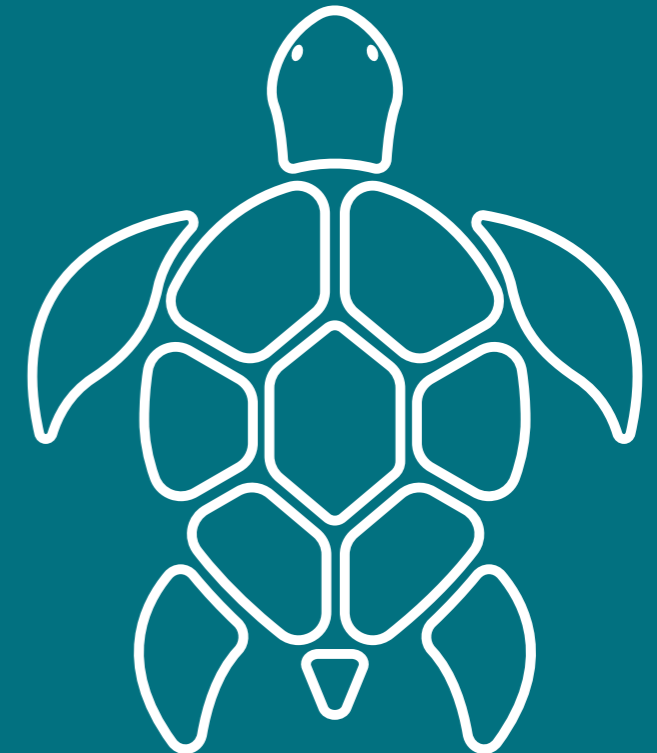


Shaping sustainable investment for the future - addressing biodiversity loss through listed equities

Anna Väänänen, AXA IM Head of Listed Impact Equity

14th October 2024




Challenges to be addressed

Biodiversity loss is now a systemic issue

5 | Primary drivers of biodiversity loss⁴



Land use & sea use change



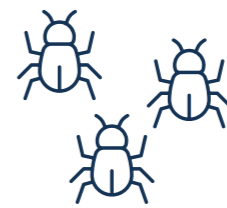
Climate change



Pollution



Direct Overexploitation of natural resources



Spread of invasive species

Source: (1) World Economic Forum, Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy, (2) The Biodiversity Crisis Is a Business Crisis, March 2021, by Torsten Kurth, Gerd Wübbels, Adrien Portafaix, Alexander Meyer zum Felde, and Sophie Zielcke. Note: Other sources say that over half of world GDP or about \$44trn is dependent on ecosystem services (WEF and AlphaBeta, 2020); (3) The 2022 global Living Planet Index. World Wund Fund. (4) ipbes Science and Policy for People and Nature.

COST OF INACTION

50%

of global GDP depends on high functioning biodiversity¹

\$5trn/year

is the cost related to natural ecosystems degradation²

69%

decline in monitored wildlife populations since 1970³

The biodiversity transition is accelerating

Global Biodiversity Framework

COP 15 outcome – Stop biodiversity loss by 2030 - Net positive impact on biodiversity by 2050

Protect

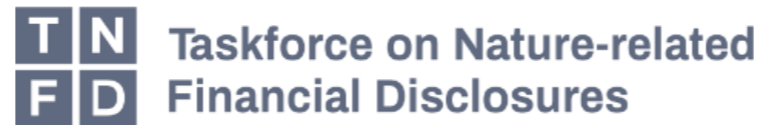
Protect at least 30% of land and water ecosystems¹

Reduce

Reduce 50% in pesticide use and food waste²

Restore

Restore at least 30% of degraded in land and water ecosystems²



Governance

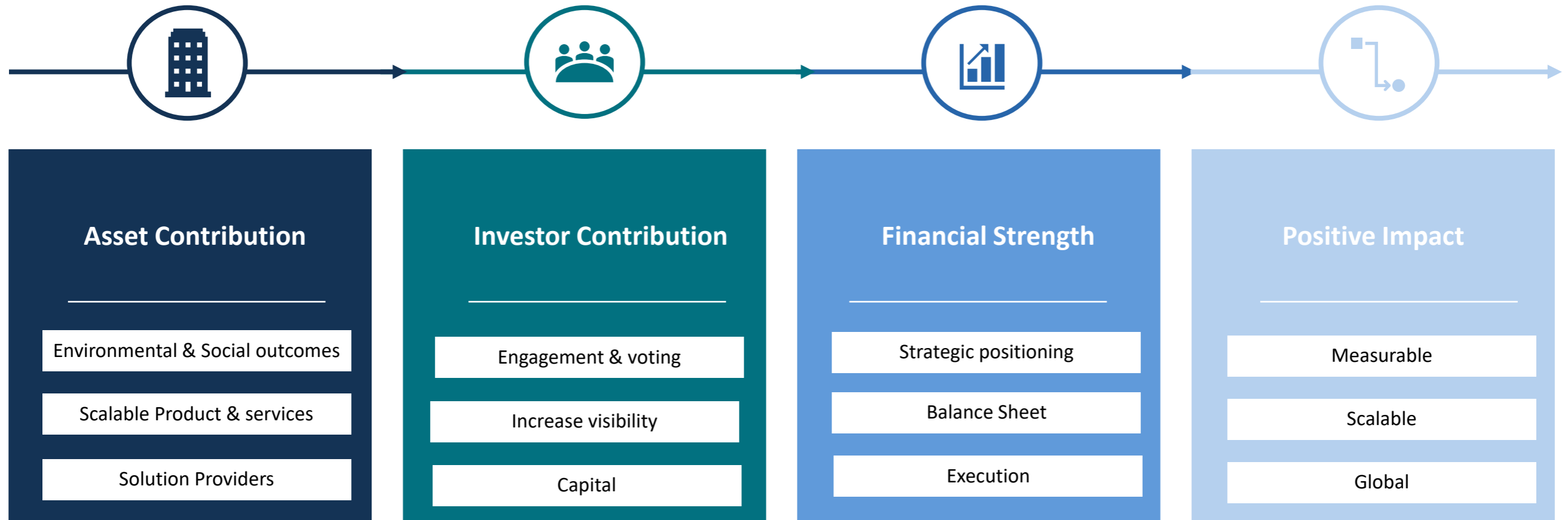
Strategy

Risk management

Metrics and targets

AXA IM's Listed Impact Equity approach

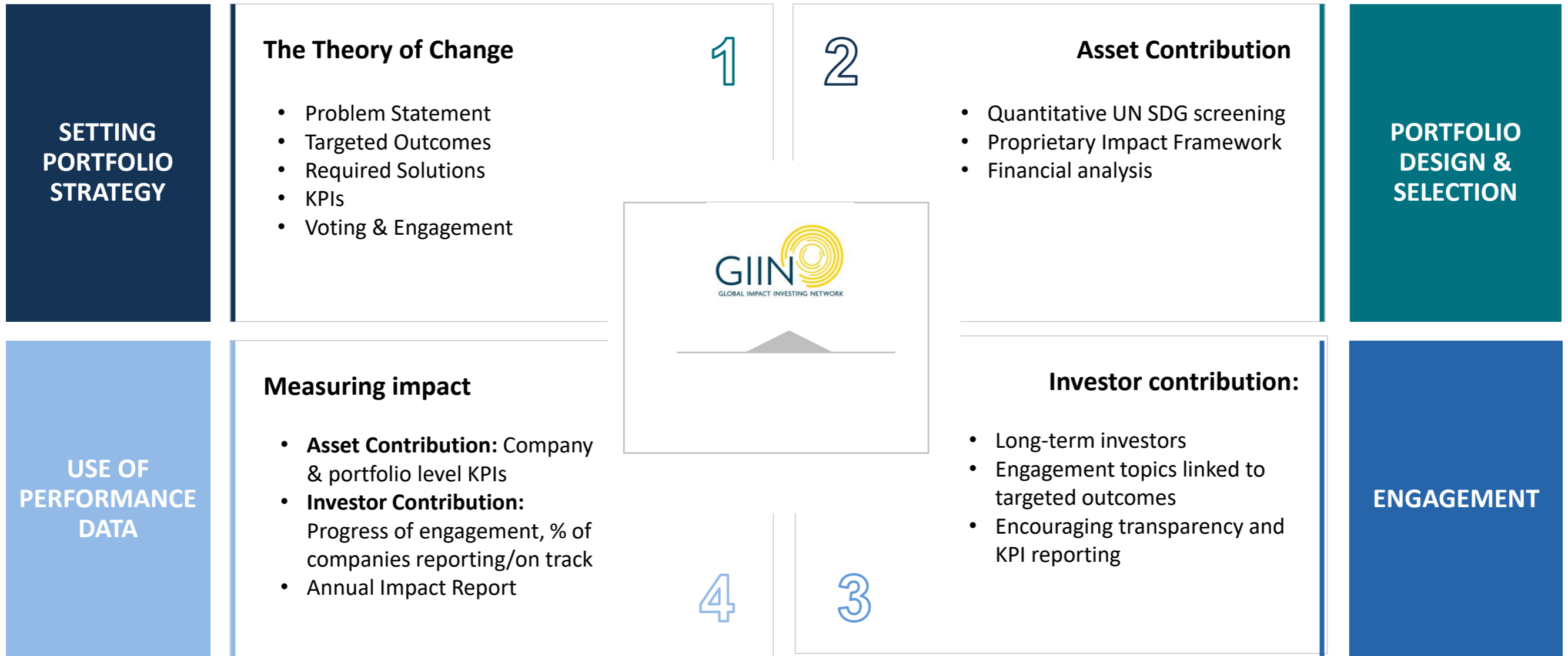
Generating positive measurable impact alongside financial returns



Source: AXA IM, for illustrative purpose only. No assurance can be given that the strategy will be successful or that investors will not lose some or all of their capital. AXA IM reserves the right to modify any of the investment process described herein at its discretion.

Our core principles are aligned to GIIN's framework

Key concepts to guide impact strategy design and implementation



Source: GIIN and AXA IM, for illustrative purpose only. No assurance can be given that the strategy will be successful or that investors will not lose some or all of their capital. AXA IM reserves the right to modify any of the investment process described herein at its discretion.

Identifying Sectors contributing most to biodiversity loss

Corporate Biodiversity Footprint of MSCI All Country World Index



Iceberg Data Lab
Corporate Biodiversity
Footprint

*Mean Species Abundance
Km²MSA*

INFRASTRUCTURE 10%

- Energy (9%)
- Transportation (1%)

AGRICULTURE & FORESTRY 34%

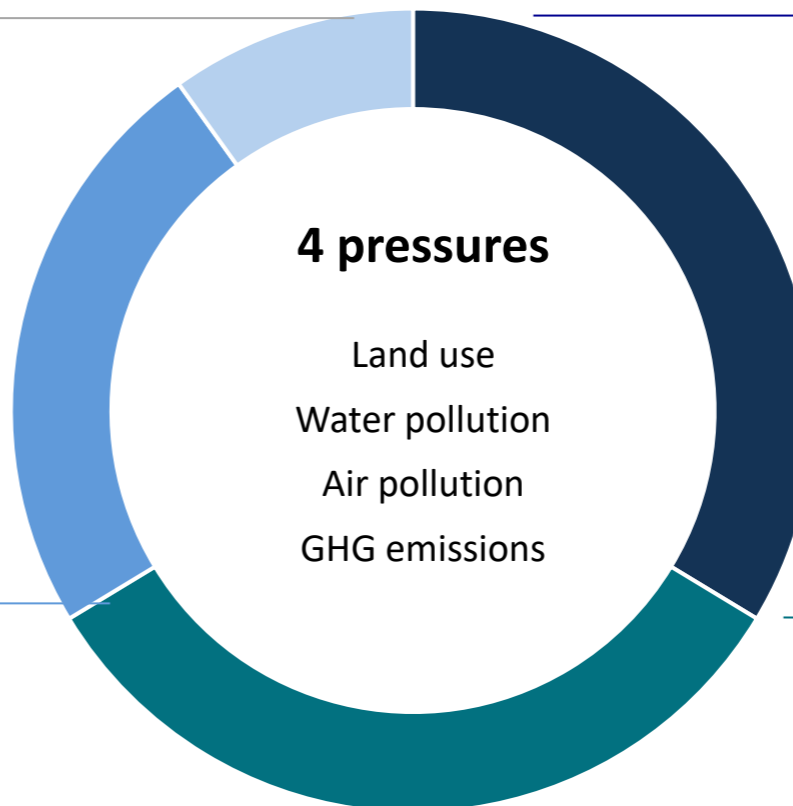
- Agriculture (31%)
- Paper & forestry (2%)
- Real estate (0.5%)

RESOURCES 24%

- Chemicals (8%)
- Industrials (8%)
- Materials (8%)

OTHER 33%

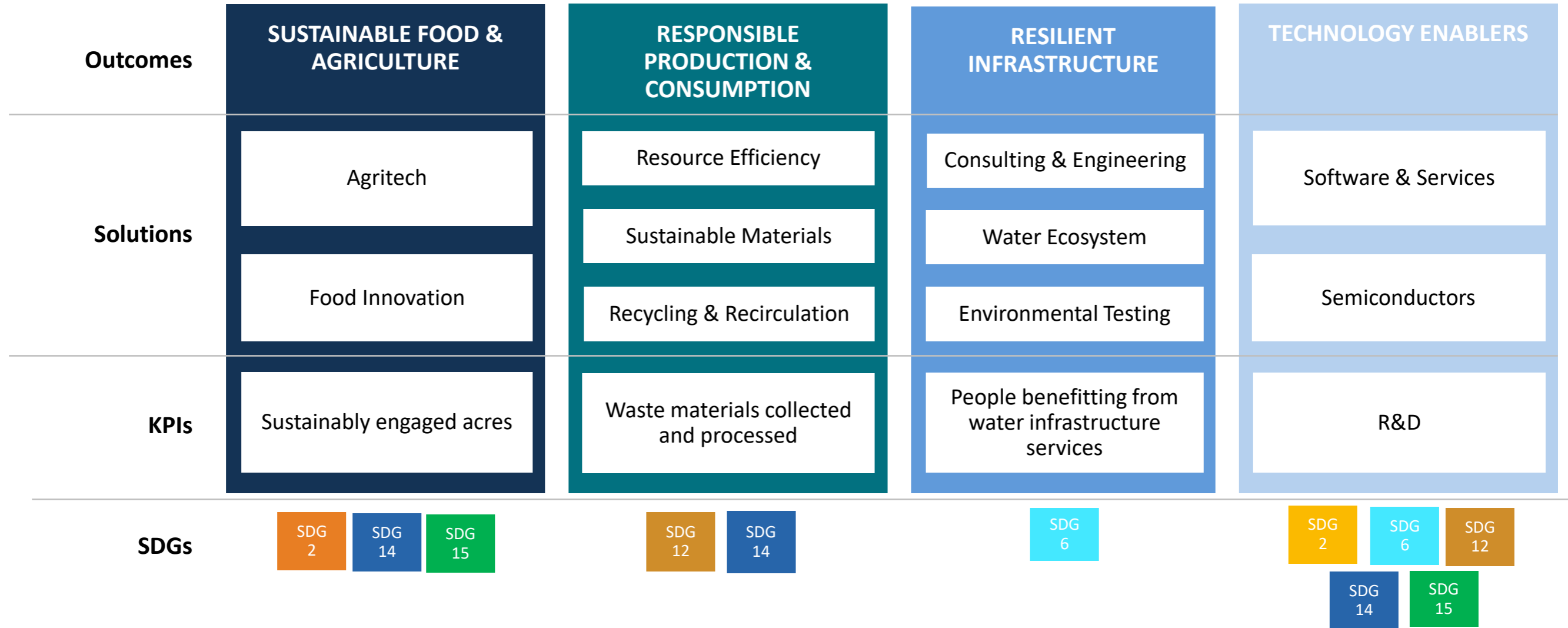
- Consumer (13%)
- Health care (10%)
- IT (10%)



Source: AXA IM and Iceberg Data lab. MSA calculated via science-based models, which have methodological limits: invasive species, oceans and natural resources overconsumption – these aspects of biodiversity loss are not covered. For illustrative purposes only.

Theory of Change

Targeted outcomes to protect and preserve biodiversity



Source: AXA IM, for illustrative purpose only. No assurance can be given that the strategy will be successful or that investors will not lose some or all of their capital. AXA IM reserves the right to modify any of the investment process described herein at its discretion.

Biodiversity solutions

The agriculture industry must become more efficient

The sector is responsible for **80% of deforestation**

...and uses **50% of habitable land**

Global food production will have to increase by **50% to meet demand in 2050**

The **agriculture sector is a traditional sector** that needs to be modernized:

- The use of **cameras, sensors, big data and AI** in soil analysis and crop treatment helps to reduce the use of harmful chemicals.
- **Electric and autonomous tractors** are needed to displace diesel tractors and increase resource efficiency.
- **Regenerative farming practises** to restore biodiversity.



Source :AXA IM. Images from John Deere Website. For illustrative purposes only. Company examples are for illustrative purposes only. This does not constitute investment research or financial analysis relating to transactions in financial instruments, nor does it constitute an offer to buy or sell any investments, products or services, and should not be considered as solicitation or investment, legal or tax advice, a recommendation for an investment strategy or a personalised recommendation to buy or sell securities.

Investment process

A consistent methodology to identify companies providing asset contribution

**PORTFOLIO
DESIGN &
SELECTION**



Screening

Fundamental Analysis

Continuous Monitoring

Biodiversity Universe

- MSCI and ISS rating
- AXA IM Top Level Standards and ESG Standards
- Quantitative filter UN SDGs

Financial Analysis

6 Financial Criteria

1. Structural growth
2. Competitive positioning
3. Operating leverage
4. Management & execution
5. Funding & balance sheet
6. Valuation

Impact Assessment

5 Impact Pillars

1. Intentionality
2. Materiality
3. Additionality
4. Negative externalities
5. Measurability

3 Ratings

- Impact Leader
- Impact Contributor
- SDG Aligned

Implementation

- **Well-diversified portfolio** 35 – 50 stocks
- Typical **tracking error** 4-6%
- **Long** investment horizon
- Robust & **measurable voting and engagement**

7,300 → 600 stocks

600 → 150 stocks

150 → 50 stocks

35-50 stocks

Seeking to identify quality companies that generate measurable impact and financial returns

Source: AXA IM, for illustrative purpose only. No assurance can be given that the strategy will be successful or that investors will not lose some or all of their capital. AXA IM reserves the right to modify any of the investment process described herein at its discretion.

Investor contribution: encouraging companies to improve the targeted outcomes

Investor contribution

Engage

>50% minimum of investee companies

%

of portfolio with engagement target linked to strategy's objective

KPIs

Set and monitor, linked to targeted outcomes

Encourage

to increase their asset contribution

Resolve

negative externalities

Governance

Formal oversight by AXA IM Equity's Investment Oversight Forum

Source: AXA IM For illustrative purposes only. KPIs are not indicative of future results. Reporting in development and subject to change. . 1: <https://www.axa-im.co.uk/research-and-insights/investment-strategy-updates/fund-manager-views/equities/axa-wf-act-biodiversity-impact-report-2022>. 2: MSA calculated via science-based models, which have methodological limits: invasive species, oceans and natural resources overconsumption – these aspects of biodiversity loss are not covered

Measuring, reporting and monitoring

Portfolio impact KPIs

Portfolio KPIs

%

of portfolio with an engagement target related to the strategy

%

of portfolio companies reporting impact KPIs'

%

of portfolio Leader & Impact contributors



Targeting & reporting positive environmental impact

Resilient Infrastructure

People benefitting from water infrastructure services (million people)

Responsible Production & Consumption

Waste materials collected and processed for reuse during the year, in millions of tons

Sustainable Food & Agriculture

Million Acres covered by sustainable agriculture technology during the year

Technology Enablers

R&D investments (\$ Million) by companies in software & services

Source: AXA IM and Iceberg Data Lab as at 31/12/2023. For illustrative purposes only. KPIs are not indicative of future results. Reporting in development and subject to change. . 1: <https://www.axa-im.co.uk/research-and-insights/investment-strategy-updates/fund-manager-views/equities/axa-wf-act-biodiversity-impact-report-2022>. 2: MSA calculated via science-based models, which have methodological limits: invasive species, oceans and natural resources overconsumption – these aspects of biodiversity loss are not covered

Conclusion

The Biodiversity transition has just started.

We expect the **pace to increase** significantly during the next 3-5 years driven by the **COP 15** roadmap and adoption of **TNFD**.



**Proprietary Impact
framework based on
GIIN's concepts**



**Financial analysis to identify
leading solution providers**



**Achieving
dual objective**

Source: AXA IM as at 31/07/2024. No assurance can be given that the strategy will be successful or that investors will not lose some or all of their capital. AXA IM reserves the right to modify any of the investment process described herein at its discretion.

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