

Organizational ESG risk management A birds-eye view for the financial sector

Dr Bronwyn Claire June 2024



CAMBRIDGE ADVANCE ONLINE

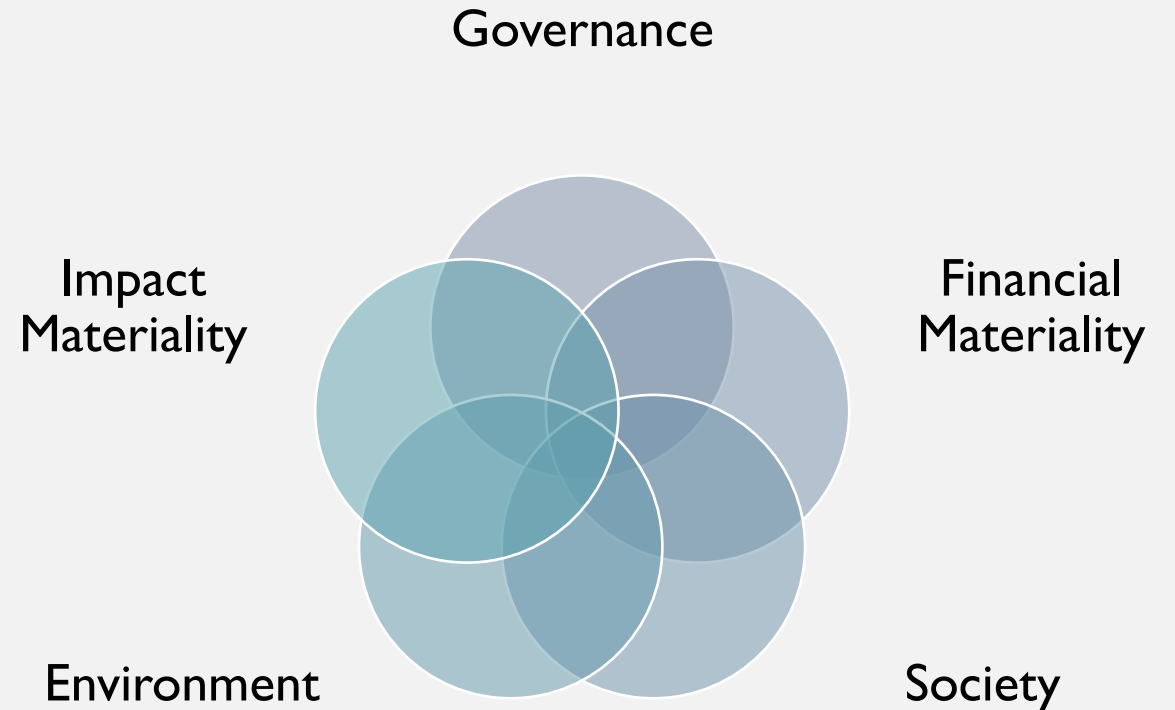


UNIVERSITY OF
CAMBRIDGE

INSTITUTE FOR
SUSTAINABILITY LEADERSHIP

PRESENTATION OUTLINE

- Defining ESG and why it is centre stage
- ESG integration into traditional risk management practices
- Utilizing scenario analysis to evaluate and manage enterprise ESG risks
- Best practices for internal and external ESG-related reporting
- Addressing ESG to achieve sustainability and resilience



DEFINING ESG

E, S AND G

- **Environment**

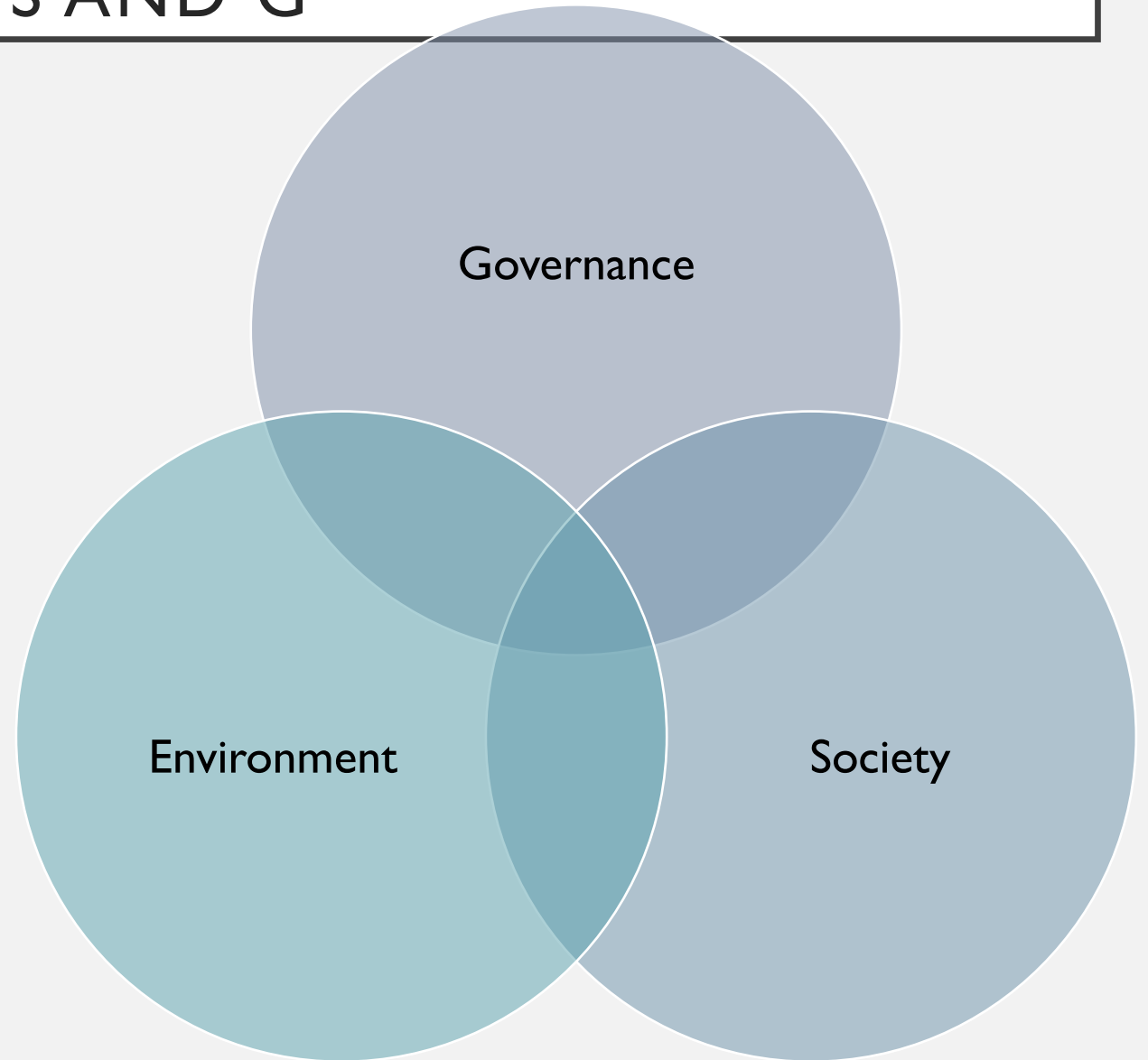
- Climate change
- Waste management
- Energy efficiency
- Natural resources

- **Society**

- Workforce, incl value chain
- Affected community
- Customers and end-users

- **Governance**

- Company structure
- Business ethics and transparency
- Reporting
- Risk management

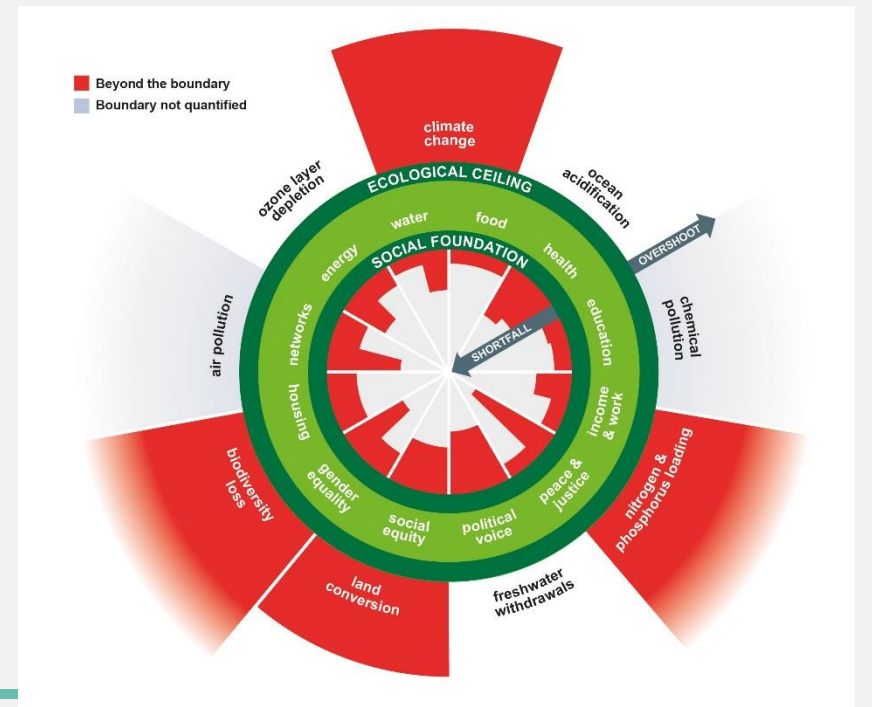
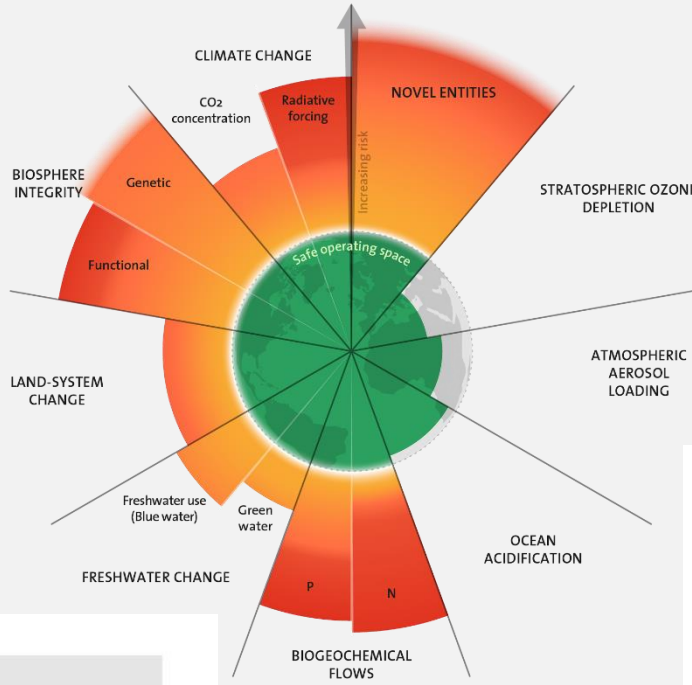


ESG ISSUES

UNEP FI defines environmental, social and governance **issues** as having one or more of the following characteristics:

- are the focus of **public concern** (eg genetically modified organisms);
- are **qualitative and not readily quantifiable** in monetary terms (eg corporate governance, intellectual capital);
- **reflect externalities** not well captured by market mechanisms (eg environmental pollution);
- are often the focus of a **tightening policy** and regulatory framework (eg greenhouse gas emissions); or
- arise **throughout the company's supply chain** (eg labour issues at supplier factories).

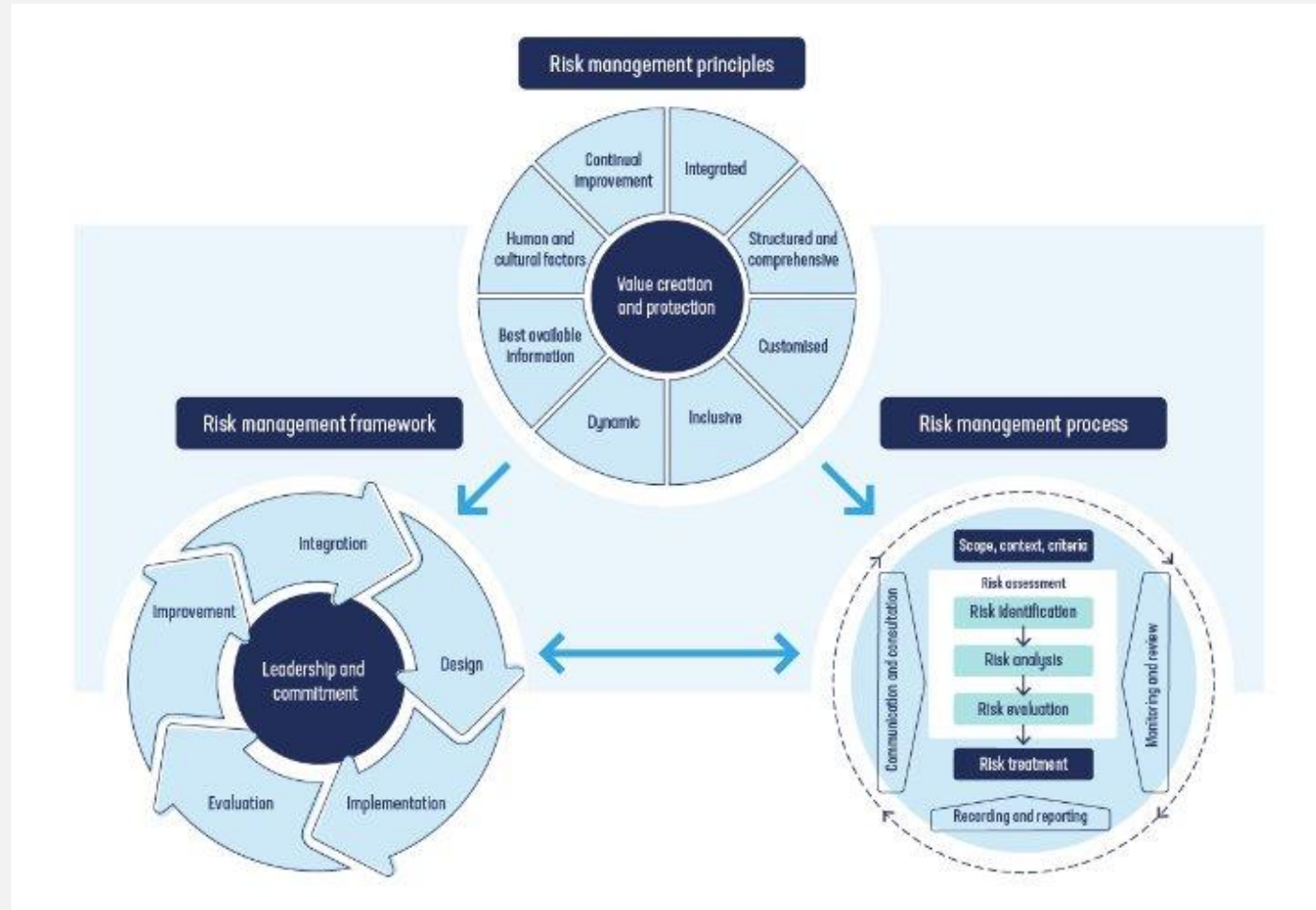
ESG FRAMEWORKS



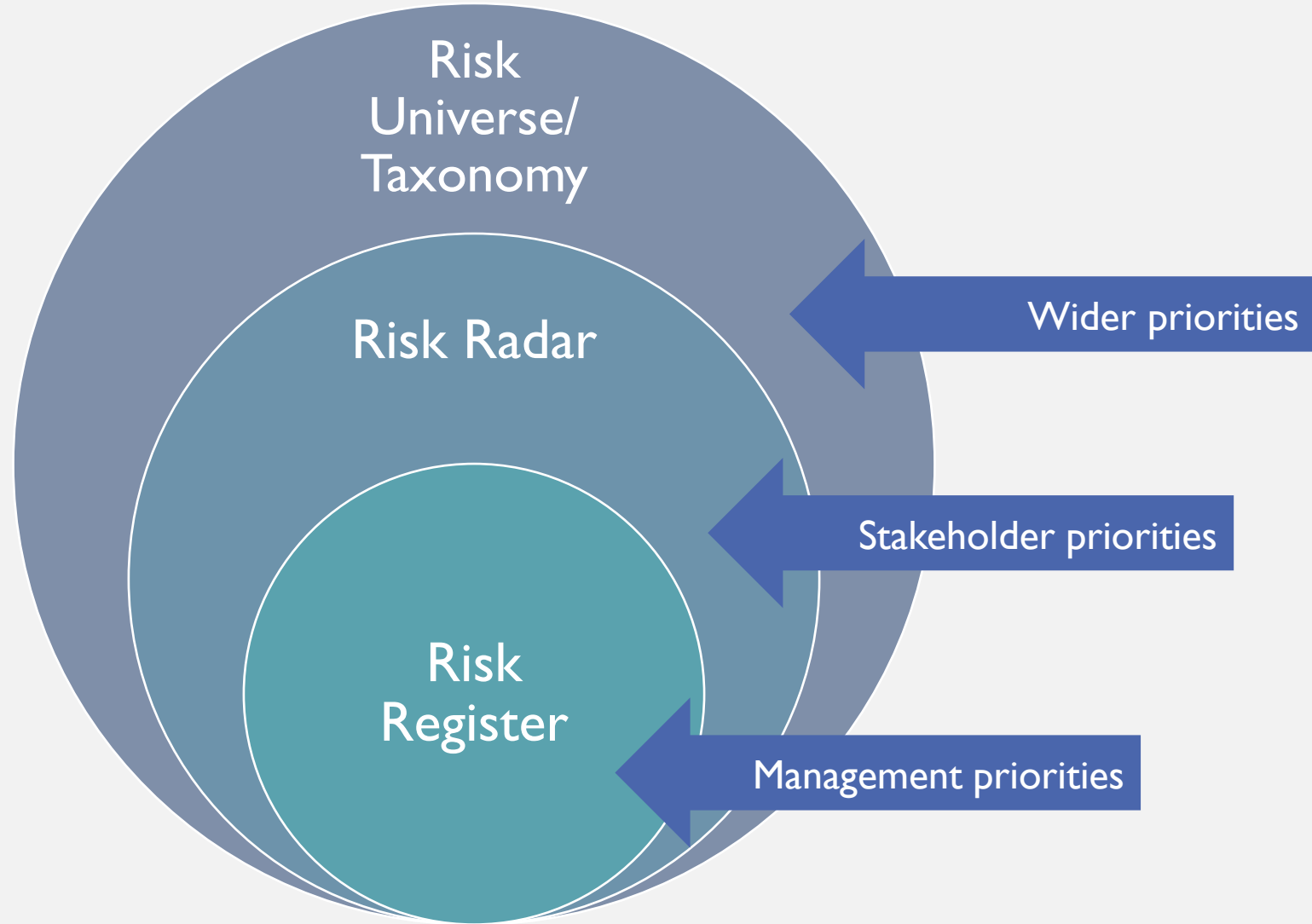
Environmental			Social			Governance		
6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	5 GENDER EQUALITY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION
14 LIFE BELOW WATER	15 LIFE ON LAND		8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS	
			12 RESPONSIBLE CONSUMPTION AND PRODUCTION	16 PEACE, JUSTICE AND STRONG INSTITUTIONS				

RISK MANAGEMENT

ISO 31000 STANDARD



RISK CONTEXT



RISK ARTICULATION

- What is **a risk** when travelling to New York...
 - Landing in New York hungry
 - Being late and missing the connection
 - Failure to arrive in New York
 - Extreme weather forecast for New York
 - Being tired and sleeping through your alarm

RISK TAXONOMY

MSCI ESG Score									
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	Clean Tech	Labor Management	Product Safety & Quality	Controversial Sourcing	Access to Communication	Board	Business Ethics
Product Carbon Footprint	Biodiversity & Land Use	Packaging Material & Waste	Green Building	Health & Safety	Chemical Safety	Community Relations	Access to Finance	Pay	Tax Transparency
Financing Environmental Impact	Raw Material Sourcing	Electronic Waste	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 Issues selected for the Soft Drinks Sub Industry (e.g. Coca Cola)
 ● Universal Key Issues applicable to all industries

BENEFITS OF RISK MANAGEMENT

Opportunities from addressing risks effectively

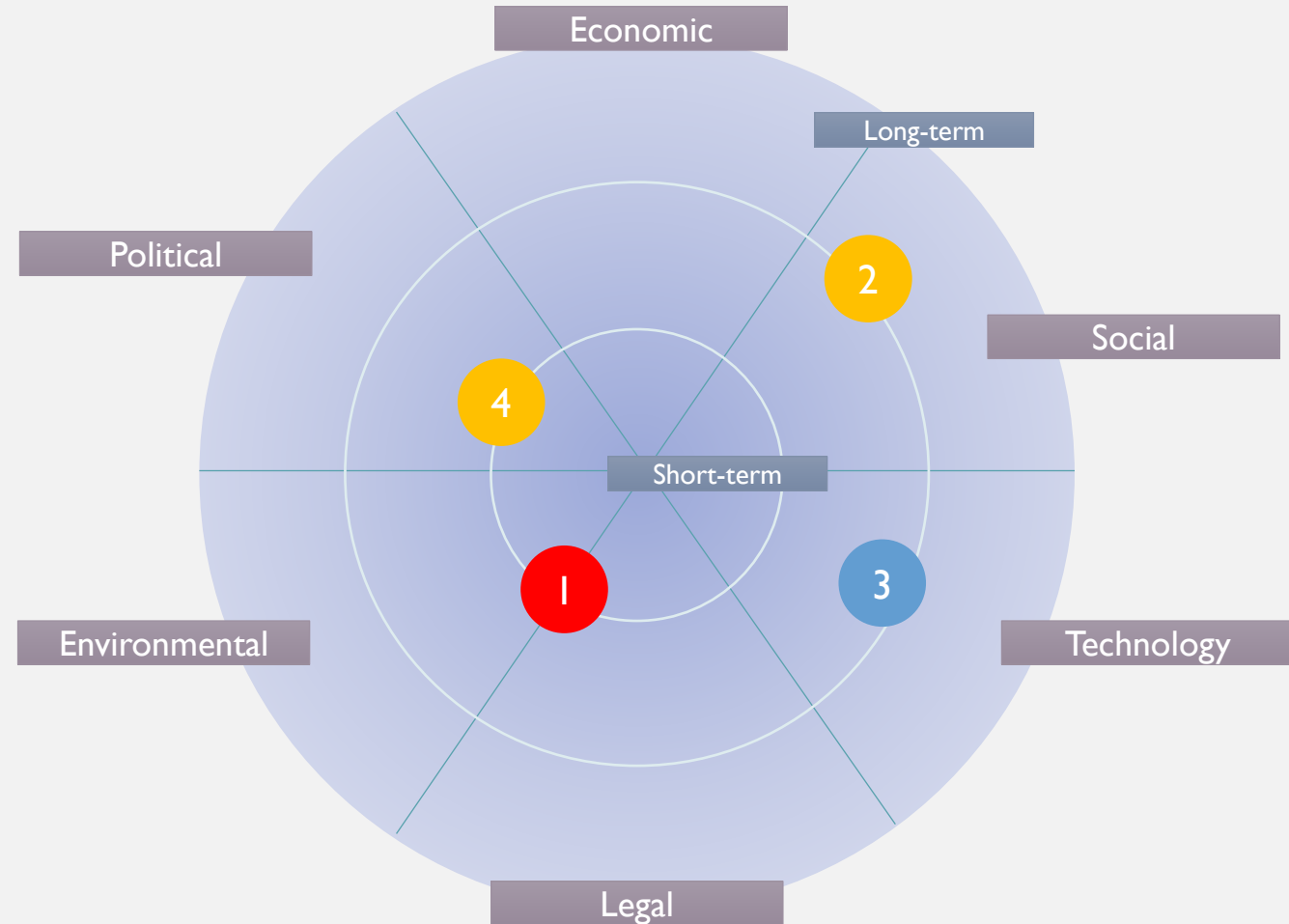
- **Increases awareness** Risk management allows for early recognition or warning of threats – that could be costly in respect to money, security, internal morale and reputation.
- **Enhances responsibility** Allocate accountability to most appropriate staff or even external experts to eliminate them.
- **Boosts corporate communication** Risk management boosts communication in an entire organization. Regular meetings for reviewing the threats also aid in boosting employee morale.
- **Identifies new opportunities** Risk management provides the opportunity of exploring new methods of doing business and design suitable alternatives if a problem occurs.

SCENARIO ANALYSIS

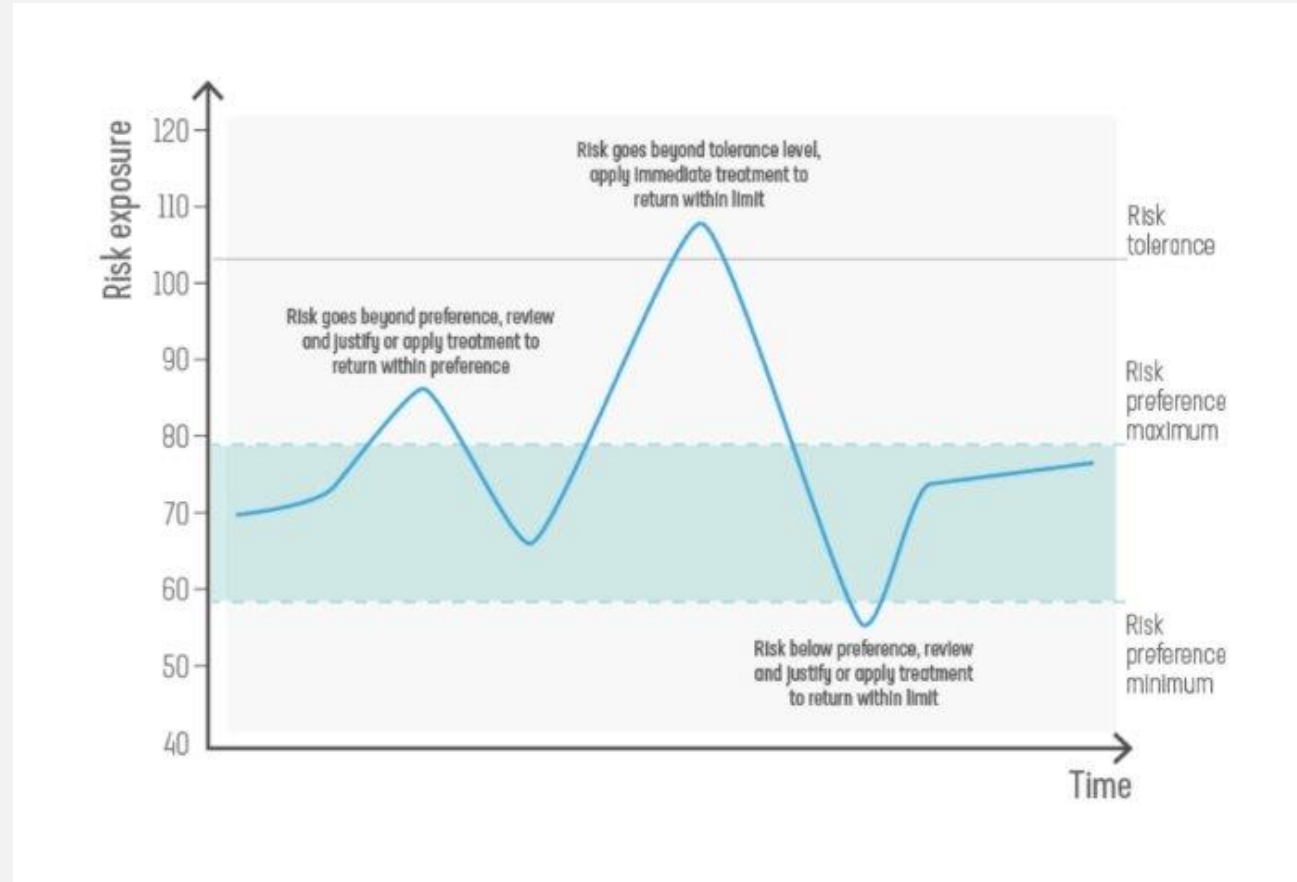
RISK MONITORING

UK agriculture example

1. UK introduces recycling waste management requirements
2. Consumers preferences shift to more diverse crops
3. Decarbonisation of fuel and energy in operations
4. Instability of foreign markets reduce demand



PURPOSE OF SCENARIO ANALYSIS



2024 ORTEC FINANCE CLIMATE SCENARIOS

Net-Zero

Why?
Assess the risks and opportunities under a highly ambitious but orderly transition with climate adaptation.

What?

- **Highly ambitious** low-carbon policy and rapid technology transition
- **Adaptation** and low physical risks of climate change
- Financial markets **do not price-in** future risks

↑ 1.5°C

Net-Zero Financial Crisis

Why?
Shows the resilience of portfolios to sudden repricing, triggering market dislocation centered on high-emitting stocks.

What?

- **Highly ambitious** low-carbon policy and rapid technology transition
- **Adaptation** and low physical risks of climate change
- Sudden divestments in 2025 to align with the Paris Agreement goals have **disruptive effects on financial markets** with sudden repricing followed by stranded assets and a sentiment shock

↑ 1.5°C

**Stress version also available*

Delayed Net-Zero

New in 2024

Why?
Reflects a future where technological breakthroughs and a step-up in policy action limits exposure to severe physical risk.

What?

- **Ambitious policy commitments** combined with considerable improvements in the feasibility and competitiveness of low-carbon technology
- **Physical risks are limited** over the short to medium term
- Financial markets **price-in transition and physical risk** during the **late 2020s**

↑ 2.0°C

Limited Action

Why?
Highlights how falling short of meeting emissions targets and pledges would drive high exposure to physical risks.

What?

- **Emissions targets** and commitments are **not fully met**
- **High** chronic and acute physical risks
- Financial markets **price-in physical risks gradually over the 2020s and 2030s**

↑ 2.6°C

High Warming

Why?
Considers a future without any further action to limit climate change, triggering multiple climate tipping points and very severe physical risks.

What?

- **No new climate policies** are enacted
- **Very severe** chronic and acute physical risks
- Financial markets **price-in physical risks gradually over the 2020s and the 2030s**

↑ 3.7°C

**Stress version also available*

REPORTING

[Home](#)[Who we are](#) ▾[What we do](#) ▾[Sustainability](#) ▾[News and insights](#) ▾[Business customers](#) ▾[Investors](#) ▾[Careers at Shell](#) ▾**Environment**[Management systems](#) ▾[Biodiversity](#) ▾[Circular economy & waste](#) ⌵

- [Circular economy and waste](#)
- [Product stewardship](#)

[Water](#) ⌵

- [Water](#)

[Targets & data environment](#) ▾**Social**[Safety](#) ▾[Human rights](#) ⌶

- [Human rights](#)
- [Shell's approach to human rights \(PDF\)](#) 📄
- [Our values](#)
- [Ethics & compliance manual \(PDF\)](#) 📄
- [Transparency and anti-corruption](#)
- [Responsible business practice | Ethics & compliance](#)
- [Shell general business principles \(PDF\)](#) 📄
- [Code of conduct \(PDF\)](#) 📄
- [Code of ethics](#)
- [UK modern slavery act](#)
- [Voluntary principles on security and human rights \(PDF\)](#) 📄
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- [2023 Dir](#)

[Transpa](#)
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Annual Report and Accounts 2023 📄

Read the full, comprehensive operational and financial report for the year ended December 31, 2023.

→ [Read more about the Annual Report and Accounts](#)

[Read the full Report](#) 📄

Source: <https://www.shell.com/about-us/annual-publications.html>



Nestlé Good food, Good life

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Home About us Our stories Brands Sustainability Nutrition Ask Nestlé

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Home > Our Impact > Compliance & Reporting > Environmental Monitoring & Reporting

Environmental Monitoring & Reporting

EPA NSW requires reporting of environmental impacts at licenced sites in NSW. Monitoring results for our NSW sites are reported annually.

Blayney:

- 2023 monitoring results for Blayney
- 2022 monitoring results for Blayney
- 2021 monitoring results for Blayney
- 2020 monitoring results for Blayney
- 2019 monitoring results for Blayney
- 2018 monitoring results for Blayney
- 2017 monitoring results for Blayney

ABOUT US

- History
- Nestlé in Oceania
- Our factories & offices
- Nestlé Corporate Business Principles
- Unsubscribe or Update Details
- Contact us
- Report Your Concerns
- Investors

BRANDS

- Product Categories
- Product FAQs
- Nestlé Nutrition
- Healthcare Nutrition
- Nestlé Professional
- Purina Petcare
- Nespresso
- Purina Petcare
- Competitions

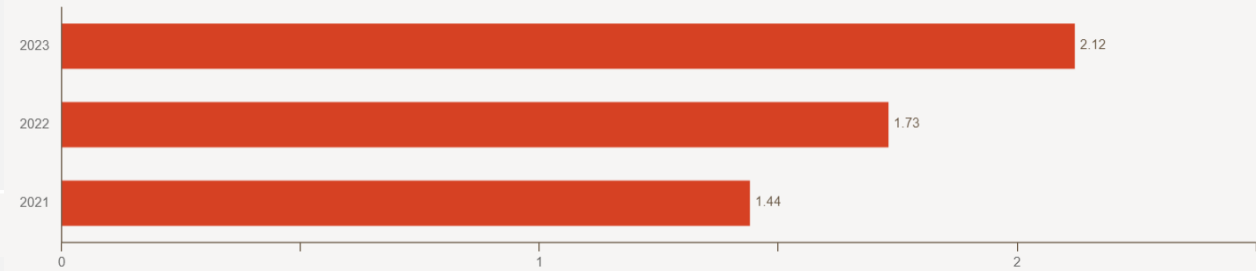
OUR IMPACT

- Our Approach
- Climate action
- Waste reduction
- Nature
- Nutrition, health and wellness
- Raw materials
- People and communities
- Compliance and reporting



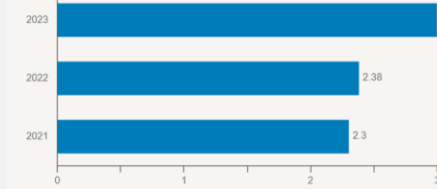
Economic opportunities

Progress toward helping 10 million young people around the world have access to economic opportunities by 2030



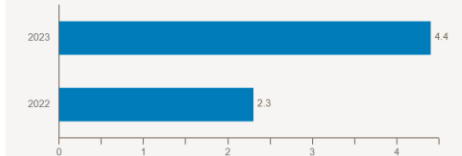
Water use reduction in factories

Million cubic meters



Nestlé Waters volumetric water benefits delivered by implementing local water stewardship projects

Million cubic meters



23

Nestlé Waters sites certified to the Alliance for Water Stewardship (AWS) Standard

Creating Shared Value and Sustainability Report

Source: <https://www.nestle.com/sustainability>



2023 Annual Report

↓ [2023 Annual Report on Form 10-K](#)

↓ [2023 Annual Review](#)

↓ [2023 Impact Report](#)

Introduction	04 - A Letter from Our Chairman & CEO 05 - A Message from Our Lead Independent Director 06 - 2023 Progress and Highlights 07 - Our Approach to ESG 08 - ESG Priorities 09 - Our Stakeholders 10 - Spotlight Stories
Governance	13 - Governance of ESG 14 - Ethics, Transparency, Quality 23 - Accountability
Environment	26 - Climate Change 29 - Sustainable Medicines
Social	32 - Innovation and Global Health 34 - Equitable Access and Pricing 38 - Our People
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Appendix	55 - Global Reporting Initiative (GRI) Index 71 - Sustainable Accounting Standards Board (SASB) Index 76 - Task Force on Climate-Related Financial Disclosures (TCFD) 82 - About This Report

13 - Governance of ESG

14 - Ethics, Transparency, Quality

- Ethical Decision-Making
- Laws and Regulations Compliance
- Open Door Culture and Investigations
- Safety and Quality
- Counterfeit Medicines
- Supply Chain Transparency
- Intellectual Property
- Clinical Trials
- Data Privacy and Protection
- Human Rights and the Right to Health
- Political Contributions and Lobbying Activities

23 - Accountability

- Right Incentives
- Board of Directors and Board Committees
- Board Leadership Structure
- Board Diversity and Independence

How our approach to governance issues supports the Sustainable Development Goals (SDGs)

- 3 GOOD HEALTH AND WELL-BEING**
We aspire to ensure health and well-being for all through equitable access to medicines and vaccines.
- 5 GENDER EQUALITY**
We aim to end discrimination against women, ensure equal opportunities for leadership, and access to reproductive health.
- 12 RESPONSIBLE CONSUMPTION AND PRODUCTION**
We aim to achieve environmentally sound life cycle management and adopt sustainable practices.
- 13 CLIMATE ACTION**
Through our goals we are taking urgent action to help combat climate change and its impacts.
- 16 PEACE, JUSTICE AND STRONG INSTITUTIONS**
We operate to uphold justice, promote the rule of law, and develop ethical, transparent, and representative decision-making.

Source: <https://investors.pfizer.com/Investors/Financials/Annual-Reports/default.aspx>

Delivering impact through our actions

Throughout 2023 Lloyd's has continued to leverage our expertise, insight and the tools we have available to maximise our impact and build a more sustainable, resilient and inclusive market and society.

We do this by aligning our strategy to the United Nations Sustainable Development Goals



Sustainable



Increased our commitment to

10%

of the Central Fund to impact investments by 2025

Lloyds impact Bond
£140m

fund of sustainability focused assets

33%

reduction in global carbon emissions per FTE since 2019



Partnered with Moody's Analytics to develop an emissions accounting solution

Published our insuring the transition roadmap consultation

Resilient



United Nations Capital Development Fund

Signed a landmark partnership to scale insurance access for climate-vulnerable countries

Hosted our first Cyber Innovation Forum

in partnership with Aon

Over

£22bn

claims paid to customers around the world



1,300

stakeholders engaged across 16 events throughout 2023

Lloyd's Futureset

Grew our audience by

30%

across 2023

Inclusive



2.1%

decrease in gender pay gap from 2022

Dive in festival 2023 for diversity & inclusion

Record participation

135
events

37
countries

6
continents

£1.8m^a

of charitable support to 36 charities



Launched our Inclusive Futures programme with an initial investment of **£50m**



Sustainability report 2023

Lloyd's Corporation
Sustainable. Resilient. Inclusive.

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→ Visit www.lloyds.com for more information

Source: <https://www.lloyds.com/about-lloyds/sustainability/reporting-and-operations/reports/sustainability-report-2023>



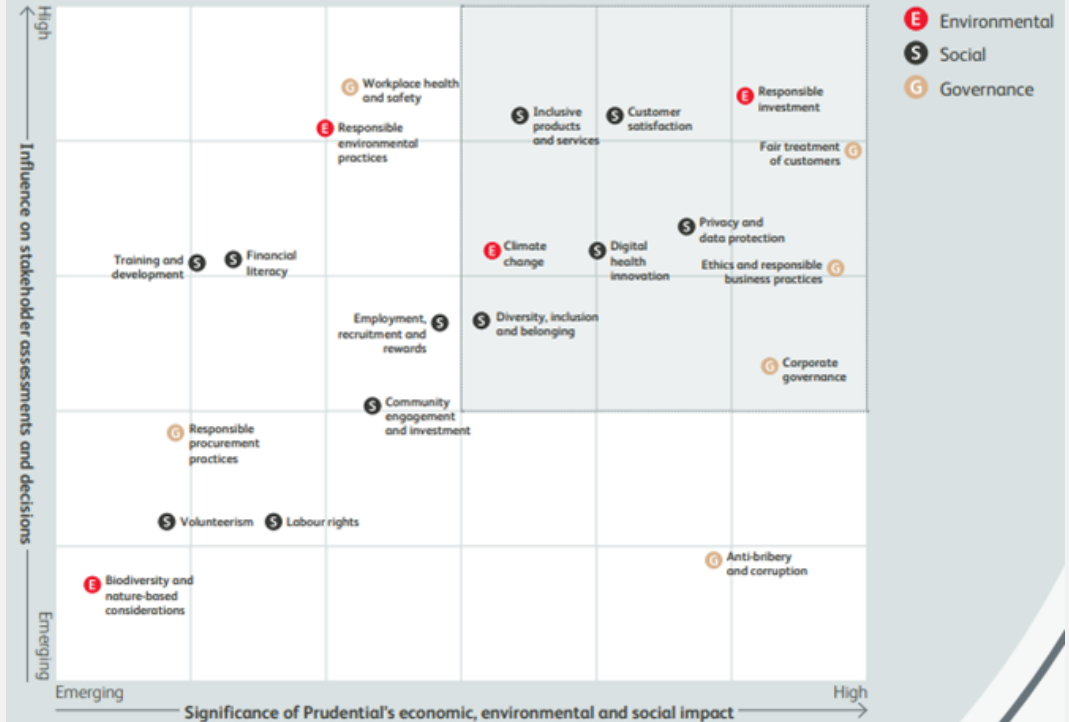
Targets	Timing	Board's evaluation of progress	Detail in report
Responsible investment			
New Deliver a 55% reduction in the carbon emissions^ intensity of our investment portfolio by 2030 against our 2019 baseline	By 2030	➔ On track During 2023 we reduced the weighted average carbon intensity (WACI) of our portfolio by 50% against our 2019 baseline	> Page 78
New Internal investment target on financing the transition to a lower-carbon future. (Note: This is a critical underpin for the WACI reduction target and is linked to our executive remuneration)	By 2030	New target	> Page 78
Engage with the companies responsible for 65% of absolute emissions in our investment portfolio	Ongoing	✔ Fully met This is an ongoing annual target, which we have fully met in 2023 for the identified cohort of companies	> Page 42
Deliver a 25% reduction in our operational emissions intensity from a 2016 baseline, and abating the remaining emissions via carbon offsetting initiatives, to become carbon neutral across our Scope 1 and 2 (market-based) emissions by the end of 2030	By 2030	➔ On track We achieved an intensity ratio of 0.95 TCOe/£TE for 2023	> Page 78
Sustainable business			
Employ 35% of women in senior management^1 by the end of 2023			
New Ensure 40% of women in Group Leadership Team^1 by the end of 2026			
New All people managers to have sustainability-linked KPIs by the end of 2026			

The above performance against targets is as of 31 December 2023. The Board will continue to review and evolve this as the Group progresses.

Materiality matrix

Our assessment identified 21 topics and ranked them as either high, medium or emerging priority. The topics are mapped according to their importance to stakeholders and Prudential's business, and their impact on the economy, environment and society.

Our high-priority material topics are consistent with our findings in 2022: responsible investment, fair treatment of customers, customer satisfaction, inclusive products and services, digital health innovation, climate change, privacy and data protection, ethics and responsible business practices, corporate governance and diversity, inclusion and belonging. These are areas where we believe our efforts can contribute to a more sustainable future.



Sustainability at Prudential

Materiality assessment process 2023



Index inclusion and ESG ratings

MSCI
AA
2022: AA

Sustainalytics
16.3
2022: 18.2

CDP
B
2022: A-

S&P Global CSA
53/100
ranked in the 72nd percentile
2022: 61/100 ranked in the 71st percentile

ISS
Prime, 2nd decile
2022: Prime, 2nd decile

FTSE4Good
3.6/5
2022: 4.3/5

USE OF EXTERNAL REPORTING

BIODIVERSITY RISK *

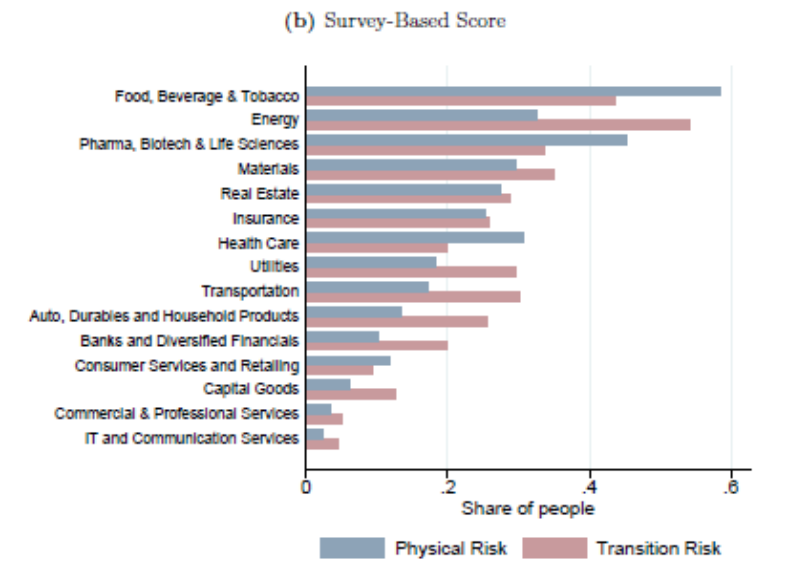
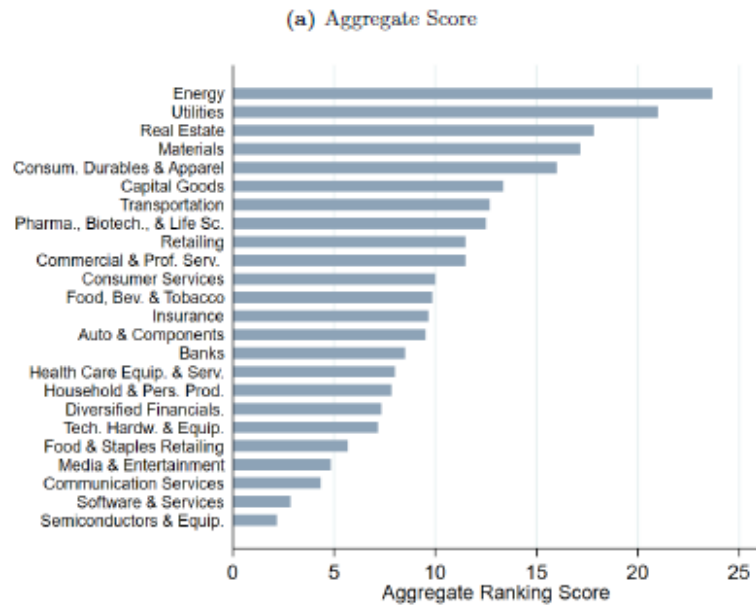
Stefano Giglio[†] Theresa Kuchler[‡] Johannes Stroebel[§] Xuran Zeng[¶]

April 2023

Abstract

We explore the effects of physical and regulatory risks related to biodiversity loss on economic activity and asset values. We first develop a news-based measure of aggregate biodiversity risk and analyze how it varies over time. We also construct and publicly release several firm-level measures of exposure to biodiversity risk, based on textual analyses of firms' 10-K statements, a large survey of financial professionals, regulators, and academics, and the holdings of biodiversity-related funds. Exposures to biodiversity

Figure 5: Industry-Level Biodiversity Risk Exposure

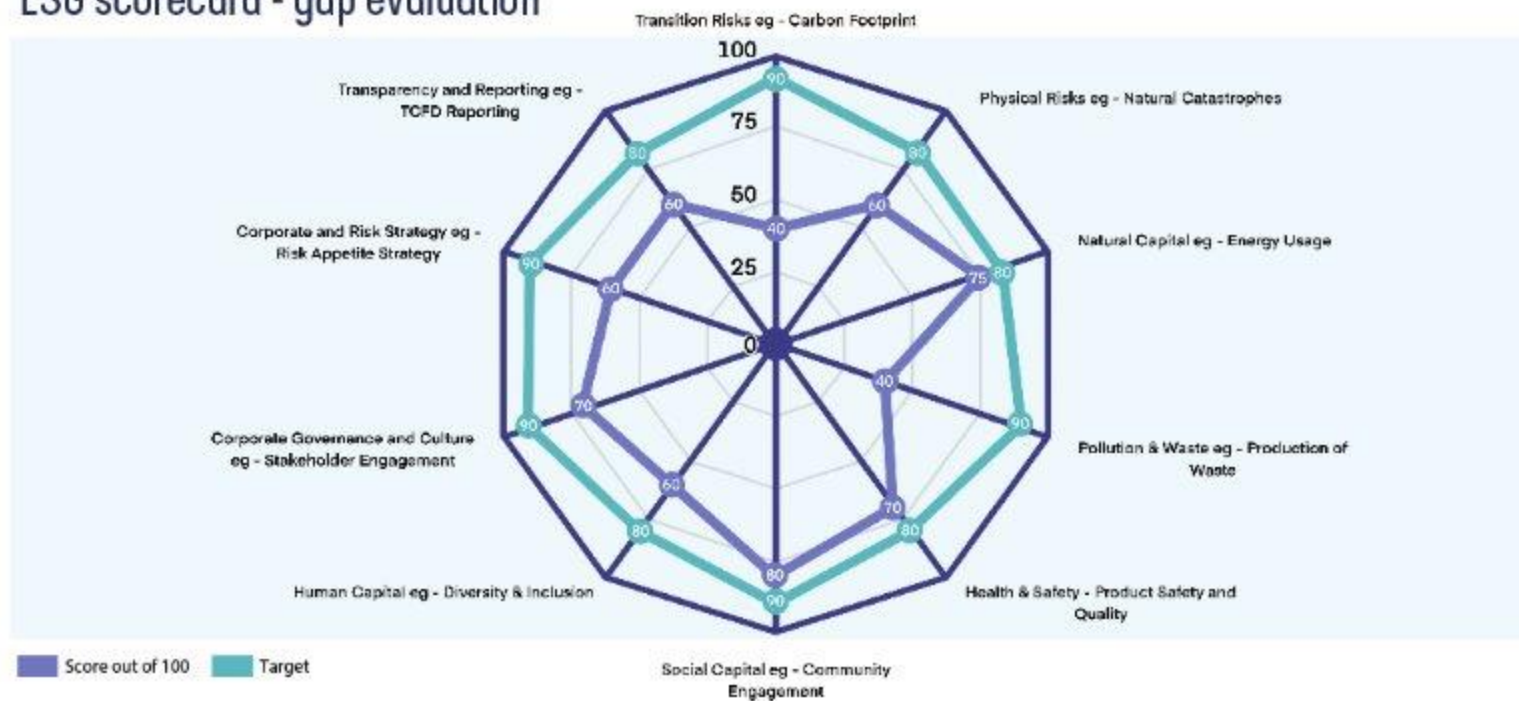


ESG REPORTING PERFORMANCE DASHBOARD

	ESG taxonomy	Material ESG sub-categories	Target or measurement	Performance of last year	Status for target
Environmental	Transition risks	Carbon footprint	5% reduction achieved in GHG emissions against 2021 baseline	Scope 1-50 tonnes, 2-10 tonnes, 3-20 tonnes	Green
	Physical risks	Natural catastrophes	Sites close to disaster prone area, preventive action taken	Cost of capital \$500,000	Yellow
	Natural capital	Energy usage	4% reduction in consumption of units	25,000 kWh/year	Red
	Pollution and waste	Production of waste	Reduction of waste by 10%	2 million tonnes of total waste	Red
Social	Health and safety	Product safety and quality	Casualties due to harmful substance in product	0 casualties	Green
	Social capital	Community engagement	20% increased volunteering hours	300 hours of volunteering	Green
	Human capital	Diversity and inclusion	Female members on board	30% female ratio	Target not yet set
Governance	Corporate governance and culture	Stakeholder engagement	4 meetings to be held in a year	Twice quarterly	Green
	Corporate and risk strategy	Risk appetite strategy	Board approved ESG risk appetite strategy	N/A	Being developed
	Transparency and reporting	TCFD reporting	Approval by CDP	Approved	Green

ESG REPORTING PERFORMANCE DASHBOARD

ESG scorecard - gap evaluation



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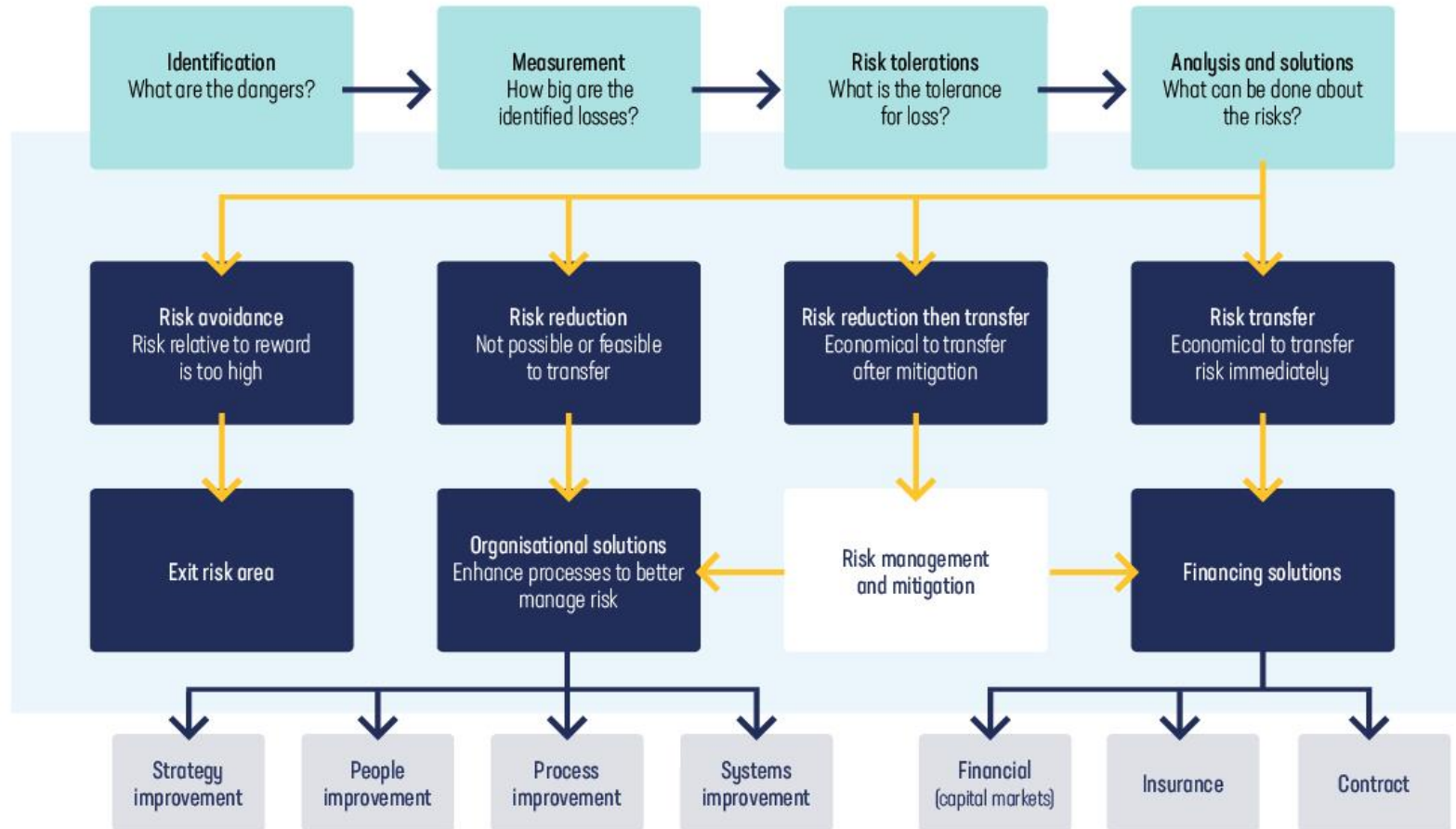
RISK MONITORING AND REVIEW – KPIS/KRIS

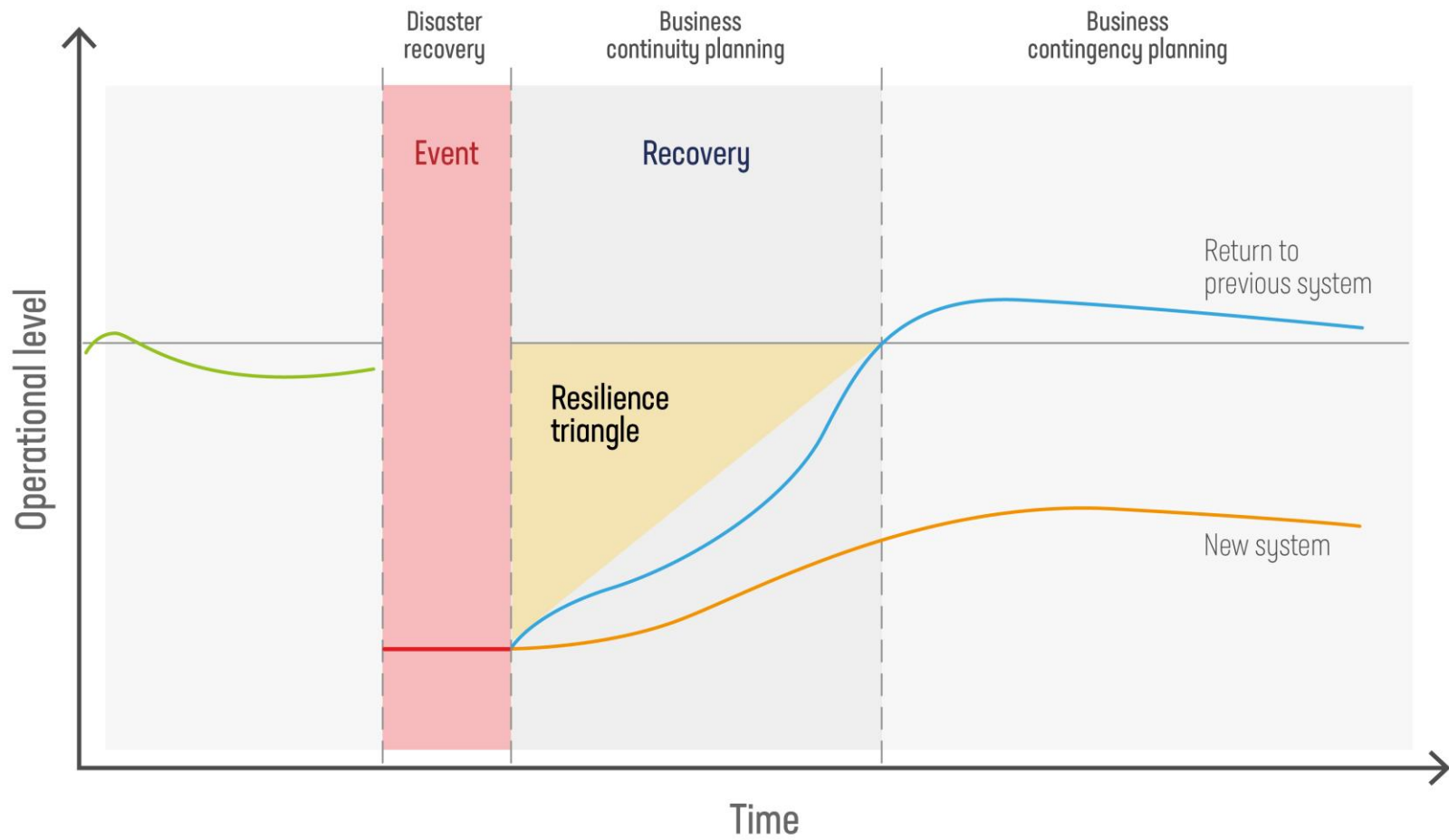
Developing ESG KRIs – examples

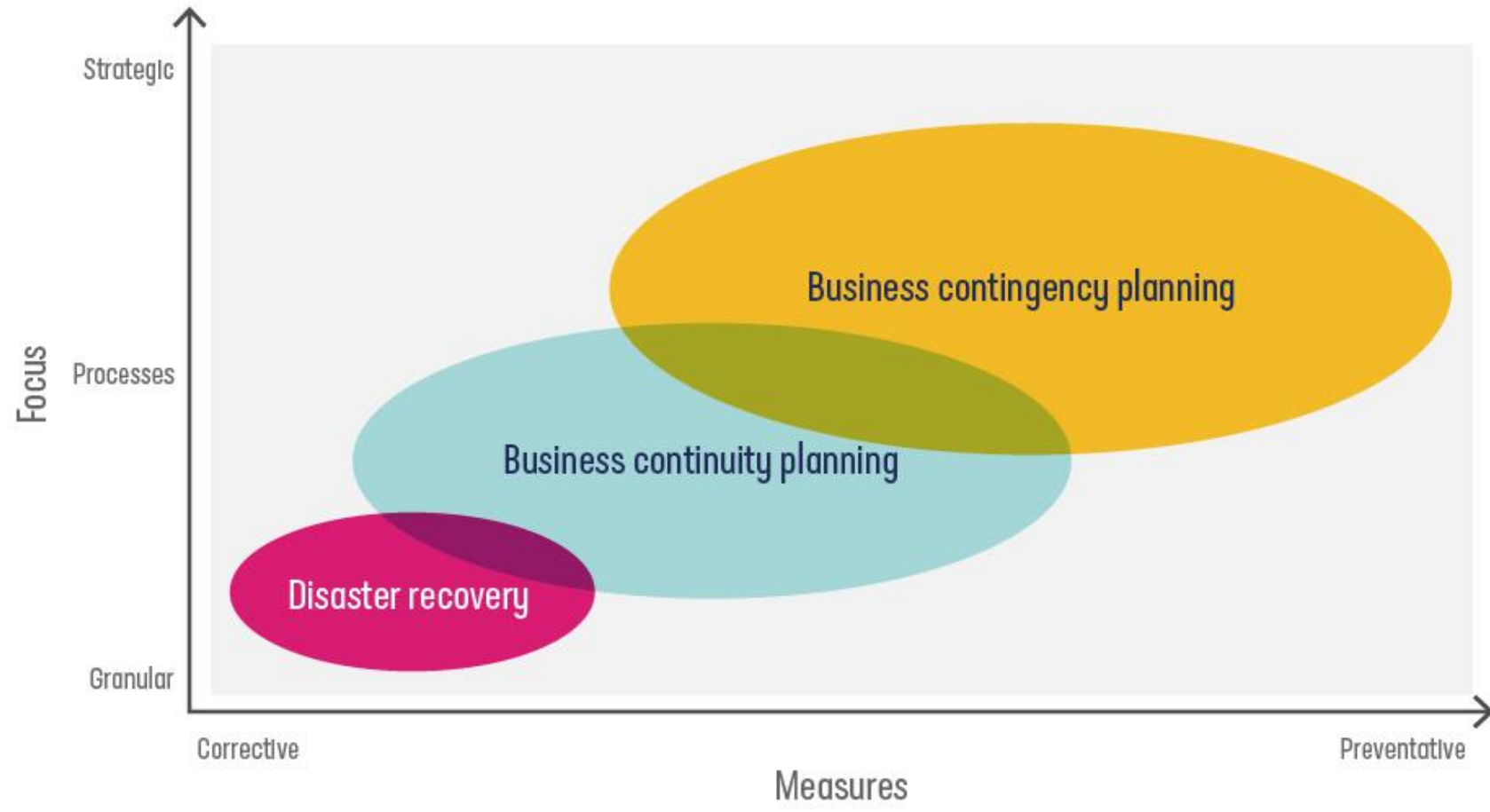
Risk category	Sub-risk category	ESG theme	Full description	KRI
Financial/hazard	Credit risk	Physical risk	Assessment of mortgaged property exposure to high flood risk areas	% mortgage credit exposure linked to properties in high-risk flood areas
Financial/regulatory	Dependent on industry and context, for example, credit risk (financial institution) or regulatory (property owners/managers), operational (leases) and so on	Transition risk	Assessment of property portfolio with low energy performance	% property exposure linked to properties with low energy efficiency
Operational/strategic	Supply chain disruption/reputational risk	Social capital	Assessment of supply chain compliance with anti-slavery, responsible business policy	% suppliers audited as non-compliant with responsible business requirements
Strategic/regulatory	Reputational/licence to practice	Ethical standards	Assessment of segregation between approval of client due diligence and client relationship	% major clients approved by a single relationship manager

SUSTAINABILITY AND RESILIENCE

Risk solutions alternatives







QUESTIONS?



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