material or kilometers of avoided travel). Baseline captures the counterfactual probability that the impact would have occurred without the intervention. Drop-off adjusts for temporal degradation of the effect. Attribution reflects the company’s share of responsibility for the avoided impact. Outcome is the environmental characterization factor, and the Valuation factor converts the outcome to either PDF·m²·yr or a monetary equivalent.

Where the avoided impact pathway has a clear physical analogue in the ecoinvent database, the Scope 4 calculation reuses the same LCA infrastructure as Scopes 1–3. The avoided quantity is mapped to the corresponding ecoinvent process and characterized using the same midpoint factors. The valuation pipeline, from midpoint to PDF·m²·yr and from midpoint to regionalized monetary value, is identical to the operational footprint calculation, with only the sign convention reversed. This ensures that positive and negative impacts are assessed on a consistent and comparable basis.

Conservative assumptions are applied systematically. The product of Baseline and Attribution functions as an effective additionality rate, ensuring that Scope 4 values represent a credible lower bound rather than an optimistic projection. All impact estimates depends on the chosen counterfactual. For each Scope 4 pathway, the model documents the assumed reference scenario, the data sources used to assess it, and the sensitivity of the result to alternative assumptions. Where multiple Scope 4 pathways share a common underlying driver, the model includes explicit safeguards against double-counting.

Several companies in the portfolio generate biodiversity impacts, both positive and negative, that fall outside the scope of standard LCA midpoint categories. These are modelled using pathway-specific valuation approaches rather than ReCiPe characterisation factors.

6.4.5. Limitations of the impact assessment

Several methodological limitations apply. The normalization of freshwater and marine indicators to terrestrial species density, while necessary for aggregation into a single biophysical metric, reduces precision for aquatic-specific impacts. Marine eutrophication has no ecosystem quality endpoint in ReCiPe 2016, meaning nitrogen discharge to marine environments is captured through monetary valuation but not through the PDF·m²·yr metric. Regionalized characterization factors can vary substantially between countries, and the underlying valuation literature carries wider confidence intervals for non-LCA pathways such as ecosystem service valuation and willingness-to-pay approaches

6.5. TCFD/TNFD Disclosure Index

PILLAR	DISCLOSURE	SECTION
Governance	A. Board oversight	2.1
Governance	B. Management's role	2.2
Governance	C. Human rights & stakeholder engagement (TNFD)	2.4
Strategy	A. Identified risks and opportunities	3.1
Strategy	B. Effects on strategy and financial planning	3.2
Strategy	C. Resilience / Scenario analysis	3.5
Strategy	D. Location of assets (TNFD)	3.6
Risk Management	A. Process for identifying and assessing (TNFD LEAP)	4.1
Risk Management	B. Process for managing (TNFD LEAP)	4.1
Risk Management	C. Integration into overall risk management	4.2
Metrics	A. Metrics for risks and opportunities	5.1-5.5
Metrics	B. GHG emissions (scope 1, 2, 3)	5.2
Metrics	C. Targets and performance	5.6