

How can investors address biodiversity impact & risks?

SOLUTIONS & LIMITATIONS IN INTEGRATING BIODIVERSITY INTO INVESTMENT DECISIONS

MSCI ESG RESEARCH

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Sitra - Webinar

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Agenda

- Why does **biodiversity matter** for investors?
- Biodiversity in **MSCI's product suite**
- **Case study:** *MSCI Nordic Countries Investible Market Index (IMI)*
 - Integration
 - Values investing
 - Impact investing
- **Outlook:** Challenges & opportunities



Why does biodiversity matter for investors?



What is biodiversity?

What is biodiversity?

“Variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes **diversity within species, between species and of ecosystems.”**

Source: United Nations Convention on Biological Diversity (CBD)

What is biodiversity loss?

The reduction of any aspect of biological diversity (i.e. diversity at the genetic, species and ecosystem levels) is lost in a particular area through death (including extinction), destruction or manual removal; it can refer to many scales, from global extinctions to population extinctions, resulting in decreased total diversity at the same scale.

Source: the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Biodiversity loss, May 21, 2021

Why does biodiversity matter?

Negative externalities on society and planet

83%

population decline across vertebrate species since 1970

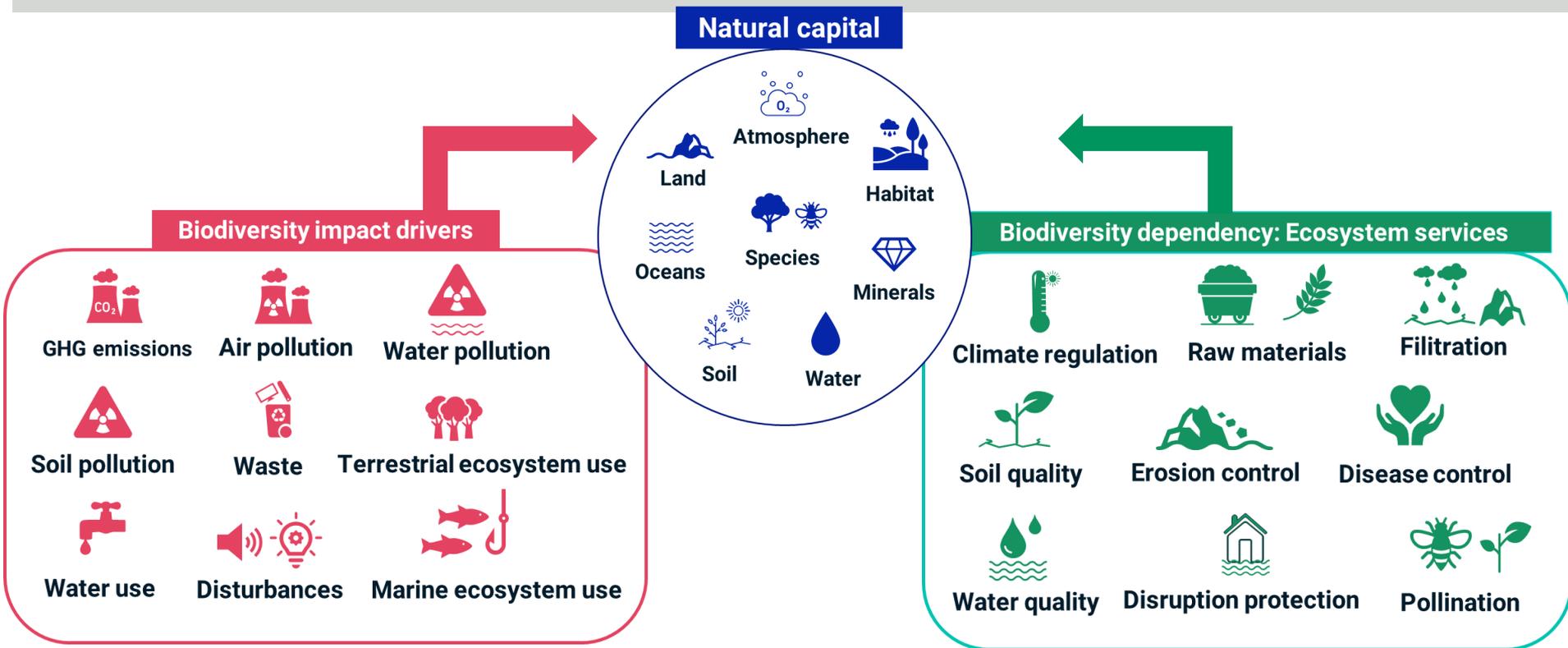
Source: The Biodiversity Crisis Is a Business Crisis, BCG, March 2021

USD 5 trillion

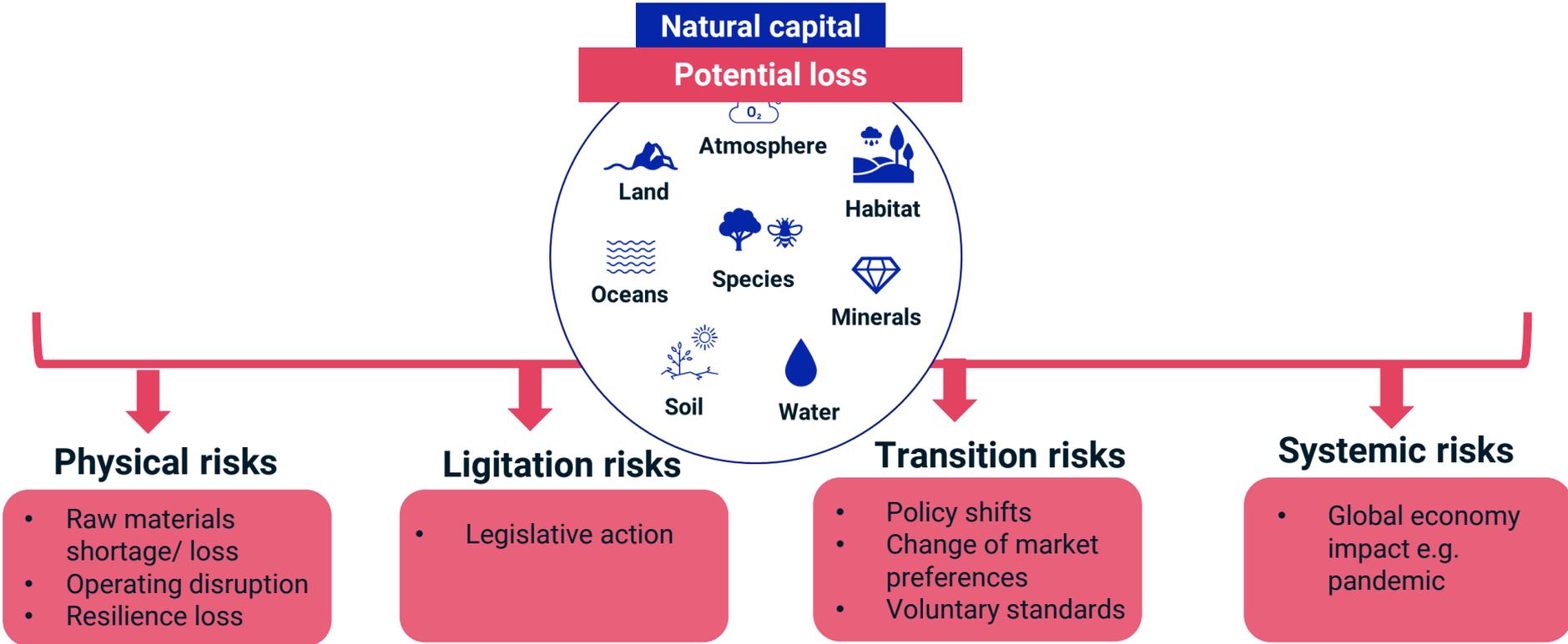
annual cost resulting from the decline in ecosystem functionality

Source: The Biodiversity Crisis Is a Business Crisis, BCG, March 2021

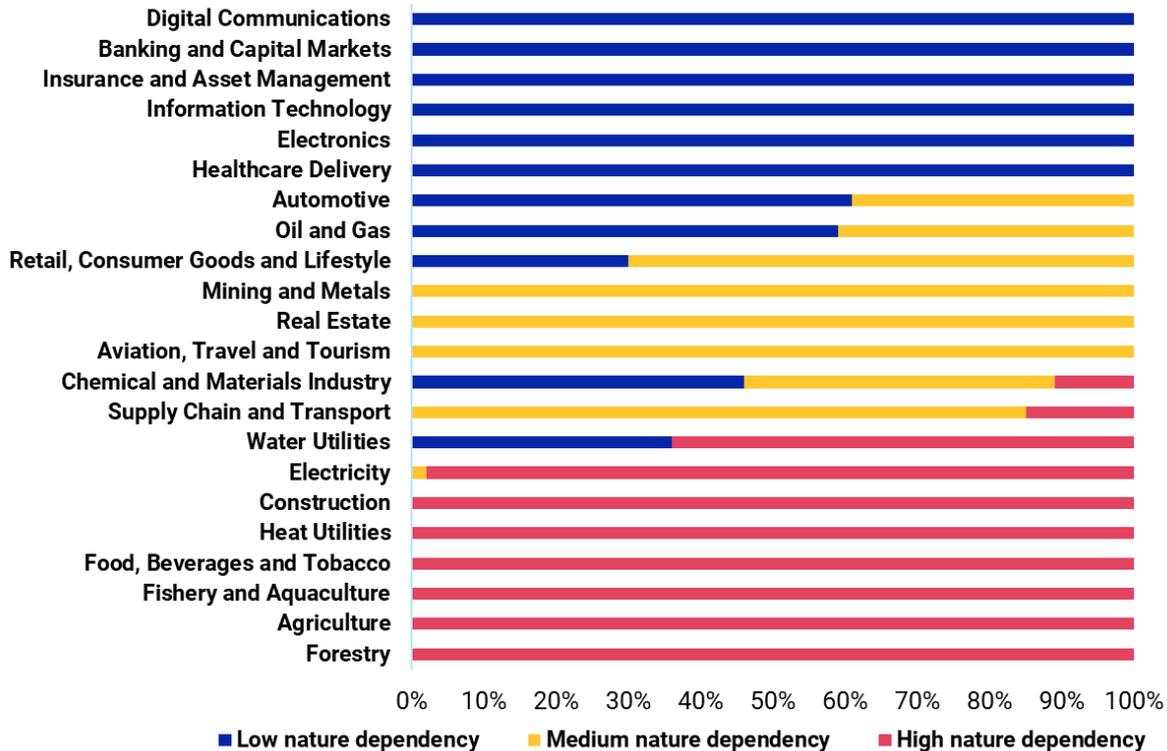
Impact vs. dependency on natural capital



Biodiversity loss: Risks for investors and companies



Dependencies of industries on nature



USD 44 trillion of global economic value generation moderately or highly dependent on nature

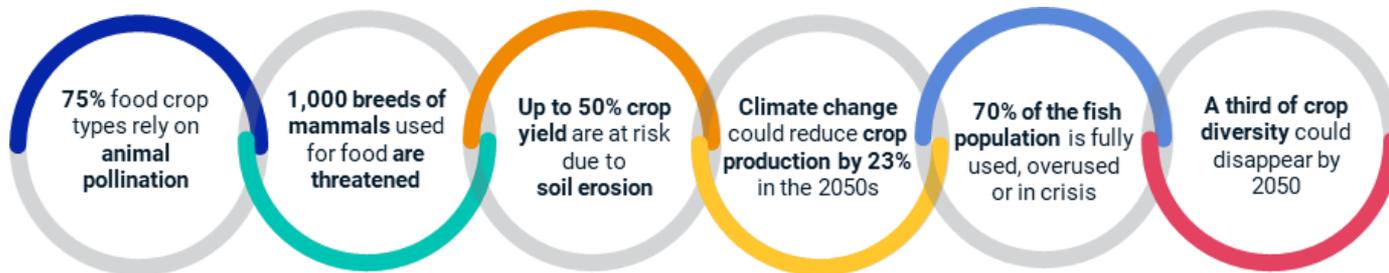
Source: *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*. 2020. World Economic Forum and PwC

Example food industry: High impact & high dependence

HIGH BIODIVERSITY IMPACT



HIGH BIODIVERSITY DEPENDENCE



Why now?



MAGNITUDE OF IMPACT INTENSIFIES

Forest wildfires,
Ocean pollution,
Species extinction,
Reduced fish stocks



REGULATORY MOMENTUM

**UN Biodiversity Conference
2021**
EU Sustainable Finance,
EU 2030 Biodiversity Strategy



INVESTORS WILLING TO ACT

Investor coalitions:
Partnership Biodiversity
Accounting
Financials (PBAF), TCFD,
CDC Biodiversité Initiative,
Consortium for Biodiversity
Footprint, Coalition for
Private Investment in
Conservation



REPORTING FRAMEWORKS

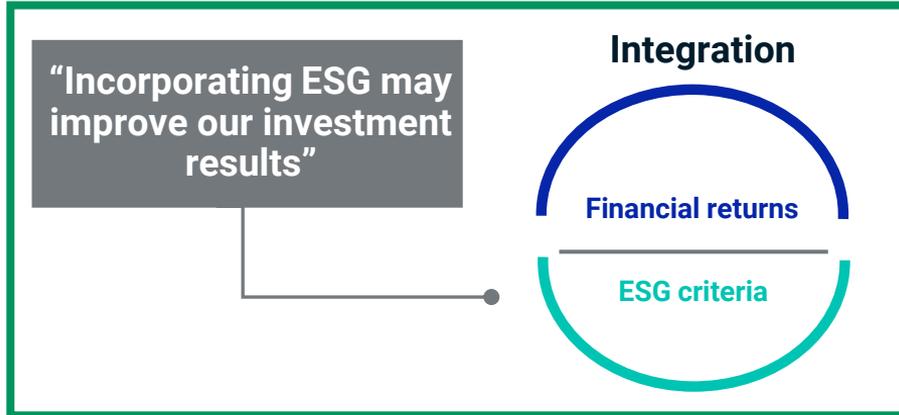
New **accounting metrics and
tools** to assess
biodiversity risks:
Task Force on Nature-related
Financial Disclosures,
ENCORE (Exploring Natural
Capital Opportunities, Risks and
Exposure),
Science Based Targets Network

Biodiversity in MSCI's product suite

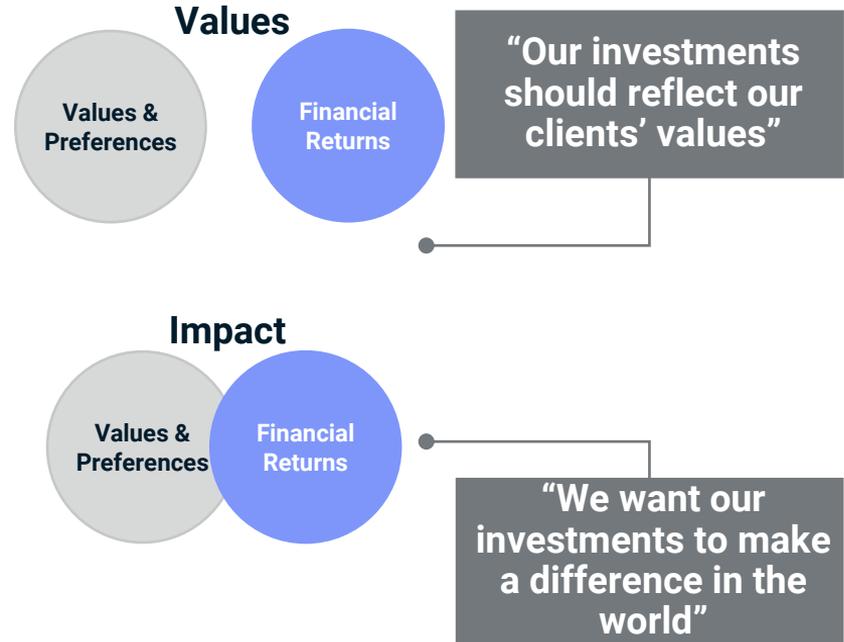


ESG investment objectives: Integration

Investment Objectives



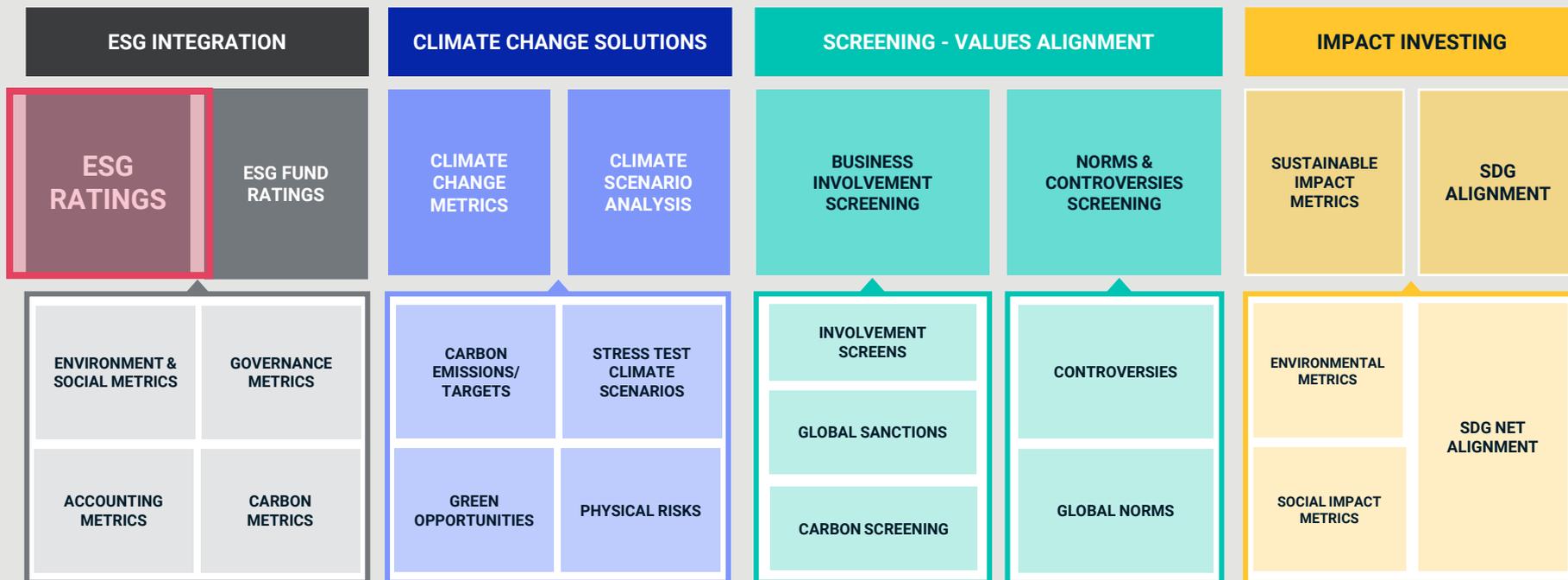
Individual Objectives



ESG investment objectives drive investors' ESG data needs

MSCI ESG Research rates 8,500 companies (14,000 issuers including subsidiaries) and more than 680,000 equity and fixed income securities globally (as of October 2020)

MSCI ESG RESEARCH



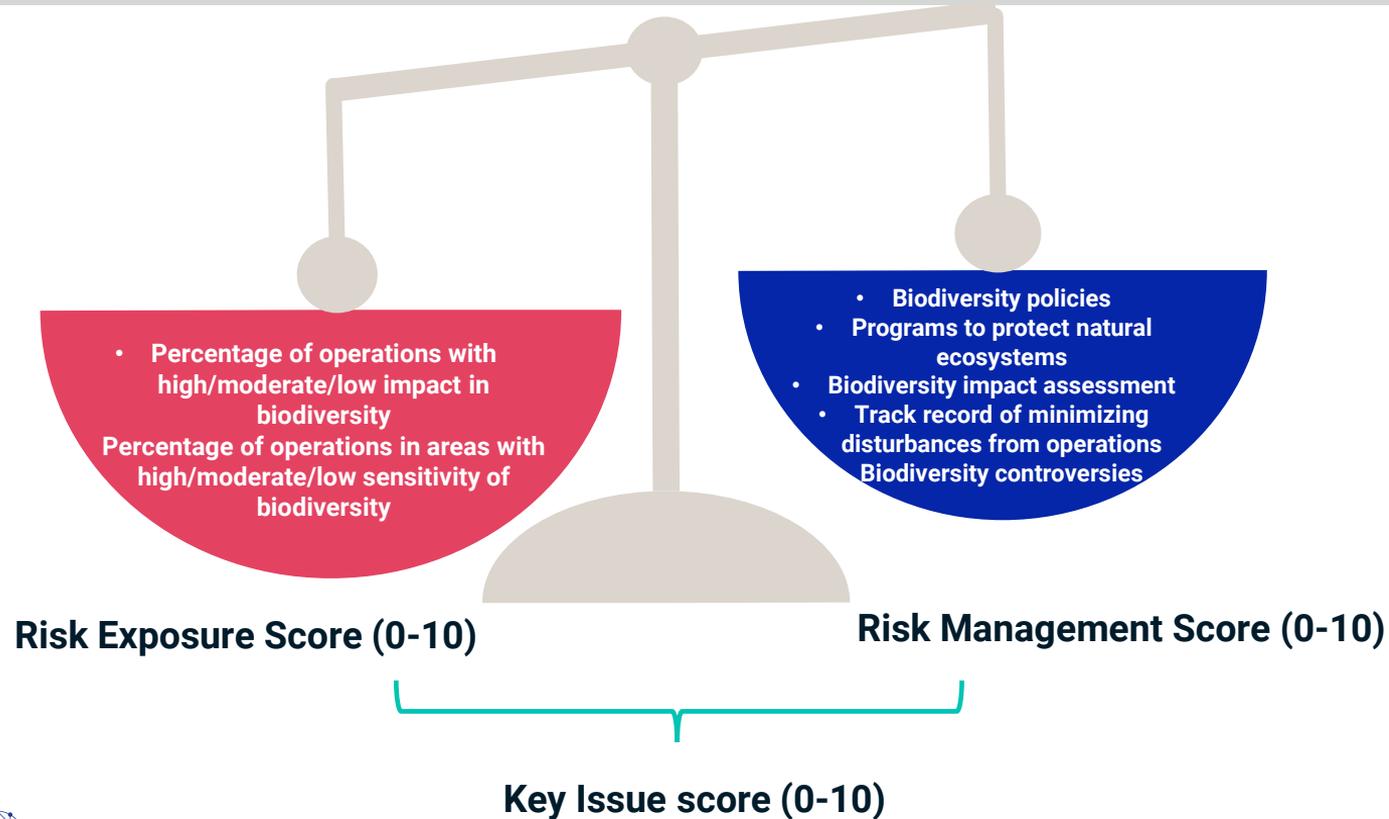
ESG Ratings: Key Issue in our ESG Ratings model

ENVIRONMENT PILLAR				SOCIAL PILLAR				GOVERNANCE PILLAR	
Climate Change	Natural Capital	Pollution & Waste	Env. Opportunities	Human Capital	Product Liability	Stakeholder Opposition	Social Opportunities	Corporate Governance	Corporate Behavior
Carbon Emissions	Water Stress	Toxic Emissions & Waste	Opportunities in Clean Tech	Labor Management	Product Safety & Quality	Controversial Sourcing	Access to Communication	Board	Business Ethics
Product Carbon Footprint	Biodiversity & Land Use	Packaging Material & Waste	Opportunities in Green Building	Health & Safety	Chemical Safety	Community Relations	Access to Finance	Pay	Tax Transparency
Financing Environmental Impact	Raw Materials Sourcing	Electronic Waste	Opportunities in Renewable Energy	Human Capital Development	Consumer Financial Protection		Access to Health Care	Ownership	
Climate Change Vulnerability				Supply Chain Labor Standards	Privacy & Data Security		Opportunities in Nutrition & Health	Accounting	
					Responsible Investment				
					Insuring Health & Demographic Risk				

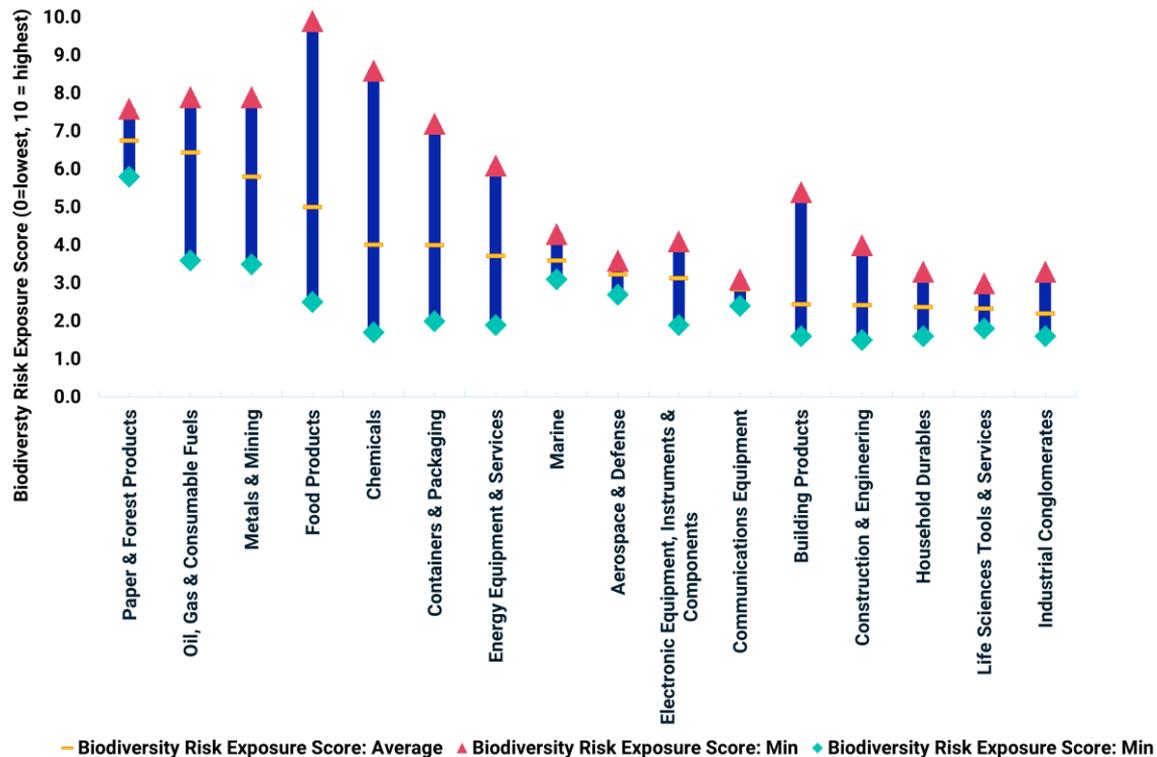
Key Issue: Biodiversity & Land Use/ Raw Material Sourcing

Key Issues with strong link to Biodiversity

Key Issue assessment: Biodiversity & land use



Biodiversity risk exposure: Nordic countries



Impact investing: Values investing

Investment Objectives

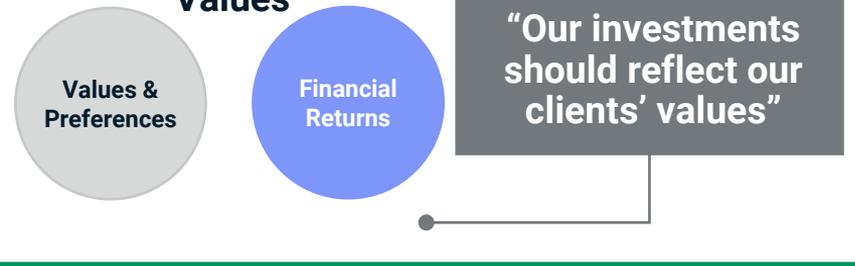
“Incorporating ESG may improve our investment results”

Integration



Individual Objectives

Values



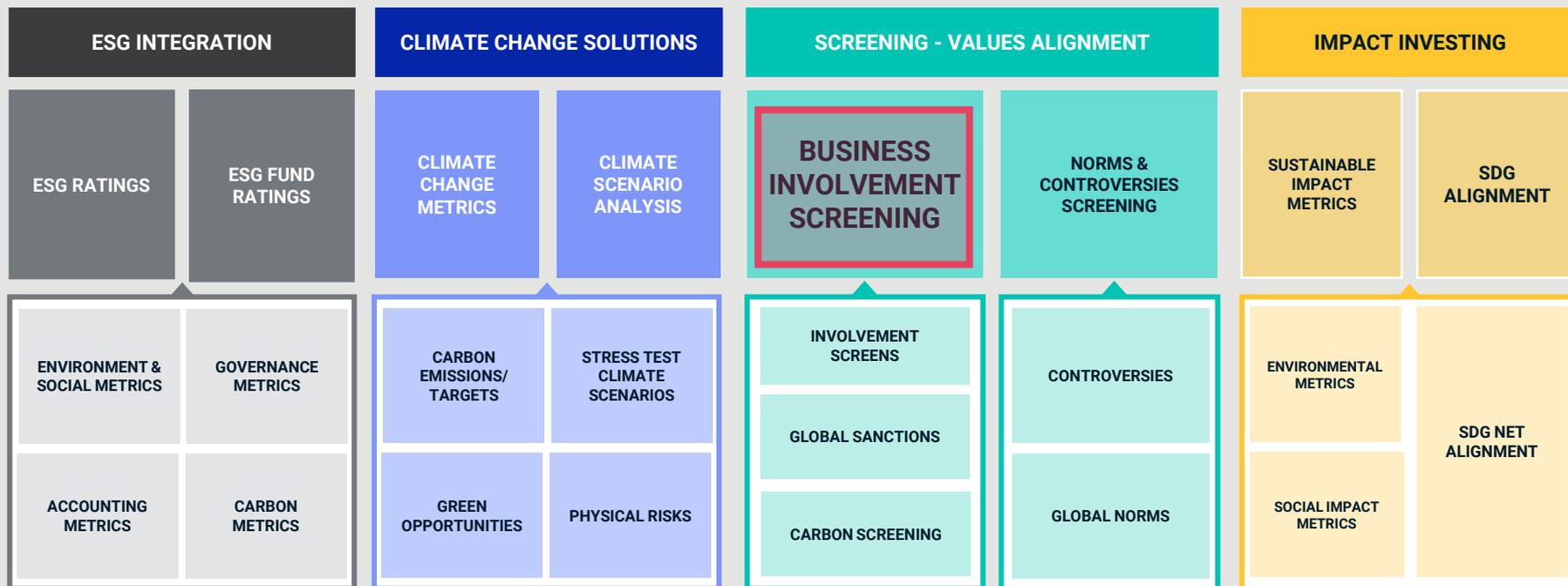
Impact



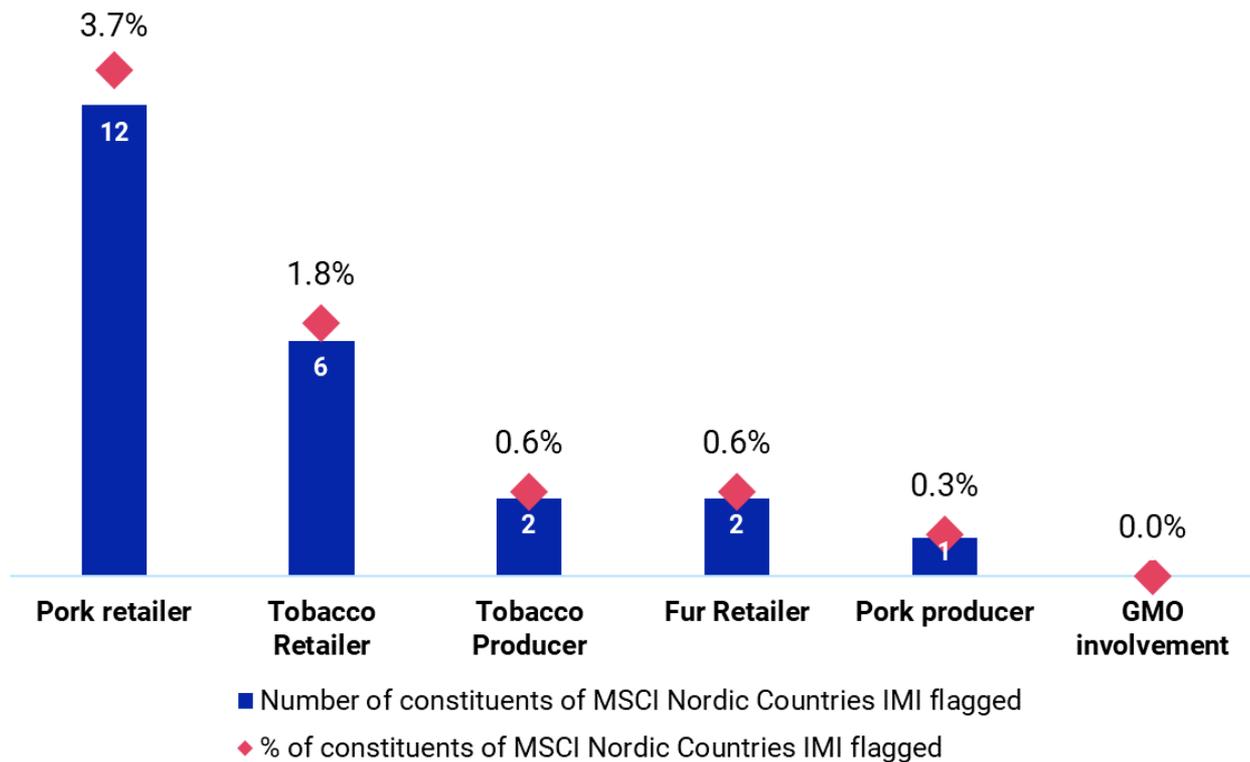
ESG investment objectives drive investors' ESG data needs

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Business involvement screening: Nordic countries

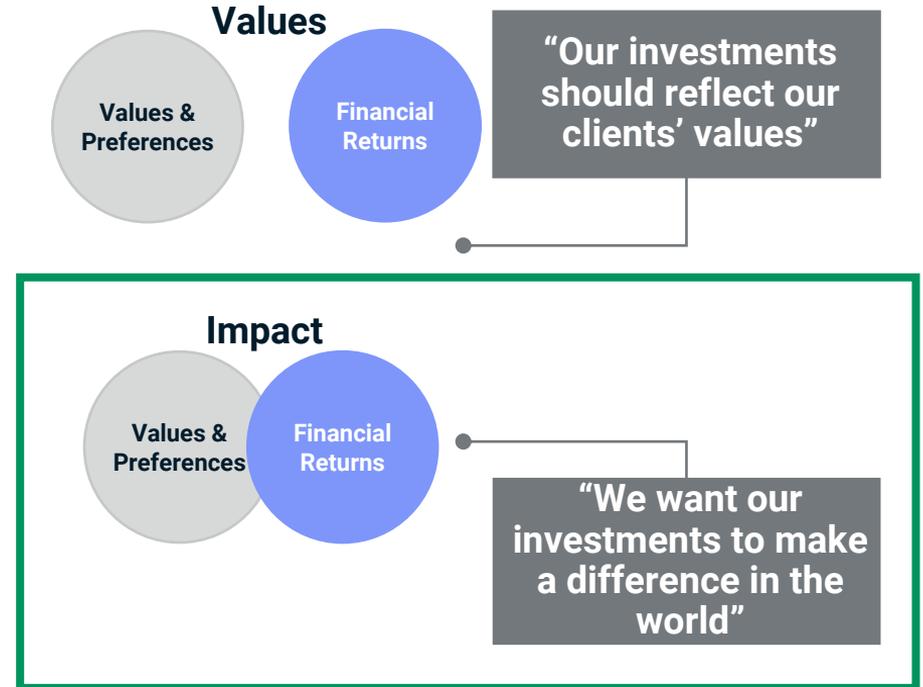


Impact investing

Investment Objectives



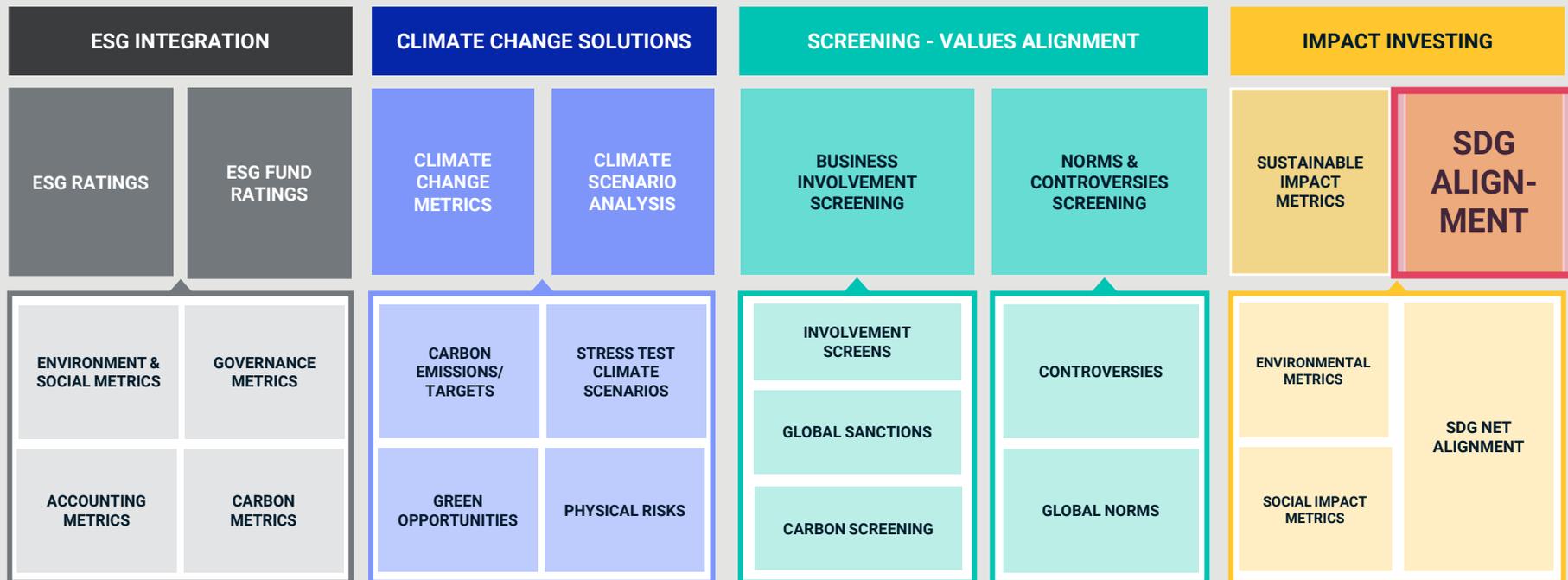
Individual Objectives



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Sustainable development goals alignment

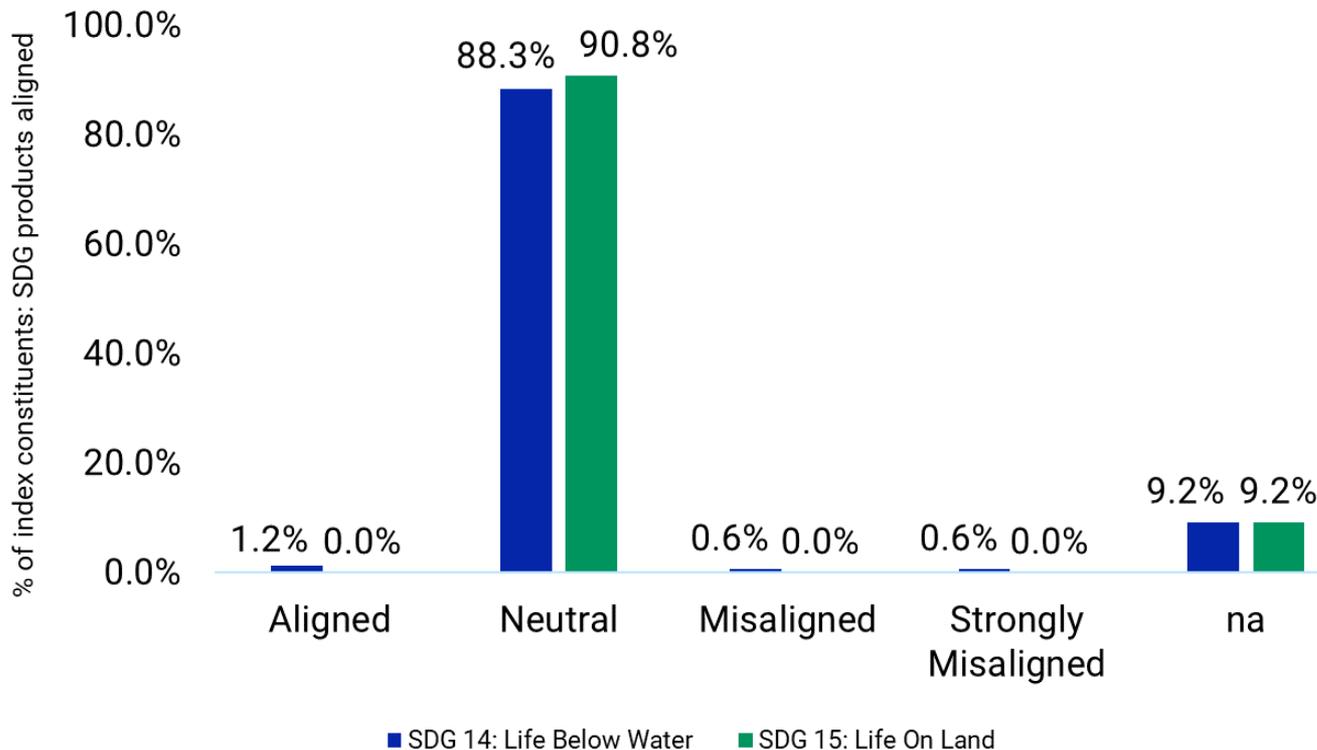


SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD



MSCI assesses companies' overall alignment with each of the 17 UN SDGs

Sustainable development goals alignment: Nordic countries



SDG 14: Life below Water

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Product examples:

- Environmental Remediation
- Wastewater Treatment

SDG 15: Life on Land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Products examples:

- Environmental Remediation

Challenges and opportunities



Challenges

Measuring biodiversity

- How to measure biodiversity impacts given variety of impact drivers and complexities/ interdependencies in ecosystems?
- Which metrics is the best proxy?

Data limitations

- Lack of corporate disclosure
- Asset locations
- Point-location data might not represent the *real* biodiversity impact
- Opacity and complexity of soft commodity/consumer supply chain

The aggregation challenge

- at company-level
- at portfolio-level



Opportunities

MSCI plans to focus on metrics development, partnerships, alternative datasets

- Leveraging **asset location database** and **geospatial analysis**
- Development of SFDR-related biodiversity metrics
- Reviewing external **biodiversity footprinting** approaches (e.g., STAR, BFFI, ENCORE, etc.)
- Exploring metrics: Measuring biodiversity loss
- Exploring companies' revenues reliance on commodity and supply chain mapping
- Participation in **external stakeholder groups**

Appendix

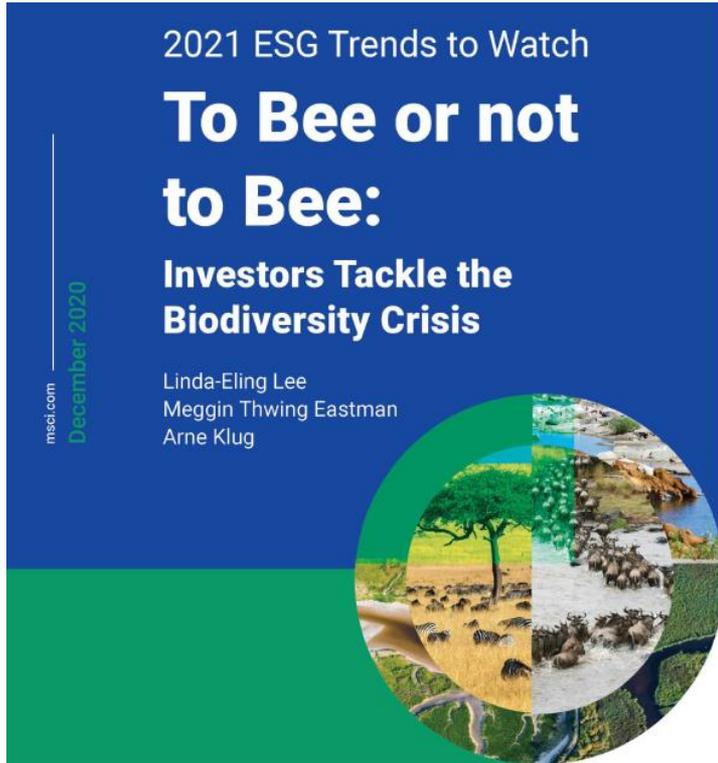


Thematic research on biodiversity

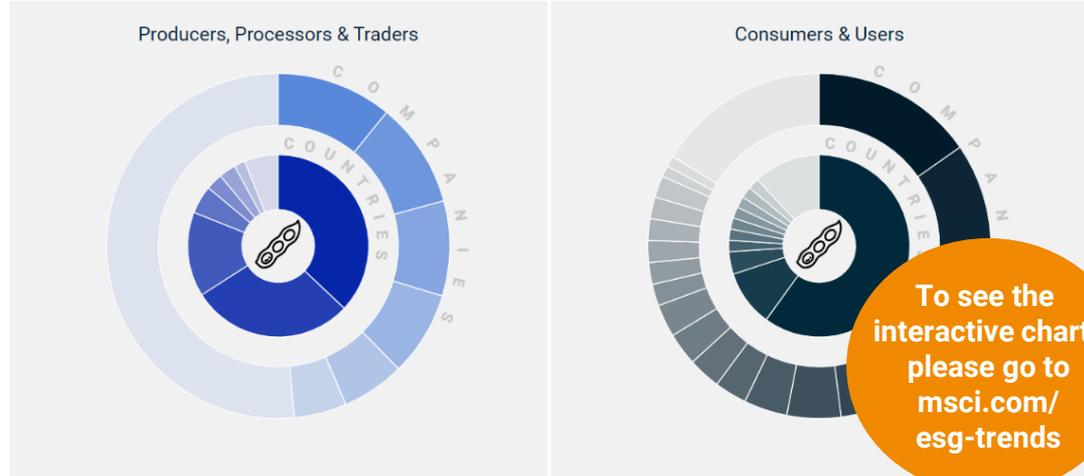
EXAMPLES



ESG Trends to Watch report 2021: Biodiversity crisis among top five trends



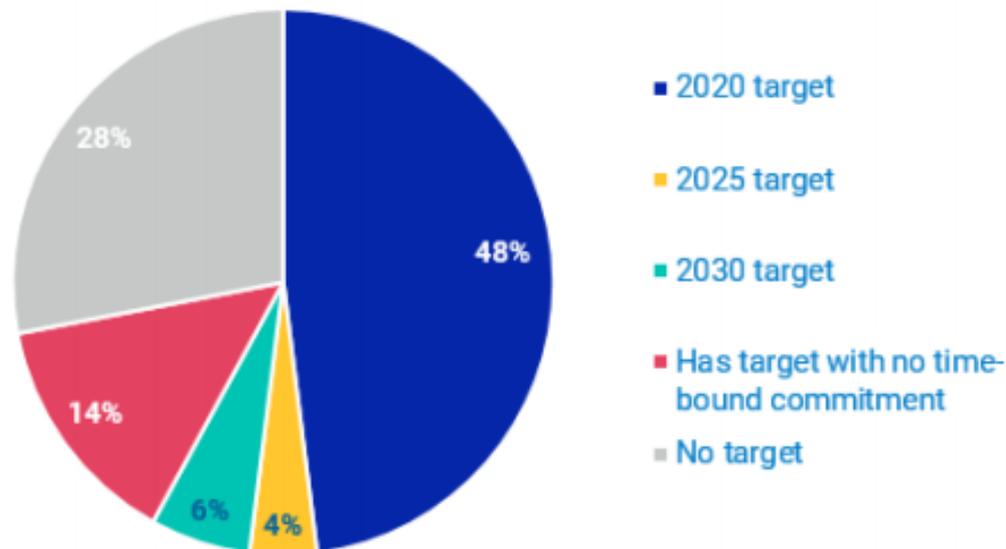
Unpacking the soy value chain: How different countries, traders and consumers are exposed to deforestation



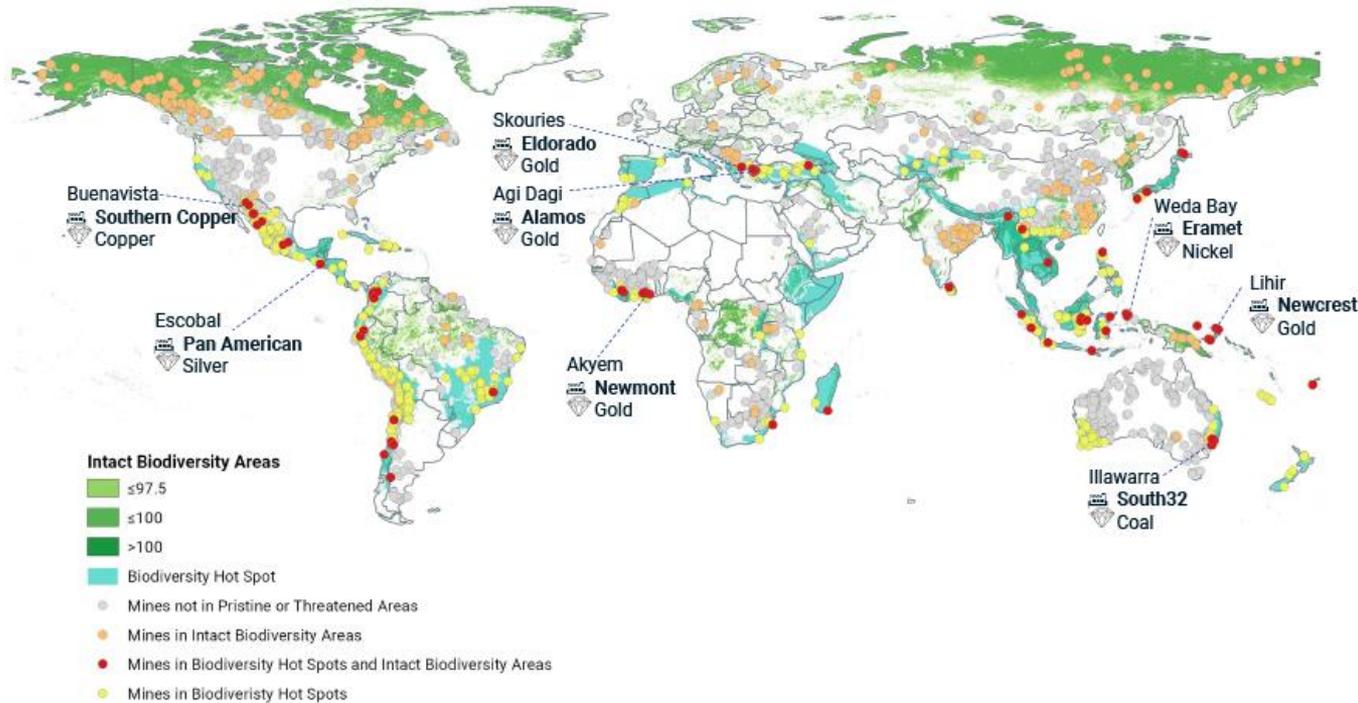
Left circle: company's processed and traded soy volume in % of total soy exports (2017). Source: Global Market Report: Soybeans, International Institute for Sustainable Development, October 2020.
Right circle: company contribution in % of total revenues (FY2019) reliant on soy* from MSCI ACWI Index food products constituents, as of November 24, 2020. Source: MSCI ESG Research. Food processors typically do not disclose their level of reliance on soy, especially when it is embedded in their supply chain and not directly sourced by them. We made soy reliance estimates based on companies' publicly available operating segments description and commonly known food products derived from soy. Therefore, we cannot guarantee the accuracy or completeness of the data or information provided.

Palm oil: Deforestation targets

Deforestation targets for top 50 palm oil buyers



Mines in biodiversity hotspots



- Over 20% of global mines owned by MSCI ACWI Investable Market Index (IMI) constituents located in regions identified as **biodiversity hotspots** (areas with rich but threatened ecosystems).

- A further **13%** of mines were in areas with highly intact ecosystems.

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