



**VCL** | Institute  
OF CORPORATE LEARNING

Governance, Risk & Compliance

## ESG Masterclass for Directors & Senior Executives

Leading Sustainable Governance



# ESG Now

Powered by Agile

# ESG Footprint



# Course outcomes

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- Understand ESG principles and their strategic business implications.
- Interpret global and African ESG frameworks and sustainability standards.
- Strengthen Board oversight and governance of ESG matters.
- Integrate ESG into enterprise strategy and risk management.
- Understand climate risk, sustainability reporting and stakeholder expectations.
- Improve ESG governance, accountability, reporting readiness and transparency.
- Evaluate ESG investment and sustainable finance considerations.
- Build practical ESG implementation roadmaps aligned to SDGs and Net Zero ambitions.



# ESG, Sustainable Leadership & Stakeholder Value

**Module 1 - Introduction to ESG & Sustainable Leadership**



**Module 2 - Business Sustainability & Future-Ready Organisations**

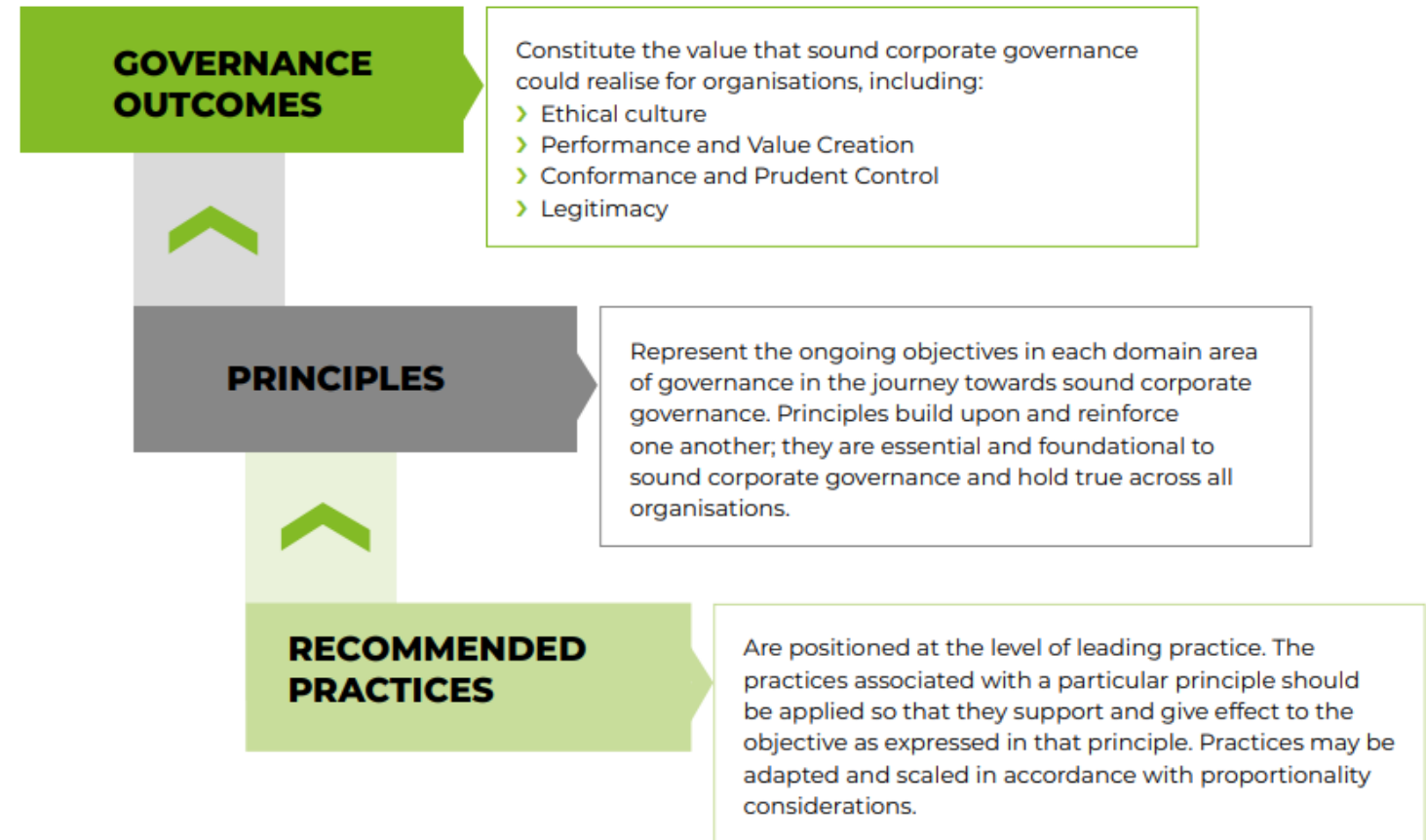
**Module 3 - The Role of Boards & Executives in ESG Governance**

**Module 4 - Environmental Factors & Climate Governance**

**Module 5 - Social Factors & Stakeholder Value Creation**



**Figure 2:** Governance Outcomes, Principles and Recommended Practices



# Understanding ESG Fundamentals

ESG stands for Environmental, Social and Governance.  
It is a framework used to assess how organisations manage sustainability and ethical considerations that impact long-term value.

## ENVIRONMENTAL

Focuses on how an organisation manages its impact on the natural environment.



## SOCIAL

Focuses on how an organisation manages relationships with people and communities.



## GOVERNANCE

Focuses on how an organisation is led, controlled and makes decisions.



# ESG vs Sustainability vs CSR

## ESG

A framework used by investors, boards and stakeholders to evaluate a company's environmental, social and governance performance and risks.



**Focus:** Managing risks and opportunities that impact long-term value.

**Scope:** Broad – covers environmental, social and governance factors across the entire business.

**Example:** Managing carbon emissions, board diversity, executive pay alignment.

## Sustainability

A company's long-term approach to creating value by balancing economic growth, environmental protection and social well-being.



**Focus:** Creating long-term value by meeting the needs of today without compromising the future.

**Scope:** Organization-wide strategy that integrates environmental, social and economic considerations.

**Example:** Using renewable energy, reducing waste, supporting communities, building resilient supply chains.

## CSR

A company's commitment to operate ethically and contribute to the economic development of communities.



**Focus:** Doing good and giving back to society.

**Scope:** Typically focused on community initiatives and social impact outside core business.

**Example:** Donating to local charities, volunteering, supporting education programs.

# Evolution of ESG: Globally and in Africa

ESG has evolved from ethical considerations to a mainstream business imperative, driving sustainable value creation worldwide and across Africa.

## Global Evolution

1960s–1970s



### Foundations

Growing environmental awareness and corporate responsibility movements emerge.

1980s–1990s



### Early ESG Concepts

Sustainable investment begins to take shape. First ESG guidelines and frameworks introduced.

2000s



### Integration Begins

ESG becomes part of risk management and corporate strategy. Global reporting initiatives expand.

2010s



### Mainstream Adoption

Investors, regulators and businesses embed ESG. Climate change and social issues gain urgency.

2020s



### ESG 2.0

Focus on net zero, nature-positive, just transition and long-term value creation.

## Africa Evolution

1990s



### Early Awareness

Environmental protection and social development priorities emerge post liberalisation.

2000s



### Development Focus

Focus on poverty reduction, education, health and basic infrastructure.

2010s



### ESG Takes Root

African companies adopt ESG practices. Regional frameworks and reporting guidance introduced.

2020s



### Acceleration

ESG integrated into strategy, governance and financing. Growth of green finance and impact investing.

Future



### Sustainable Africa

ESG drives inclusive growth, climate resilience and long-term prosperity for people and planet.

# SOUTH AFRICA'S POSITION IN TERMS OF ESG IN THE WORLD

A leading ESG performer on the African continent with strengthening credentials and opportunities to advance globally.

## GLOBAL ESG OVERALL RANKING (Out of 180 Countries)



Source: ESG Country Ranking 2024 – Sustainalytics

## ESG PILLAR SCORES (Out of 100)

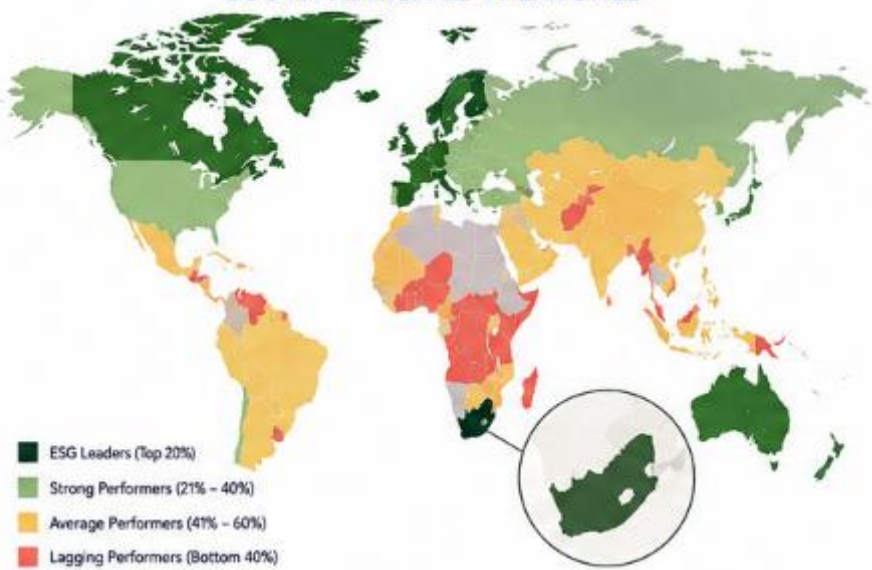


Source: Refinitiv ESG Country Score 2024

## KEY STRENGTHS

- Progressive policy and regulatory framework on sustainability and climate action.
- Strong governance structures and institutional transparency.
- Active corporate ESG disclosure and reporting culture on the JSE.
- Vibrant civil society and stakeholder engagement driving accountability.
- Abundant renewable energy resources supporting the just energy transition.

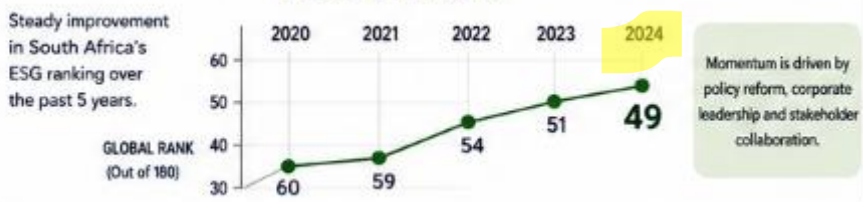
## SOUTH AFRICA vs THE WORLD



## SOUTH AFRICA IS A REGIONAL ESG LEADER

Strong on governance and disclosure, with opportunities to accelerate on environmental performance and social impact.

## TREND OVER TIME



## HOW SOUTH AFRICA PERFORMS AGAINST KEY ESG DIMENSIONS

|  |                                  |                                                                               |                 |
|--|----------------------------------|-------------------------------------------------------------------------------|-----------------|
|  | <b>CLIMATE ACTION</b>            | Policy leadership, carbon pricing, renewable energy investment.               | <b>STRONG</b>   |
|  | <b>ENVIRONMENTAL PERFORMANCE</b> | Water security, biodiversity protection and pollution management.             | <b>MODERATE</b> |
|  | <b>SOCIAL DEVELOPMENT</b>        | Inequality remains high, but improvements in health, education and inclusion. | <b>MODERATE</b> |
|  | <b>GOVERNANCE</b>                | Effective institutions, rule of law and anti-corruption frameworks.           | <b>STRONG</b>   |
|  | <b>CORPORATE ESG DISCLOSURE</b>  | High disclosure rates among JSE-listed companies.                             | <b>STRONG</b>   |
|  | <b>SUSTAINABLE FINANCE</b>       | Growing green bond market and ESG-aligned investment flows.                   | <b>MODERATE</b> |

## OPPORTUNITIES TO STRENGTHEN ESG LEADERSHIP

- Accelerate decarbonization of the economy and coal transition.
- Improve water security and climate resilience.
- Advance social equity, job creation and skills development.
- Mobilize more sustainable finance and green investment.
- Strengthen ESG integration across all sectors and supply chains.

# SOUTH AFRICA'S BANKS – A LEADING ESG FORCE IN THE WORLD

Strong governance. Transparent disclosure. Sustainable impact.

South African banks are among the most ESG-advanced in emerging markets and recognized globally for leadership in sustainability.

## GLOBAL ESG RANKING – BANKING SECTOR (Out of 100)

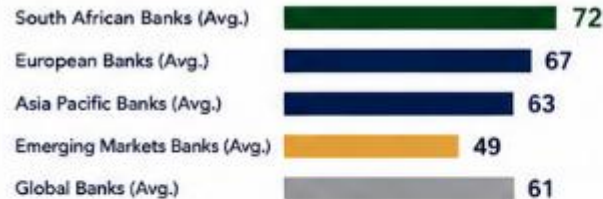
**1<sup>ST</sup>**  
IN AFRICA

### TOP 50 GLOBALLY

South African banks rank among the Top 50 globally and ahead of most emerging markets.

Source: S&P Global ESG Score 2024 – Financials Sector

## ESG SCORE COMPARISON – BANKS (Out of 100)

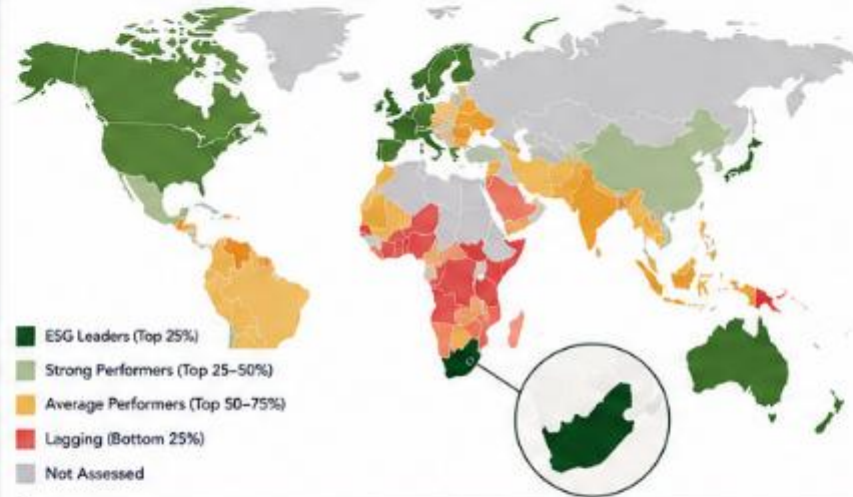


Source: Refinitiv ESG Scores 2024

## RECOGNITION & MEMBERSHIPS

- Strong participation in global initiatives including the Net-Zero Banking Alliance
- Signatory to the Principles for Responsible Banking (UNEP FI)
- Leading issuers in green, social and sustainability bonds in Africa
- High levels of ESG disclosure in line with TCFD, SASB and IFRS S2 standards

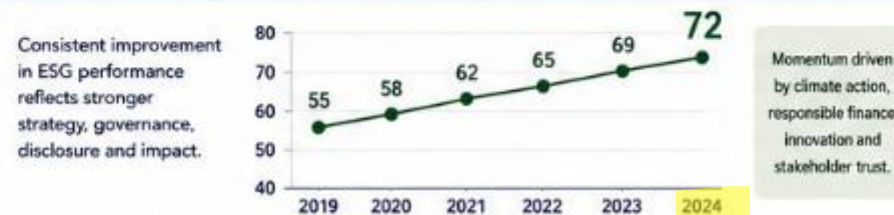
## WHERE SOUTH AFRICAN BANKS STAND GLOBALLY



### A REGIONAL ESG LEADER

South African banks lead Africa in ESG performance, disclosure and sustainable finance, driving positive impact across the continent and beyond.

## SOUTH AFRICAN BANKS – ESG SCORE TREND OVER TIME (Out of 100)



## ESG PERFORMANCE BY DIMENSION – SOUTH AFRICAN BANKS

| DIMENSION                                                                           | PERFORMANCE   | GLOBAL CONTEXT   |
|-------------------------------------------------------------------------------------|---------------|------------------|
| <b>ENVIRONMENTAL</b><br>Climate strategy, emissions management, green finance       | <b>STRONG</b> | Top 25% globally |
| <b>SOCIAL</b><br>Financial inclusion, customer outcomes, talent, diversity          | <b>STRONG</b> | Top 30% globally |
| <b>GOVERNANCE</b><br>Board oversight, ethics, risk management                       | <b>STRONG</b> | Top 25% globally |
| <b>ESG DISCLOSURE</b><br>Transparency, TCFD/SASB/IFRS S2 aligned reporting          | <b>STRONG</b> | Top 20% globally |
| <b>SUSTAINABLE FINANCE</b><br>Green, social & sustainability lending and investment | <b>STRONG</b> | Top 25% globally |

## KEY STRENGTHS

- ✓ Robust ESG governance at board and executive level
- ✓ Strong risk management of environmental and social risks
- ✓ High-quality, transparent ESG disclosures
- ✓ Innovation in sustainable products and services
- ✓ Active role in funding the just transition
- ✓ Trusted by investors and stakeholders globally

# SOUTH AFRICA'S ELECTRICITY PROVIDER – POWERING A JUST & SUSTAINABLE FUTURE

## ESG PERFORMANCE IN A GLOBAL CONTEXT

Transforming for a cleaner, more reliable and inclusive energy future.

### GLOBAL ESG RANKING – ELECTRIC UTILITIES (Out of 100)



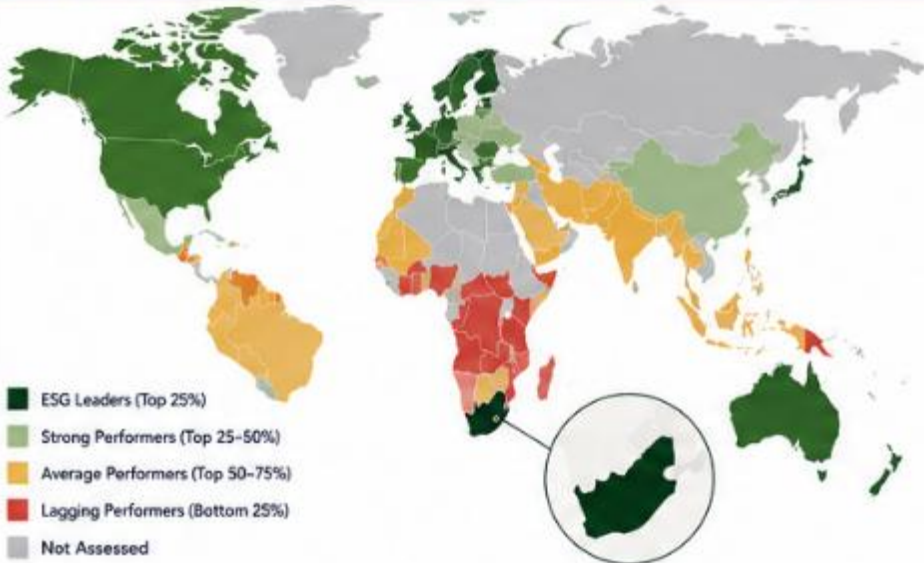
Source: S&P Global ESG Score 2024 – Electric Utilities

### ESG SCORE COMPARISON – UTILITIES (Out of 100)



Source: S&P Global ESG Scores 2024

### WHERE SOUTH AFRICA'S ELECTRICITY PROVIDER STANDS GLOBALLY



#### A KEY ROLE IN AFRICA'S ENERGY FUTURE

One of the most influential utilities on the African continent, driving access, reliability and sustainability.

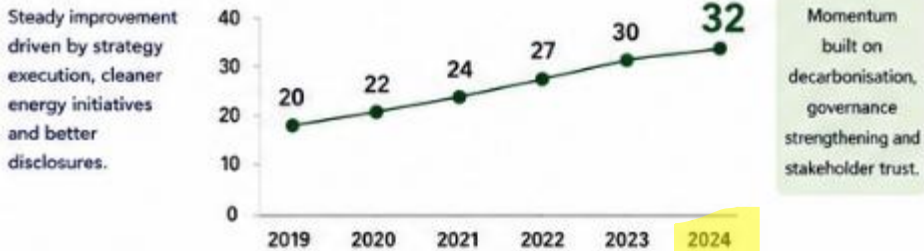
### ESG PERFORMANCE BY DIMENSION – SOUTH AFRICA'S ELECTRICITY PROVIDER

| DIMENSION                                                                      | PERFORMANCE | GLOBAL CONTEXT   |
|--------------------------------------------------------------------------------|-------------|------------------|
| ENVIRONMENT<br>Emissions reduction, renewable energy transition, water, waste  | MODERATE    | Top 30% globally |
| SOCIAL<br>Access to electricity, community impact, employee health & safety    | MODERATE    | Top 40% globally |
| GOVERNANCE<br>Board oversight, risk management, ethics                         | MODERATE    | Top 30% globally |
| DISCLOSURE<br>ESG reporting, transparency, TCFD, IFRS S2 alignment             | STRONG      | Top 25% globally |
| SUSTAINABLE FINANCE<br>Green bonds, transition finance, ESG-linked instruments | MODERATE    | Top 30% globally |

### ESG HIGHLIGHTS

|                     |                                                                   |
|---------------------|-------------------------------------------------------------------|
| ENVIRONMENT         | Committed to decarbonisation with a just energy transition.       |
| SOCIAL              | Investing in communities, skills development and just transition. |
| GOVERNANCE          | Strengthening oversight, ethics, risk and compliance.             |
| DISCLOSURE          | Aligned with TCFD, IFRS S2 and global reporting standards.        |
| SUSTAINABLE FINANCE | Expanding green and transition finance frameworks.                |

### ESG SCORE TREND OVER TIME (Out of 100)



### KEY CHALLENGES

- Accelerate coal fleet retirement and emissions reduction
- Improve grid reliability and reduce distribution losses
- Mobilise capital for large-scale renewable and storage projects
- Ensure a just transition for workers and communities
- Strengthen climate resilience and water security

# Executive summary

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- While there is **broad understanding** of sustainability-related risks and opportunities in boardrooms worldwide, this has not yet had a tangible impact on **financial decision making**, according to new survey data from KPMG.
- Some **72 percent** of executives surveyed have a **detailed understanding** of their sustainability strategy, metrics and performance — or are familiar with the key aspects.
- However, **only 19 percent** use robust **quantification** approaches to measure how sustainability impacts financial outcomes, operational gains and innovation.
- Few organizations have succeeded in **translating sustainability into financial terms** that boards and finance teams recognize — Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) bridges, cash flow and capital expenditures (CapEx) impacts, balance sheet exposure and credible risk ranges.
- As a result, **the sustainability business case and the enterprise value (EV) are disconnected** at many organizations. What is missing is the bridge between them, often reflected in a disconnect between sustainability and finance teams within organizations.
- Failing to quantify can create a **blind spot** when it comes to sustainability-related risks and opportunities. This can result in commercial projects failing to secure approval, or in deals and decisions going ahead that companies struggle to defend later on.
- Understanding the business case for sustainability-related investments and risk mitigation is a starting point. This requires investment grade, decision-useful data.
- Organizations should therefore focus on applying **fit-for-purpose valuation approaches** to quantify the financial impacts of sustainability-related risks and opportunities, assess the return on investment in addressing them, and make the cost of inaction clear. Only then can sustainability move to the core of business decision-making where it belongs.

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**Only 19 percent**  
of executives use robust  
**quantification**  
**approaches**

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# Key findings

## What the data tells us about the valuation gap

KPMG's survey reveals a gap between executives' awareness of sustainability-related risks and opportunities, and their ability to apply that knowledge in financial decision making.

### Key findings from KPMG's survey

**72%** of executives have a **detailed understanding** of their sustainability strategy, metrics and performance — or are familiar with the key aspects.

**60%** consider **sustainability-related risks and opportunities** in financial planning.

**50%** say sustainability is **an integral part** of their strategies.

**40%** integrate sustainability into **innovation and product development**.

**BUT**

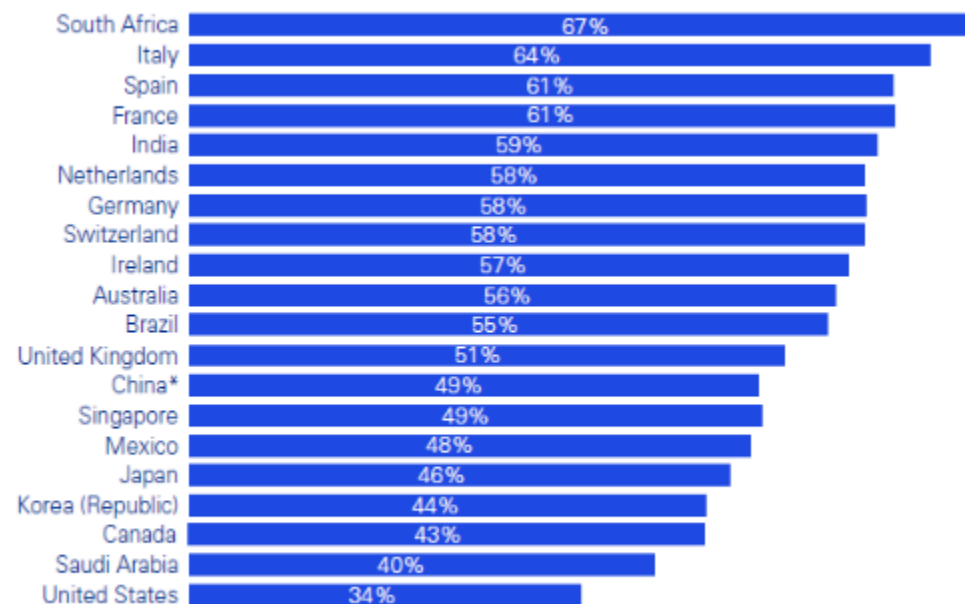
Only



use robust **quantification** approaches to measure how sustainability impacts financial outcomes, operational gains and innovation.

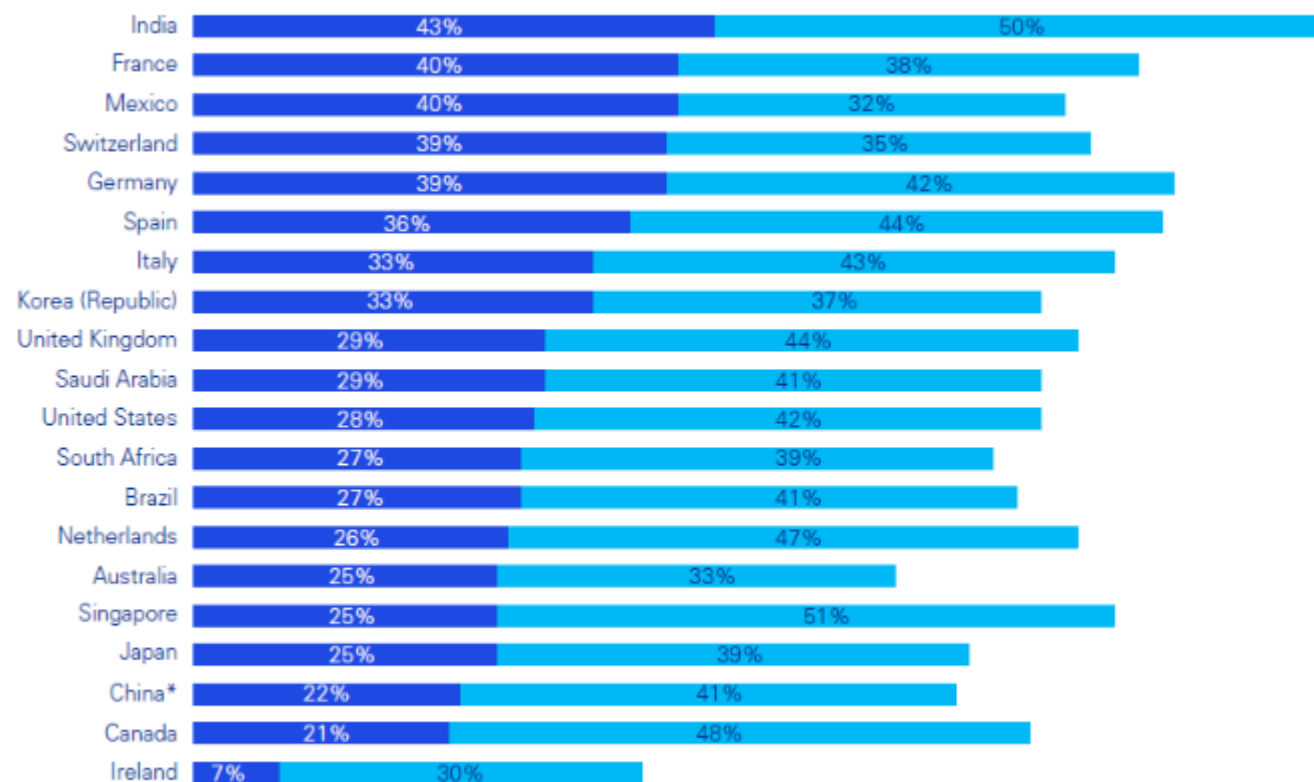
*Questions were answered by 2,024 respondents across 19 countries, territories and jurisdictions in the Americas, EMEA and ASPAC. See page 27 for the survey methodology.*

### Companies where sustainability is an integral part of strategy



\*People's Republic of, including Hong Kong (SAR), China, and Taiwan

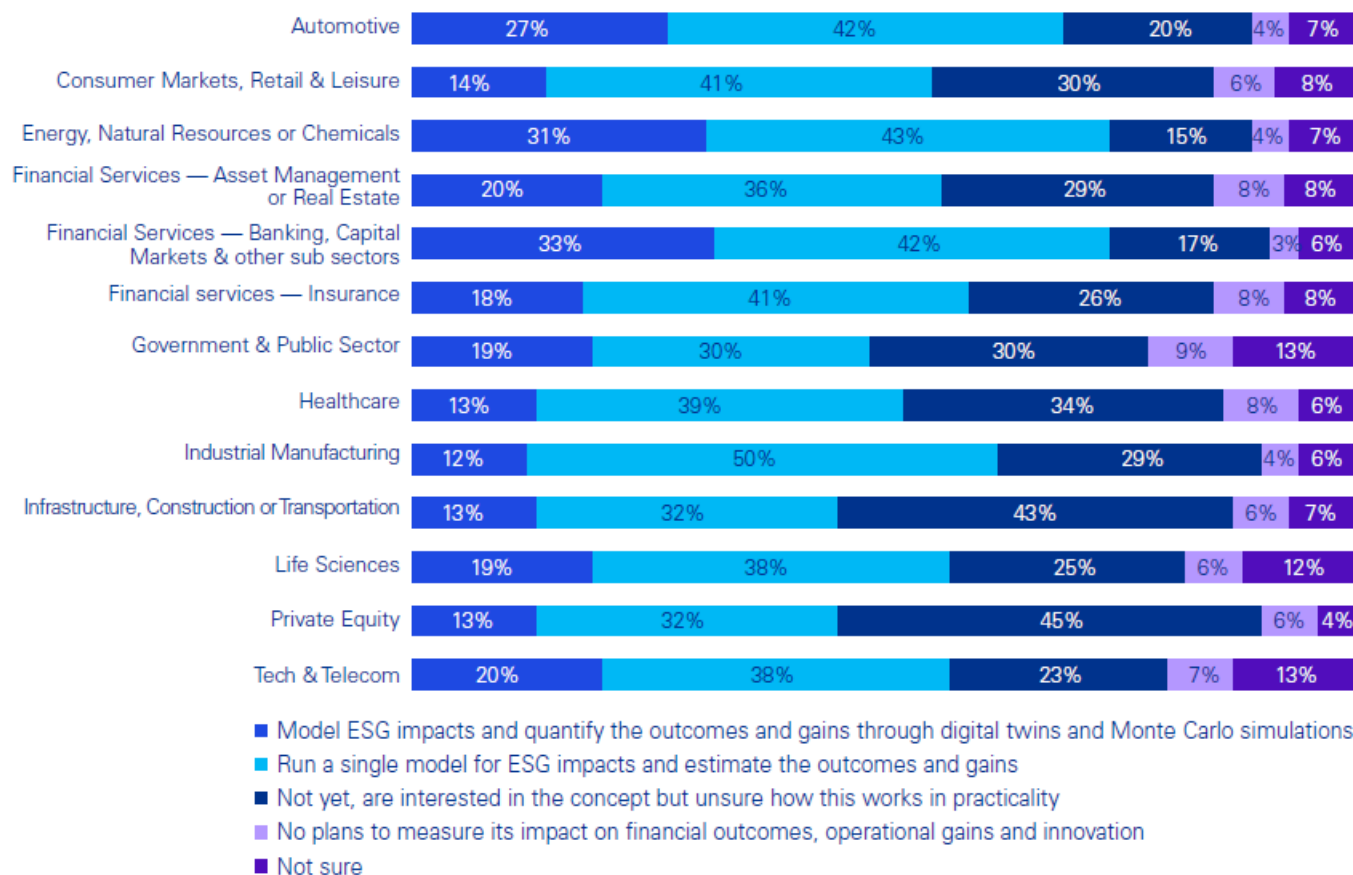
### Executive understanding of sustainability strategy, metrics and performance



\*People's Republic of, including Hong Kong (SAR), China, and Taiwan

■ Detailed understanding ■ Familiar with key aspects

**How do you measure the impact of sustainability on value creation — e.g. financial outcomes, operational gains and innovation?**



# KPMG viewpoint

## Sustainability's missing leg: why the business case now matters more

KPMG's survey has identified the sustainability valuation gap as a clear challenge. We believe the time is now for companies to start applying robust financial quantification methodologies to sustainability-linked initiatives:

1

### **External pressures are rising**

Macroeconomic headwinds, geopolitical shocks, climate impacts and rising stakeholder expectations are converging to put pressure on revenues, margins and the cost of capital. Quick wins have been realized so companies are looking more broadly for value.

2

### **Management teams are approaching value creation limits**

Management teams are focused on defending and growing value, but traditional levers such as pricing, headcount, CapEx cuts and incremental efficiency are reaching their limits.

3

### **Sustainability holds untapped value creation potential**

Sustainability can enhance value creation if it is recognized as a driver of enterprise value, rather than being treated solely as a compliance or reputational issue. It can become a practical lever to help strengthen growth resilience and improve capital efficiency when properly quantified and embedded into business strategy and financial planning.

If you want to understand how your organization can use sustainability to identify, prioritize and quantify material financial value drivers, speak to your KPMG contact. They can also help you build a strong business case for sustainability.

# Why ESG Matters to Boards and Executives

ESG is no longer optional. It has a direct impact on strategy, risk, performance, reputation, and long-term value creation.

## MANAGES RISK

Helps identify and mitigate environmental, social and governance risks that could impact financial performance and business continuity.

## CREATES LONG-TERM VALUE

Integrates ESG into strategy to drive innovation, efficiency, resilience and sustainable growth.

## ATTRACTS INVESTMENT

Investors increasingly allocate capital to companies with strong ESG performance and credible disclosure.



## ENHANCES REPUTATION

Strong ESG practices build trust with stakeholders, strengthen brand reputation and protect the organisation's licence to operate.

## IMPROVES STAKEHOLDER TRUST

Meets the expectations of customers, employees, regulators, communities and other key stakeholders.

## DRIVES OPERATIONAL EXCELLENCE

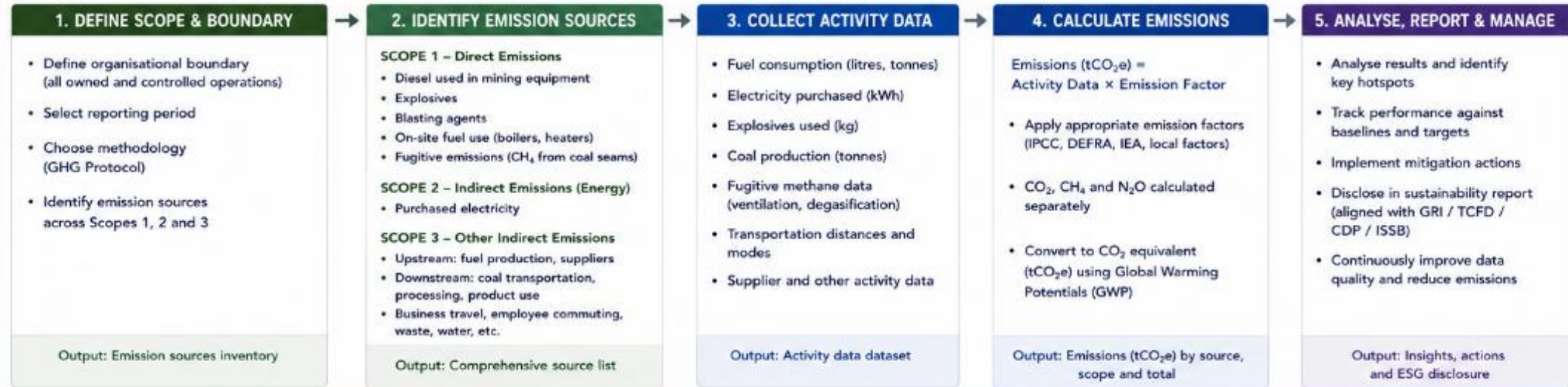
Promotes responsible resource use, workplace wellbeing, ethical conduct and efficient governance.

## ENSURES COMPLIANCE & ACCOUNTABILITY

Supports regulatory compliance, strengthens governance oversight and ensures accountability to shareholders and society.

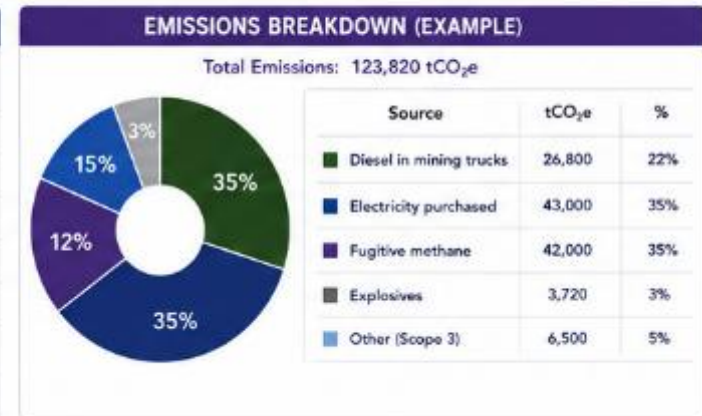
# MEASURING THE CARBON FOOTPRINT OF A COAL MINE

A practical approach to measure, calculate and manage greenhouse gas (GHG) emissions



| EMISSION SOURCES ACROSS THE VALUE CHAIN                     |                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SCOPE 1</b><br>Direct                                    | <ul style="list-style-type: none"><li>Diesel in mobile equipment (trucks, excavators, drills)</li><li>On-site fuel combustion (boilers, generators)</li><li>Blasting explosives</li><li>Fugitive methane from coal seams and ventilation</li></ul>                                 |
| <b>SCOPE 2</b><br>Indirect<br>(Energy)                      | <ul style="list-style-type: none"><li>Purchased electricity for fixed and mobile operations</li><li>Purchased steam, heating or cooling (if applicable)</li></ul>                                                                                                                  |
| <b>SCOPE 3</b><br>Other Indirect<br>(Upstream & Downstream) | <ul style="list-style-type: none"><li>Upstream: fuel extraction and transport, purchased goods and services</li><li>Downstream: coal transportation, processing, use and end-of-life</li><li>Other: business travel, employee commuting, waste disposal, water treatment</li></ul> |

| EXAMPLE EMISSIONS CALCULATION |               |                        |                                             |                                |
|-------------------------------|---------------|------------------------|---------------------------------------------|--------------------------------|
| Source                        | Activity Data | Unit                   | Emission Factor (kg CO <sub>2</sub> e/unit) | Emissions (tCO <sub>2</sub> e) |
| Diesel in mining trucks       | 10,000,000    | litres                 | 2.68                                        | 26,800                         |
| Electricity purchased         | 50,000,000    | kWh                    | 0.86                                        | 43,000                         |
| Explosives                    | 1,200,000     | kg                     | 3.10                                        | 3,720                          |
| Fugitive methane              | 1,500         | tonnes CH <sub>4</sub> | 28                                          | 42,000                         |
| Coal transportation           | 20,000        | tonne-km               | 0.09                                        | 1,800                          |
| Other (Scope 3)               | —             | —                      | —                                           | 6,500                          |
| TOTAL EMISSIONS               |               |                        |                                             | 123,820 tCO <sub>2</sub> e     |



| KEY PERFORMANCE INDICATORS           |                                                          |                              |                              |                              |                        |                           |                          |
|--------------------------------------|----------------------------------------------------------|------------------------------|------------------------------|------------------------------|------------------------|---------------------------|--------------------------|
| Total Emissions (tCO <sub>2</sub> e) | Emissions Intensity (tCO <sub>2</sub> e / tonne of coal) | Scope 1 (tCO <sub>2</sub> e) | Scope 2 (tCO <sub>2</sub> e) | Scope 3 (tCO <sub>2</sub> e) | Change vs Baseline (%) | Renewable Electricity (%) | Methane Capture Rate (%) |
| 123,820                              | 0.62                                                     | 68,520                       | 43,000                       | 12,300                       | -8%                    | 25%                       | 45%                      |

| HOW TO REDUCE THE CARBON FOOTPRINT                 |
|----------------------------------------------------|
| Improve energy efficiency and equipment management |
| Increase use of renewable energy                   |
| Reduce and capture methane emissions               |
| Optimise logistics and transportation              |
| Adopt low-emission technologies and innovation     |
| Engage suppliers and strengthen partnerships       |

Good data. Accurate measurement. Informed decisions. Lower emissions. Stronger business.

# MEASURING SCOPE 3 CARBON FOOTPRINT FOR A BANK

## SCOPE 3 CATEGORIES RELEVANT TO BANKS (GHG PROTOCOL)

| Category                                       | Description                                                             | Bank Examples                                                                    | Typical Data Sources                            |
|------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------|
| 1. Purchased Goods and Services                | Emissions from production of goods and services purchased               | IT hardware, professional services, facilities management, marketing, stationery | Supplier invoices, spend data, supplier surveys |
| 2. Capital Goods                               | Emissions from production of capital assets                             | Buildings, data centres, ATMs, furniture, major equipment                        | Capex data, supplier data, life cycle databases |
| 3. Fuel- and Energy-Related Activities         | Emissions from extraction, production and transport of fuels and energy | Electricity T&D losses, upstream fuels for generators                            | Utility data, national energy statistics        |
| 4. Upstream Transportation and Distribution    | Emissions from transport and delivery of purchased goods                | Courier services, cash logistics, delivery of IT equipment                       | Logistics providers, spend data, distance data  |
| 5. Waste Generated in Operations               | Emissions from disposal and treatment of operational waste              | Paper, e-waste, general waste, recycling                                         | Waste contractors, waste records                |
| 6. Business Travel                             | Emissions from employee business travel                                 | Air, rail, road, accommodation                                                   | Travel management data, booking reports         |
| 7. Employee Commuting                          | Emissions from employee commuting to and from work                      | Car, public transport, ride-hailing                                              | Employee surveys, HR data                       |
| 8. Upstream Leased Assets                      | Emissions from leased assets not in the bank's control                  | Leased branches, ATMs, office equipment                                          | Lease data, energy bills, supplier data         |
| 9. Downstream Leased Assets                    | Emissions from assets leased to others                                  | ATMs hosted at merchant locations                                                | Lease data, energy estimates                    |
| 10. Investments                                | Emissions from investments and financed activities                      | Loans, bonds, equities, project finance                                          | Financed emissions calculation (see right)      |
| 11. End-of-Life Treatment of Sold Products     | Emissions from end-of-life treatment of products sold                   | IT equipment, cards, printed materials                                           | Supplier data, waste factors                    |
| 12. Downstream Transportation and Distribution | Emissions from transport of products or services to end users           | Card delivery, documents mailing (if material)                                   | Logistics data, spend, distance data            |
| 13. Use of Sold Products                       | Emissions from use of products sold (if applicable)                     | Energy use of ATMs (if owned by bank)                                            | Energy data, usage estimates                    |

## FOCUS: CATEGORY 10 – INVESTMENTS (FINANCED EMISSIONS)

Measure emissions from loans, bonds, equities and project finance using recognised methodologies.

| Asset Class                     | Method                    | Activity Data              | Emission Factor / Approach                          |
|---------------------------------|---------------------------|----------------------------|-----------------------------------------------------|
| Corporate Loans                 | PCAF – Financed Emissions | Outstanding loan amount    | Company GHG emissions × Bank's share of financing   |
| Project Finance                 | PCAF – Financed Emissions | Outstanding loan amount    | Project-level emissions × Bank's share of financing |
| Sovereign Debt                  | PCAF / EEIO               | Outstanding investment     | Country emissions × Bank's share                    |
| Listed Equity & Corporate Bonds | PCAF – Financed Emissions | Market value of investment | Company GHG emissions × Ownership factor            |

## KEY DATA SOURCES

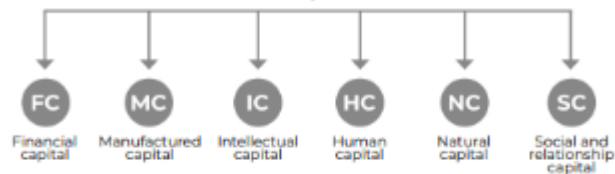
- Supplier engagement and surveys
- Spend and procurement systems
- Utility bills and energy reports
- Travel management systems
- Employee surveys
- Waste management records
- Logistics and courier data
- Financial systems (loans, investments)
- Industry databases and emission factors (e.g. PCAF, DEFRA, IEA, ecoinvent)
- National statistics and government publications

## Integrated thinking and related concepts

The **"economic, social and environmental context"** provides the macro perspective for integrated thinking. This context invokes the economic, social, and environmental systems within which all organisations operate.

Integrated thinking can be carried out at a more granular level by employing the **"six capitals"** model to identify the **"resources and relationships"** which the organisation uses, relies upon and affects. These capitals include financial, manufactured, human, intellectual, social and relationship as well as natural capitals.

ECONOMIC, SOCIAL AND ENVIRONMENTAL CONTEXT

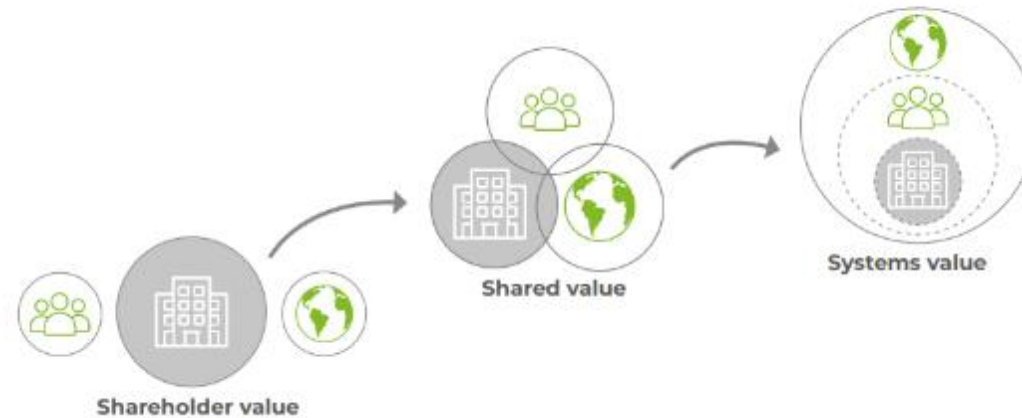


SIX CAPITALS

OR

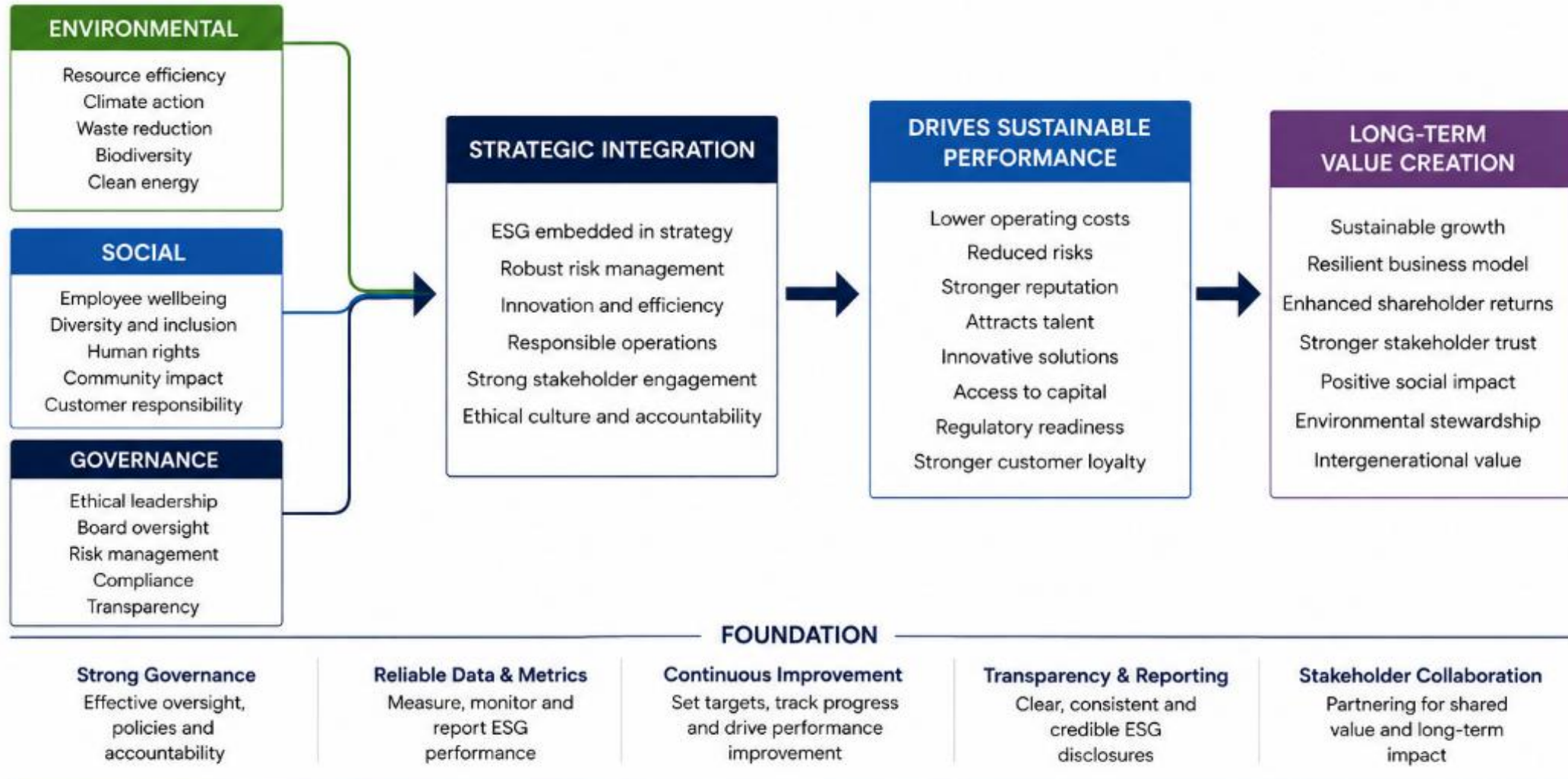
RESOURCES AND RELATIONSHIPS

Figure 3: Evolution of perspectives on value creation<sup>a</sup>



# ESG as a Driver of Long-Term Value Creation

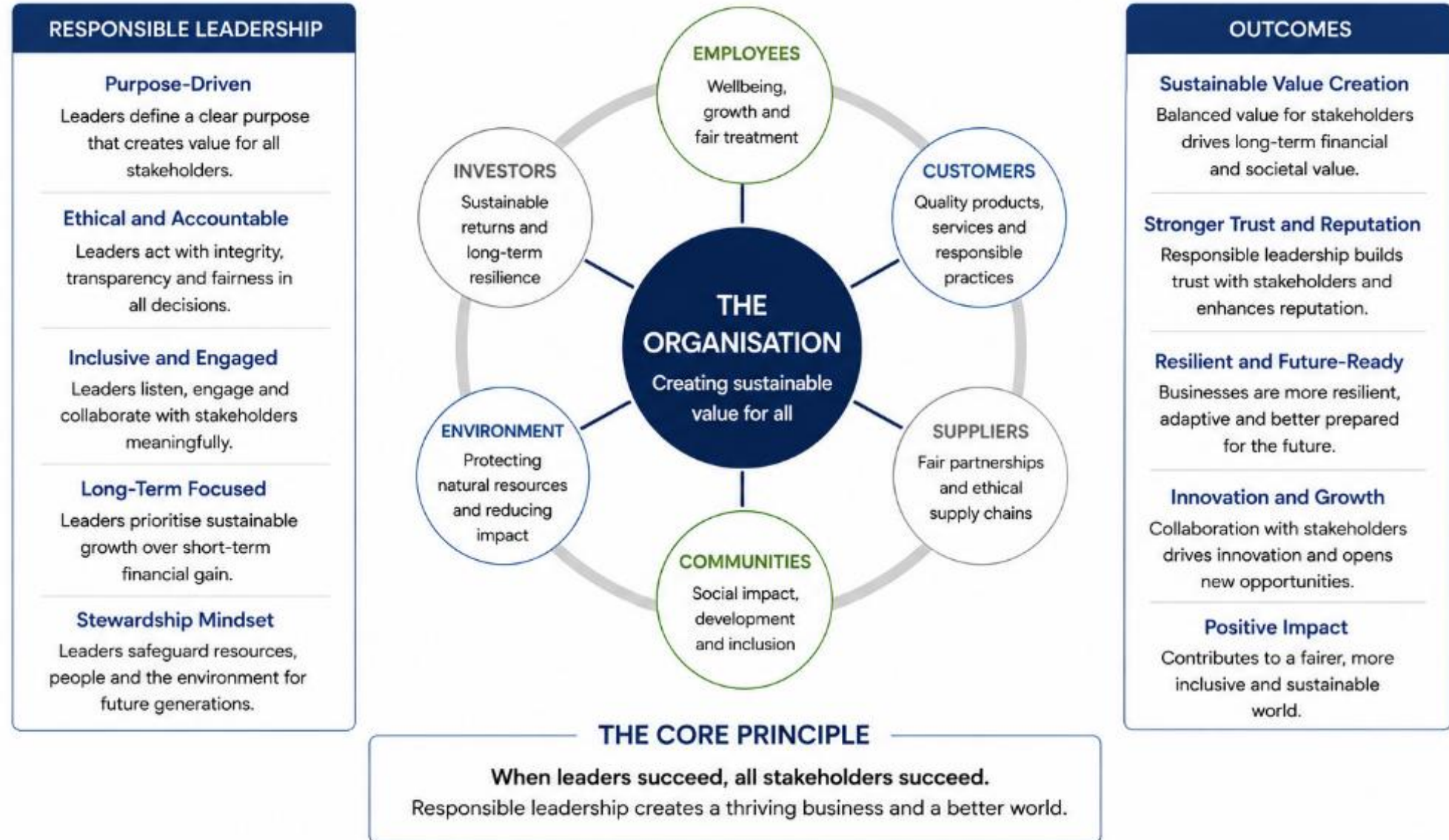
Integrating Environmental, Social and Governance (ESG) factors into strategy creates sustainable advantages and long-term value for the organisation and its stakeholders.



ESG is not just about doing good – it is about doing well sustainably.

# Stakeholder Capitalism and Responsible Leadership

Creating long-term value by balancing the needs of all stakeholders,  
society and the planet, not just shareholders.



# Emerging ESG Trends in Africa

Africa is driving a unique ESG agenda shaped by its development priorities, natural capital, demographics and commitment to a sustainable future.



## 01 Climate Action Acceleration

Stronger focus on net zero pathways, renewable energy and climate resilience.



## 02 Green Growth & Just Transition

Balancing economic growth with environmental protection and a just transition for communities and workers.



## 03 Social Impact & Inclusive Development

Greater emphasis on poverty reduction, education, health, gender equality and youth empowerment.



## 04 ESG Regulation & Disclosure

Increasing regulatory momentum and voluntary frameworks driving ESG disclosure and transparency.



## 05 Sustainable Finance & Investment

Growth in green bonds, ESG funds and impact investing to mobilize capital for sustainable projects.



## 06 Natural Capital Stewardship

Protecting Africa's rich biodiversity, forests, water resources and ecosystems.



## 07 Technology & Innovation

Leveraging digital technology, data and innovation to improve ESG performance and reporting.



## 08 Strong Governance & Ethics

Heightened focus on board oversight, ethics, anti-corruption and accountability.



Africa is not just adapting to global ESG trends – it is shaping them for an inclusive, resilient and sustainable future.

# ESG, Sustainable Leadership & Stakeholder Value

Module 1 - Introduction to ESG & Sustainable Leadership

Module 2 - Business Sustainability & Future-Ready Organisations



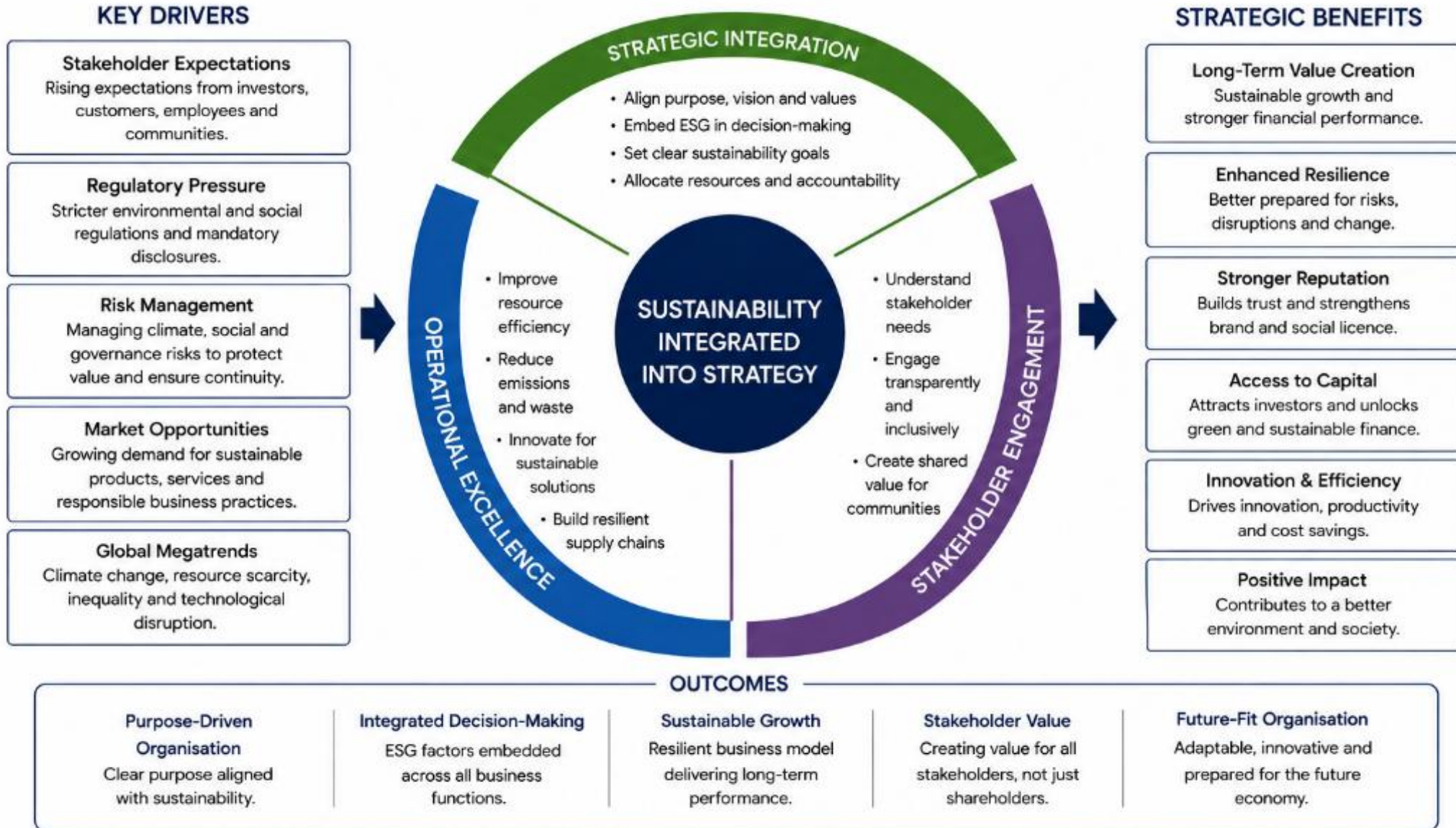
Module 3 - The Role of Boards & Executives in ESG Governance

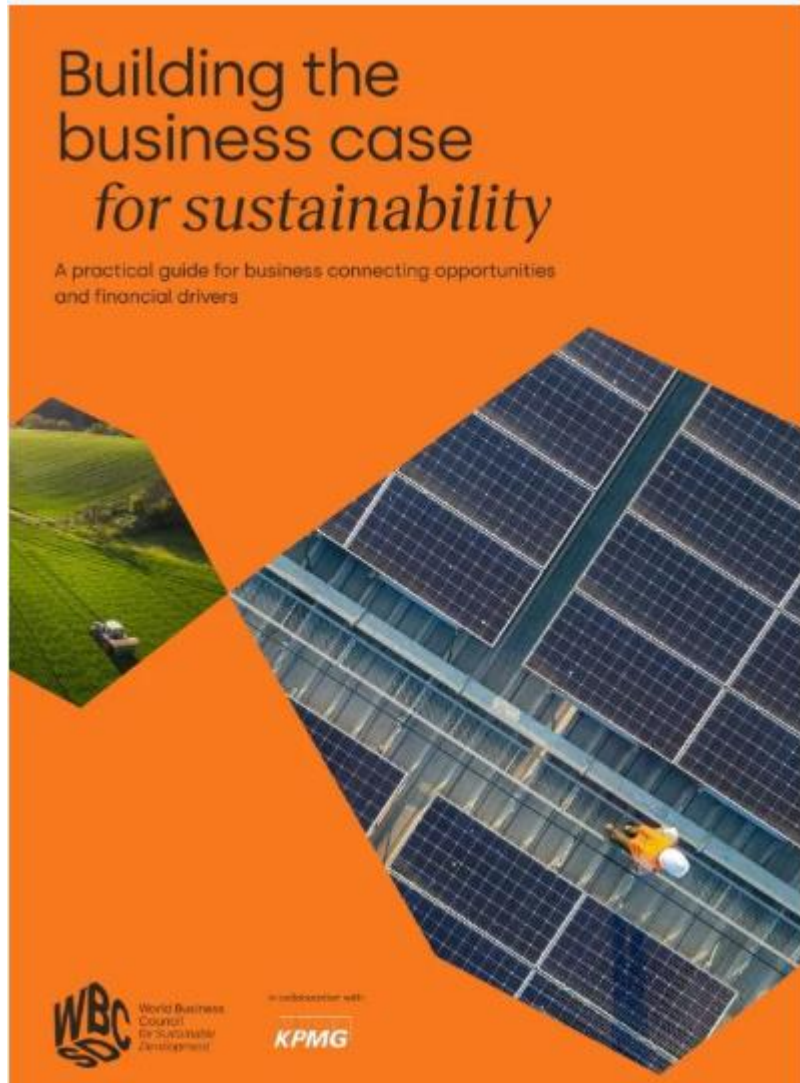
Module 4 - Environmental Factors & Climate Governance

Module 5 - Social Factors & Stakeholder Value Creation

# Sustainability as a Strategic Imperative

Embedding sustainability in strategy drives resilience, innovation, and long-term value for the business and society.





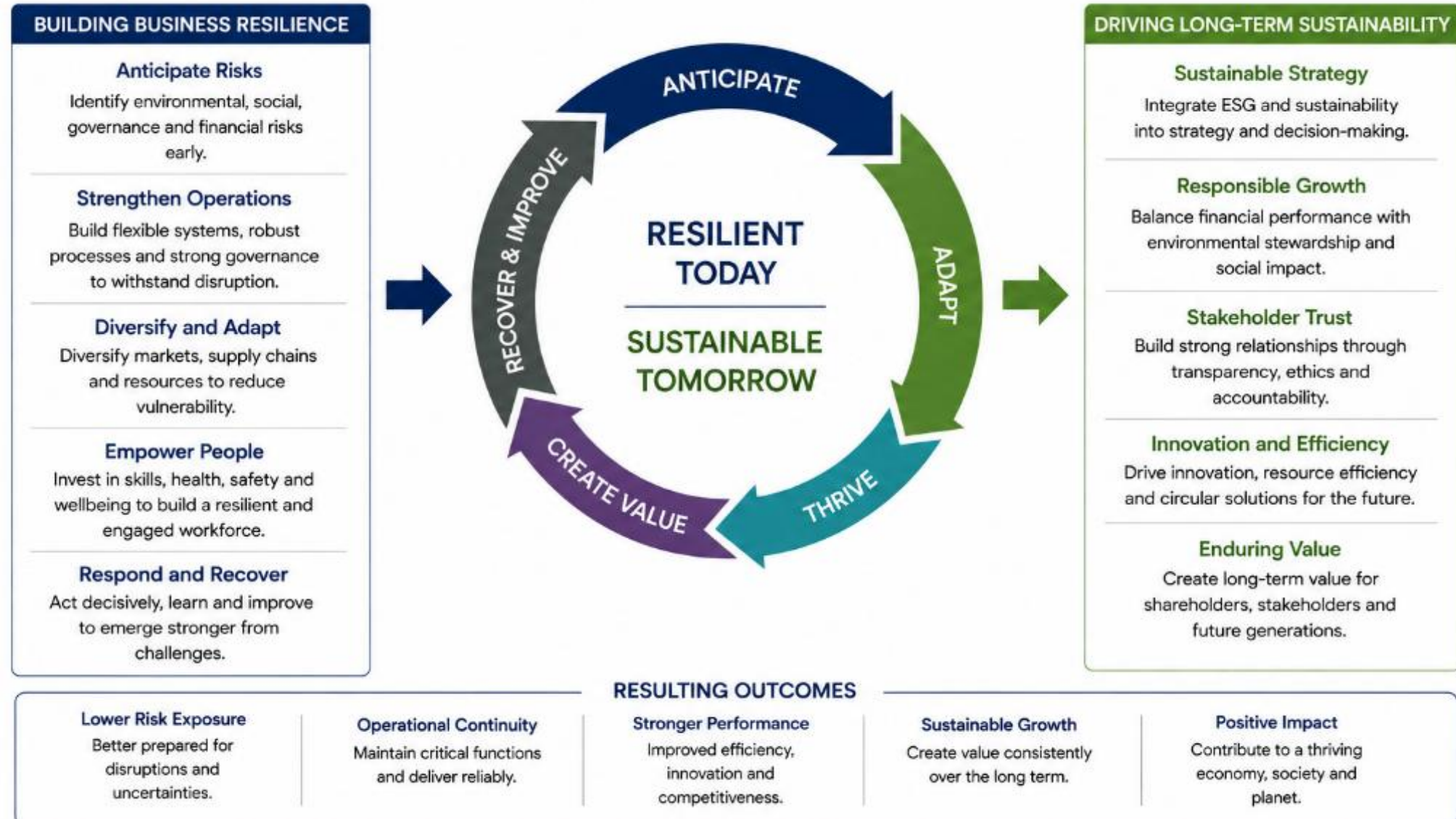
**A strong environmental, social, and governance (ESG) proposition links to value creation in five essential ways.**

|                                    | <b>Strong ESG proposition</b> (examples)                                                                                                                                                                   | <b>Weak ESG proposition</b> (examples)                                                                                                                                                                                                                      |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Top-line growth                    | Attract B2B and B2C customers with more sustainable products<br>Achieve better access to resources through stronger community and government relations                                                     | Lose customers through poor sustainability practices (eg, human rights, supply chain) or a perception of unsustainable/unsafe products<br>Lose access to resources (including from operational shutdowns) as a result of poor community and labor relations |
| Cost reductions                    | Lower energy consumption<br>Reduce water intake                                                                                                                                                            | Generate unnecessary waste and pay correspondingly higher waste-disposal costs<br>Expend more in packaging costs                                                                                                                                            |
| Regulatory and legal interventions | Achieve greater strategic freedom through deregulation<br>Earn subsidies and government support                                                                                                            | Suffer restrictions on advertising and point of sale<br>Incur fines, penalties, and enforcement actions                                                                                                                                                     |
| Productivity uplift                | Boost employee motivation<br>Attract talent through greater social credibility                                                                                                                             | Deal with "social stigma," which restricts talent pool<br>Lose talent as a result of weak purpose                                                                                                                                                           |
| Investment and asset optimization  | Enhance investment returns by better allocating capital for the long term (eg, more sustainable plant and equipment)<br>Avoid investments that may not pay off because of longer-term environmental issues | Suffer stranded assets as a result of premature write-downs<br>Fall behind competitors that have invested to be less "energy hungry"                                                                                                                        |

# Business Resilience and Long-Term Sustainability

Building resilience today ensures sustainable value creation tomorrow.

Resilient businesses anticipate change, adapt quickly and thrive over the long term.



## Intangible drivers of a business case

In addition to clear and measurable financial benefits, companies undertaking sustainability initiatives can accrue intangible benefits like better customer loyalty, employee/supplier relations, and a heightened culture of innovation.<sup>12</sup>

Intangible drivers of a business case are any internal or external characteristics that directly or indirectly impacts a corporates' financial performance and valuation multiples but which are difficult to accurately quantify.



### Investor perception

Investors are increasingly prioritizing companies pursuing better sustainability performance<sup>13</sup>, as these companies are well equipped to manage risks in the long term. Companies can accrue multiple benefits from improved investor perception including financial benefits of reduced cost of capital.



### Customer sentiment

Companies with sustainable products gain a competitive edge and attract more customers, leading to revenue generation in the long-term. Over two-thirds of consumers<sup>14</sup> cite green or sustainable options as one of their considerations while making a purchase decision, and are increasingly willing to pay a green premium, other factors being equal.



### Supplier relations

Embedding sustainability across the value chain leads to stronger supplier relations and value chain engagement. New York University found that 50% of survey respondents<sup>15</sup> thought sustainable supply chains lead to better risk management and 30% reported reduced costs<sup>15</sup> among other benefits.



### Employee value

Sustainability has emerged as a key employee value proposition in recent years, with strategic benefits of attracting new talent, boosting health and productivity, and retaining talent. 55% of employees<sup>16</sup> (age 25-34) place a high level of importance on environmental and social issues, and 20% of job seekers<sup>16</sup> have turned-down employers due to sub-par ESG performance.



### Brand and reputation

Improved sustainability performance can help in driving more brand equity for companies. On average, a company's perceived sustainability contributes to 3% of brand equity<sup>17</sup>, amounting to USD 193Bn<sup>18</sup> in brand value for global top 100 brands.

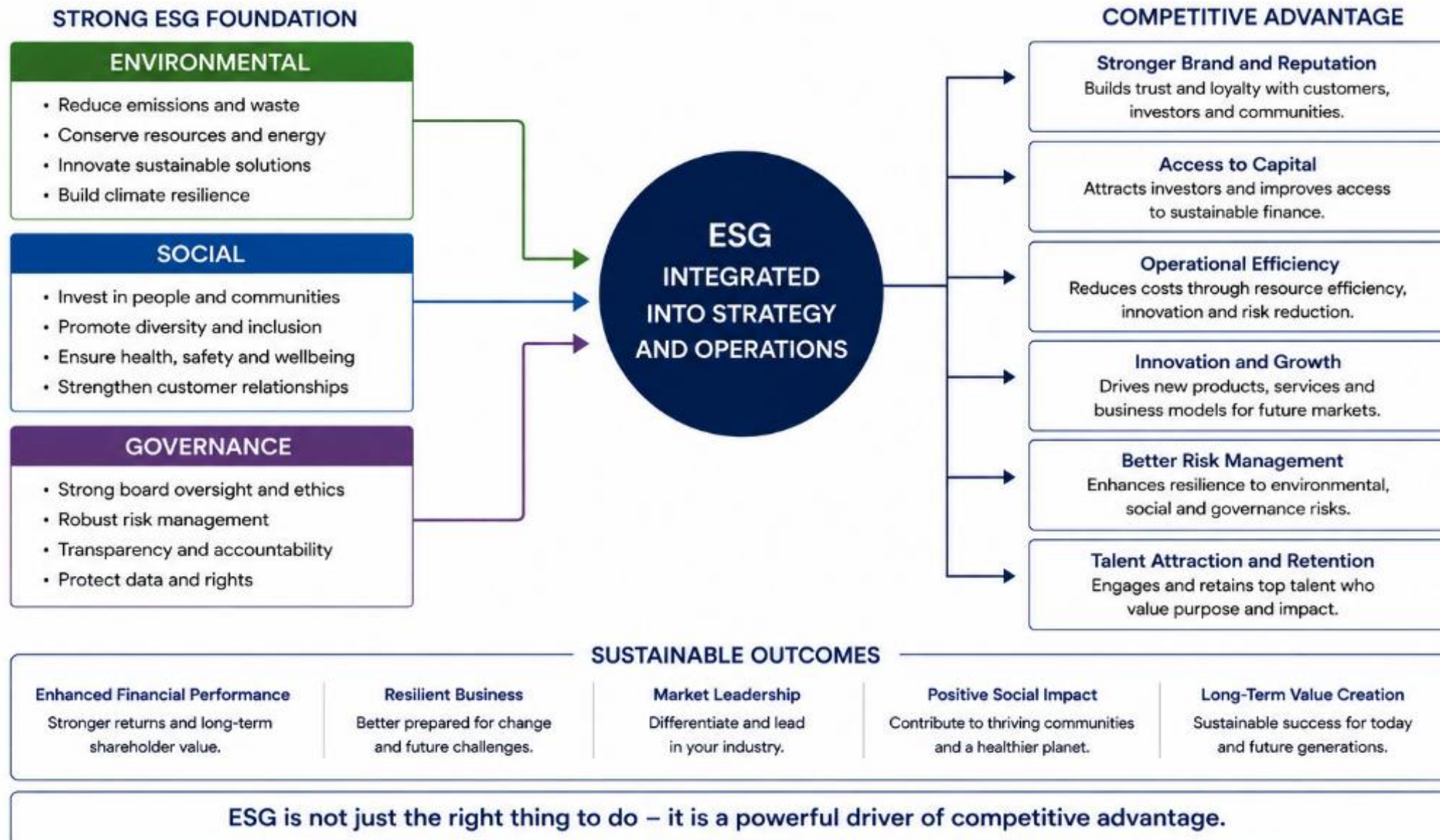


### Improved business management

By recognizing sustainability-related risks and opportunities and embedding these into strategic decision-making, businesses are better able to plan, allocate resources, and respond to emerging situations. Enabling them to reduce volatility<sup>19</sup> and improve performance.

# ESG and Competitive Advantage

Integrating Environmental, Social and Governance (ESG) factors strengthens performance today and creates sustainable advantage tomorrow.



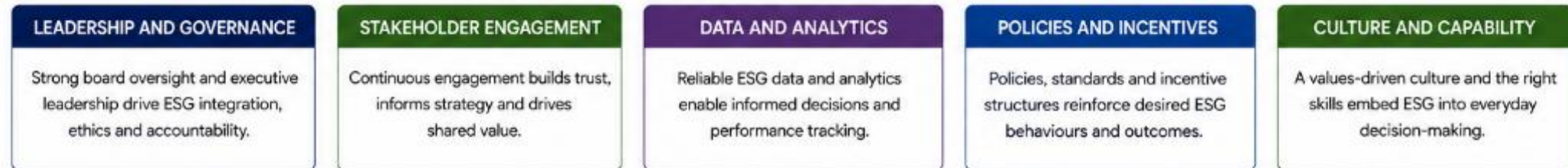
# ESG INTEGRATION INTO CORPORATE STRATEGY

Embedding Environmental, Social and Governance (ESG) factors into strategy to create sustainable value, manage risk and drive long-term performance.

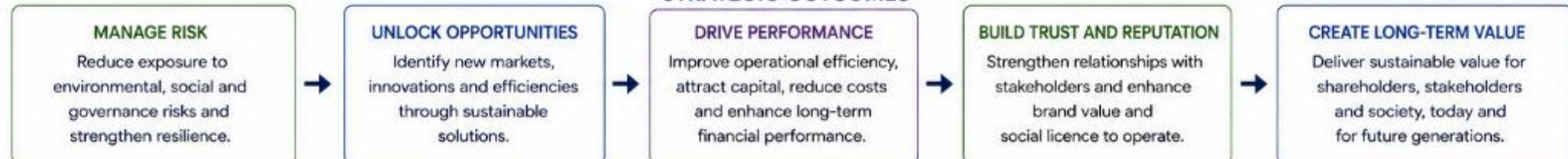
## THE ESG INTEGRATION PROCESS



## KEY ENABLERS FOR SUCCESS



## STRATEGIC OUTCOMES

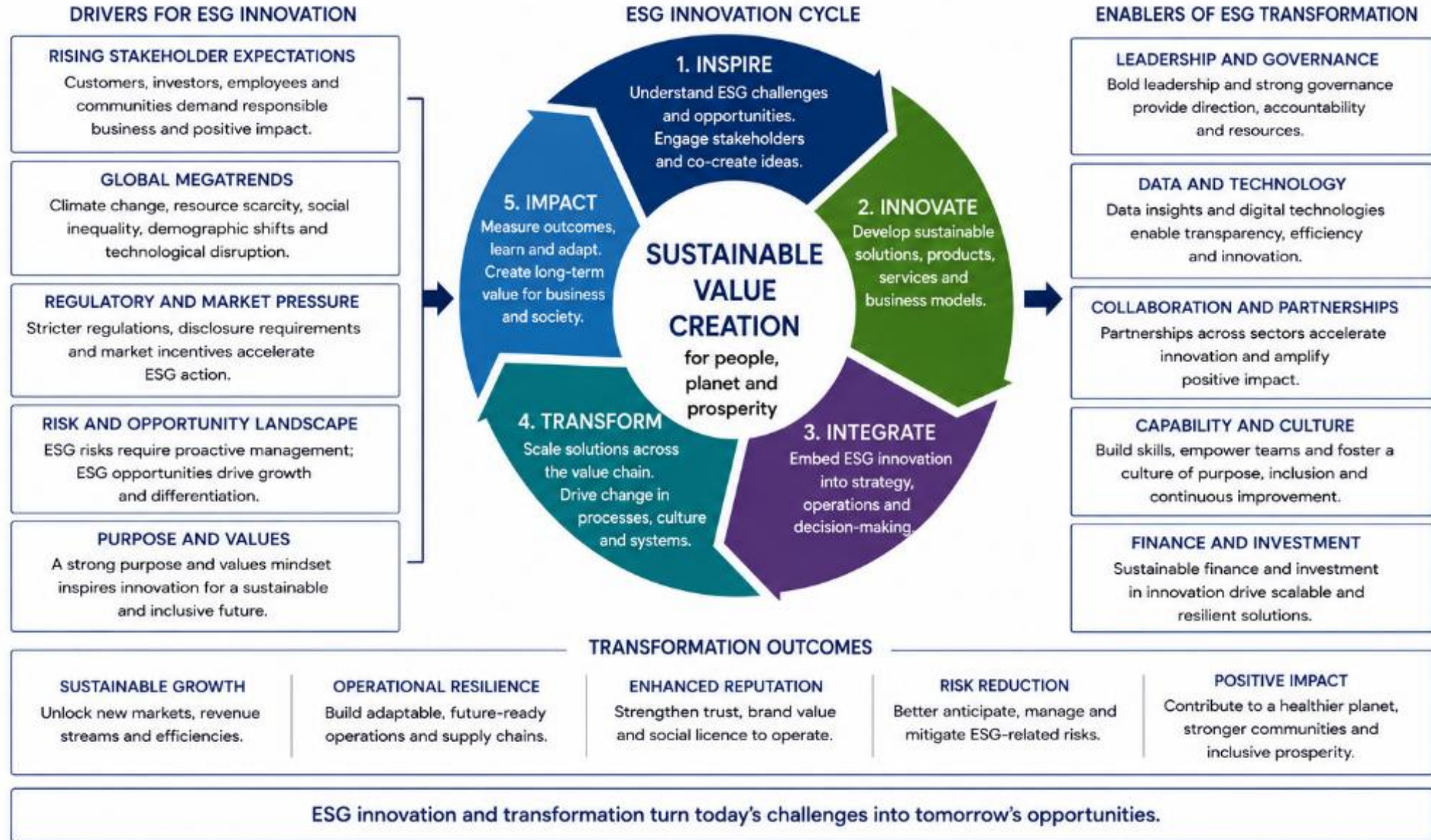


## THE RESULT

ESG integration transforms strategy into sustainable action that drives resilience, competitive advantage and long-term value creation.

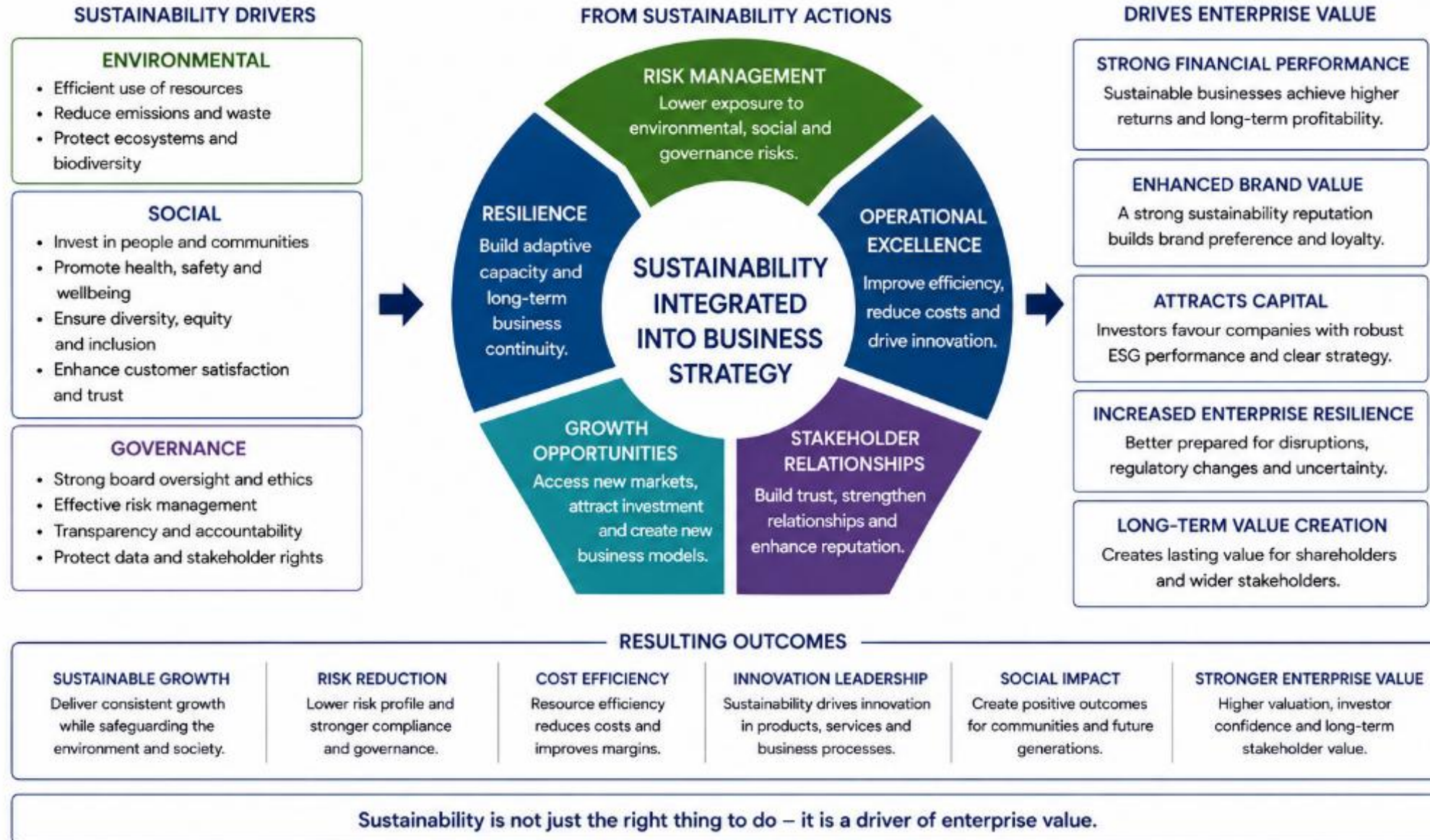
# ESG INNOVATION AND TRANSFORMATION

Driving innovation and transformation through Environmental, Social and Governance (ESG)  
to create sustainable value, resilient businesses and a better future.



# SUSTAINABILITY AND ENTERPRISE VALUE

Integrating sustainability into strategy and operations drives long-term value for the business and all stakeholders.



# ESG, Sustainable Leadership & Stakeholder Value

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Module 5 - Social Factors & Stakeholder Value Creation

# FIDUCIARY DUTIES AND ESG ACCOUNTABILITY

## A South African Perspective

| 1. FIDUCIARY FOUNDATION                                                                                                                                                                                                                                                                                               | 2. ESG AS A FIDUCIARY ISSUE                                                                                                                                                                                                                                                                                                                                            | 3. LEGAL AND REGULATORY CONTEXT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4. OVERSIGHT AND GOVERNANCE                                                                                                                                                                                                                                                                                                                                                                 | 5. ACCOUNTABILITY AND DISCLOSURE                                                                                                                                                                                                                                                                                                                                                     | 6. VALUE CREATION AND CONSEQUENCES                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Directors and executives owe duties of care, diligence, loyalty and responsibility.</p>                                                                                                                                                                                                                            | <p>ESG considerations are material to enterprise value, risk and long-term sustainability.</p>                                                                                                                                                                                                                                                                         | <p>South African laws require transparency, sustainability and accountability.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Boards are accountable for ESG oversight, culture and performance.</p>                                                                                                                                                                                                                                                                                                                   | <p>Transparent reporting and assurance strengthen trust and demonstrate accountability.</p>                                                                                                                                                                                                                                                                                          | <p>Embedding ESG in fiduciary practice creates long-term value and mitigates risk.</p>                                                                                                                                                                                                   |
| <p><b>Key duties</b></p> <ul style="list-style-type: none"> <li>• Act in the best interests of the company</li> <li>• Exercise care, skill and diligence</li> <li>• Act with honesty and integrity</li> <li>• Avoid conflicts of interest</li> <li>• Ensure the company is a responsible corporate citizen</li> </ul> | <p><b>Directors must</b></p> <ul style="list-style-type: none"> <li>• Understand ESG risks and opportunities relevant to the business</li> <li>• Ensure ESG is integrated into strategy and decision-making</li> <li>• Oversee effective management of ESG risks and impacts</li> <li>• Consider stakeholder interests in the best interests of the company</li> </ul> | <p><b>Key requirements</b></p> <ul style="list-style-type: none"> <li>• Companies Act: directors must act in the best interests of the company and its stakeholders</li> <li>• King IV™: ethical leadership, integrated thinking and responsible corporate citizenship</li> <li>• JSE Listings Requirements: apply or explain on sustainability and climate disclosure (IFRS S1 &amp; S2)</li> <li>• PFMA &amp; MFMA (public sector): promote transparency, accountability and socio-economic development</li> </ul> | <p><b>Board responsibilities</b></p> <ul style="list-style-type: none"> <li>• Set the tone at the top and promote ethical leadership</li> <li>• Approve ESG strategy, policies and targets</li> <li>• Ensure robust risk management and internal control</li> <li>• Monitor ESG performance and ensure credible reporting</li> <li>• Ensure assurance and continuous improvement</li> </ul> | <p><b>What this looks like</b></p> <ul style="list-style-type: none"> <li>• Integrated reporting on material ESG matters</li> <li>• Climate-related disclosure (TCFD/IFRS S1 &amp; S2 aligned)</li> <li>• Independent assurance over ESG information</li> <li>• Stakeholder engagement and responsiveness</li> <li>• Clear consequences for poor governance or misconduct</li> </ul> | <p><b>Outcomes</b></p> <ul style="list-style-type: none"> <li>• Protect and enhance enterprise value</li> <li>• Strengthen resilience and access to capital</li> <li>• Build trust with stakeholders and society</li> <li>• Support inclusive economic growth in South Africa</li> </ul> |
| <p><b>Key reference</b></p> <p>Companies Act 71 of 2008 (Section 76)<br/>King IV™ Principle 2</p>                                                                                                                                                                                                                     | <p><b>Key reference</b></p> <p>King IV™ Principles 4, 5, 6<br/>JSE Listings Requirements</p>                                                                                                                                                                                                                                                                           | <p><b>Key reference</b></p> <p>Companies Act, King IV™<br/>JSE, PFMA, MFMA</p>                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p><b>Key reference</b></p> <p>King IV™ Principle 7<br/>IIA Three Lines Model</p>                                                                                                                                                                                                                                                                                                           | <p><b>Key reference</b></p> <p>King IV™ Principle 5<br/>IFRS Sustainability Standards<br/>JSE Sustainability Disclosure</p>                                                                                                                                                                                                                                                          | <p><b>Consequences of failure</b></p> <ul style="list-style-type: none"> <li>• Regulatory action and penalties</li> <li>• Reputational damage</li> <li>• Litigation and personal liability</li> <li>• Loss of investor and stakeholder confidence</li> </ul>                             |

# BOARD OVERSIGHT RESPONSIBILITIES

The board provides strategic leadership and oversight to ensure the organisation is governed ethically, performs sustainably and creates long-term value.

## 1. STRATEGY AND PURPOSE

Oversee the development and approval of strategy aligned to the organisation's purpose, values and long-term sustainability.

## 2. RISK OVERSIGHT

Ensure a robust risk management framework is in place to identify, assess, monitor and manage key risks and opportunities.

## 3. ETHICS AND CULTURE

Set the tone at the top and promote an ethical culture, integrity and responsible behaviour throughout the organisation.

## 4. GOVERNANCE AND COMPLIANCE

Ensure effective governance structures, policies and controls are in place to ensure compliance with applicable laws, regulations and standards.

## 5. PERFORMANCE OVERSIGHT

Monitor organisational performance against strategic objectives, key indicators and stakeholder expectations.

## 6. FINANCIAL STEWARDSHIP

Oversee financial reporting, internal controls and the prudent use of resources to ensure financial sustainability.

## 7. STAKEHOLDER ENGAGEMENT

Ensure effective engagement with key stakeholders and that their interests are understood, considered and addressed.

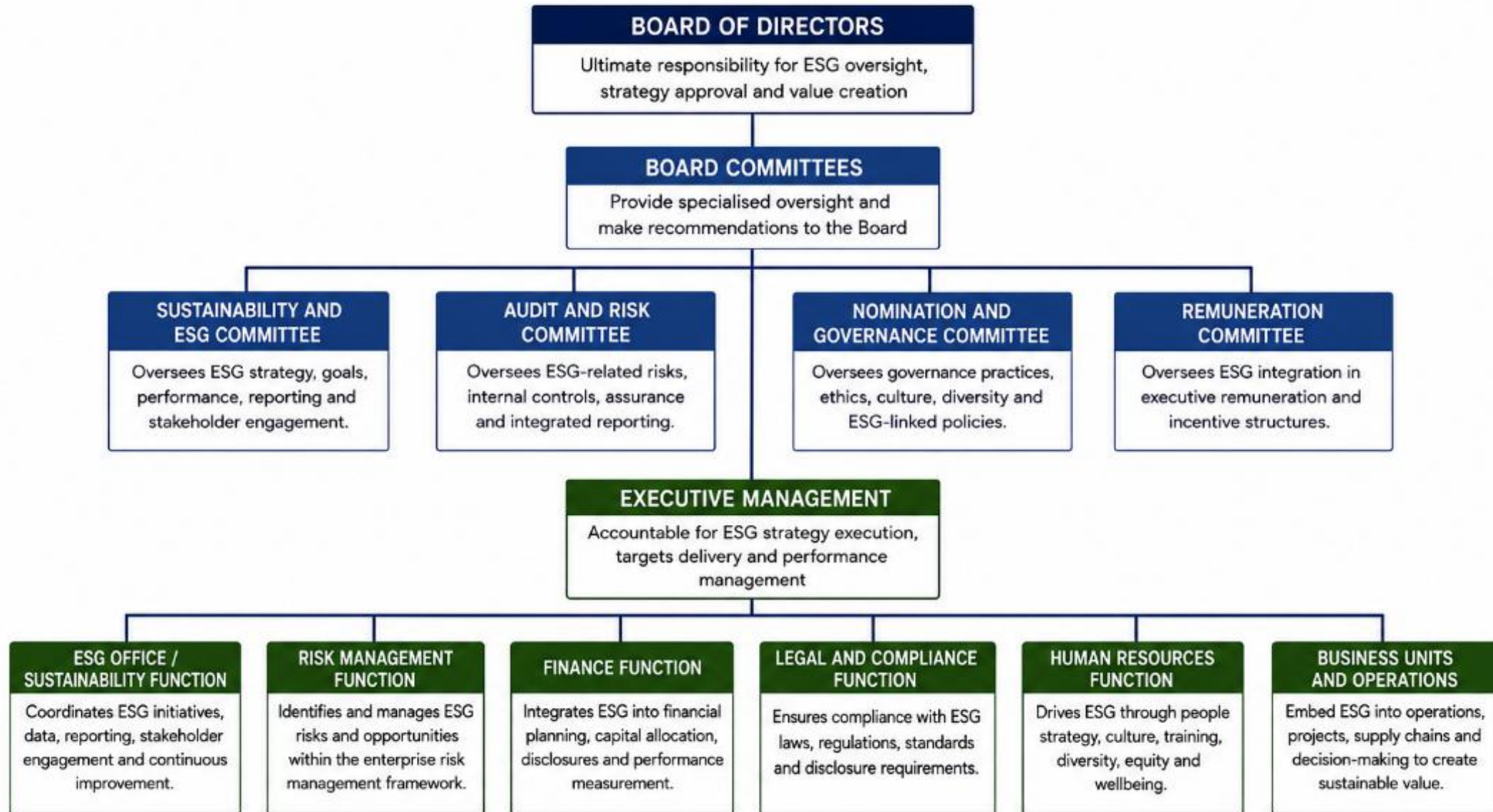
## 8. TALENT AND SUCCESSION

Oversee leadership development, succession planning and a diverse, skilled and accountable leadership team.

## 9. DISCLOSURE AND ACCOUNTABILITY

Ensure transparent reporting and disclosure of material matters and acceptability to the organisation and stakeholders.

# ESG GOVERNANCE STRUCTURES AND COMMITTEES



# EXECUTIVE ACCOUNTABILITY AND ESG KPIs

Accountability, measurement and performance drive sustainable value and long-term success

## ESG KPIs EXAMPLES

### 1. GOVERNANCE AND OVERSIGHT

- Board sets ESG expectations
- Clear roles and responsibilities
- Oversight through committees

- % ESG oversight meetings
- ESG strategy approved
- Risk management effectiveness

### 2. EXECUTIVE ACCOUNTABILITY

- ESG objectives embedded in executive scorecards
- Defined targets and deliverables
- Regular performance reviews

- % achievement of ESG targets
- ESG objectives in scorecards (Y/N)
- Performance review completion

### 3. PERFORMANCE MEASUREMENT

- Use of relevant and material ESG KPIs
- Balanced scorecard approach
- Short-term and long-term measures

- CO<sub>2</sub>e emissions (tCO<sub>2</sub>e)
- Lost Time Injury Frequency Rate
- Employee engagement score

### 4. INCENTIVES AND REWARDS

- Link a portion of variable pay to ESG performance
- Reward achievement of ESG goals
- Foster long-term value creation

- % variable pay linked to ESG
- ESG target achievement rate
- Long-term incentive vesting

### 5. TRANSPARENCY AND REPORTING

- Transparent disclosure of ESG performance
- Communicate progress to stakeholders

- ESG report published (Y/N)
- TCFD/IFRS S1 & S2 disclosure (Y/N)
- Stakeholder satisfaction score

### 6. CONTINUOUS IMPROVEMENT

- Monitor, learn and adapt
- Strengthen policies, targets and performance

- Improvement initiatives implemented
- KPI performance trend
- ESG maturity assessment score

When executives are accountable and ESG performance is measured, organisations create sustainable value and build stakeholder trust.

# ESG PERFORMANCE OBJECTIVES

LINKED TO MISSION CRITICAL OBJECTIVES AND KPIs

| MISSION CRITICAL OBJECTIVES                            | ESG PERFORMANCE OBJECTIVES                     | ESG KPIs                                   | TARGET                |
|--------------------------------------------------------|------------------------------------------------|--------------------------------------------|-----------------------|
| 1. ENABLE A LOW CARBON AND RESOURCE EFFICIENT BUSINESS | Reduce greenhouse gas emissions                | Scope 1 & 2 emissions (tCO <sub>2</sub> e) | -30% by 2030          |
|                                                        | Improve resource efficiency                    | Energy intensity (kWh per unit)            | -20% by 2030          |
|                                                        | Protect biodiversity and ecosystems            | Land disturbed rehabilitated (%)           | 100% by 2030          |
| 2. EMPOWER PEOPLE AND STRENGTHEN COMMUNITIES           | Ensure a safe, healthy and inclusive workplace | Lost Time Injury Frequency Rate (LTIFR)    | Zero harm             |
|                                                        | Develop skills and future talent               | Training hours per employee                | 40 hours per employee |
|                                                        | Create positive social impact                  | Community investment (R million)           | ≥ 1% of NPAT          |
| 3. UPHOLD STRONG GOVERNANCE AND ETHICAL CONDUCT        | Strengthen ethics, integrity and compliance    | Code of conduct breaches                   | Zero tolerance        |
|                                                        | Enhance risk management                        | High risk issues resolved (%)              | 100%                  |
|                                                        | Ensure transparent disclosure and reporting    | ESG report published on time (Y/N)         | Yes                   |

STRATEGY EXECUTION | RISK MANAGEMENT | STAKEHOLDER VALUE CREATION

# EMBEDDING ESG INTO GOVERNANCE FRAMEWORKS

## Aligned to the COSO Internal Control – Integrated Framework

ESG is embedded across all components and principles to support ethical leadership, value creation, risk management, and reliable reporting for sustainable performance.

| COSO COMPONENTS                         | WHAT IT MEANS                                                        | EMBEDDING ESG – KEY FOCUS AREAS                                                                                                                                                                                                                                                                                                                                   | OUTCOMES                                                                        |
|-----------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>1. CONTROL ENVIRONMENT</b>           | The foundation for how the organisation approaches risk and control. | <ul style="list-style-type: none"> <li>Board oversight of ESG strategy and performance</li> <li>Demonstrate commitment to ethical behaviour and sustainability</li> <li>Define roles, responsibilities and accountability for ESG</li> <li>Promote a culture of integrity, inclusion and stakeholder respect</li> </ul>                                           | Strong governance culture and clear accountability for ESG performance.         |
| <b>2. RISK ASSESSMENT</b>               | Identifying and analysing risks to achieve objectives.               | <ul style="list-style-type: none"> <li>Identify ESG-related risks and opportunities (environmental, social, governance)</li> <li>Assess impact, likelihood and interdependencies</li> <li>Consider stakeholder expectations, regulatory changes and climate risks</li> <li>Integrate ESG into enterprise risk management processes</li> </ul>                     | Better understanding of ESG risks and opportunities that affect value creation. |
| <b>3. CONTROL ACTIVITIES</b>            | Policies and procedures that help manage risks.                      | <ul style="list-style-type: none"> <li>Design and implement controls that address ESG risks and objectives</li> <li>Embed ESG criteria in policies, operations, procurement and investments</li> <li>Ensure compliance with ESG laws, standards and voluntary commitments</li> <li>Apply due diligence across operations and the value chain</li> </ul>           | Effective controls that support ESG goals and reduce negative impacts.          |
| <b>4. INFORMATION AND COMMUNICATION</b> | Capturing, reporting and sharing relevant information.               | <ul style="list-style-type: none"> <li>Establish systems to collect accurate ESG data and performance indicators</li> <li>Ensure transparent and balanced ESG reporting (e.g. TCFD, IFRS S1 &amp; S2, GRI)</li> <li>Communicate ESG strategy, progress and risks to internal and external stakeholders</li> <li>Ensure timely escalation of ESG issues</li> </ul> | Reliable ESG information that supports decision-making and builds trust.        |
| <b>5. MONITORING ACTIVITIES</b>         | Ongoing evaluation of control performance over time.                 | <ul style="list-style-type: none"> <li>Monitor and review ESG performance against targets and KPIs</li> <li>Conduct internal assurance and independent assurance where appropriate</li> <li>Take corrective action and drive continuous improvement</li> <li>Report to the board and committees on ESG performance and emerging issues</li> </ul>                 | Continuous improvement and assurance that ESG objectives are achieved.          |

# EMBEDDING ESG INTO GOVERNANCE FRAMEWORKS

## Aligned to the NIST AI Risk Management Framework (AI RMF 1.0)

ESG principles and considerations are embedded across the AI governance lifecycle to ensure responsible, ethical, lawful and sustainable AI that creates long-term value for the organisation and society.

| NIST AI RMF CORE FUNCTIONS                                                    | OBJECTIVE                                                                                      | EMBEDDING ESG – KEY FOCUS AREAS                                                                                                                                                                                                                                                                                                                                                                                 | ESG OUTCOMES                                                                                                    |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>1. GOVERN</b><br>Establish AI governance to support risk management.       | Establish policies, roles, accountabilities and oversight to ensure responsible AI.            | <ul style="list-style-type: none"> <li>Board oversight of AI strategy, ethics and ESG impacts</li> <li>Define AI governance structure, roles and responsibilities</li> <li>Embed ESG values (environmental stewardship, social responsibility, human rights, transparency, accountability) in AI policies</li> <li>Ensure adherence to laws, standards and stakeholder expectations</li> </ul>                  | Strong ethical leadership and accountability<br>Alignment of AI with ESG values and organisational purpose      |
| <b>2. MAP</b><br>Contextualise AI risks and opportunities.                    | Understand the context in which AI systems operate and the associated risks and opportunities. | <ul style="list-style-type: none"> <li>Identify AI use cases and their ESG impacts across the value chain</li> <li>Assess environmental (e.g., energy use), social (e.g., bias, inclusion, labour), and governance (e.g., privacy, transparency) factors</li> <li>Engage stakeholders to understand expectations and material ESG topics</li> <li>Consider regulatory, cultural and societal context</li> </ul> | Holistic understanding of AI-related ESG risks and opportunities<br>Informed and inclusive decision-making      |
| <b>3. MEASURE</b><br>Assess, analyse and prioritise AI risks.                 | Evaluate AI risks and determine their likelihood and impact.                                   | <ul style="list-style-type: none"> <li>Assess AI risks through an ESG lens (people, planet, governance)</li> <li>Evaluate bias, fairness, explainability, safety, security and privacy</li> <li>Measure environmental footprint (e.g., carbon, resources)</li> <li>Prioritise risks based on materiality and potential impact on stakeholders</li> </ul>                                                        | Evidence-based prioritisation of AI risks<br>Focus on issues that matter most to stakeholders                   |
| <b>4. MANAGE</b><br>Act to mitigate AI risks and seize opportunities.         | Implement actions to address and reduce AI risks and enhance positive impacts.                 | <ul style="list-style-type: none"> <li>Design and implement controls to mitigate ESG-related AI risks</li> <li>Embed fairness, transparency, privacy and sustainability by design</li> <li>Promote inclusive AI that benefits people and communities</li> <li>Manage third-party and supply chain AI risks</li> </ul>                                                                                           | Reduced negative impacts<br>Enhanced positive social and environmental outcomes<br>Responsible AI innovation    |
| <b>5. MEASURE (Monitor)</b><br>Continuously monitor AI performance and risks. | Continuously monitor, review and improve AI systems and controls.                              | <ul style="list-style-type: none"> <li>Monitor AI performance and ESG impacts against KPIs and thresholds</li> <li>Conduct audits, testing and reviews for bias, safety, security and privacy</li> <li>Report on AI and ESG performance transparently</li> <li>Learn from incidents and stakeholder feedback to improve</li> </ul>                                                                              | Continuous improvement<br>Trust through transparency and accountability<br>Resilient and adaptive AI governance |

# ETHICAL LEADERSHIP AND ORGANISATIONAL CULTURE

Aligned with KING V™

Ethical leadership sets the tone at the top and shapes a values-driven culture that underpins good governance, enables value creation and protects legitimacy in the best interests of all stakeholders.

| KING V™<br>PRINCIPLES                  | ETHICAL LEADERSHIP IN ACTION<br>Leaders at all levels:                                                                                                                                                                                                                           | CULTURAL ENABLERS                                                                                                                                                                        | CULTURAL OUTCOMES                                      |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Ethical Culture                        | <ul style="list-style-type: none"> <li>• Demonstrate integrity, honesty and fairness in all decisions and actions</li> <li>• Role model the organisation's values and code of ethics</li> <li>• Promote a speak-up culture and address unethical behaviour decisively</li> </ul> | <ul style="list-style-type: none"> <li>• Shared values and clear purpose</li> <li>• Tone at the top and visible commitment</li> <li>• Zero tolerance for unethical behaviour</li> </ul>  | Strong ethical culture and shared values               |
| Good Performance                       | <ul style="list-style-type: none"> <li>• Set clear ethical expectations and performance standards</li> <li>• Align behaviour, incentives and consequences with ethical values</li> <li>• Foster accountability for delivering sustainable results</li> </ul>                     | <ul style="list-style-type: none"> <li>• Ethical decision-making</li> <li>• Alignment of rewards and recognition</li> <li>• Performance conversations with integrity</li> </ul>          | Sustainable performance and responsible behaviour      |
| Effective Control and Legitimacy       | <ul style="list-style-type: none"> <li>• Ensure robust governance structures and ethical oversight</li> <li>• Embed ethics in risk management and internal control processes</li> <li>• Ensure compliance with laws, regulations and ethical standards</li> </ul>                | <ul style="list-style-type: none"> <li>• Independent oversight and assurance</li> <li>• Strong policies and ethical frameworks</li> <li>• Transparency and accountability</li> </ul>     | Legitimacy, compliance and stakeholder confidence      |
| Trust, Relationships and Inclusivity   | <ul style="list-style-type: none"> <li>• Treat all stakeholders with respect, dignity and fairness</li> <li>• Build trust through transparency, consistency and open communication</li> <li>• Value diversity, inclusion and psychological safety</li> </ul>                     | <ul style="list-style-type: none"> <li>• Open, two-way communication</li> <li>• Inclusion, equity and respect</li> <li>• Collaboration and mutual trust</li> </ul>                       | High trust, engagement and inclusive culture           |
| Integrated Thinking and Value Creation | <ul style="list-style-type: none"> <li>• Consider the impact of decisions on the short, medium and long term</li> <li>• Balance the needs of the organisation, society and the environment</li> <li>• Promote responsible innovation and sustainable value creation</li> </ul>   | <ul style="list-style-type: none"> <li>• Systems thinking and holistic decision-making</li> <li>• Environmental and social responsibility</li> <li>• Intergenerational equity</li> </ul> | Long-term value creation and organisational resilience |
| Stakeholder Inclusivity                | <ul style="list-style-type: none"> <li>• Engage stakeholders meaningfully and openly</li> <li>• Understand and respond to stakeholder interests and concerns</li> <li>• Create shared value and uphold stakeholder rights</li> </ul>                                             | <ul style="list-style-type: none"> <li>• Stakeholder engagement and dialogue</li> <li>• Responsiveness and inclusivity</li> <li>• Community and societal impact</li> </ul>               | Positive impact and social licence to operate          |

# BOARD ESG MATURITY MODELS

## Aligned to the COSO Maturity Model for ESG

The COSO Maturity Model helps boards assess the effectiveness of governance, risk management and performance in relation to ESG and drive continuous improvement.

| MATURITY DIMENSION                       | 1. INITIAL (REACTIVE)                                                        | 2. DEVELOPING (EMERGING)                                                                  | 3. DEFINED (ESTABLISHED)                                                                                     | 4. MANAGED (INTEGRATED)                                                                                     | 5. OPTIMISED (LEADING)                                                                        |
|------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| GOVERNANCE AND OVERSIGHT                 | Limited board awareness of ESG issues.<br>No formal oversight or structures. | Board acknowledges ESG importance.<br>Ad hoc oversight with limited oversight structures. | Board has formal ESG oversight through a committee.<br>Roles, responsibilities and accountabilities defined. | ESG oversight is integrated into board agendas and decision-making.<br>Regular performance review.          | Board provides proactive leadership on ESG.<br>ESG embedded in governance and value creation. |
| STRATEGY AND OBJECTIVES                  | No clear ESG strategy.<br>ESG not considered in strategic planning.          | ESG considered in some strategic discussions.<br>No clear strategy or objectives.         | ESG strategy defined and aligned with organisational purpose.<br>Clear ESG objectives established.           | ESG fully integrated into strategy and business model.<br>Targets linked to value creation.                 | ESG drives strategy and innovation.<br>Long-term sustainable value is demonstrably created.   |
| RISK MANAGEMENT                          | ESG risks not identified or assessed.<br>Reactive to issues.                 | Some ESG risks identified.<br>Limited assessment and management.                          | ESG risks systematically identified, assessed and prioritised within ERM.                                    | ESG risks actively managed across the enterprise and value chain.                                           | ESG risk management optimised and drives resilience and opportunity.                          |
| PERFORMANCE MANAGEMENT                   | No ESG metrics or KPIs.<br>Performance not measured or tracked.              | Some ESG metrics used.<br>Performance tracking is inconsistent.                           | ESG KPIs defined and measured.<br>Targets monitored regularly.                                               | ESG performance is embedded in management processes and incentives.                                         | ESG performance is industry leading and continuously improving.                               |
| INFORMATION, REPORTING AND COMMUNICATION | Minimal or no ESG disclosure.<br>Communication is reactive.                  | Basic ESG reporting.<br>Limited transparency and stakeholder communication.               | Standardised ESG reporting aligned to recognised frameworks (e.g. ISSB, GRI).<br>Stakeholders are informed.  | Integrated reporting on ESG and financial performance.<br>Transparent and proactive stakeholder engagement. | Best-in-class reporting.<br>Stakeholder trust and dialogue drive continuous improvement.      |
| CULTURE AND STAKEHOLDER ENGAGEMENT       | Limited awareness of ESG issues.<br>Stakeholder engagement is minimal.       | Growing awareness of ESG within the organisation.<br>Stakeholder engagement is ad hoc.    | ESG values embedded in policies and culture.<br>Stakeholder engagement is structured.                        | Strong ESG culture.<br>Employees act on ESG values.<br>Stakeholders are partners in value creation.         | Purpose-led culture.<br>Stakeholders co-create solutions for a sustainable future.            |

# ESG, Sustainable Leadership & Stakeholder Value

**Module 1 - Introduction to ESG & Sustainable Leadership**

**Module 2 - Business Sustainability & Future-Ready Organisations**

**Module 3 - The Role of Boards & Executives in ESG Governance**

**Module 4 - Environmental Factors & Climate Governance**



**Module 5 - Social Factors & Stakeholder Value Creation**

# CLIMATE CHANGE AND BUSINESS RISK

## RISK AND CONTROL MATRIX – FOCUS ON STRATEGIC RISKS

| RISK CATEGORY                                                                                       | STRATEGIC RISK                             | POTENTIAL IMPACT ON BUSINESS                                                                                                                                                        | INHERENT RISK LEVEL | KEY RISK DRIVERS                                                                                                                                                                                              | KEY CONTROLS                                                                                                                                                                                                                                                                                    | CONTROL OWNER                                                                     | RESIDUAL RISK LEVEL |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------|
| <b>STRATEGIC RISKS</b><br>Long-term risks that affect objectives, value creation and sustainability | 1. Transition Risk – Policy and Regulation | New or more stringent climate policies, carbon pricing, emissions regulations and disclosure obligations increase compliance costs and may affect market access and business model. | High                | <ul style="list-style-type: none"> <li>Net zero commitments</li> <li>Carbon pricing</li> <li>Stricter emissions standards</li> <li>Mandatory climate disclosures</li> <li>Just transition policies</li> </ul> | <ul style="list-style-type: none"> <li>Monitor policy and regulatory developments</li> <li>Scenario analysis and regulatory impact assessment</li> <li>Engage with policymakers and industry associations</li> <li>Integrate climate requirements in strategy and capital allocation</li> </ul> | Board / Audit Committee<br>Chief Strategy Officer<br>Chief Sustainability Officer | Medium              |
|                                                                                                     | 2. Transition Risk – Market                | Shifting customer preferences, market demand for low-carbon products and technologies may reduce competitiveness and market share.                                                  | High                | <ul style="list-style-type: none"> <li>Customer shift to low-carbon options</li> <li>Investor and lender expectations</li> <li>Market volatility</li> </ul>                                                   | <ul style="list-style-type: none"> <li>Market and customer trend analysis</li> <li>Innovation in low-carbon products and services</li> <li>Strengthen brand and ESG positioning</li> <li>Diversify markets and offerings</li> </ul>                                                             | Chief Marketing Officer<br>Chief Strategy Officer                                 | Medium              |
|                                                                                                     | 3. Transition Risk – Technology            | Emerging low-carbon technologies and disruption may render existing assets, products or processes obsolete.                                                                         | High                | <ul style="list-style-type: none"> <li>Rapid technology advancement</li> <li>Cost decline of renewables</li> <li>Technology disruption</li> </ul>                                                             | <ul style="list-style-type: none"> <li>Technology scanning and horizon monitoring</li> <li>Invest in research, development and innovation</li> <li>Technology roadmap and partnerships</li> </ul>                                                                                               | Chief Technology Officer<br>Chief Strategy Officer                                | Medium              |
| <b>PHYSICAL RISKS</b><br>Risks arising from the physical impacts of climate change                  | 4. Physical Risk – Acute                   | Extreme weather events (floods, storms, wildfires, heatwaves) disrupt operations, damage assets and supply chains.                                                                  | High                | <ul style="list-style-type: none"> <li>Increased frequency and severity of extreme events</li> <li>Location of assets and operations</li> <li>Supply chain exposure</li> </ul>                                | <ul style="list-style-type: none"> <li>Hazard mapping and exposure assessment</li> <li>Business continuity and disaster recovery planning</li> <li>Strengthen infrastructure resilience</li> <li>Insurance and risk transfer strategies</li> </ul>                                              | Chief Operations Officer<br>Chief Risk Officer                                    | Medium              |
|                                                                                                     | 5. Physical Risk – Chronic                 | Rising temperatures, sea levels, water scarcity and changing climate patterns affect productivity, resource availability and long-term operations.                                  | Medium              | <ul style="list-style-type: none"> <li>Water stress</li> <li>Rising average temperatures</li> <li>Sea level rise</li> <li>Changing rainfall patterns</li> </ul>                                               | <ul style="list-style-type: none"> <li>Water and resource management plans</li> <li>Asset design and location standards</li> <li>Climate-resilient operations</li> <li>Monitor long-term climate projections</li> </ul>                                                                         | Chief Operations Officer<br>Chief Sustainability Officer                          | Low – Medium        |
| <b>REPUTATION AND STAKEHOLDER RISKS</b><br>Risks to trust, licence to operate and stakeholder value | 6. Reputation and Stakeholder Risk         | Failure to act on climate change expectations may lead to loss of trust, negative publicity, community opposition and reduced social licence to operate.                            | Medium              | <ul style="list-style-type: none"> <li>Stakeholder expectations</li> <li>NGO and media scrutiny</li> <li>Community impacts</li> <li>Social inequality</li> </ul>                                              | <ul style="list-style-type: none"> <li>Stakeholder engagement and dialogue</li> <li>Transparent climate reporting</li> <li>Community investment and just transition support</li> <li>Strong governance and ethics culture</li> </ul>                                                            | Chief Sustainability Officer<br>Chief Communications Officer                      | Low – Medium        |
| <b>FINANCIAL RISKS</b><br>Risks affecting financial position, access to capital and cost of finance | 7. Financial Risk                          | Climate change may affect asset values, increase cost of capital, reduce access to finance and impact financial performance.                                                        | Medium              | <ul style="list-style-type: none"> <li>Stranded asset risk</li> <li>Cost of compliance</li> <li>Insurance premium increases</li> <li>Investor expectations</li> </ul>                                         | <ul style="list-style-type: none"> <li>Climate risk in financial planning</li> <li>Stress testing and scenario analysis</li> <li>ESG integration in investment decisions</li> <li>Strong disclosure and investor relations</li> </ul>                                                           | Chief Financial Officer<br>Chief Risk Officer                                     | Low – Medium        |

## Our environmental stewardship continued

Exxaro's wheel of excellence, detailed below, provides a consistent framework for environmental stewardship across the group, ensuring alignment in compliance, implementation, monitoring and reporting at every level. It enables the seamless integration of new assets and guides BUs in building essential competencies to achieve high environmental standards.

Our environmental commitments are categorised into key focus areas, each underpinned by targeted strategies and policies:



# CARBON EMISSIONS AND DECARBONISATION

## MINING INDUSTRY LIFECYCLE

Addressing carbon emissions across the entire value chain to achieve a low-carbon, resilient and competitive mining industry.



# CARBON EMISSIONS AND DECARBONISATION

## MINING INDUSTRY LIFECYCLE

### DECARBONISATION LEVERS ACROSS THE LIFECYCLE

#### ENERGY TRANSITION



- Increase renewable energy
- Electrify equipment and processes
- Improve energy efficiency

#### EFFICIENT OPERATIONS



- Optimise equipment use
- Reduce idle time
- Improve process efficiency
- Digital and automation

#### LOW CARBON TECHNOLOGIES



- Battery electric vehicles
- Hydrogen and alternative fuels
- Low carbon heating and fuels
- Advanced process technologies

#### MATERIAL AND WASTE MANAGEMENT



- Reduce waste and rework
- Reuse and recycle materials
- Manage tailings responsibly
- Reduce fugitive emissions

#### NATURE AND LAND STEWARDSHIP



- Rehabilitate disturbed land
- Protect biodiversity
- Improve water management
- Carbon sequestration

#### TRANSPARENCY AND COLLABORATION



- Measure and report emissions
- Engage stakeholders
- Set science-based targets
- Collaborate across value chain

### TOWARDS A LOW-CARBON MINING FUTURE

Reduce emissions  
and costs

Improve operational  
resilience

Enhance licence  
to operate

Attract investment  
and markets

Create long-term value  
for people and planet

**DECARBONISE TODAY  
SUSTAIN TOMORROW**

# THE FOUR PILLARS OF THE CIRCULAR CARBON ECONOMY

Closing the carbon loop. Creating value. Building a sustainable future for Saudi Arabia.

A circular carbon economy minimizes emissions, maximizes value and drives sustainable growth through four interconnected pillars.



## REDUCE

Use less. Emit less.



Reduce carbon emissions at the source through efficiency, innovation and lower-carbon solutions.

- ✓ Improve energy efficiency
- ✓ Optimize operations and processes
- ✓ Shift to lower-carbon fuels and feedstocks
- ✓ Design for low-carbon from the start

### EXAMPLES IN KSA



Energy efficiency in operations



Lower-carbon fuels



Low-carbon design



## REUSE

Use again. Extend value.



Reuse CO<sub>2</sub> and by-products as valuable inputs to create products and fuels, displacing virgin resources.

- ✓ CO<sub>2</sub> utilization in chemicals and fuels
- ✓ Use industrial by-products
- ✓ Extend resource and asset value
- ✓ Support new circular business models

### EXAMPLES IN KSA



CO<sub>2</sub> to chemicals (e.g., methanol, urea)



CO<sub>2</sub> to fuels (e-fuels)



By-product utilization



## REMOVE

Capture today. Protect tomorrow.



Remove CO<sub>2</sub> from industrial emissions and the atmosphere to achieve net zero and safeguard the future.

- ✓ Capture CO<sub>2</sub> from industrial sources
- ✓ Deploy Direct Air Capture (DAC)
- ✓ Store CO<sub>2</sub> safely and permanently
- ✓ Restore natural carbon sinks

### EXAMPLES IN KSA



Industrial carbon capture (CCUS)



Direct air capture



CO<sub>2</sub> storage in geological formations



Nature-based solutions



## RECYCLE

Close the loop. Keep resources in use.



Recycle carbon in closed loops and across value chains to maximize resource productivity and minimize waste.

- ✓ Recycle CO<sub>2</sub> across industries
- ✓ Close material loops
- ✓ Design products for circularity
- ✓ Recover and recycle materials

### EXAMPLES IN KSA



CO<sub>2</sub> recycling across industries



Circular materials management



Product circularity and end-of-life

# CIRCULAR CARBON ECONOMY

## Building a sustainable future for Saudi Arabia

Transforming carbon today into value tomorrow through innovation, collaboration and responsible solutions.



# CARBON CAPTURE, UTILIZATION & STORAGE (CCUS)

A STRATEGIC ADVANTAGE FOR KSA. A SUSTAINABLE FUTURE FOR THE WORLD.

## ECONOMIC COMPARISON (2030E)

| COUNTRY                         | ANNOUNCED CAPACITY (Mtpa CO <sub>2</sub> ) | EST. COST OF CAPTURE (USD/TON CO <sub>2</sub> ) | STORAGE POTENTIAL                      | POLICY & SUPPORT ENVIRONMENT  |
|---------------------------------|--------------------------------------------|-------------------------------------------------|----------------------------------------|-------------------------------|
| UNITED STATES                   | ~ 80                                       | 45 – 65                                         | EXCELLENT                              | STRONG                        |
| CHINA                           | ~ 50                                       | 40 – 60                                         | MODERATE                               | STRONG                        |
| CANADA                          | ~ 30                                       | 45 – 70                                         | EXCELLENT                              | STRONG                        |
| AUSTRALIA                       | ~ 25                                       | 45 – 65                                         | EXCELLENT                              | MODERATE                      |
| NORWAY                          | ~ 10                                       | 50 – 70                                         | EXCELLENT                              | STRONG                        |
| SAUDI ARABIA (PROJECT PIPELINE) | ~ 8–10                                     | 25 – 45                                         | EXCELLENT (LARGE GEOLOGICAL POTENTIAL) | IMPROVING (RAPIDLY ADVANCING) |

### WHY KSA HAS A COST ADVANTAGE

-  Low-cost energy
-  Large storage potential
-  Centralized CO<sub>2</sub> hubs
-  Proximity to export markets

### COST TO CAPTURE CO<sub>2</sub> (USD/TON CO<sub>2</sub>)



## THE UPSIDE FOR KSA



**ECONOMIC OPPORTUNITY**  
CCUS market potential for KSA  
**\$50 – \$100B+**  
by 2035



**CO<sub>2</sub> EXPORTS**  
Export up to  
**50 – 100 Mtpa CO<sub>2</sub>**  
by 2035 to global markets



**INDUSTRIAL COMPETITIVENESS**  
Enable cleaner production in cement, steel, chemicals & power – protecting jobs and exports



**EMISSIONS REDUCTION**  
Avoid up to  
**200 – 300 Mt CO<sub>2</sub>/yr**  
by 2035



**JOBS & VALUE CREATION**  
Create  
**40,000+** high-skilled jobs across the CCUS value chain



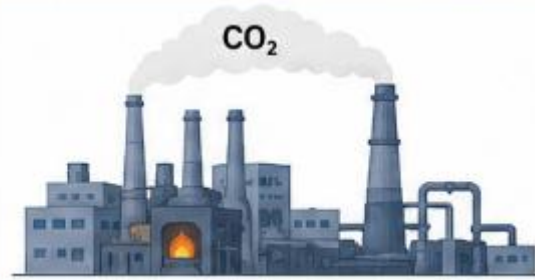
### KSA COMPETITIVE ADVANTAGES

- ✓ Abundant energy resources
- ✓ Strategic location between Asia, Europe & Africa
- ✓ Vast storage potential in saline aquifers
- ✓ Existing industrial base & infrastructure
- ✓ Strong government commitment &

# HOW CO<sub>2</sub> IS CAPTURED

Capturing today. Securing tomorrow.

## 1. INDUSTRIAL SOURCES



## 2. POWER GENERATION



## 3. DIRECT AIR CAPTURE (DAC)



## 4. TRANSPORT



OR



OR



## 5. PERMANENT STORAGE



CO<sub>2</sub> is injected deep underground into suitable geological formations (in depleted oil & gas reservoirs or saline aquifers) for permanent storage.

## 6. UTILIZATION (OPTIONAL)



E-FUELS



CHEMICALS



BUILDING MATERIALS



BEVERAGES

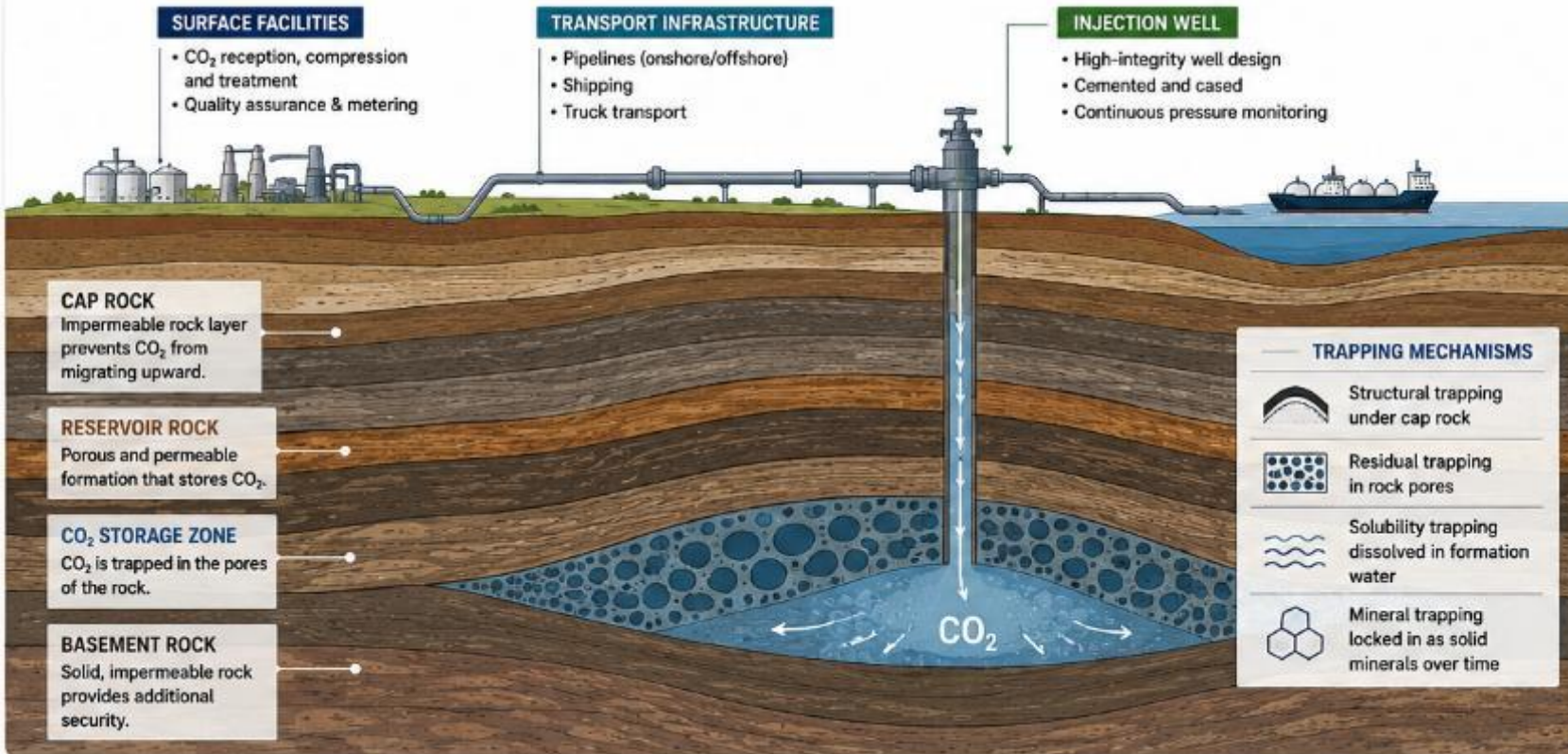


AGRICULTURE

Captured CO<sub>2</sub> can be used as a valuable resource in various industrial and commercial applications.

# SAFE CO<sub>2</sub> STORAGE: ADVANCED INFRASTRUCTURE & GEOLOGICAL STORAGE

Capturing today. Storing safely. Protecting tomorrow.



## 5. MONITORING & VERIFICATION



Seismic surveys track subsurface changes.



Pressure monitoring ensures well and formation integrity.



Groundwater monitoring protects overlying aquifers.



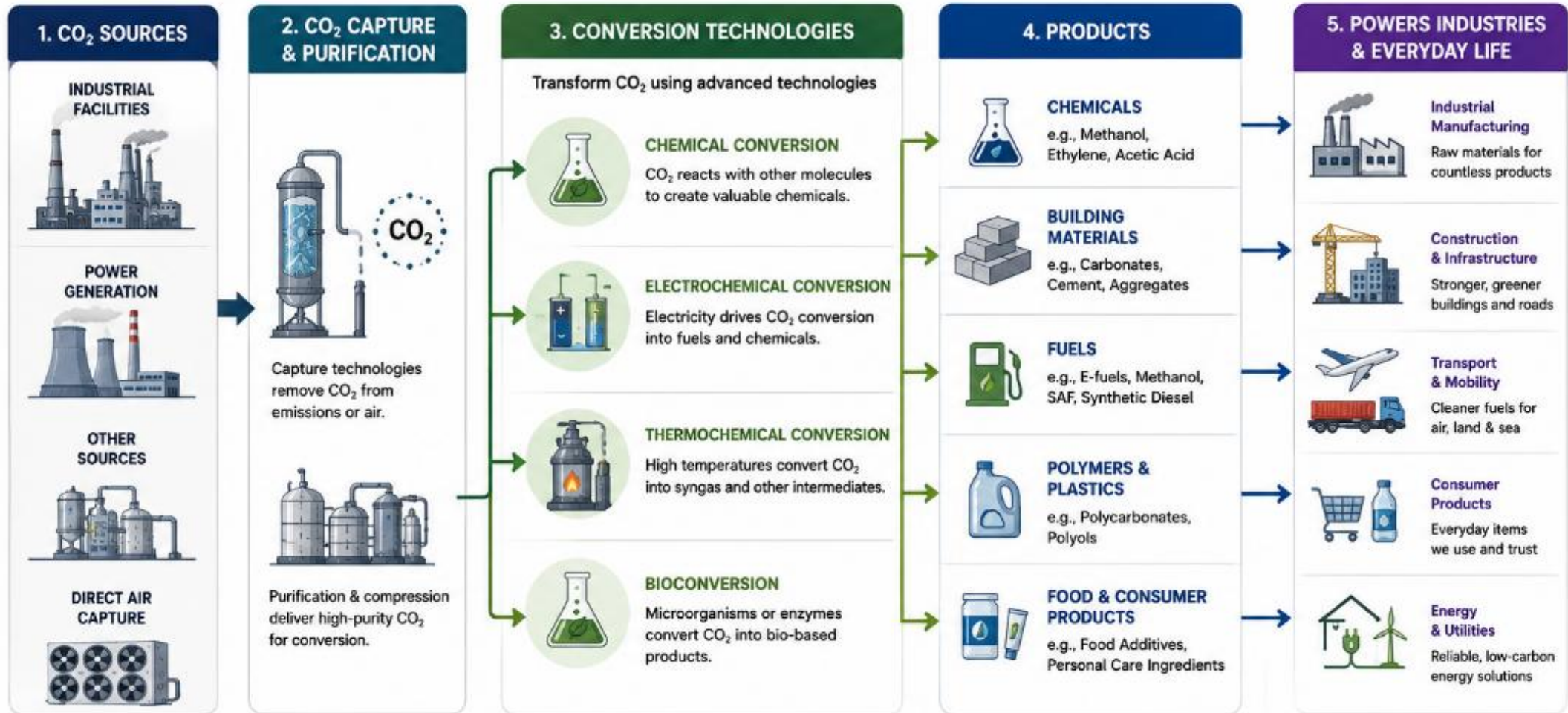
Satellite & surface monitoring for long-term oversight.

## 6. SAFETY BY DESIGN

- ✓ Site selection & geological assessment
- ✓ Engineered well integrity
- ✓ Robust monitoring & verification
- ✓ Regulatory oversight & reporting
- ✓ Long-term stewardship

# TURNING CO<sub>2</sub> INTO SOLUTIONS

From Emissions to Products. Powering Industries and Everyday Life.

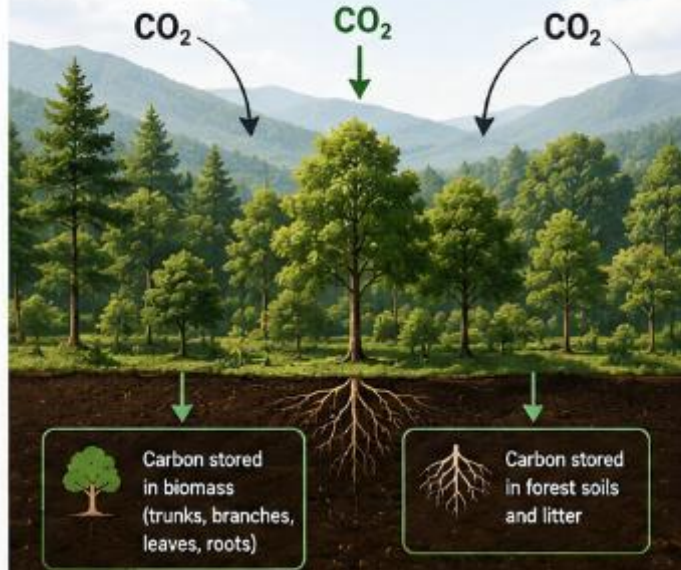


# NATURAL SEQUESTRATION: NATURE'S POWER TO STORE CARBON

Afforestation, Soil Carbon and Ocean Sinks – Working Together for a Sustainable Future

## 1. AFFORESTATION & REFORESTATION

Trees absorb CO<sub>2</sub> from the atmosphere through photosynthesis and store carbon in biomass and soils.

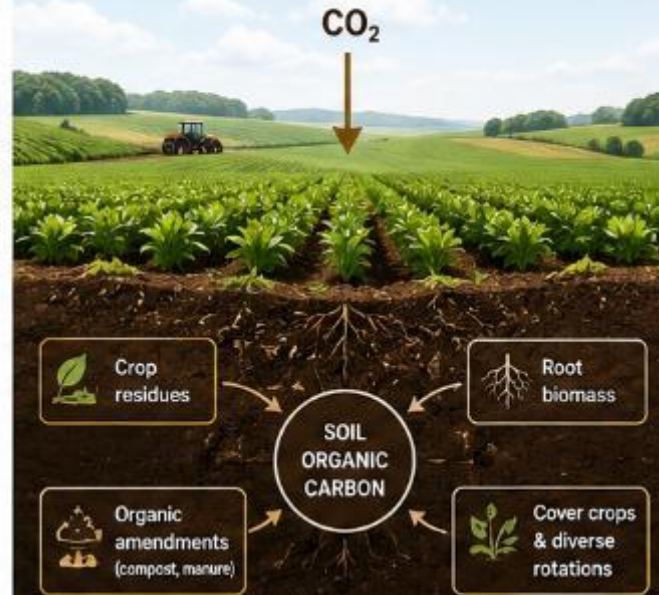


### KEY ACTIONS

- Planting new forests
- Restoring degraded lands
- Protecting existing forests
- Promoting native species diversity

## 2. SOIL CARBON SEQUESTRATION

Healthy soils capture and store CO<sub>2</sub> in organic matter, improving soil health and productivity.

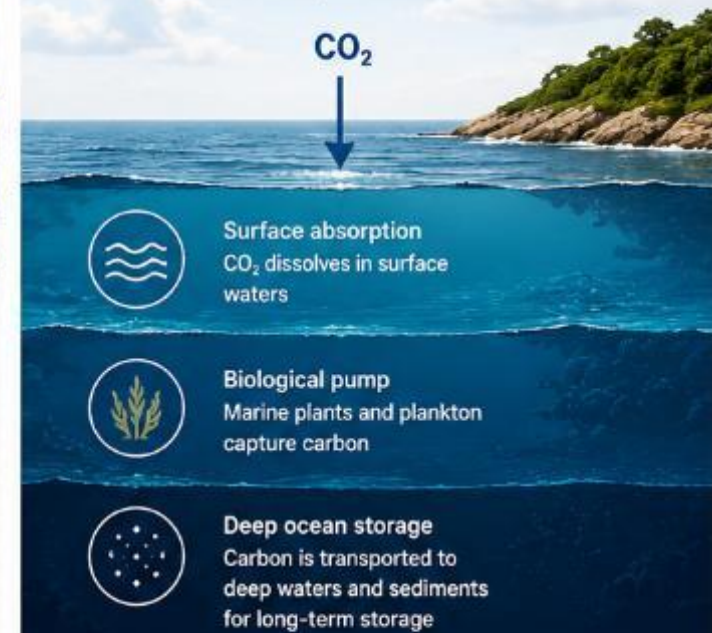


### KEY PRACTICES

- Reduced tillage
- Cover cropping
- Organic amendments
- Agroforestry
- Crop rotation
- Managed grazing

## 3. OCEAN SINKS

Oceans absorb CO<sub>2</sub> from the atmosphere. Carbon is stored in marine biomass and deep ocean waters.



### KEY SOLUTIONS

- Protect and restore coastal ecosystems (mangroves, seagrass, salt marshes)
- Support ocean health and productivity

# CARBON EMISSIONS AND DECARBONISATION

## BANKING INDUSTRY LIFECYCLE

Addressing carbon emissions across all activities and financing to support a low-carbon, resilient and responsible banking sector.



## DECARBONISATION LEVERS ACROSS THE BANKING LIFECYCLE



# WATER STEWARDSHIP AND BIODIVERSITY

## A LIFECYCLE APPROACH

Managing water responsibly and protecting biodiversity across all stages of the value chain.



### ENABLERS THROUGHOUT THE LIFECYCLE

Strong governance and accountability

Science-based decisions

Stakeholder engagement and partnerships

Innovation and technology

Monitoring, reporting and continuous improvement

### POSITIVE OUTCOMES



#### SECURE WATER RESOURCES

Reliable and clean water for current and future generations



#### HEALTHY ECOSYSTEMS

Protected and restored habitats



#### THRIVING BIODIVERSITY

Healthy species and ecosystems



#### RESILIENT COMMUNITIES

Shared value and sustainable livelihoods



#### A SUSTAINABLE AND NATURE-POSITIVE FUTURE

Business success in balance with nature

# ENVIRONMENTAL COMPLIANCE OBLIGATIONS

1

## NATIONAL ENVIRONMENTAL LEGISLATION

Comply with applicable national laws and regulations that protect the environment.

- Environmental impact assessments
- Permits and licensing
- Pollution control and waste management
- Biodiversity and protected areas

2

## INTERNATIONAL TREATIES AND AGREEMENTS

Meet obligations under ratified international environmental agreements.

- Paris Agreement – climate change mitigation and adaptation
- Convention on Biological Diversity (CBD)
- Basel Convention – hazardous waste
- Minamata Convention – mercury

3

## CLIMATE CHANGE OBLIGATIONS

Act in line with global climate goals and national commitments.

- Paris Agreement – limit global warming to well below 2°C
- Nationally Determined Contributions (NDCs)
- Climate risk disclosure and reporting
- Transition to low-carbon economy

4

## SUSTAINABILITY REPORTING – GRI STANDARDS

Disclose material environmental impacts in accordance with GRI Standards.

- GRI 2 – General Disclosures
- GRI 3 – Material Topics
- GRI 301 – Materials
- GRI 302 – Energy
- GRI 303 – Water and Effluents
- GRI 305 – Emissions
- GRI 304 – Biodiversity

5

## POLLUTION PREVENTION AND RESOURCE USE

Prevent pollution and use natural resources responsibly.

- Air, water and soil pollution control
- Waste minimisation and circular economy
- Water stewardship
- Energy efficiency and renewable energy
- Sustainable use of raw materials

6

## BIODIVERSITY AND ECOSYSTEM PROTECTION

Protect biodiversity and ecosystems impacted by operations.

- Avoid, minimise and restore impacts
- No net loss / Net positive impact
- Protection of key habitats and species
- Ecosystem services consideration
- Compliance with CBD targets

7

## DISCLOSURE AND TRANSPARENCY

Provide accurate, reliable and timely environmental information.

- Mandatory environmental reporting
- GRI-aligned sustainability reporting
- Climate-related financial disclosures (TCFD/ISSB)
- Public communication and stakeholder engagement

8

## SUPPLY CHAIN AND THIRD-PARTY ENVIRONMENTAL OBLIGATIONS

Ensure environmental compliance across the value chain.

- Supplier environmental standards
- Due diligence on environmental risks
- Contractual compliance requirements
- Capacity building and monitoring
- Responsible sourcing of materials

9

## MONITORING, ASSURANCE AND CONTINUAL IMPROVEMENT

Monitor performance and drive continual improvement in compliance.

- Environmental management systems (e.g. ISO 14001)
- Internal monitoring and audits
- Management review and corrective actions
- Independent assurance
- Continuous improvement and innovation

# South Africa's Environmental Focus (2025)

## Energy usage and efficiency

### Energy Usage

In South African regulatory terms, energy usage is the **total quantity of energy consumed** by a building, facility, process, or organisation, expressed in energy units such as **kilowatt-hours (kWh)**, **megajoules (MJ)**, or **gigajoules (GJ)**.

- Under **SANS 10400-XA** (Energy usage in buildings), usage covers all energy sources for heating, cooling, lighting, water heating, and equipment operation.
- The **National Energy Efficiency Strategy (NEES)** considers energy usage as the baseline from which efficiency targets are set and monitored.

### Energy Efficiency

As defined in **SANS 204** (Energy efficiency in buildings) and reinforced in **SANS 10400-XA**:

*"Energy efficiency is the ratio or other quantitative relationship between an output of performance, service, goods or energy, and an input of energy."*

- In practice, it means **achieving the same or improved service level while using less energy**.
- The **NEES** frames energy efficiency as a core component of South Africa's energy policy, aiming to reduce energy intensity (energy used per unit of economic output) and overall demand.
- The **Standards & Labelling (S&L)** programme, under **SANS 941** and **NRCS compulsory specifications**, defines efficiency thresholds for appliances, light  and equipment.

# South Africa's Environmental Focus (2025)

## Legislative Foundations

### 1. Climate Change Act, 2024 (Act No. 22 of 2024)

- Establishes the legal basis for **Sectoral Emissions Targets (SETs)** and **Carbon Budgets** for companies and sectors.
- Mandates **provincial and municipal climate change adaptation plans**.
- Creates an integrated system for monitoring, reporting, and verification (MRV) of climate actions.

### 2. National Climate Change Response Policy (NCCRP) – 2011 White Paper

- Sets out the long-term vision for a climate-resilient, low-carbon economy and society.
- Introduces **Desired Emission Reduction Outcomes (DEROs)** and sectoral carbon budgets.

### 3. Nationally Determined Contribution (NDC) – Updated 2021

- International commitment under the Paris Agreement:
  - **2025 target:** 398–510 MtCO<sub>2</sub>e
  - **2030 target:** 350–420 MtCO<sub>2</sub>e
  - **Net-zero goal:** By 2050 (as per Long-Term Low Emissions Development Strategy).

### 4. Carbon Tax Act, 2019

- Economic instrument to price carbon, linked to compliance with carbon budgets.

### 5. Just Energy Transition Investment Plan (JET-IP)

- Strategic investment framework for decarbonising the power sector, promoting new green industries, and supporting communities affected by the coal phase-down.

# South Africa's Environmental Focus (2025)

## Waste reduction – circular economy

### Legislative & Policy Foundations

1. **NEM: Waste Act, 2008** – Core framework for waste minimisation, classification, storage, and treatment.
2. **National Waste Management Strategy (NWMS) 2020** – Aligns waste management with the circular economy; targets diversion of waste from landfill through recycling, recovery, and reuse.
3. **Extended Producer Responsibility (EPR) Regulations, 2020** – Compels producers of certain products (packaging, e-waste, lighting, tyres) to take responsibility for post-consumer waste management.
4. **National Pricing Strategy for Waste Management (2016)** – Enables economic instruments (e.g., waste levies) to incentivise reduction and recycling.
5. **South Africa's Circular Economy Roadmap (2022)** – Guides cross-sector collaboration for circularity in plastics, packaging, electronics, and other priority sectors.



# South Africa's Environmental Focus (2025)

## Biodiversity loss

### Legislative & Policy Foundations

1. **NEM: Biodiversity Act, 2004 (Act 10 of 2004)** – Framework for biodiversity management and conservation, establishment of the South African National Biodiversity Institute (SANBI), and listing of threatened ecosystems/species.
2. **National Biodiversity Strategy and Action Plan (NBSAP) 2015–2025** – National implementation plan under the Convention on Biological Diversity (CBD) for conserving ecosystems, species, and genetic diversity.
3. **National Biodiversity Framework (NBF) 2019–2024** – Sets out priority areas for biodiversity management and ecosystem protection.
4. **National Protected Areas Expansion Strategy (NPAES)** – Guides expansion of the protected area network, including marine protected areas.
5. **National Biodiversity Assessment (NBA) 2018** – Provides scientific evidence on the status and trends of South Africa's biodiversity, underpinning policy responses.
6. **International Framework Alignment** – Aligns with the CBD's **Kunming-Montreal Global Biodiversity Framework (GBF)**, including the global "30x30" target.

# South Africa's Environmental Focus (2025)

## Greenhouse gas emissions

### Legislative & Policy Foundations

1. **NEMAQA** – Establishes the regulatory framework for air quality and GHG emissions management.
2. **GHG Reporting Regulations (2017, amended 2020)** – Mandate annual reporting by facilities exceeding prescribed activity thresholds, using the **Intergovernmental Panel on Climate Change (IPCC) Guidelines**.
3. **Carbon Tax Act, 2019** – Economic instrument to price GHG emissions, linked to **carbon budgets** under the Climate Change Act.
4. **Climate Change Act, 2024** – Formalises **Sectoral Emissions Targets (SETs)**, company carbon budgets, and MRV (Monitoring, Reporting, and Verification) requirements.
5. **Nationally Determined Contribution (NDC)** – South Africa's Paris Agreement commitment to limit emissions to **398–510 MtCO<sub>2</sub>e by 2025** and **350–420 MtCO<sub>2</sub>e by 2030**.

# South Africa's Environmental Focus (2025)

## Carbon footprint and reduction

### Legislative & Policy Foundations

1. **Climate Change Act, 2024** – Establishes SETs, carbon budgets, and adaptation/mitigation planning obligations.
2. **Carbon Tax Act, 2019** – Creates a price signal for emissions reduction and links tax liability to budget compliance.
3. **NEMAQA – GHG Reporting Regulations** – Mandates annual reporting of Scope 1 (direct) emissions from regulated activities.
4. **Nationally Determined Contribution (NDC)** – South Africa's Paris Agreement target: **350–420 MtCO<sub>2</sub>e** by 2030; net-zero by 2050.
5. **JSE & King IV Governance Code** – Promote climate-related financial disclosures, integrated reporting, and board-level oversight of carbon reduction strategies.

# ESG, Sustainable Leadership & Stakeholder Value

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# HUMAN CAPITAL AND WORKFORCE WELLBEING

## 1 STRATEGIC WORKFORCE PLANNING

Align people strategy with business goals and future capabilities.

- Workforce planning with talent forecasting
- Critical skills identification and development
- Succession planning and leadership pipeline
- Agile workforce and future of work readiness

## 2 DIVERSITY, EQUITY AND INCLUSION

Foster an inclusive culture where all employees belong and contribute.

- Equal opportunities and fair treatment
- Diverse representation at all levels
- Inclusive policies and bias elimination
- Measuring and improving DEI outcomes

## 3 EMPLOYEE HEALTH AND WELLBEING

Support physical, mental and financial wellbeing for a healthy and productive workforce.

- Health, safety and ergonomics
- Mental health support and resilience
- Work-life balance and flexibility
- Financial wellbeing and stress management

## 4 LEARNING, DEVELOPMENT AND CAREER GROWTH

Invest in continuous learning and career advancement for all employees.

- Learning culture and skills development
- Training and upskilling programs
- Career pathing and internal mobility
- Performance coaching and feedback

## 5 ENGAGEMENT, CULTURE AND PURPOSE

Build a positive culture where people are engaged, motivated and aligned to purpose.

- Employee engagement and listening
- Recognition and reward systems
- Values-based culture and purpose
- Strong internal communication

## 6 REWARD, RECOGNITION AND WELLBEING

Offer fair and competitive rewards that motivate and retain talent.

- Competitive and equitable compensation
- Performance-based incentives
- Recognition and appreciation programs
- Benefits that support wellbeing

## 7 SAFE, RESPECTFUL AND INCLUSIVE WORKPLACE

Ensure a safe workplace where employees are treated with dignity and respect.

- Zero tolerance for harassment and discrimination
- Safe working conditions and practices
- Psychological safety and respect
- Speak-up culture and grievance mechanisms

## 8 WORKFORCE ANALYTICS AND PEOPLE INSIGHTS

Use data and insights to make informed people decisions and improve outcomes.

- Workforce metrics and dashboards
- People analytics for decisions
- Predictive insights and trend analysis
- Data privacy and ethical use of data

## 9 LEADERSHIP AND PEOPLE MANAGEMENT

Empower leaders to inspire, support and develop their teams.

- Leadership development and capability
- People management and coaching
- Accountability and empowerment
- Change leadership and adaptability

# DIVERSITY, EQUITY AND INCLUSION

Building a fair, inclusive and high-performing organisation where everyone belongs and can thrive.

## 1 INCLUSIVE LEADERSHIP AND ACCOUNTABILITY

Leaders set the tone and drive a culture of inclusion and belonging.

- Visible commitment from the top
- Clear DEI strategy and measurable goals
- Leaders role model inclusive behaviours
- Accountability through metrics and reporting

## 2 FAIR ACCESS, EQUITY AND OPPORTUNITY

Ensure everyone has fair access to opportunities and the resources to succeed.

- Equitable policies and practices
- Pay equity and fairness in rewards
- Accessible learning and development
- Removing systemic barriers

## 3 DIVERSE TALENT AND REPRESENTATION

Build a diverse workforce that reflects different backgrounds, perspectives and experiences.

- Inclusive recruitment and selection
- Diverse pipelines and succession planning
- Balanced representation at all levels
- Tracking and improving diversity metrics

## 4 INCLUSIVE CULTURE AND BELONGING

Create a workplace where everyone feels valued, respected and able to be their authentic self.

- Promote respect, trust and psychological safety
- Zero tolerance for bias, discrimination and harassment
- Celebrate differences and cultural awareness
- Support employee resource groups and communities

## 5 BIAS AWARENESS AND BEHAVIOUR CHANGE

Increase awareness and address unconscious bias in decisions and daily interactions.

- Regular bias awareness training
- Bias-free decision-making processes
- Speak up and active bystander culture
- Continuous learning and feedback

## 6 INCLUSIVE POLICIES AND PRACTICES

Embed DEI principles into policies, systems and ways of working.

- Inclusive policy design and review
- Flexible work and reasonable accommodation
- Inclusive communication and language
- Procurement and partner diversity

## 7 COMMUNITY ENGAGEMENT AND SOCIAL IMPACT

Partner with communities and contribute to a more equitable and inclusive society.

- Community partnerships and investment
- Support underrepresented groups
- Supplier diversity and local inclusion
- Social impact and shared value

## 8 DATA, MEASUREMENT AND TRANSPARENCY

Use data and transparency to drive progress and build trust.

- Collect high-quality DEI data
- Set targets and track progress
- Transparent reporting and communication
- Use insights to improve outcomes

## 9 CONTINUOUS IMPROVEMENT AND INNOVATION

Continuously learn, innovate and evolve to advance DEI outcomes.

- Listen to employee and stakeholder feedback
- Benchmark and learn from best practice
- Pilot new approaches and scale what works
- Review, adapt and continuously improve

# LABOUR RELATIONS AND EMPLOYEE ENGAGEMENT

**1**

## RESPECTFUL AND COLLABORATIVE RELATIONS

Build trust and mutual respect between employers, employees and their representatives.

- Open, honest and constructive dialogue
- Recognition of employee rights and dignity
- Fair treatment and non-discrimination
- Strong relationships with unions/representatives

**2**

## EFFECTIVE COMMUNICATION AND TRANSPARENCY

Keep employees informed and involved through transparent communication.

- Timely and accurate information sharing
- Two-way communication channels
- Regular updates on business matters
- Transparency in decisions and changes

**3**

## EMPLOYEE ENGAGEMENT AND PARTICIPATION

Involve employees in decisions and initiatives that affect their work and workplace.

- Employee voice in decision-making
- Participation in problem-solving
- Involvement in change and improvement
- Engagement surveys and feedback

**4**

## FAIR EMPLOYMENT PRACTICES AND CONDITIONS

Ensure fair, equitable and compliant employment practices that promote a positive workplace.

- Fair recruitment, selection and promotion
- Competitive pay and fair benefits
- Safe, healthy and dignified working conditions
- Compliance with labour laws and standards

**5**

## PERFORMANCE, RECOGNITION AND DEVELOPMENT

Support employees to perform, grow and be recognised for their contributions.

- Clear performance expectations and feedback
- Recognition of achievements and contributions
- Learning and skills development opportunities
- Career growth and advancement support

**6**

## RESOLUTION OF CONCERNS AND CONFLICTS

Address issues and disputes fairly, quickly and respectfully.

- Accessible grievance and dispute processes
- Mediation and constructive resolution
- Fair investigation and outcomes
- Learning from disputes to prevent recurrence

**7**

## CHANGE MANAGEMENT AND WORKPLACE TRANSITIONS

Manage change in ways that respect employees and maintain strong relationships.

- Early engagement and consultation
- Clear communication of change impacts
- Support during transitions and restructuring
- Minimising disruption and uncertainty

**8**

## WELLBEING, SAFETY AND WORK-LIFE BALANCE

Promote employee wellbeing and balance to support a productive and sustainable workplace.

- Health, safety and wellness programs
- Mental health and support services
- Flexible work arrangements where possible
- Respect for personal time and boundaries

**9**

## MEASUREMENT, ACCOUNTABILITY AND CONTINUOUS IMPROVEMENT

Track, evaluate and improve labour relations and engagement outcomes.

- Monitor engagement and labour relations metrics
- Regular reviews and joint assessments
- Accountability at all levels
- Continuous improvement of practices and processes

# COMMUNITY ENGAGEMENT AND SOCIAL LICENCE TO OPERATE

Building trust, creating shared value and maintaining the right to operate through meaningful relationships and responsible impact.

## 1 UNDERSTAND COMMUNITY CONTEXT AND EXPECTATIONS

Understand the communities and environments in which we operate.

- Map stakeholders and community groups
- Understand needs, priorities and concerns
- Assess social, cultural, economic context
- Identify potential impacts and opportunities

## 2 BUILD TRUSTING RELATIONSHIPS AND PARTNERSHIPS

Build constructive, long-term relationships based on trust and respect.

- Engage early and continuously
- Be transparent, honest and consistent
- Respect local culture, values and customs
- Strengthen partnerships and collaboration

## 3 MEANINGFUL ENGAGEMENT AND PARTICIPATION

Engage communities in ways that are inclusive, accessible and two-way.

- Use inclusive and culturally appropriate methods
- Provide clear, relevant and timely information
- Listen actively and value community input
- Involve communities in decisions that affect them

## 4 MANAGE IMPACTS AND ADDRESS CONCERNS

Identify, manage and mitigate impacts on communities and the environment.

- Conduct social impact assessments
- Implement mitigation and management plans
- Monitor impacts and adapt as needed
- Address concerns quickly and effectively

## 5 CREATE SHARED VALUE AND CONTRIBUTION

Contribute to the social and economic development of communities.

- Support local employment and procurement
- Invest in education, skills and enterprise
- Support health, infrastructure and services
- Promote inclusive and sustainable development

## 6 RESPECT HUMAN RIGHTS AND CULTURAL HERITAGE

Respect the rights, dignity and heritage of all people.

- Respect human rights and land rights
- Protect cultural heritage and sacred sites
- Avoid involuntary displacement
- Promote equality, inclusion and non-discrimination

## 7 COMMUNICATION AND TRANSPARENCY

Communicate openly and transparently about our activities and decisions.

- Share information in clear and accessible ways
- Report on commitments, performance and impacts
- Be open about challenges and changes
- Build credibility through transparency

## 8 MONITORING, FEEDBACK AND CONTINUOUS IMPROVEMENT

Monitor performance, learn and continuously improve engagement and outcomes.

- Track social performance and commitments
- Seek feedback and measure satisfaction
- Learn from experience and adapt
- Improve systems, processes and relationships

## 9 MAINTAIN SOCIAL LICENCE TO OPERATE

Earn and sustain the social licence to operate through responsible actions and accountability.

- Deliver on commitments and promises
- Act with integrity and accountability
- Manage risks to reputation and relationships
- Sustain trust and long-term acceptance

# HEALTH, SAFETY AND WELLNESS GOVERNANCE

Strong governance provides leadership, accountability and assurance for the health, safety and wellbeing of our people.

## 1 BOARD OVERSIGHT AND LEADERSHIP

The board provides strategic oversight and sets the tone for a safe and healthy culture.

- Approve health, safety and wellness strategy and objectives
- Ensure adequate resources and capabilities
- Monitor performance and review reports
- Promote a culture of care and accountability

## 2 POLICIES, STANDARDS AND RISK MANAGEMENT

Establish clear policies and manage risks to prevent harm and promote wellbeing.

- Comprehensive HSW policy and standards
- Identify hazards and assess risks
- Determine controls and manage critical risks
- Integrate HSW into enterprise risk management

## 3 ROLES, RESPONSIBILITIES AND ACCOUNTABILITIES

Define clear roles and empower people at all levels.

- Assign responsibilities and authorities
- Ensure competency and training
- Hold all levels accountable for performance
- Recognise and reward safe behaviours

## 4 PLANNING AND OBJECTIVES

Plan effectively to achieve measurable health, safety and wellness outcomes.

- Set measurable objectives and targets
- Develop action plans and allocate resources
- Consider legal and other requirements
- Align with business goals and values

## 5 IMPLEMENTATION AND OPERATION

Implement effective processes and controls in daily operations.

- Safe work procedures and operating controls
- Competent workforce and contractor management
- Communication, consultation and participation
- Emergency preparedness and response

## 6 HEALTH AND WELLNESS PROGRAMMES

Promote physical, mental and social wellbeing in the workplace.

- Physical health and injury prevention
- Mental health and psychosocial support
- Healthy lifestyle and wellbeing initiatives
- Support for employee and family wellbeing

## 7 MONITORING, PERFORMANCE AND REPORTING

Monitor performance and report transparently on health, safety and wellness.

- Monitor leading and lagging indicators
- Conduct inspections, audits and assessments
- Investigate incidents and near misses
- Report performance to leadership and stakeholders

## 8 ASSURANCE AND COMPLIANCE

Provide assurance that governance processes are effective and compliant.

- Ensure legal and regulatory compliance
- Internal audits and independent assurance
- Verify effectiveness of controls
- Address gaps and take corrective action

## 9 CONTINUOUS IMPROVEMENT AND CULTURE

Embed a culture of learning and continuous improvement.

- Learn from incidents and experience
- Implement corrective and preventive actions
- Drive innovation and best practice
- Foster a culture where everyone cares and speaks up

# HUMAN RIGHTS AND ETHICAL SUPPLY CHAINS

Respecting people. Acting ethically. Building responsible and resilient supply chains.

## 1 COMMITMENT AND GOVERNANCE

Demonstrate leadership and accountability for human rights across the supply chain.

- Establish a human rights policy aligned to international standards
- Integrate human rights into governance structures and decision-making
- Allocate resources and set clear expectations
- Embed ethical values and tone from the top

## 2 HUMAN RIGHTS DUE DILIGENCE AND RISK ASSESSMENT

Identify, assess and prioritise human rights risks across the supply chain.

- Map the supply chain and understand context
- Identify actual and potential human rights impacts
- Assess severity and likelihood of risks
- Prioritise risks and focus on the most severe
- Review and update regularly

## 3 RESPONSIBLE SOURCING AND SUPPLIER EXPECTATIONS

Set clear expectations and promote responsible business conduct.

- Communicate a supplier code of conduct
- Include human rights requirements in contracts
- Require compliance with laws and standards
- Promote fair labour practices and decent work
- Encourage continuous improvement

## 4 SUPPLIER SCREENING AND ONBOARDING

Assess suppliers before engaging to reduce human rights risks.

- Conduct supplier screening and risk profiling
- Assess commitment to human rights
- Check legal compliance and past performance
- Prioritise higher-risk suppliers for due diligence
- Approve suppliers that meet expectations

## 5 MONITORING, AUDIT AND PERFORMANCE MANAGEMENT

Monitor supplier performance and ensure ongoing compliance.

- Monitor and assess supplier performance
- Conduct audits and on-site assessments
- Use worker voice and independent verification
- Address non-compliance promptly
- Link performance to incentives and contracts

## 6 WORKER RIGHTS AND STAKEHOLDER ENGAGEMENT

Engage workers and stakeholders to understand impacts and improve outcomes.

- Engage and consult workers and their representatives
- Provide accessible grievance mechanisms
- Protect freedom of association and collective bargaining
- Engage communities and affected stakeholders
- Ensure non-retaliation and confidentiality

## 7 REMEDIATION AND GRIEVANCE MECHANISMS

Provide access to remedy and address adverse impacts.

- Provide fair and accessible grievance channels
- Investigate concerns quickly and fairly
- Provide or enable effective remediation
- Track and close cases transparently
- Learn from cases to prevent recurrence

## 8 CAPACITY BUILDING AND SUPPLIER SUPPORT

Build capability and support suppliers to improve human rights performance.

- Provide training and awareness for suppliers
- Share guidance, tools and good practices
- Support improvement plans and remediation
- Build capacity in labour standards and ethics
- Recognise and reward responsible suppliers

## 9 TRANSPARENCY, REPORTING AND CONTINUOUS IMPROVEMENT

Report transparently and continuously improve human rights performance.

- Disclose policies, risks and actions taken
- Report on performance and progress
- Benchmark and learn from best practice
- Engage in industry collaboration and initiatives
- Review and strengthen systems and processes

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# South African Societal Focus

## Fair pay and living wage

### 2. Living Wage – South African Legislative Context

#### Definition

A *living wage* is the level of income necessary for a worker to afford a basic but decent standard of living for themselves and their dependants. While not yet a legislated standard in South Africa, the concept goes beyond the statutory **national minimum wage** and incorporates the actual cost of living (housing, food, transport, healthcare, education, and other essentials).

#### Key Legislative and Policy Context

- **National Minimum Wage Act, 2018** – Establishes a legally enforceable floor (adjusted annually) for wages; currently below most calculated “living wage” levels.
- **Decent Work Agenda (Department of Employment and Labour)** – Aligns with the International Labour Organization (ILO) concept of a living wage, linking wages to dignity, health, and wellbeing.
- **ILO Convention No. 131** – Ratified by South Africa, encouraging minimum wage levels that consider workers’ needs and economic factors.

#### Core Elements of the Living Wage Concept in SA

1. **Beyond Minimum Wage** – Considers *real* costs of living, not just the statutory floor.
2. **Household Support** – Designed to support not just the worker, but dependants.
3. **Dignity & Sustainability** – Ensures that workers can participate meaningfully in society without falling into poverty.

# South African Societal Focus

## Core Elements of EEO in the South African Legal Context

### 1. Non-Discrimination

- Employment decisions must not be based on prohibited grounds unless justified by inherent job requirements.

### 2. Affirmative Action (*Designated Employers*)

- Targeted measures to correct demographic imbalances in the workplace.

### 3. Merit-Based Decisions

- Recruitment, promotion, and training must be based on skills, qualifications, and performance.

### 4. Inclusive Workplace Policies

- Policies and practices must accommodate diversity and prevent harassment and victimisation.

### 5. Monitoring and Reporting

- Designated employers must submit Employment Equity Plans and progress reports to the Department of Employment and Labour.

## 2. Categories of Employee Benefits in the SA Context

### A. Statutory Benefits (Legally Required)

- **Paid Leave** – Annual leave (minimum 21 consecutive days), sick leave, maternity leave (4 months), parental/adoption/commissioning leave as per BCEA amendments.
- **UIF** – Contributions for unemployment, illness, and maternity benefits.
- **COIDA** – Compensation for occupational injuries/diseases.
- **Minimum Wage Protection** – As per the **National Minimum Wage Act, 2018**.

### B. Contractual / Employer-Offered Benefits (Not Legally Required, but Common)

- Retirement fund contributions above the legal minimum.
- Medical aid contributions (partial or full).
- Group life cover, disability insurance, funeral benefits.
- Performance bonuses, housing allowances, transport subsidies.
- Study bursaries and continuous professional development (CPD) funding.

## 2. Core Employer Obligations under OHSA

1. **Hazard Identification & Risk Assessment** – Proactively assess and eliminate or control workplace hazards.
  2. **Safe Systems of Work** – Develop and implement policies, procedures, and work methods to minimise risk.
  3. **Training & Supervision** – Educate employees on health and safety rules, equipment use, and emergency procedures.
  4. **Provision of Personal Protective Equipment (PPE)** – Ensure PPE is suitable, maintained, and provided at no cost.
  5. **Emergency Preparedness** – Establish fire, evacuation, and incident response plans.
  6. **Consultation** – Engage with health and safety representatives and committees.
- 

## 3. Core Employee Duties under OHSA

- Take reasonable care for their own health and safety and that of others.
- Follow all lawful safety instructions and procedures.
- Use PPE correctly and report hazards or incidents immediately.

## 2. Core Principles of Community Engagement in South African Law

1. **Participation** – Communities must have the opportunity to be actively involved in decision-making.
  2. **Transparency & Access to Information** – Full disclosure of relevant information to affected parties.
  3. **Inclusivity** – Engagement must consider historically disadvantaged groups and vulnerable populations.
  4. **Consultation vs. Consent** – While many laws require consultation, certain projects (e.g., mining on traditional land) may require *free, prior, and informed consent*.
  5. **Accountability** – Public entities and companies must demonstrate how community input influenced outcomes.
- 

## 3. Practical Applications

- **Local Government:** Public meetings, IDP consultations, ward committee engagement.
- **Corporate Sector:** CSR/CSI programmes, stakeholder forums, impact assessments.
- **Environmental & Mining Projects:** Community liaison offices, grievance mechanisms, participatory monitoring.

## 2. Core Principles of Responsible Supply Chain Partnerships in SA

1. **Legal Compliance** – Adhering to procurement, labour, environmental, and anti-corruption laws.
  2. **Ethical Conduct** – Transparency, fairness, and integrity in supplier selection and management.
  3. **Transformation & Inclusivity** – Prioritising local, black-owned, women-owned, and SMME suppliers.
  4. **Sustainability** – Reducing environmental impact and ensuring long-term social and economic benefits.
  5. **Accountability** – Clear contractual obligations, monitoring, and reporting on supplier performance.
  6. **Mutual Benefit** – Partnerships that enhance both the buyer's and supplier's capacity and competitiveness.
- 

## 3. Practical Applications

- **Public Sector:** Compliance with Section 217 of the Constitution and PPPFA for transparent, equitable procurement.
- **Private Sector:** Integration of B-BBEE supplier development targets into procurement strategies.
- **Environmental & ESG:** Partnering only with suppliers who meet environmental and social responsibility criteria.
- **Risk Management:** Conducting due diligence to prevent human rights abuses, environmental damage, or corruption in the supply chain.

## 2. Core Principles of Adherence

1. **Minimum Standards Compliance** – Meeting or exceeding BCEA minimums on pay, leave, working hours, and termination.
  2. **Fair Labour Practices** – Ensuring lawful and justifiable hiring, disciplinary actions, and dismissals.
  3. **Non-Discrimination** – Upholding EEA obligations and promoting workplace equity.
  4. **Safe Working Conditions** – Complying with OHSA to prevent occupational hazards.
  5. **Social Security Contributions** – Making UIF, COIDA, and skills development levy payments.
  6. **Record-Keeping & Reporting** – Maintaining employment records and submitting statutory reports.
- 

## 3. Enforcement & Accountability

- **Inspection & Compliance Services** – Department of Employment and Labour inspectors monitor compliance.
- **Penalties** – Non-compliance can lead to fines, imprisonment, or prohibition notices.
- **Dispute Resolution** – CCMA and Labour Court resolve disputes arising from labour law breaches.

# Governance, Standards, Risk, Reporting & Sustainable Finance

Module 6 - Governance & Ethical Corporate Leadership



Module 7 - ESG Frameworks, Standards & Regulatory Environment

Module 8 - ESG Risk Management & Enterprise Strategy

Module 9 - ESG Reporting, Disclosure & Assurance

Module 10 - ESG Investing & Sustainable Finance

# New focus of corporate governance

## Ethical transparent leadership- improved communication

- Integrated reporting
- Governance practices and ethics
- Disclosure of information
- Stakeholder engagement

## ESG Factors – competitive advantage

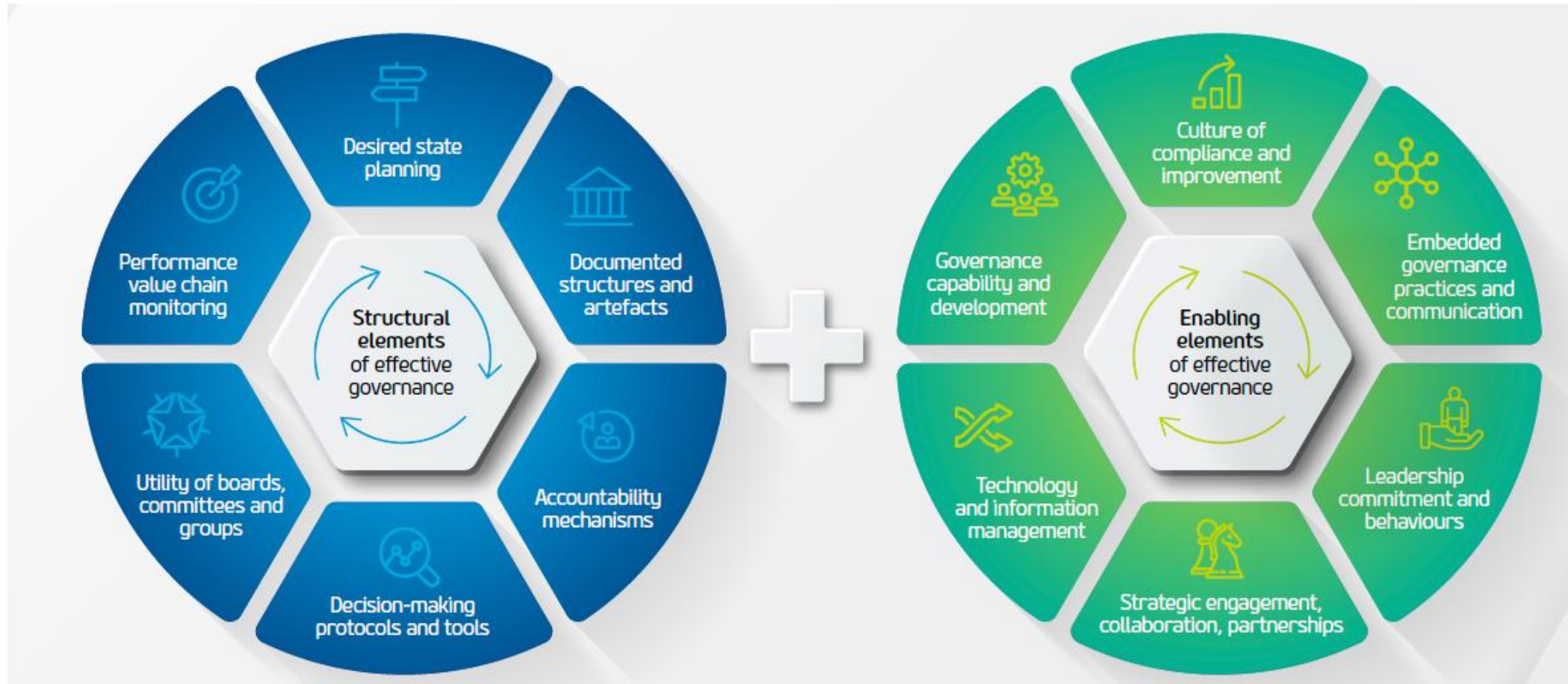
- Environmental responsibility
- Social impact
- Risk management
- Supplier chain sustainability

**Trust**

**Resilience**

**Credibility**

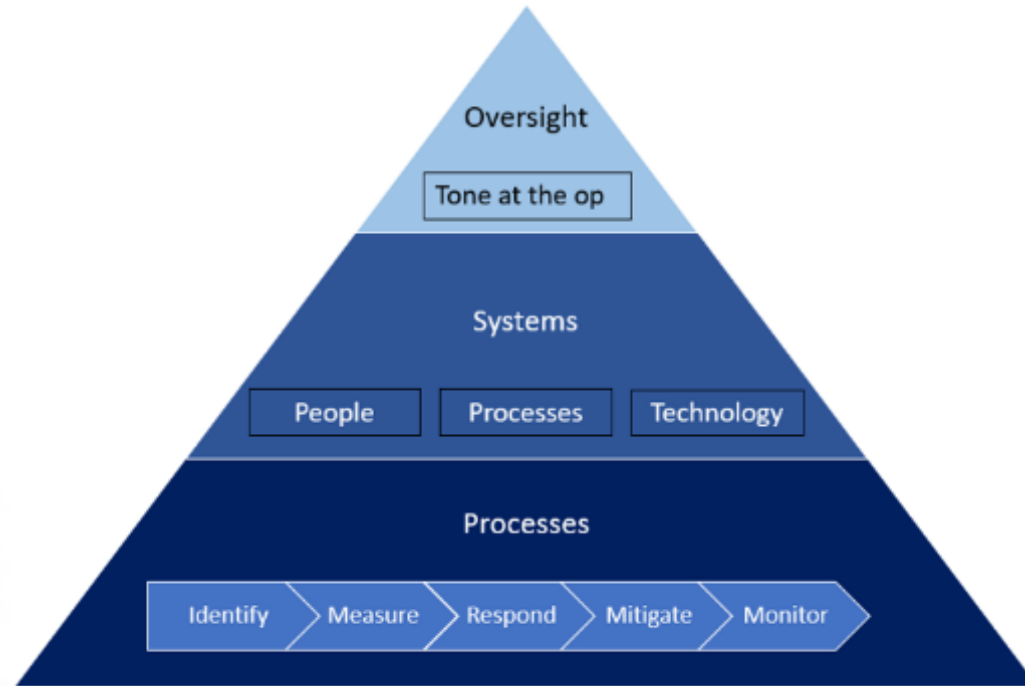
# Governance Model



Risk Culture

Risk Strategy  
and Appetite

Risk Governance



## Risk appetite vs. risk tolerance

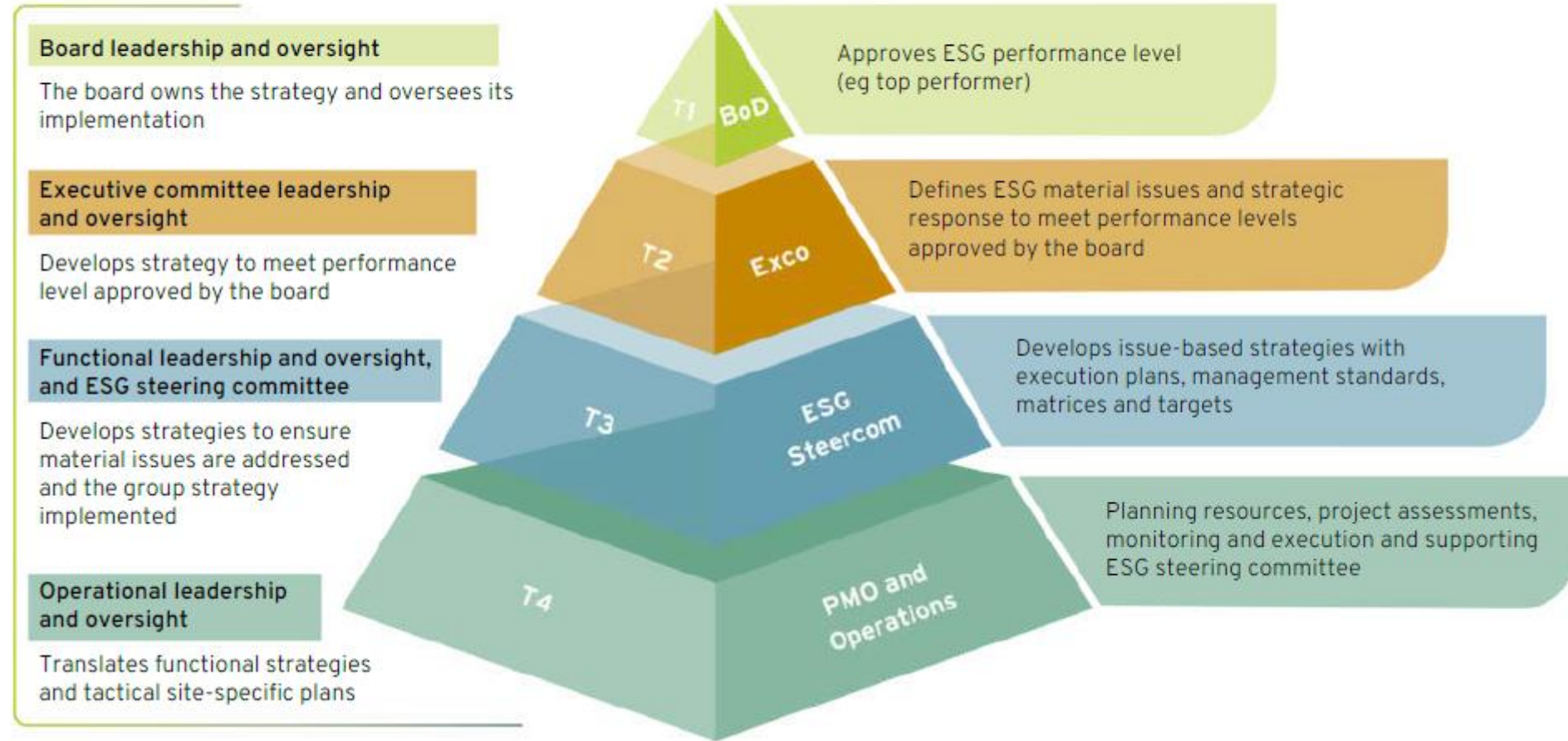
If risk appetite represents the official speed limit of 70, risk tolerance is how much faster you can go before likely getting a ticket.



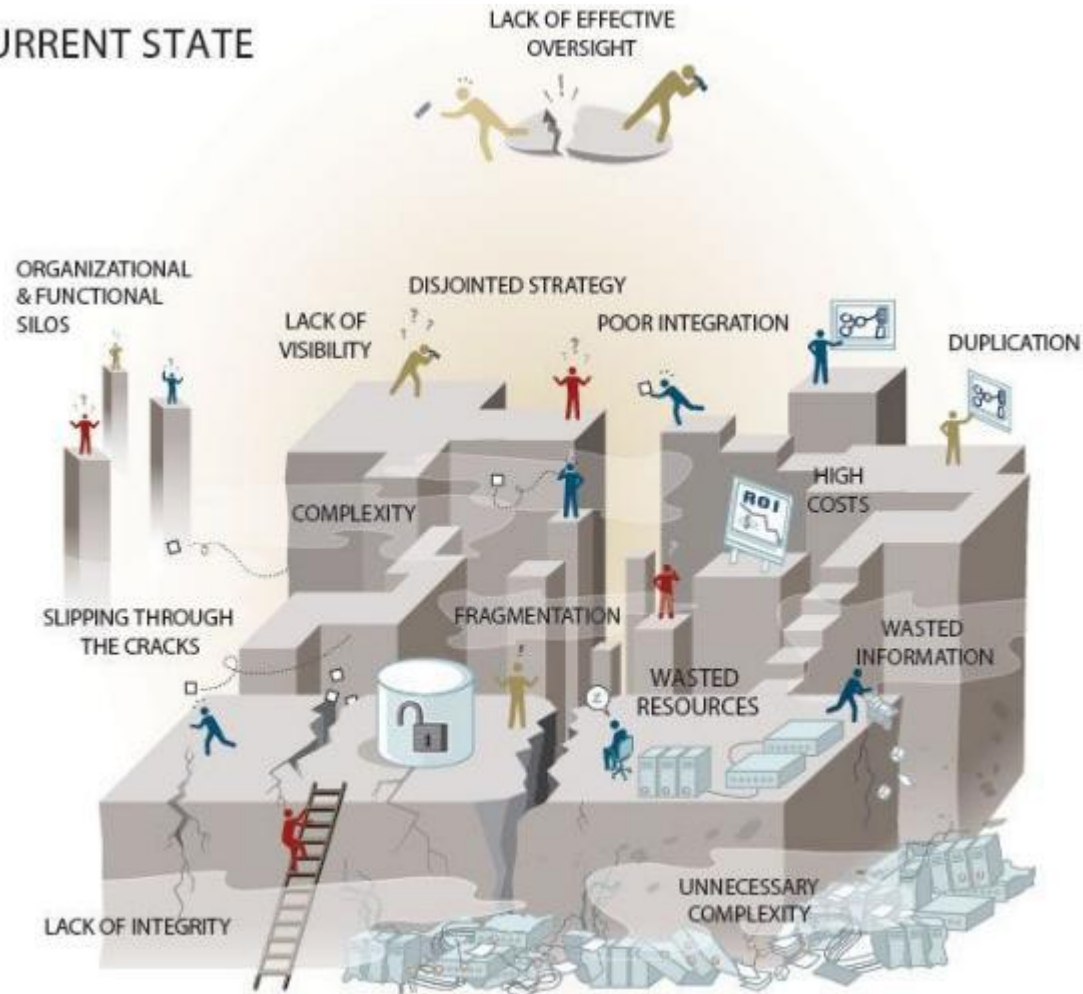
| Likelihood   |                     | Very Likely | Likely | Unlikely | Highly Unlikely |
|--------------|---------------------|-------------|--------|----------|-----------------|
| Consequences | Fatality            | High        | High   | High     | Medium          |
|              | Major Injuries      | High        | High   | Medium   | Medium          |
|              | Minor Injuries      | High        | Medium | Medium   | Low             |
|              | Negligible Injuries | Medium      | Medium | Low      | Low             |

## ESG governance

Our ESG governance framework enables the effective implementation of the policies, practices and procedures adopted to manage and enhance our ESG performance.

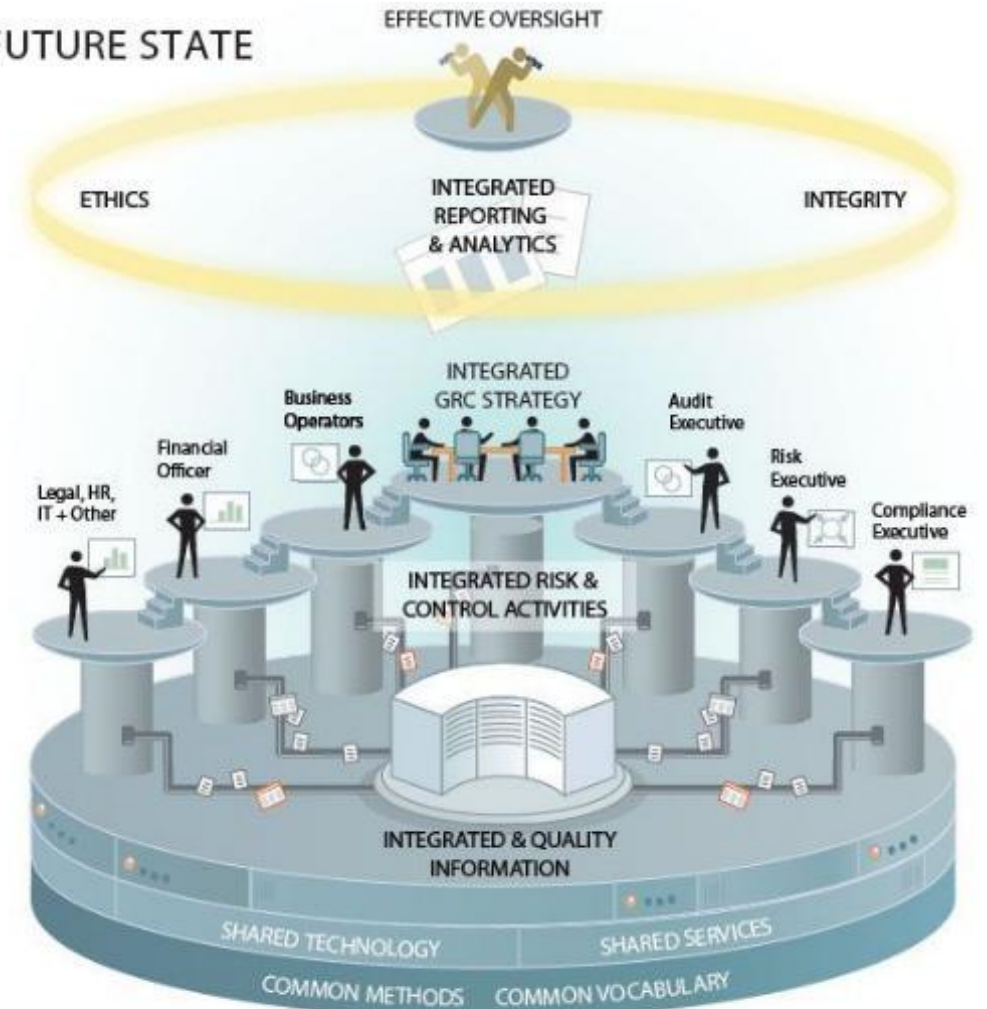


## CURRENT STATE



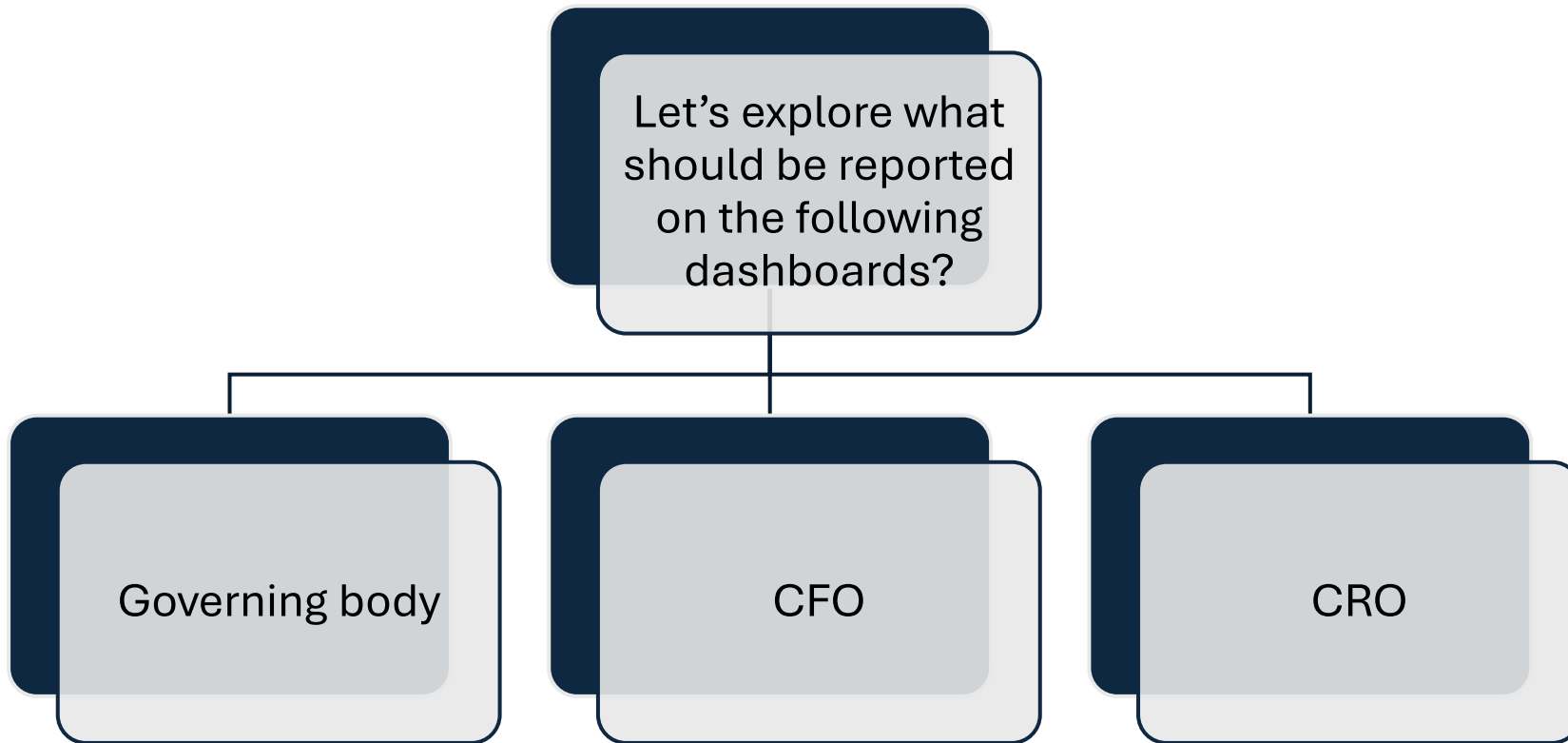
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## FUTURE STATE



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# Dashboards



# INTEGRATED ESG DASHBOARD FOR THE GOVERNING BODY

STRATEGY. OVERSIGHT. PERFORMANCE. IMPACT.

A real-time view of environmental, social and governance performance driving long-term value and stakeholder trust.

Reporting Period:  
Q1 2024 (Jan - Mar)

Benchmark:  
Global Utilities ▼

## ESG OVERALL PERFORMANCE (vs Target)



● On Track 5  
● At Risk 3  
● Behind 1  
● Not Assessed 1

Target: 70%

## ESG PRIORITY AREAS

|  |                                    |          |
|--|------------------------------------|----------|
|  | Climate Action & Energy Transition | At Risk  |
|  | Environmental Stewardship          | On Track |
|  | Social Impact & Inclusiveness      | On Track |
|  | Governance & Ethics                | At Risk  |
|  | ESG Disclosure & Transparency      | On Track |
|  | Sustainable Finance                | At Risk  |

## ESG SCORECARD – KEY DIMENSIONS (vs Target)

ENVIRONMENTAL

65%

Target: 70%

At Risk

- Emissions Reduction
- Energy Transition
- Water Stewardship
- Waste Management

TREND (Last 4 Quarters)



SOCIAL

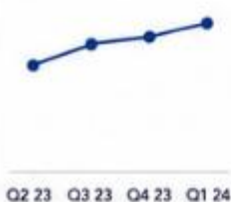
72%

Target: 70%

On Track

- Health & Safety
- Community Impact
- Employee Wellbeing
- Diversity & Inclusion

TREND (Last 4 Quarters)



GOVERNANCE

73%

Target: 70%

On Track

- Board Oversight
- Ethics & Integrity
- Risk Management
- Compliance

TREND (Last 4 Quarters)



DISCLOSURE & TRANSPARENCY

80%

Target: 70%

On Track

- Reporting Quality
- Framework Alignment
- Data Assurance
- Stakeholder Engagement

TREND (Last 4 Quarters)



SUSTAINABLE FINANCE

58%

Target: 70%

At Risk

- Green Finance
- Transition Finance
- Data Investment
- Capital Allocation

TREND (Last 4 Quarters)



## ESG RISKS – TOP 5 (Inherent Risk Rating)

|                                  |        |
|----------------------------------|--------|
| Climate Change & Transition Risk | High   |
| Regulatory & Policy Risk         | High   |
| Water Security Risk              | Medium |
| Cyber & Data Risk                | Medium |
| Social License to Operate        | Medium |

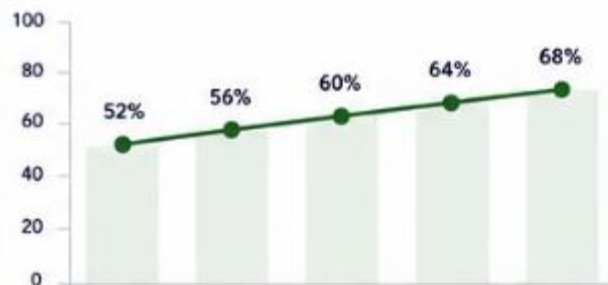
## STAKEHOLDER IMPACT – SUMMARY

|  |             |                                          |   |
|--|-------------|------------------------------------------|---|
|  | Communities | Positive impact in 85% of key programmes | ↑ |
|  | Employees   | Engagement score up 6% vs last quarter   | ↑ |
|  | Customers   | Reliability improved to 92%              | ↑ |
|  | Investors   | Strong recognition of ESG leadership     | ↑ |

## KEY ESG INDICATORS (vs Target)

| INDICATOR                                                | Q1 2024 | TARGET     | STATUS   |
|----------------------------------------------------------|---------|------------|----------|
| Scope 1 & 2 Emissions Intensity (tCO <sub>2</sub> e/MWh) | 0.78    | 0.70       | At Risk  |
| Renewable Energy Share (%)                               | 32%     | 40%        | At Risk  |
| Lost Time Injury Frequency Rate (LTIFR)                  | 0.45    | 0.50       | On Track |
| Total Recordable Case Frequency Rate (TRCFR)             | 1.10    | 1.20       | On Track |
| Board ESG Oversight Meetings                             | 3       | ≥ 3        | On Track |
| ESG Report Assurance Level                               | Limited | Reasonable | At Risk  |

## ESG PERFORMANCE TREND (Overall Score %)



## ESG CONTRIBUTION TO VALUE (YTD)

R12.6bn

Cost Savings from Efficiency & Resource Optimization

R8.3bn

New Revenue from Sustainable Products & Services

R15.9bn

Access to Sustainable Finance

R23.4bn

Avoided Risk & Resilience Value

## NEXT STEPS – GOVERNING BODY FOCUS

- Strengthen climate strategy execution and decarbonisation roadmap.
- Enhance sustainable finance mobilisation to meet transition needs.
- Drive social impact and Just Transition programmes.
- Improve ESG data quality and assurance

# INTEGRATED ESG DASHBOARD FOR THE CFO

FINANCIAL PERFORMANCE. ESG VALUE. SUSTAINABLE GROWTH.

Driving profitability, managing risk and creating long-term value.

Reporting Period

Q1 2024 (Jan - Mar)



Benchmark

Global Utilities

## ESG FINANCIAL IMPACT

YTD (Q1 2024)

**R12.6bn**

ESG-RELATED REVENUE

12% of Total Revenue

↑ 8% vs Q1 2023

**R15.9bn**

COST SAVINGS FROM ESG

Energy Efficiency, Waste, Water, Process Optimization

↑ 14% vs Q1 2023

**R23.4bn**

SUSTAINABLE CAPEX

38% of Total CAPEX

↑ 10% vs Q1 2023

**R8.3bn**

AVOIDED RISKS & LIABILITIES (PROVISION)

Carbon Price, Compliance, Regulatory, Litigation

↑ 9% vs Q1 2023

**R1.92**

ESG VALUE CREATED

(Value created per R1 Invested)

Target: ≥ 1.50 On Track

## ESG PERFORMANCE SUMMARY



ENVIRONMENTAL

**65%**

Target: 70%

At Risk

- Emission reduction
- Energy efficiency
- Water stewardship
- Waste & circularity

Trend (Last 4 Quarters)



SOCIAL

**72%**

Target: 70%

On Track

- Employee wellbeing
- Health & safety
- Diversity & inclusion
- Community impact

Trend (Last 4 Quarters)



GOVERNANCE

**73%**

Target: 70%

On Track

- Board oversight
- Risk management
- Ethics & compliance
- Internal controls

Trend (Last 4 Quarters)



DISCLOSURE & TRANSPARENCY

**80%**

Target: 70%

On Track

- ESG reporting quality
- TCFD / IFRS S2 alignment
- Data assurance
- Stakeholder engagement

Trend (Last 4 Quarters)



SUSTAINABLE FINANCE

**58%**

Target: 70%

At Risk

- Green financing
- Sustainable products
- ESG-linked instruments
- Investor confidence

Trend (Last 4 Quarters)



## ESG COST & VALUE DRIVERS (YTD)

| CATEGORY                                     | YTD (R bn)   | vs Q1 2023   |
|----------------------------------------------|--------------|--------------|
| Energy Efficiency Savings                    | 7.2          | ↑ 15%        |
| Water & Waste Savings                        | 1.8          | ↑ 10%        |
| Sustainable Procurement Savings              | 2.1          | ↑ 12%        |
| <b>TOTAL COST SAVINGS</b>                    | <b>11.1</b>  | <b>↑ 13%</b> |
| Carbon Price Impact (Provision)              | (3.0)        | ↑ 8%         |
| Regulatory & Compliance                      | (2.2)        | ↑ 7%         |
| Litigation & Reputational Risk               | (3.1)        | ↑ 12%        |
| <b>TOTAL RISK MITIGATION (AVOIDED COSTS)</b> | <b>(8.3)</b> | <b>↑ 9%</b>  |
| <b>NET ESG FINANCIAL IMPACT</b>              | <b>2.8</b>   | <b>↑ 20%</b> |

## ESG INVESTMENT & RETURNS

SUSTAINABLE CAPEX ALLOCATION (YTD)



|                           |             |
|---------------------------|-------------|
| Renewable Energy          | 8.6bn (37%) |
| Energy Efficiency         | 5.2bn (22%) |
| Grid Resilience & Storage | 4.1bn (18%) |
| Water & Waste Management  | 2.7bn (12%) |
| Low Carbon Operations     | 2.8bn (11%) |

RETURN ON SUSTAINABLE INVESTMENT (ROSI)

**18.7%**

Target: ≥ 15%

On Track

Payback Period (Avg.)

**3.6 years**

Target: ≤ 4 years

SUSTAINABLE REVENUE BY SEGMENT (YTD)

|                                  |                |             |
|----------------------------------|----------------|-------------|
| Renewable Energy Sales           | 5.6bn          | ↑ 12%       |
| Green Products & Services        | 3.4bn          | ↑ 9%        |
| Energy Efficiency Solutions      | 2.3bn          | ↑ 14%       |
| Sustainable Infrastructure       | 1.3bn          | ↑ 8%        |
| <b>Total Sustainable Revenue</b> | <b>R12.6bn</b> | <b>↑ 8%</b> |

## ESG-RELATED RISK EXPOSURE

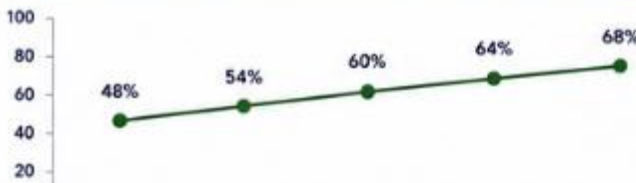
| RISK CATEGORY                 | INHERENT RISK | RESIDUAL RISK | TREND |
|-------------------------------|---------------|---------------|-------|
| Climate Transition Risk       | High          | Medium        | ↓     |
| Physical Climate Risk         | Medium        | Medium        | →     |
| Regulatory & Policy Risk      | High          | Medium        | ↓     |
| Technology & Innovation Risk  | Medium        | Low           | ↓     |
| Reputation & Stakeholder Risk | Medium        | Low           | ↓     |

Risk scores: High (15-25) Medium (8-14) Low (1-7)

## KEY ESG FINANCIAL KPIs

| KPI                                         | Q1 2024 | TARGET  | STATUS                | vs Q1 2023 |
|---------------------------------------------|---------|---------|-----------------------|------------|
| Carbon Intensity (tCO <sub>2</sub> e / MWh) | 0.78    | 0.70    | <span>At Risk</span>  | ↑ 6%       |
| Renewable Energy %                          | 32%     | 40%     | <span>At Risk</span>  | ↑ 3 pp     |
| Energy Cost per MWh (R)                     | 412     | ≤ 430   | <span>On Track</span> | ↓ 5%       |
| Water Withdrawal (Ml)                       | 1,250   | ≤ 1,350 | <span>On Track</span> | ↓ 3%       |
| Lost Time Injury Frequency Rate             | 0.45    | ≤ 0.50  | <span>On Track</span> | ↓ 10%      |

## ESG PERFORMANCE TREND (OVERALL SCORE %)



## CASH FLOW & FINANCING IMPACT

GREEN & SUSTAINABILITY-LINKED FINANCING

**R18.7bn**

Total Outstanding

Avg. Interest Rate

**6.1%**

ESG INTEGRATION IN FINANCIAL PLANNING



ESG risks integrated in capital allocation



Internal carbon price: R750 / tCO<sub>2</sub>e



ESG scenarios stress-tested in financial models



Linking executive incentives to ESG KPIs

# INTEGRATED ESG DASHBOARD FOR THE CFO

IDENTIFY. ASSESS. MITIGATE. MONITOR. CREATE VALUE.

A risk-informed view of ESG exposures, threats and opportunities.

Reporting Period

Q1 2024 (Jan - Mar)



Benchmark

Global Utilities

## ESG RISK OVERVIEW

(vs Risk Appetite)



Overall ESG Risk Score  
(Weighted Average)

## TOP ESG RISKS

(Inherent Risk Rating)

|  |                                                                   |        |
|--|-------------------------------------------------------------------|--------|
|  | Climate Change & Transition<br>Policy, technology & market shifts | High   |
|  | Physical Climate Impacts<br>Extreme weather, asset damage         | High   |
|  | Regulatory & Compliance<br>ESG laws, reporting, penalties         | High   |
|  | Environmental Incidents<br>Pollution, waste, biodiversity         | Medium |
|  | Social License to Operate<br>Community, reputational impact       | Medium |

## ESG RISK EXPOSURE BY PILLAR (Inherent vs Residual Risk)

ENVIRONMENTAL

6.2  
Inherent

3.8  
Residual

- Key Risk Drivers
- Emissions & carbon pricing
  - Resource & water scarcity
  - Waste & biodiversity loss
  - Pollution & compliance



SOCIAL

5.4  
Inherent

3.2  
Residual

- Key Risk Drivers
- Health & safety
  - Community relations
  - Talent attraction & retention
  - Human rights & diversity



GOVERNANCE

5.7  
Inherent

3.1  
Residual

- Key Risk Drivers
- Board oversight & culture
  - Ethics & conduct
  - Executive incentives
  - Corruption & fraud



DISCLOSURE & TRANSPARENCY

4.8  
Inherent

2.7  
Residual

- Key Risk Drivers
- ESG reporting quality
  - Data accuracy & assurance
  - TCFD / IFRS S2 alignment
  - Stakeholder transparency



SUSTAINABLE FINANCE

5.3  
Inherent

3.0  
Residual

- Key Risk Drivers
- Access to capital
  - Investor expectations
  - Transition financing
  - Cost of capital impact

Risk Score: 0-3 Low (Green) 3-6 Medium (Amber) 6-8 High (Orange) 8-10 Extreme (Red)

Trend (vs Last Quarter): Improving Stable Worsening

## ESG RISK TREND OVER TIME

(Overall Inherent Risk Score)

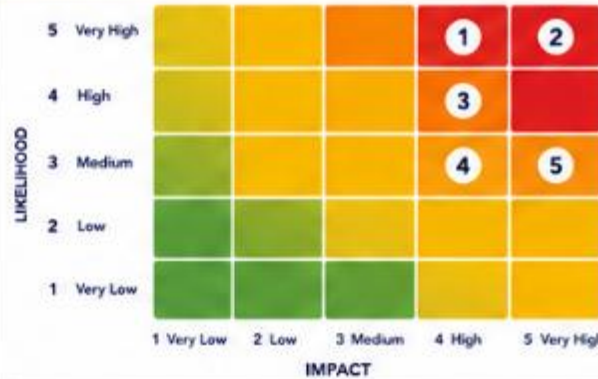


## RISK MITIGATION PROGRESS

(Top ESG Risks)

| RISK                        | MITIGATION PROGRESS        | RESIDUAL RISK | TREND |
|-----------------------------|----------------------------|---------------|-------|
| Climate Change & Transition | <div><div></div></div> 60% | 3.8           |       |
| Physical Climate Impacts    | <div><div></div></div> 55% | 4.1           |       |
| Regulatory & Compliance     | <div><div></div></div> 65% | 3.6           |       |
| Environmental Incidents     | <div><div></div></div> 70% | 2.6           |       |
| Social License to Operate   | <div><div></div></div> 50% | 3.3           |       |

## ESG RISK HEAT MAP (Inherent Risk)



- 1 Climate Change & Transition
- 2 Physical Climate Impacts
- 3 Regulatory & Compliance
- 4 Environmental Incidents
- 5 Social License to Operate

## ESG RISK BY BUSINESS UNIT / ASSET

(Inherent Risk Score)

| BUSINESS UNIT / ASSET       | RISK SCORE (0-10) |
|-----------------------------|-------------------|
| Generation - Coal           | 7.2               |
| Generation - Gas            | 5.8               |
| Renewable Energy            | 4.1               |
| Transmission & Distribution | 5.6               |
| Water Operations            | 4.3               |
| Customer Solutions          | 3.2               |
| Corporate Functions         | 4.6               |

## KEY ESG RISK INDICATORS

| INDICATOR                                  | Q1 2024 | TARGET | vs Q4 2023     |
|--------------------------------------------|---------|--------|----------------|
| Carbon Intensity (tCO <sub>2e</sub> / MWh) | 0.78    | 0.81   | At Risk  4%    |
| Renewable Energy Share (%)                 | 32%     | 30%    | On Track  2 pp |
| Lost Time Injury Frequency Rate (LTIFR)    | 0.45    | 0.55   | On Track  18%  |
| Water Withdrawal (MI)                      | 1,250   | 1,320  | On Track  5%   |

## ESG SCENARIO RISK IMPACT (2030)

(Potential Financial Impact)

ORDERLY TRANSITION  
1.5°C Pathway

R2.8bn

DISORDERLY TRANSITION  
2.5°C Pathway

(R6.2bn)

HOT HOUSE WORLD  
3.0°C+ Pathway

(R9.7bn)

## EARLY WARNING INDICATORS

| INDICATOR                           | STATUS | TREND |
|-------------------------------------|--------|-------|
| Carbon Price (R/tCO <sub>2e</sub> ) | R750   |       |
| Extreme Weather Events (YTD)        | 12     |       |
| Regulatory Changes (YTD)            | 8      |       |

## NEXT STEPS - CRO FOCUS

- Enhance climate scenario analysis and stress testing.
- Strengthen data quality and ESG risk analytics.
- Embed ESG risks in enterprise risk management.
- Accelerate mitigation of high and emerging ESG risks.

## ENTERPRISE RISK MANAGEMENT



### Governance & Culture

1. Exercises Board Risk Oversight
2. Establishes Operating Structures
3. Defines Desired Culture
4. Demonstrates Commitment to Core Values
5. Attracts, Develops, and Retains Capable Individuals



### Strategy & Objective-Setting

6. Analyzes Business Context
7. Defines Risk Appetite
8. Evaluates Alternative Strategies
9. Formulates Business Objectives



### Performance

10. Identifies Risk
11. Assesses Severity of Risk
12. Prioritizes Risks
13. Implements Risk Responses
14. Develops Portfolio View



### Review & Revision

15. Assesses Substantial Change
16. Reviews Risk and Performance
17. Pursues Improvement in Enterprise Risk Management



### Information, Communication, & Reporting

18. Leverages Information and Technology
19. Communicates Risk Information
20. Reports on Risk, Culture, and Performance

# Our leaders

We expect every leader across our business to be a strong role model for acting with integrity and promoting a safe, responsible and ethical culture.

## All leaders must:

- ✓ live the Values and act in accordance with the Code and its spirit
- ✓ promote our Values, Code and policies, and define expected behaviours
- ✓ look for opportunities to create value and grow our business in a manner consistent with our Values and Code
- ✓ treat their teams fairly and with respect, and create an environment where everyone feels comfortable speaking openly about concerns without fear of retaliation
- ✓ listen to concerns, take them seriously, and address them appropriately
- ✓ be alert to and report any violations of the Code

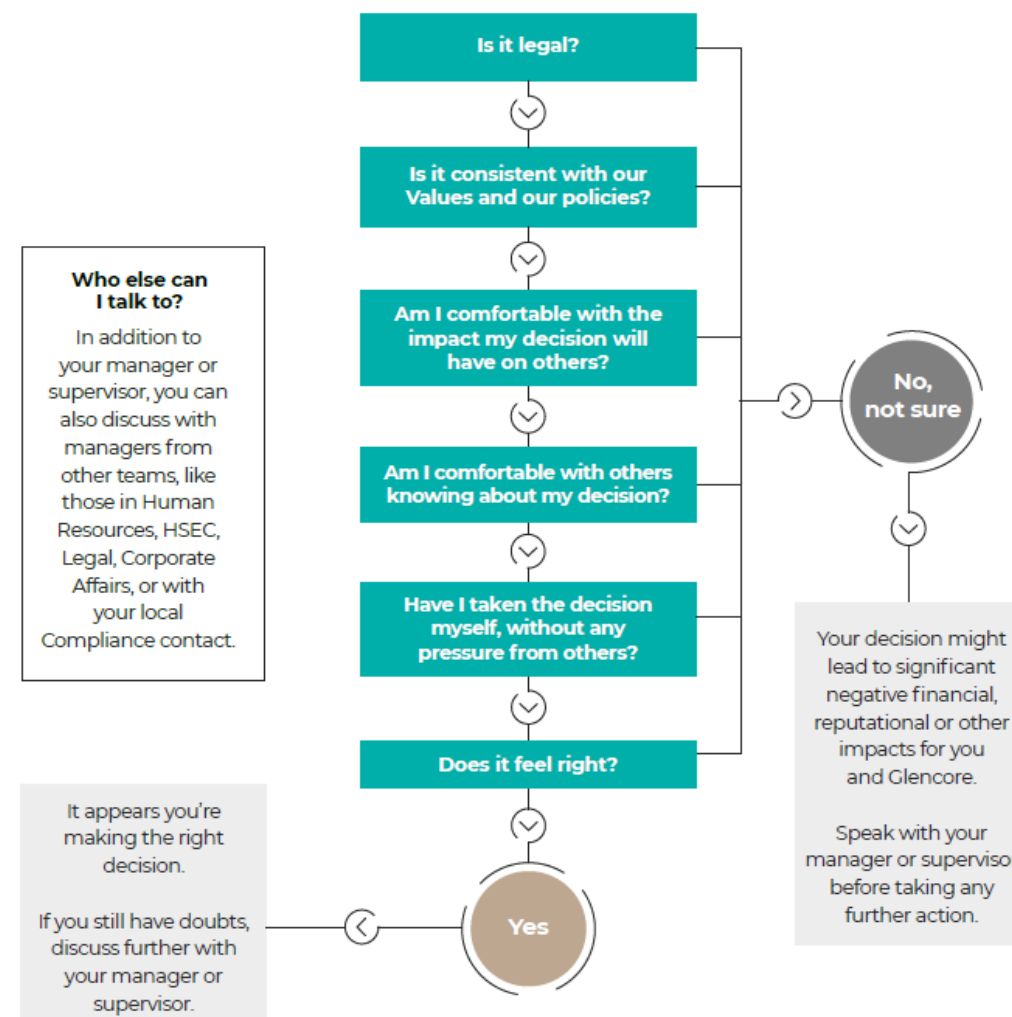


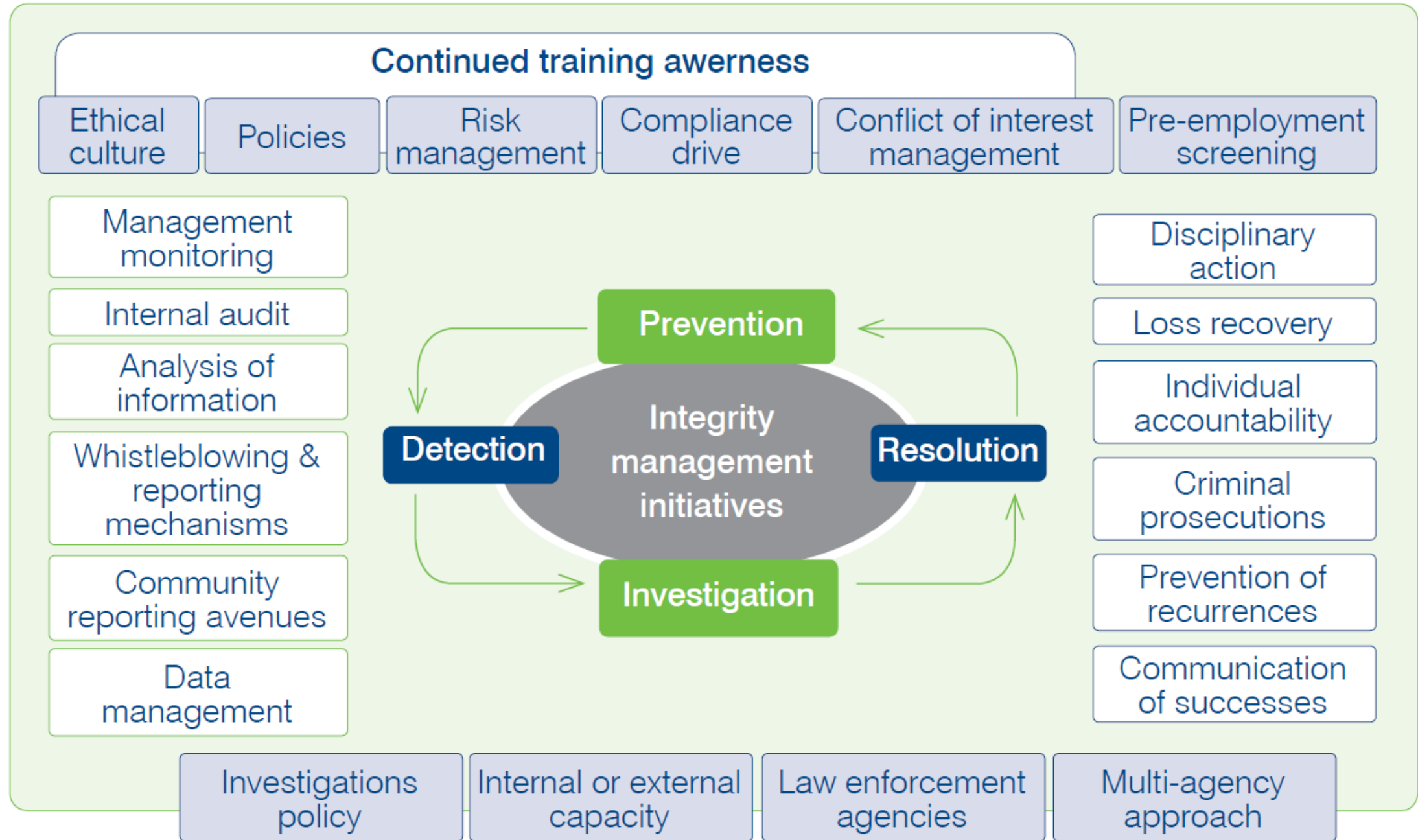
# 01 About our Code of Conduct

- 6 Our Values
- 7 Our Purpose
- 9 Our Code of Conduct
- 11 Our Leaders
- 13 Our Business Partners
- 15 A framework for making decisions with integrity
- 16 Speaking Openly

## A framework for making decisions with integrity

Keeping to the Code helps us make ethical decisions. When facing a tough decision or situation not explicitly covered in the Code, we ask ourselves the following questions:





*Schematic diagram of the integrity management initiatives*

# Governance, Standards, Risk, Reporting & Sustainable Finance

Module 6 - Governance & Ethical Corporate Leadership

Module 7 - ESG Frameworks, Standards & Regulatory Environment



Module 8 - ESG Risk Management & Enterprise Strategy

Module 9 - ESG Reporting, Disclosure & Assurance

Module 10 - ESG Investing & Sustainable Finance

# KING V AND ESG REQUIREMENTS

Good governance enables responsible performance, sustainable value creation and long-term success.

## KING V PRINCIPLES THAT DRIVE ESG

- 1 Ethical leadership and corporate citizenship
- 2 Board effectiveness and independence
- 3 Integrity in organisational ethics
- 4 Sustainable value creation
- 5 Responsible risk oversight
- 6 Stakeholder inclusivity
- 7 Integrated thinking and reporting
- 8 Transparency and accountability

These principles underpin governance leadership and the effective management of ESG matters.

## STAKEHOLDER OUTCOMES (KING V)

Value is created when the organisation delivers positive outcomes for all stakeholders.



## INTEGRATED THINKING AND REPORTING

Integrate ESG into strategy, performance, risk and opportunities.  
Report with transparency and accuracy.



## ESG REQUIREMENTS



### ENVIRONMENTAL

- Climate change and emissions
- Resource use and circular economy
- Biodiversity and ecosystem protection
- Pollution prevention and management



### SOCIAL

- Human rights and fair treatment
- Health, safety and wellbeing
- Diversity, equity and inclusion
- Skills development and community impact
- Responsible supply chains



### GOVERNANCE

- Ethical leadership and culture
- Board oversight and accountability
- Risk management and internal controls
- Compliance and legal responsibility
- Transparency and stakeholder engagement
- Anti-corruption and ethical conduct

## HOW KING V DRIVES ESG OUTCOMES

- ✓ Sets the tone at the top for responsible conduct and ethical decision-making.
- ✓ Ensures ESG is integrated into strategy and risk management.
- ✓ Promotes stakeholder inclusivity and legitimacy.
- ✓ Enhances transparency, trust and accountability.
- ✓ Supports long-term value creation and resilience.

# JSE SUSTAINABILITY DISCLOSURE GUIDANCE AND ESG REQUIREMENTS

Better disclosure. Better decisions. Better value for a sustainable future.

## THE JSE SUSTAINABILITY DISCLOSURE GUIDANCE (SDG)



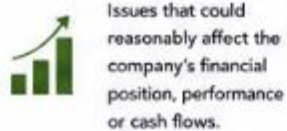
The JSE SDG supports consistent, comparable and decision-useful sustainability disclosures by South African companies.

- ✓ Aligned with global best practice
- ✓ Supports integrated thinking and reporting
- ✓ Enhances transparency and long-term value creation

## MATERIALITY: FOCUS ON WHAT MATTERS MOST

Disclose matters that are material to the business and to investors in their decision-making.

### FINANCIAL MATERIALITY



Issues that could reasonably affect the company's financial position, performance or cash flows.

### IMPACT MATERIALITY



Issues that reflect the company's significant impacts on the economy, environment and people.

Consider short, medium and long-term horizons.

## THE ESG DISCLOSURE ARCHITECTURE



## INTEGRATED REPORTING CONNECTION



## KEY DISCLOSURE AREAS IN THE JSE SDG

|   |  |                                                                                                                             |
|---|--|-----------------------------------------------------------------------------------------------------------------------------|
| 1 |  | <b>STRATEGY AND CONTEXT</b><br>Disclose how sustainability issues affect the business model, strategy and value creation.   |
| 2 |  | <b>GOVERNANCE</b><br>Disclose the governance structures, oversight and management of sustainability matters.                |
| 3 |  | <b>RISK MANAGEMENT</b><br>Disclose material sustainability risks and opportunities and how they are managed.                |
| 4 |  | <b>METRICS AND TARGETS</b><br>Disclose measurable indicators, performance against targets and future commitments.           |
| 5 |  | <b>CLIMATE-RELATED DISCLOSURE</b><br>Provide climate-related information aligned to the TCFD recommendations.               |
| 6 |  | <b>VALUE CHAIN CONSIDERATIONS</b><br>Disclose material sustainability impacts across the value chain.                       |
| 7 |  | <b>STAKEHOLDER ENGAGEMENT</b><br>Disclose how stakeholders are identified, engaged and how their concerns inform decisions. |

## FROM DISCLOSURE TO PERFORMANCE TO VALUE



## BENEFITS OF QUALITY ESG DISCLOSURE

- ✓ Improves access to capital and lowers cost of capital
- ✓ Enhances investor confidence and trust
- ✓ Supports compliance and reduces regulatory risk
- ✓ Strengthens reputation and brand value
- ✓ Drives operational efficiency and innovation
- ✓ Contributes to a sustainable economy and society



## 1. Global Reporting Initiative (GRI)

- **Purpose:** Broad sustainability impact reporting for all stakeholders.
  - **Scope:** Economic, environmental, and social (full ESG).
  - **Materiality Lens:** Impact materiality (effects on economy, environment, and people).
  - **Best for:** Full ESG transparency and multi-stakeholder engagement.
- 

## 2. Task Force on Climate-related Financial Disclosures (TCFD)

- **Purpose:** Climate-related financial risk and opportunity disclosure.
  - **Scope:** Climate governance, strategy, risk management, and metrics.
  - **Materiality Lens:** Financial materiality of climate risks.
  - **Best for:** Climate resilience analysis and integration into financial filings.
- 

## 3. Sustainability Accounting Standards Board (SASB)

- **Purpose:** Industry-specific financially material ESG disclosures for investors.
  - **Scope:** ESG factors linked to enterprise value.
  - **Materiality Lens:** Financial materiality by sector/industry.
  - **Best for:** Investor-grade comparable metrics, especially sector-specific.
- 

## 4. International Sustainability Standards Board (ISSB) – IFRS S1 & S2

- **Purpose:** Global baseline for sustainability and climate disclosures.
  - **Scope:** S1 = General ESG; S2 = Climate-specific.
  - **Materiality Lens:** Financial materiality.
  - **Best for:** Aligning ESG disclosures with global capital market requirements.
- 

## 5. Carbon Disclosure Project (CDP)

- **Purpose:** Disclosure of environmental impacts (climate, water, forests).
  - **Scope:** Climate change, water security, deforestation.
  - **Materiality Lens:** Environmental impact (can link to financial materiality).
  - **Best for:** Benchmarking environmental performance against global peers.
- 

## 6. UN Sustainable Development Goals (SDGs)

- **Purpose:** Global goals for social, environmental, and economic sustainability.
- **Scope:** 17 goals, 169 targets.
- **Materiality Lens:** Societal impact.
- **Best for:** Linking ESG efforts to global sustainable development priorities.

## 7. EU Corporate Sustainability Reporting Directive (CSRD) / ESRS

- **Purpose:** Mandatory EU sustainability disclosure standards.
  - **Scope:** Full ESG with double materiality (impact + financial).
  - **Materiality Lens:** Double materiality.
  - **Best for:** Companies with EU operations needing regulatory compliance.
- 

## 10. Integrated Reporting Framework (<IR>)

- **Purpose:** Connects financial and non-financial performance.
- **Scope:** Six capitals: financial, manufactured, intellectual, human, social, natural.
- **Materiality Lens:** Value creation over time.
- **Best for:** Boards wanting to show the link between ESG and long-term strategy.

## 8. UN Principles for Responsible Investment (UN PRI)

- **Purpose:** Voluntary commitment for investors to integrate ESG into decision-making.
  - **Scope:** Investment process ESG integration.
  - **Materiality Lens:** Responsible investment focus.
  - **Best for:** Institutional investors and asset managers demonstrating ESG integration.
- 

## 9. OECD Guidelines for Multinational Enterprises

- **Purpose:** Government-backed recommendations on responsible business conduct.
- **Scope:** Human rights, labour, environment, anti-corruption.
- **Materiality Lens:** Responsible business conduct lens.
- **Best for:** Multinationals managing complex global supply chains.

## Scope 1 – Direct Emissions

- **Definition:** Greenhouse gas emissions from sources **owned or controlled** by the organisation.
- **Examples:**
  - Fuel combustion in company-owned vehicles.
  - On-site generation (e.g., boilers, furnaces, turbines).
  - Industrial process emissions.
- **Key Point:** These are emissions the organisation has **full operational control over**.

## Scope 2 – Indirect Energy Emissions

- **Definition:** Greenhouse gas emissions from the **generation of purchased energy** (electricity, steam, heating, or cooling) that the organisation consumes.
- **Examples:**
  - Emissions from a power station producing electricity purchased by the company.
  - Purchased chilled water for cooling.
- **Key Point:** These emissions occur **off-site**, but are a **result of the organisation's energy use**.

## Scope 3 – Other Indirect Emissions

- **Definition:** All other indirect greenhouse gas emissions **not included in Scope 2** that occur in the organisation's **value chain** — both **upstream** (suppliers) and **downstream** (customers).
- **Examples:**
  - Purchased goods and services.
  - Business travel (air, rail, car hire).
  - Employee commuting.
  - Waste disposal.
  - Use of sold products.
  - End-of-life treatment of products.
  - Investments and leased assets.
- **Key Point:** Often the **largest share** of total emissions; requires engagement with suppliers and customers for measurement and reduction.



# SCOPE 1, 2 & 3 EMISSIONS IN SAUDI ARABIA

Estimated percentage distribution across the top 10 economic drivers

Understanding where emissions occur across our key economic sectors helps prioritize action, allocate resources, and accelerate our transition to a low-carbon economy.

ESTIMATED PERCENTAGE DISTRIBUTION OF SCOPE 1, 2 & 3 EMISSIONS ACROSS THE TOP 10 ECONOMIC DRIVERS IN SAUDI ARABIA

| RANK                       | ECONOMIC DRIVER                                                                                                                                             | SCOPE 1<br>(DIRECT) %      | SCOPE 2<br>(INDIRECT) %   | SCOPE 3<br>(INDIRECT) %    | TOTAL<br>(ALL SCOPES) %    |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------|----------------------------|----------------------------|
| 1                          |  <b>Oil &amp; Gas</b><br>(Crude Oil Production, Refining & Petrochemicals) | <div><div></div></div> 38% | <div><div></div></div> 3% | <div><div></div></div> 11% | <div><div></div></div> 52% |
| 2                          |  <b>Manufacturing</b><br>(Basic Metals, Chemicals, Cement, etc.)           | <div><div></div></div> 10% | <div><div></div></div> 2% | <div><div></div></div> 6%  | <div><div></div></div> 18% |
| 3                          |  <b>Electricity &amp; Heat Production</b>                                  | <div><div></div></div> 9%  | <div><div></div></div> 3% | <div><div></div></div> 1%  | <div><div></div></div> 13% |
| 4                          |  <b>Transport &amp; Storage</b><br>(Road, Aviation, Shipping, Rail)        | <div><div></div></div> 6%  | <div><div></div></div> 0% | <div><div></div></div> 6%  | <div><div></div></div> 12% |
| 5                          |  <b>Construction &amp; Real Estate</b>                                     | <div><div></div></div> 3%  | <div><div></div></div> 1% | <div><div></div></div> 4%  | <div><div></div></div> 8%  |
| 6                          |  <b>Wholesale &amp; Retail Trade</b>                                       | <div><div></div></div> 1%  | <div><div></div></div> 0% | <div><div></div></div> 4%  | <div><div></div></div> 5%  |
| 7                          |  <b>Agriculture, Forestry &amp; Fishing</b>                               | <div><div></div></div> 2%  | <div><div></div></div> 0% | <div><div></div></div> 2%  | <div><div></div></div> 4%  |
| 8                          |  <b>Mining &amp; Quarrying (Non-Oil)</b>                                 | <div><div></div></div> 2%  | <div><div></div></div> 0% | <div><div></div></div> 1%  | <div><div></div></div> 3%  |
| 9                          |  <b>Public Administration &amp; Defense</b>                              | <div><div></div></div> 0%  | <div><div></div></div> 1% | <div><div></div></div> 1%  | <div><div></div></div> 2%  |
| 10                         |  <b>Accommodation &amp; Food Services</b>                                | <div><div></div></div> 0%  | <div><div></div></div> 0% | <div><div></div></div> 1%  | <div><div></div></div> 1%  |
| <b>TOTAL (ALL SECTORS)</b> |                                                                                                                                                             | <b>71%</b>                 | <b>7%</b>                 | <b>22%</b>                 | <b>100%</b>                |

# GHG Emissions at a Glance

| GHG              | Main Sources                                                             | GWP*         | Reduction Levers                                                                                                           |
|------------------|--------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------|
| CO <sub>2</sub>  | Fossil fuel combustion<br>Industrial processes<br>Land use change        | 1            | Energy efficiency<br>Renewable energy<br>Reforestation                                                                     |
| CH <sub>4</sub>  | Agriculture, landfills<br>Fossil fuel extraction<br>Fuel combustion      | 28–34        | Methane capture<br>Dietary changes<br>Waste management                                                                     |
| N <sub>2</sub> O | Agricultural soil management<br>Industrial production<br>Fuel combustion | 265–298      | Nitrogen use efficiency<br>No-till farming                                                                                 |
| HFC <sub>s</sub> | Hydrofluorocarbons<br>HFCs<br>Refrigeration                              | 12–12,000    | Refrigerant management<br>Alternatives  |
| PFC <sub>s</sub> | Aluminum production<br>Semiconductor manufacturing                       | Up to 12,000 | Substitute Alternatives                |
| SF <sub>6</sub>  | Electrical equipment<br>Magnesium production                             | 23,500       | Replace equipment                     |
| NF <sub>3</sub>  | Nitrogen trifluoride<br>Electronics manufacturing                        | 17,200       | Adopt alternatives                    |

NDC stands for **Nationally Determined Contribution**.

It's a key concept under the **Paris Agreement (2015)**, where each country sets out its own climate action plan to reduce greenhouse gas emissions and adapt to climate change impacts.

## Formal Definition

An NDC is a national climate pledge that outlines:

1. Emission reduction targets (mitigation).
2. Adaptation strategies to climate impacts.
3. Implementation plans and policies.

It reflects a country's "highest possible ambition" in line with its national circumstances and capabilities.

GWP stands for **Global Warming Potential**.

It's a scientific metric used to compare the warming impact of different greenhouse gases (GHGs) relative to carbon dioxide (CO<sub>2</sub>) over a specific period, usually 100 years (sometimes 20 years for short-lived gases like methane).

### 1. Carbon Dioxide (CO<sub>2</sub>) – *Baseline greenhouse gas*

- **Source:**
    - Fossil fuel combustion (coal, oil, gas).
    - Industrial processes (cement production, steelmaking).
    - Land use change and deforestation.
  - **Key Traits:**
    - Most prevalent GHG from human activity.
    - Long atmospheric lifespan (~300–1,000 years).
  - **Measurement:** CO<sub>2</sub> or CO<sub>2</sub>e (carbon dioxide equivalent when aggregated with other gases).
- 

### 2. Methane (CH<sub>4</sub>) – *High-impact short-term warming gas*

- **Source:**
  - Agriculture (livestock digestion, manure).
  - Landfills and waste decomposition.
  - Fossil fuel extraction and transport (coal mining, oil and gas leaks).
- **Key Traits:**
  - Global Warming Potential (GWP) ~28–34 times greater than CO<sub>2</sub> over 100 years.
  - Shorter atmospheric life (~12 years) but stronger near-term impact.

### 3. Nitrous Oxide (N<sub>2</sub>O) – *Agricultural and industrial gas*

- **Source:**
    - Agricultural soil management (fertilisers, manure).
    - Industrial chemical production (nitric acid, adipic acid).
    - Combustion of fossil fuels and biomass.
  - **Key Traits:**
    - GWP ~265–298 times greater than CO<sub>2</sub> over 100 years.
    - Long-lived in the atmosphere (~114 years).
- 

### 4. Hydrofluorocarbons (HFCs) – *Synthetic refrigerant gases*

- **Source:**
  - Refrigeration, air conditioning, heat pumps.
  - Aerosol propellants and foaming agents.
- **Key Traits:**
  - GWP ranges from 12 to >12,000 times greater than CO<sub>2</sub>.
  - Short to medium atmospheric life.
  - Controlled under the Kigali Amendment to the Montreal Protocol.

## 5. Perfluorocarbons (PFCs) – *Industrial process gases*

- **Source:**
    - Aluminium production.
    - Semiconductor manufacturing.
  - **Key Traits:**
    - Very high GWP (up to 12,000).
    - Extremely long atmospheric lifespan (thousands of years).
- 

## 6. Sulphur Hexafluoride (SF<sub>6</sub>) – *Electrical insulating gas*

- **Source:**
  - Electrical transmission and distribution systems.
  - Magnesium production.
- **Key Traits:**
  - GWP ~23,500 (one of the most potent GHGs).
  - Very long atmospheric life (~3,200 years).

## 7. Nitrogen Trifluoride (NF<sub>3</sub>) – *Emerging industrial gas*

- **Source:**
    - Manufacturing of flat-panel displays, semiconductors, and solar panels.
  - **Key Traits:**
    - GWP ~17,200.
    - Recognised in the Kyoto Protocol's second commitment period.
- 

### Key ESG Note for Directors

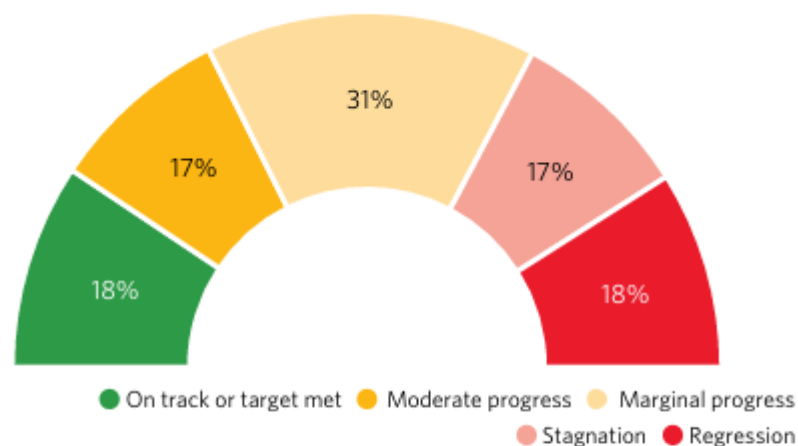
- All GHGs are typically reported in CO<sub>2</sub>e (carbon dioxide equivalent), converting each gas's GWP into an equivalent amount of CO<sub>2</sub>.
- While CO<sub>2</sub> dominates in volume, gases like SF<sub>6</sub> and CH<sub>4</sub> have far higher warming impacts per molecule and are strategic reduction priorities.

## THE 17 GOALS

**169**  
Targets

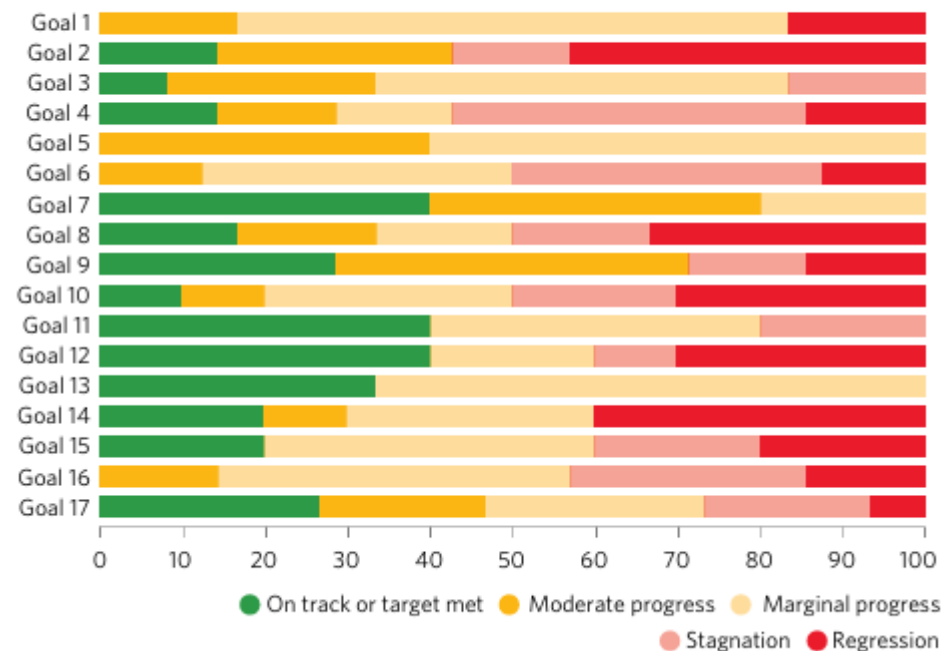
# I. Five years to go: the stark reality of SDG progress

Overall progress across targets based on 2015-2025 global aggregate data



Note: Percentages do not add up to 100 per cent due to rounding.

Progress assessment for the 17 Goals based on assessed targets, by Goal (percentage)





- 1.1 International poverty ○
- 1.2 National poverty ○
- 1.3 Social protection ○
- 1.4 Access to basic services ●
- 1.5 Resilience to disasters ○
- 1.a Government spending on essential services ●
- 1.b Poverty eradication policies ●



- 2.1 Undernourishment and food security ●
- 2.2 Malnutrition ○
- 2.3 Small-scale food producers ●
- 2.4 Productive and sustainable agriculture ●
- 2.5 Genetic resources for agriculture ●
- 2.a Investment in agriculture ●
- 2.b Agricultural export subsidies ●
- 2.c Food price anomalies ●



- 3.1 Maternal mortality ○
- 3.2 Child mortality ●
- 3.3 Communicable diseases ○
- 3.4 NCD and mental health ○
- 3.5 Substance abuse and treatment ○
- 3.6 Road traffic accidents ○
- 3.7 Sexual and reproductive health ○
- 3.8 Universal health coverage ○
- 3.9 Health impact of pollution ●
- 3.a Tobacco control ●
- 3.b Immunization coverage ●
- 3.c Health workforce ○
- 3.d Management of health risks ●



- 4.1 Effective learning outcomes ○
- 4.2 Early childhood education ○
- 4.3 TVET and tertiary education ○
- 4.4 Skills for employment ●
- 4.5 Equal access to education ●
- 4.6 Adult literacy and numeracy ●
- 4.7 Sustainable development education ●
- 4.a Education facilities ○
- 4.b ODA for scholarships ●
- 4.c Qualified teachers ●



- 5.1 Legal frameworks on gender equality ○
- 5.2 Violence against women and girls ●
- 5.3 Child marriage ●
- 5.4 Unpaid care and domestic work ●
- 5.5 Women in leadership ○
- 5.6 Reproductive health access and rights ●
- 5.a Equal economic rights for women ●
- 5.b Technology for women empowerment ●
- 5.c Gender-responsive budgeting ○

## 6 CLEAN WATER AND SANITATION



- 6.1 Safe drinking water ●
- 6.2 Access to sanitation and hygiene ●
- 6.3 Water quality ○
- 6.4 Water-use efficiency ●
- 6.5 Transboundary water cooperation ○
- 6.6 Water-related ecosystems ○
- 6.a International cooperation on water and sanitation ●
- 6.b Participatory water and sanitation management ●

## 7 AFFORDABLE AND CLEAN ENERGY



- 7.1 Access to energy services ●
- 7.2 Share of renewable energy ●
- 7.3 Energy efficiency ●
- 7.a International cooperation on energy ●
- 7.b Investing in energy infrastructure ●

## 8 DECENT WORK AND ECONOMIC GROWTH



- 8.1 Economic growth ●
- 8.2 Economic productivity ●
- 8.3 Formalization of SMEs ●
- 8.4 Material resource efficiency ●
- 8.5 Full employment and decent work ●
- 8.6 Youth NEET ○
- 8.7 Child and forced labour ●
- 8.8 Labour rights and safe working environment ●
- 8.9 Sustainable tourism ○
- 8.10 Access to financial services ●
- 8.a Aid for Trade ●
- 8.b Strategy for youth employment ●

## 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



- 9.1 Infrastructure development ●
- 9.2 Sustainable/inclusive industrialization ○
- 9.3 Small-scale industries' access to finance ●
- 9.4 Sustainable and clean industries ●
- 9.5 Research and development ●
- 9.a ODA for infrastructure ●
- 9.b Domestic technology development ●
- 9.c Access to ICT and the Internet ●

## 10 REDUCED INEQUALITIES



- 10.1 Income growth of bottom 40 per cent ●
- 10.2 Income distribution ●
- 10.3 Eliminate discrimination ●
- 10.4 Fiscal and social protection policies ●
- 10.5 Regulation of financial markets ●
- 10.6 Inclusive global governance ○
- 10.7 Safe migration and mobility ○
- 10.a Special and differential treatment (WTO) ●
- 10.b Resource flows for development ●
- 10.c Remittance costs ●



|      |                                        |   |
|------|----------------------------------------|---|
| 11.1 | Housing and basic services             | ○ |
| 11.2 | Public transport systems               | ● |
| 11.3 | Sustainable urbanization               | ● |
| 11.4 | Cultural and natural heritage          | ● |
| 11.5 | Human and economic losses to disasters | ○ |
| 11.6 | Urban air quality and waste management | ● |
| 11.7 | Urban green and public spaces          | ● |
| 11.a | Urban planning policies                | ● |
| 11.b | Disaster risk management policies      | ○ |
| 11.c | Sustainable and resilient buildings    | ● |



|      |                                                      |   |
|------|------------------------------------------------------|---|
| 12.1 | Programmes on sustainable consumption and production | ● |
| 12.2 | Sustainable use of natural resources                 | ○ |
| 12.3 | Food waste and losses                                | ● |
| 12.4 | Managing chemicals and wastes                        | ○ |
| 12.5 | Reduction in waste generation                        | ● |
| 12.6 | Corporate sustainable practices                      | ● |
| 12.7 | Public procurement practices                         | ● |
| 12.8 | Sustainable development awareness                    | ● |
| 12.a | Support for R&D capacity for sustainable development | ● |
| 12.b | Sustainable tourism monitoring                       | ○ |
| 12.c | Fossil fuel subsidies                                | ● |



|      |                                        |   |
|------|----------------------------------------|---|
| 13.1 | Resilience and adaptive capacity       | ○ |
| 13.2 | Climate change policies                | ○ |
| 13.3 | Climate change awareness               | ● |
| 13.a | UNFCCC commitments                     | ● |
| 13.b | Climate change planning and management | ● |



|      |                                          |   |
|------|------------------------------------------|---|
| 14.1 | Marine pollution                         | ○ |
| 14.2 | Marine and coastal ecosystems            | ○ |
| 14.3 | Ocean acidification                      | ● |
| 14.4 | Sustainable fishing                      | ● |
| 14.5 | Conservation of coastal and marine areas | ○ |
| 14.6 | Fisheries subsidies                      | ● |
| 14.7 | Marine resources for SIDS and LDCs       | ● |
| 14.a | Research capacity and marine technology  | ● |
| 14.b | Small-scale artisanal fishing            | ● |
| 14.c | Implementing UNCLOS                      | ○ |



|      |                                             |   |
|------|---------------------------------------------|---|
| 15.1 | Terrestrial and freshwater ecosystems       | ○ |
| 15.2 | Sustainable forests management              | ○ |
| 15.3 | Desertification and land degradation        | ● |
| 15.4 | Conservation of mountain ecosystems         | ○ |
| 15.5 | Loss of biodiversity                        | ● |
| 15.6 | Utilization of genetic resources            | ● |
| 15.7 | Protected species trafficking               | ● |
| 15.8 | Invasive alien species                      | ● |
| 15.9 | Biodiversity in national and local planning | ○ |
| 15.a | Resources for biodiversity and ecosystems   | ○ |
| 15.b | Resources for forest management             | ○ |



|       |                                          |   |
|-------|------------------------------------------|---|
| 16.1  | Reduction of violence and related deaths | ○ |
| 16.2  | Human trafficking                        | ● |
| 16.3  | Justice for all                          | ○ |
| 16.4  | Illicit financial and arms flows         | ● |
| 16.5  | Corruption and bribery                   | ● |
| 16.6  | Effective institutions                   | ● |
| 16.7  | Inclusive decision-making                | ○ |
| 16.8  | Inclusive global governance              | ○ |
| 16.9  | Legal identity                           | ● |
| 16.10 | Public access to information             | ○ |
| 16.a  | National human rights institutions       | ○ |
| 16.b  | Non-discriminatory laws                  | ● |



|       |                                                |   |
|-------|------------------------------------------------|---|
| 17.1  | Tax and other revenue collection               | ○ |
| 17.2  | ODA commitment by developed countries          | ○ |
| 17.3  | Additional financial resources for development | ○ |
| 17.4  | Debt sustainability                            | ● |
| 17.5  | Investment promotion for LDCs                  | ○ |
| 17.6  | Access to technology                           | ● |
| 17.7  | Transfer of technologies                       | ○ |
| 17.8  | Use of the Internet                            | ● |
| 17.9  | Capacity-building for SDGs                     | ● |
| 17.10 | Multilateral trading system (WTO)              | ● |
| 17.11 | Exports of developing countries                | ○ |
| 17.12 | Duty-free market access for LDCs               | ○ |
| 17.13 | Global macroeconomic stability                 | ○ |
| 17.14 | Policy coherence for sustainable development   | ● |
| 17.15 | Respect country's policy space                 | ● |
| 17.16 | Global partnership for sustainable development | ● |
| 17.17 | Partnerships (public, private, CSO)            | ● |
| 17.18 | National statistics availability               | ○ |
| 17.19 | Statistical capacity                           | ○ |

## Legend

- On track or target met
- Moderate progress, but acceleration needed
- Marginal progress, and significant acceleration needed
- Stagnation
- Regression
- Insufficient data

## List of acronyms and abbreviations

- CSO: Civil society organization
- ICT: Information and communications technology
- NCD: Non-communicable disease
- NEET: Not in employment, education or training
- ODA: Official development assistance
- R&D: Research and development
- SME: Small and medium enterprise
- TVET: Technical and vocational education and training
- UNCLOS: United Nations Convention on the Law of the Sea
- UNFCCC: United Nations Framework Convention on Climate Change
- WTO: World Trade Organization

For further details, please see the SDG Progress Chart 2025.  
Technical note at: <https://unstats.un.org/sdgs/report/2025/>

## Governance

Disclose the organization's governance around climate-related risks and opportunities.

## Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

## Risk Management

Disclose how the organization identifies, assesses, and manages climate-related risks.

## Metrics & Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

# Purpose of TCFD

The **Task Force on Climate-related Financial Disclosures** provides a **voluntary but widely adopted framework** for companies to disclose **climate-related financial risks and opportunities**. Its aim is to improve the quality, consistency, and comparability of climate-related disclosures so that investors, lenders, insurers, and regulators can make better-informed decisions.

# Four Core Pillars

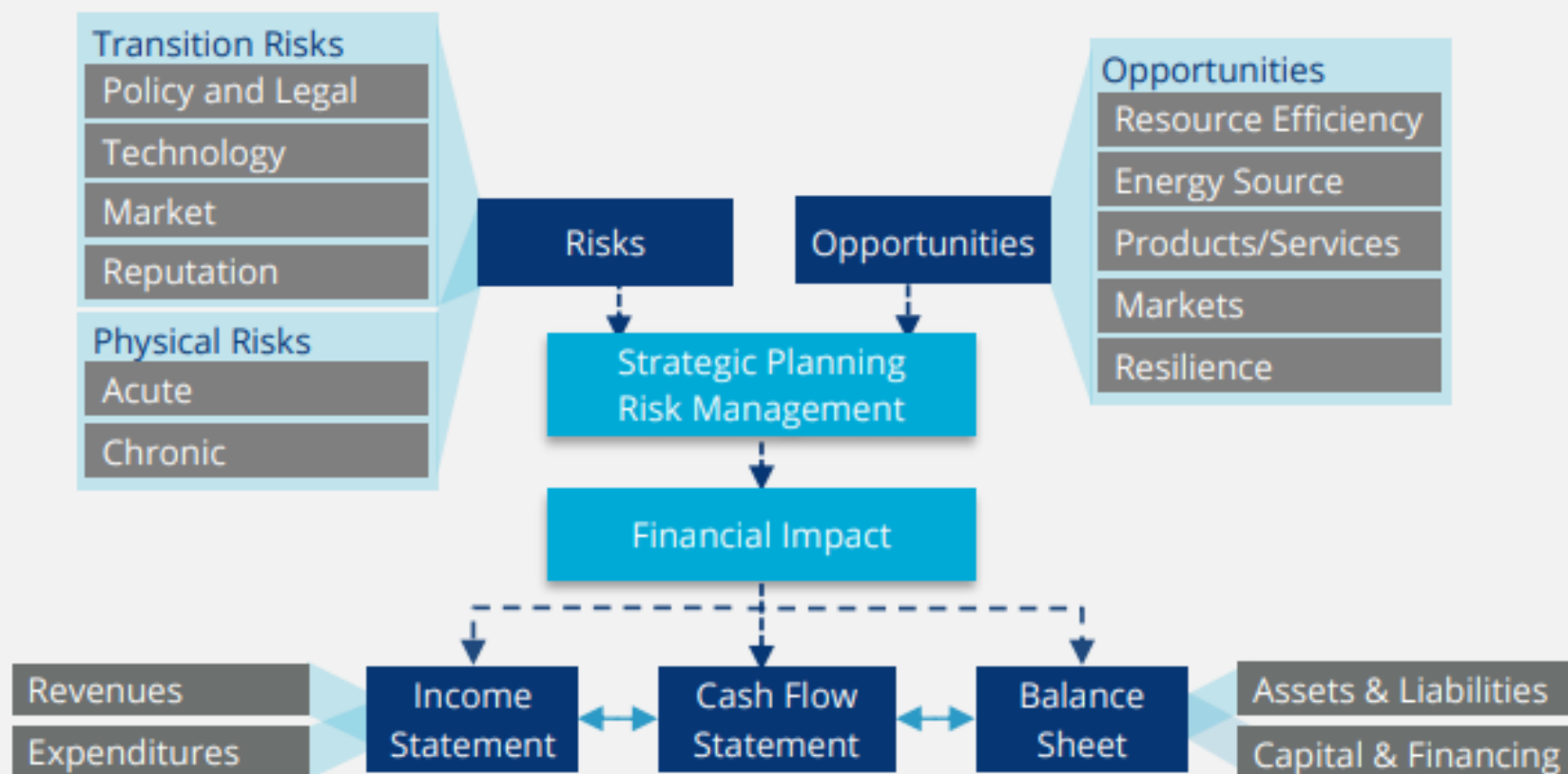
TCFD's recommendations are structured around **four thematic areas** that represent core business elements:

- **Governance** – Board and management oversight of climate risks.
- **Strategy** – Climate-related impacts on business, strategy, and financial planning.
- **Risk Management** – Processes for identifying, assessing, and managing climate risks.
- **Metrics & Targets** – Indicators and goals for managing climate-related risks and opportunities.

# Climate Risk Categories

Figure 1

## Climate-Related Risks, Opportunities, and Financial Impact



Page 11 | 12

Final Report

Recommendations of  
the Task Force  
on Climate-related  
Financial Disclosures

# Scenario Analysis

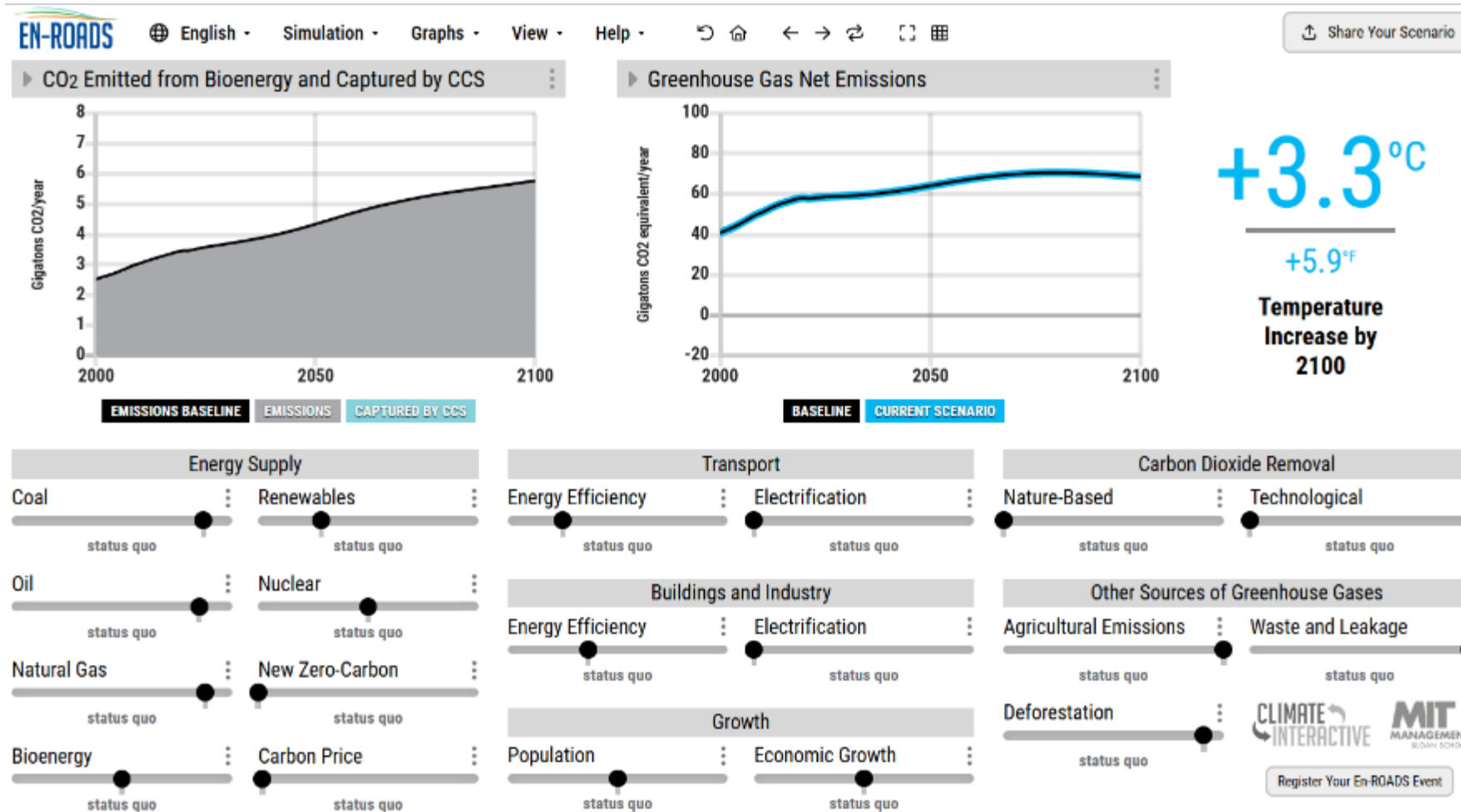


Figure 4

## Recommendations and Supporting Recommended Disclosures

| Governance                                                                                              | Strategy                                                                                                                                                                                           | Risk Management                                                                                                                                                 | Metrics and Targets                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Disclose the organization's governance around climate-related risks and opportunities.</p>           | <p>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.</p> | <p>Disclose how the organization identifies, assesses, and manages climate-related risks.</p>                                                                   | <p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</p>           |
| Recommended Disclosures                                                                                 | Recommended Disclosures                                                                                                                                                                            | Recommended Disclosures                                                                                                                                         | Recommended Disclosures                                                                                                                                          |
| <p>a) Describe the board's oversight of climate-related risks and opportunities.</p>                    | <p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</p>                                                              | <p>a) Describe the organization's processes for identifying and assessing climate-related risks.</p>                                                            | <p>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</p> |
| <p>b) Describe management's role in assessing and managing climate-related risks and opportunities.</p> | <p>b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.</p>                                                       | <p>b) Describe the organization's processes for managing climate-related risks.</p>                                                                             | <p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p>                                         |
|                                                                                                         | <p>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</p>                                | <p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</p> | <p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</p>                       |

# Alignment with Other Frameworks

TCFD aligns closely with:

- **ISSB IFRS S2** (climate-related disclosure standard replacing TCFD reporting from 2024).
- **CDP (Carbon Disclosure Project)** questionnaires.
- **GRI** environmental disclosures.
- Regulatory requirements in jurisdictions where TCFD has been embedded into law (e.g., UK, New Zealand, Japan).

# Value for ESG Officials

For ESG leaders, TCFD offers:

- A **globally recognised framework** to disclose climate risks and opportunities.
- A way to **build investor confidence** through transparent, decision-useful climate data.
- A method for integrating climate considerations into **corporate governance and strategy**.
- A **bridge to compliance** with emerging sustainability disclosure regulations (e.g., ISSB).

# Governance, Standards, Risk, Reporting & Sustainable Finance

Module 6 - Governance & Ethical Corporate Leadership

Module 7 - ESG Frameworks, Standards & Regulatory Environment

Module 8 - ESG Risk Management & Enterprise Strategy

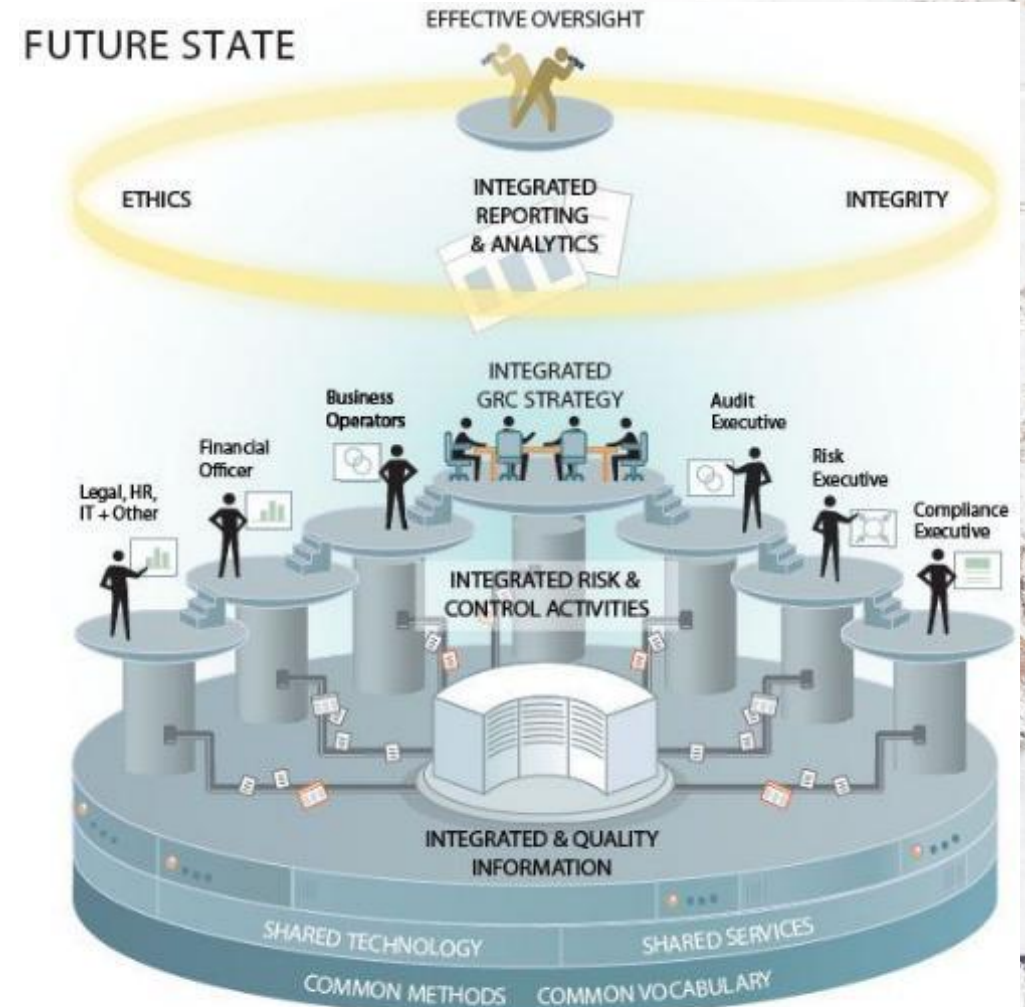
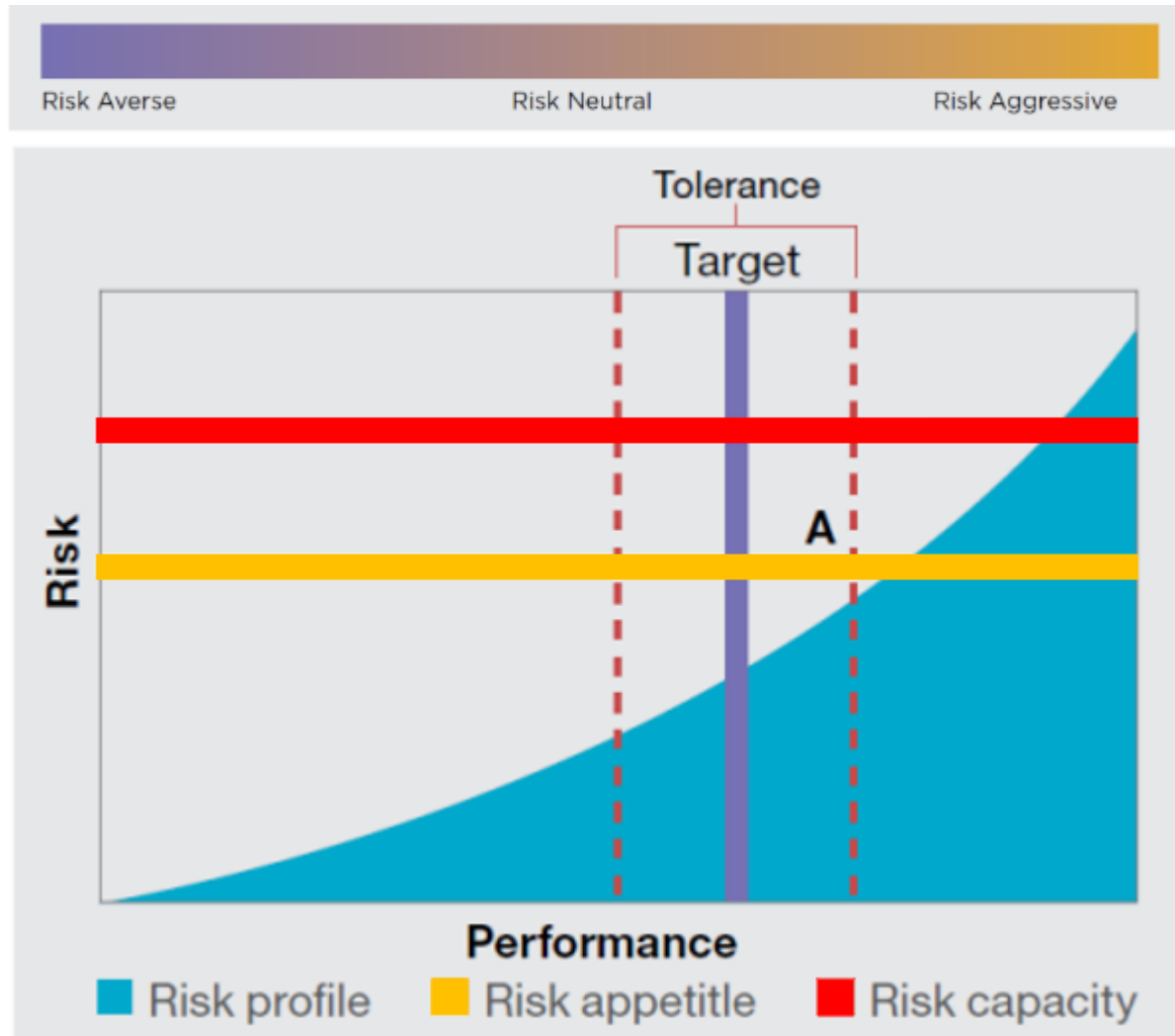


Module 9 - ESG Reporting, Disclosure & Assurance

Module 10 - ESG Investing & Sustainable Finance



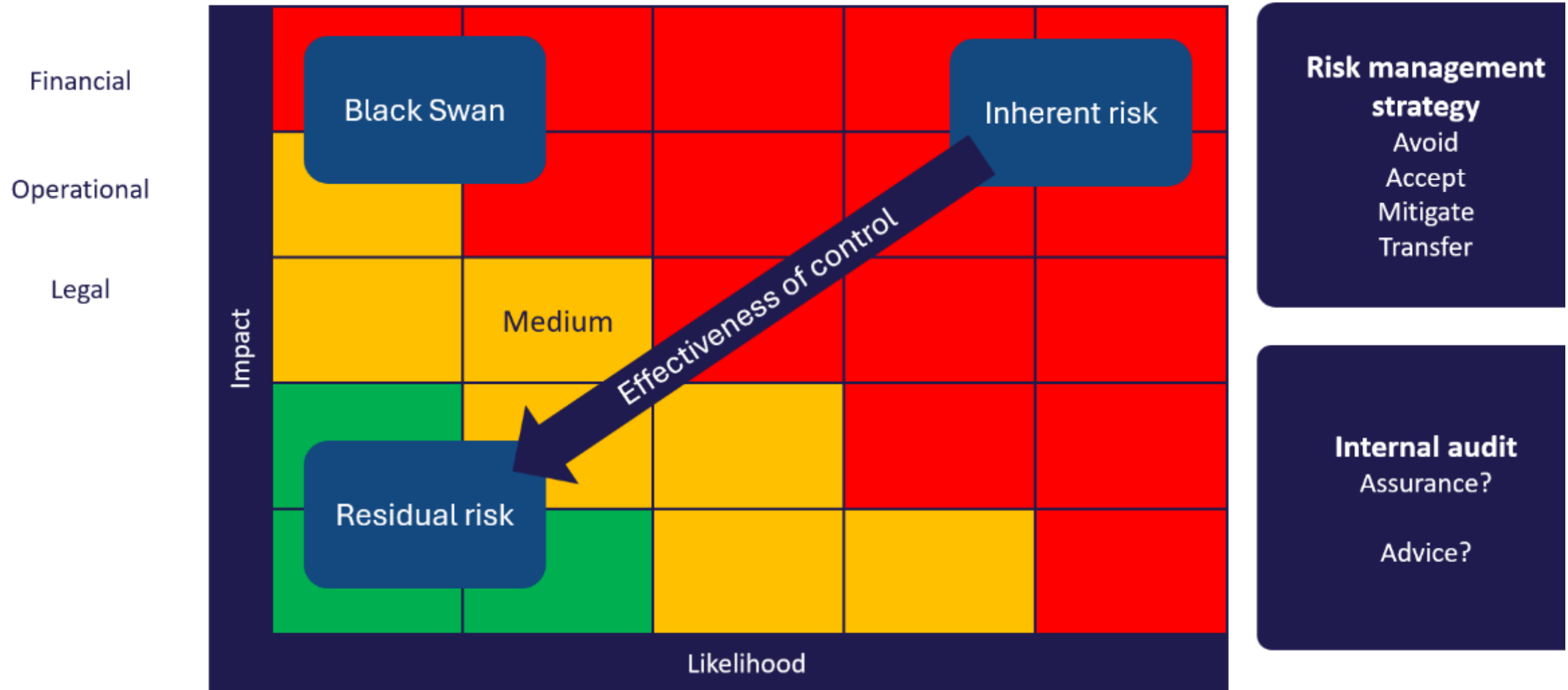
# Risk vs. Performance

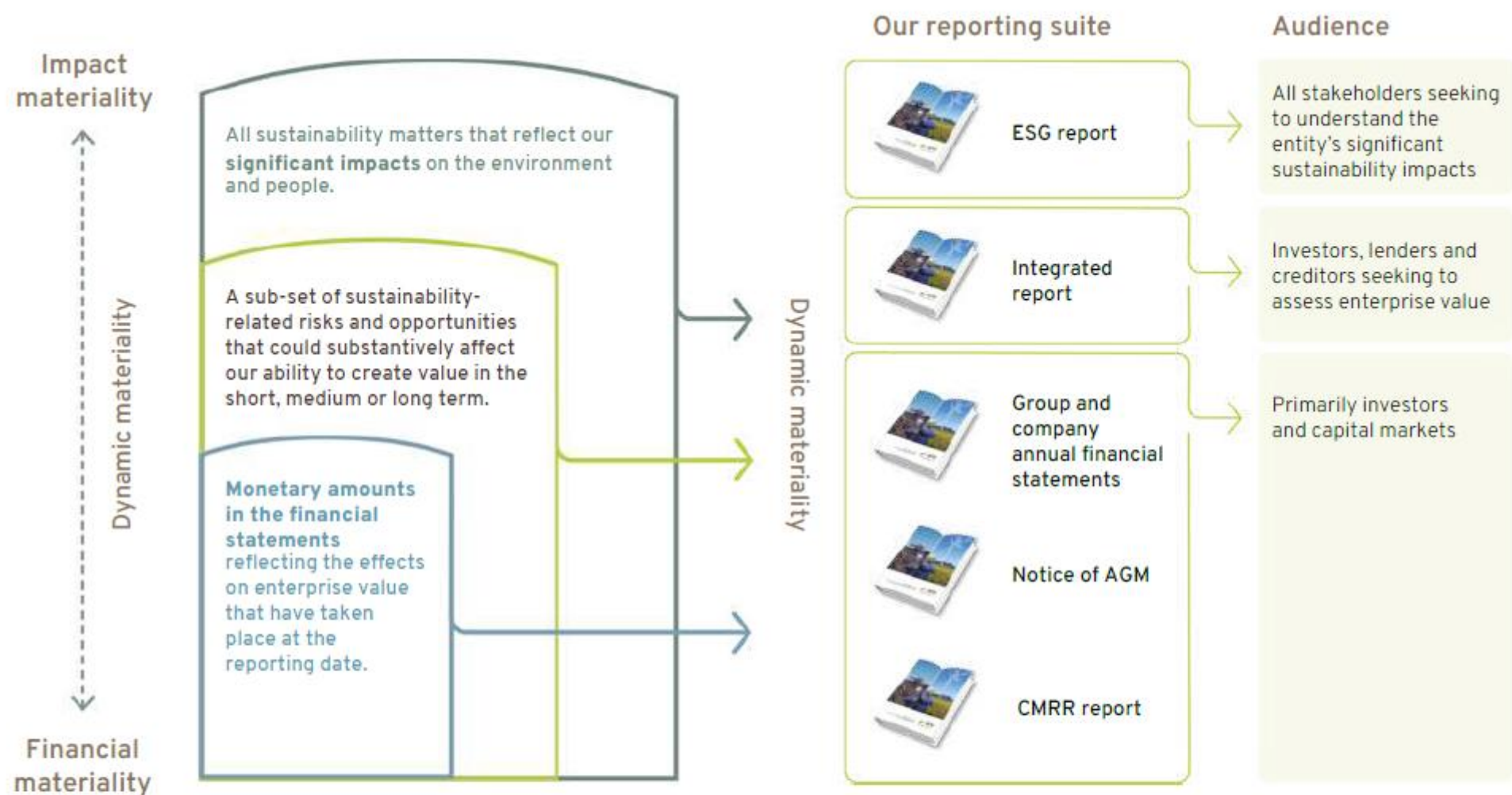


# Risk vs. Opportunity

| Likelihood | Almost Certain (5) | -S                    | -S                | -S                   | -H                | -M                        | M                         | H                 | S                    | S                 | S                   |
|------------|--------------------|-----------------------|-------------------|----------------------|-------------------|---------------------------|---------------------------|-------------------|----------------------|-------------------|---------------------|
|            | Likely (4)         | -S                    | -S                | -H                   | -H                | -M                        | M                         | H                 | H                    | S                 | S                   |
|            | Possible (3)       | -S                    | -H                | -H                   | -M                | -L                        | L                         | M                 | H                    | H                 | S                   |
|            | Unlikely (2)       | -H                    | -H                | -M                   | -M                | -L                        | L                         | M                 | M                    | H                 | H                   |
|            | Rare (1)           | -M                    | -M                | -L                   | -L                | -L                        | L                         | L                 | L                    | M                 | M                   |
|            |                    | Extreme Negative -5   | Major Negative -4 | Moderate Negative -3 | Minor Negative -2 | Insignificant Negative -1 | Insignificant Positive +1 | Minor Positive +2 | Moderate Positive +3 | Major Positive +4 | Extreme Positive +5 |
|            |                    | Negative Consequences |                   |                      |                   |                           | Positive Consequences     |                   |                      |                   |                     |

# Terminology - 11 Key Principles





### Defining short, medium and long term

#### Short term

Between one and five years

#### Medium term

Between six and 10 years

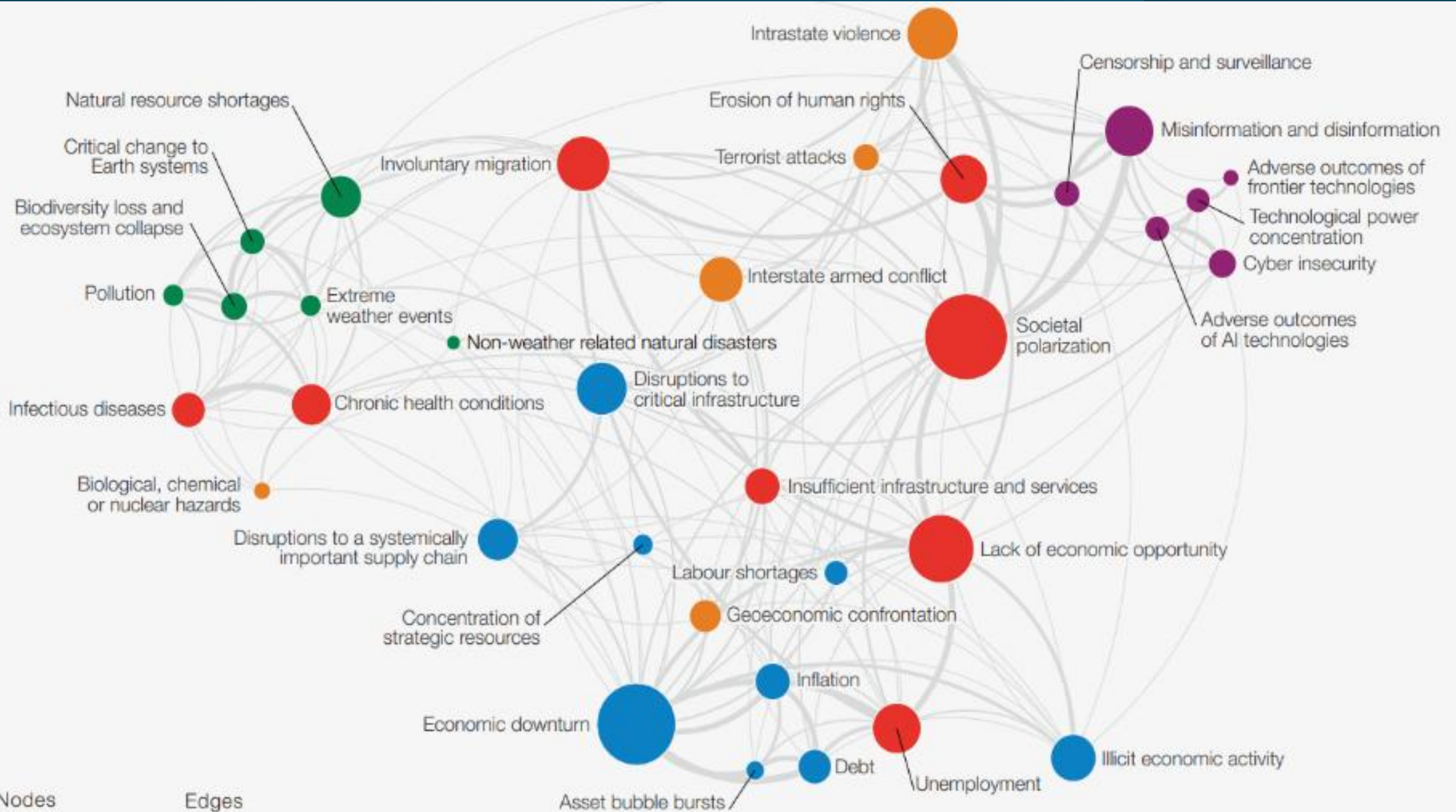
#### Long term

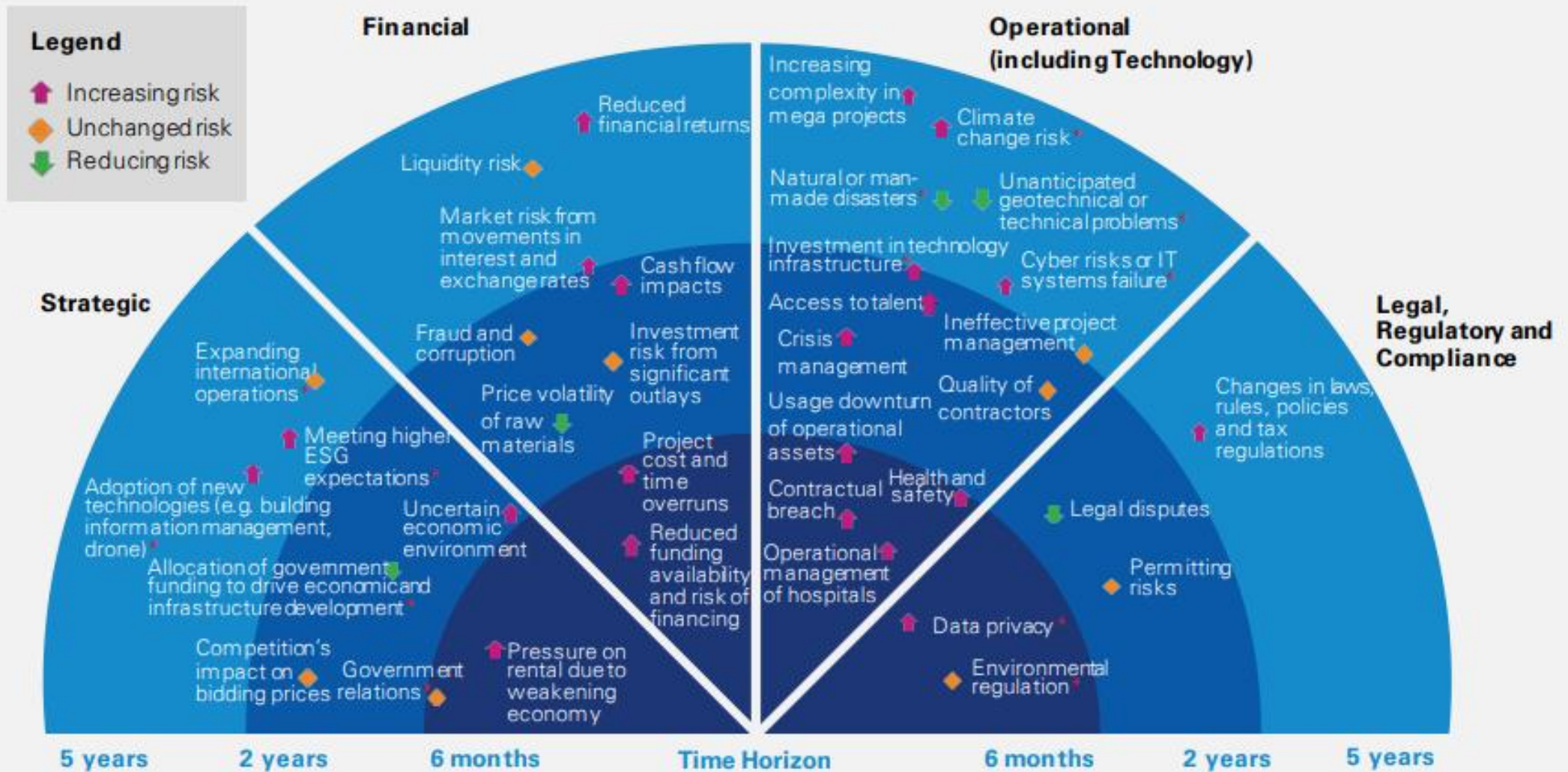
More than 10 years

# THE 15 MOST CRITICAL ESG RISKS

Key risks that can impact value, performance, reputation and long-term sustainability

| ENVIRONMENTAL<br>Risks related to natural resources,<br>climate and environmental stewardship                                                                   |                                                                                                                                                               | SOCIAL<br>Risks related to people, communities<br>and human capital                                                                                |                                                                                                                                               | GOVERNANCE<br>Risks related to leadership, ethics,<br>controls and accountability                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> <b>CLIMATE CHANGE &amp; TRANSITION RISK</b><br><br>Physical impacts, transition costs, and policy shifts that can disrupt operations and reduce value. | <b>2</b> <b>GREENHOUSE GAS EMISSIONS</b><br><br>Inability to reduce emissions in line with targets and stakeholder expectations.                              | <b>6</b> <b>EMPLOYEE HEALTH &amp; SAFETY</b><br><br>Workplace injuries, illnesses and unsafe conditions impacting people and costs.                | <b>7</b> <b>DIVERSITY, EQUITY &amp; INCLUSION</b><br><br>Failure to foster an inclusive culture may limit talent, innovation and performance. | <b>11</b> <b>ETHICS &amp; BUSINESS CONDUCT</b><br><br>Unethical behaviour, corruption or fraud can lead to legal, financial and reputational harm.         |
| <b>3</b> <b>WATER SCARCITY &amp; STRESS</b><br><br>Limited water availability, increasing costs and operational disruptions in water-stressed regions.          | <b>4</b> <b>WASTE &amp; POLLUTION</b><br><br>Ineffective waste management, pollution of air, soil and water leading to regulatory fines and ecosystem damage. | <b>8</b> <b>COMMUNITY RELATIONS &amp; SOCIAL LICENCE</b><br><br>Loss of community trust or social licence to operate can delay or halt projects.   | <b>9</b> <b>HUMAN RIGHTS RISKS</b><br><br>Modern slavery, labour abuses or rights violations in operations or supply chains.                  | <b>12</b> <b>DATA PRIVACY &amp; CYBER SECURITY</b><br><br>Data breaches or cyber attacks can disrupt operations and erode stakeholder trust.               |
| <b>5</b> <b>BIODIVERSITY &amp; ECOSYSTEM LOSS</b><br><br>Habitat destruction and biodiversity loss can impact ecosystem services and business continuity.       | <b>10</b> <b>RESOURCE SCARCITY &amp; RAW MATERIALS</b><br><br>Rising costs and supply disruptions for critical raw materials and natural resources.           | <b>13</b> <b>TALENT ATTRACTION &amp; RETENTION</b><br><br>Inability to attract and retain skilled talent affects productivity, culture and growth. | <b>14</b> <b>REGULATORY &amp; COMPLIANCE RISK</b><br><br>Changing laws and regulations increase compliance costs and risk of penalties.       | <b>15</b> <b>BOARD EFFECTIVENESS &amp; OVERSIGHT</b><br><br>Ineffective oversight or lack of ESG expertise can lead to poor decisions and unmanaged risks. |





# Governance, Standards, Risk, Reporting & Sustainable Finance

Module 6 - Governance & Ethical Corporate Leadership

Module 7 - ESG Frameworks, Standards & Regulatory Environment

Module 8 - ESG Risk Management & Enterprise Strategy

Module 9 - ESG Reporting, Disclosure & Assurance



Module 10 - ESG Investing & Sustainable Finance

## Case study – best practices

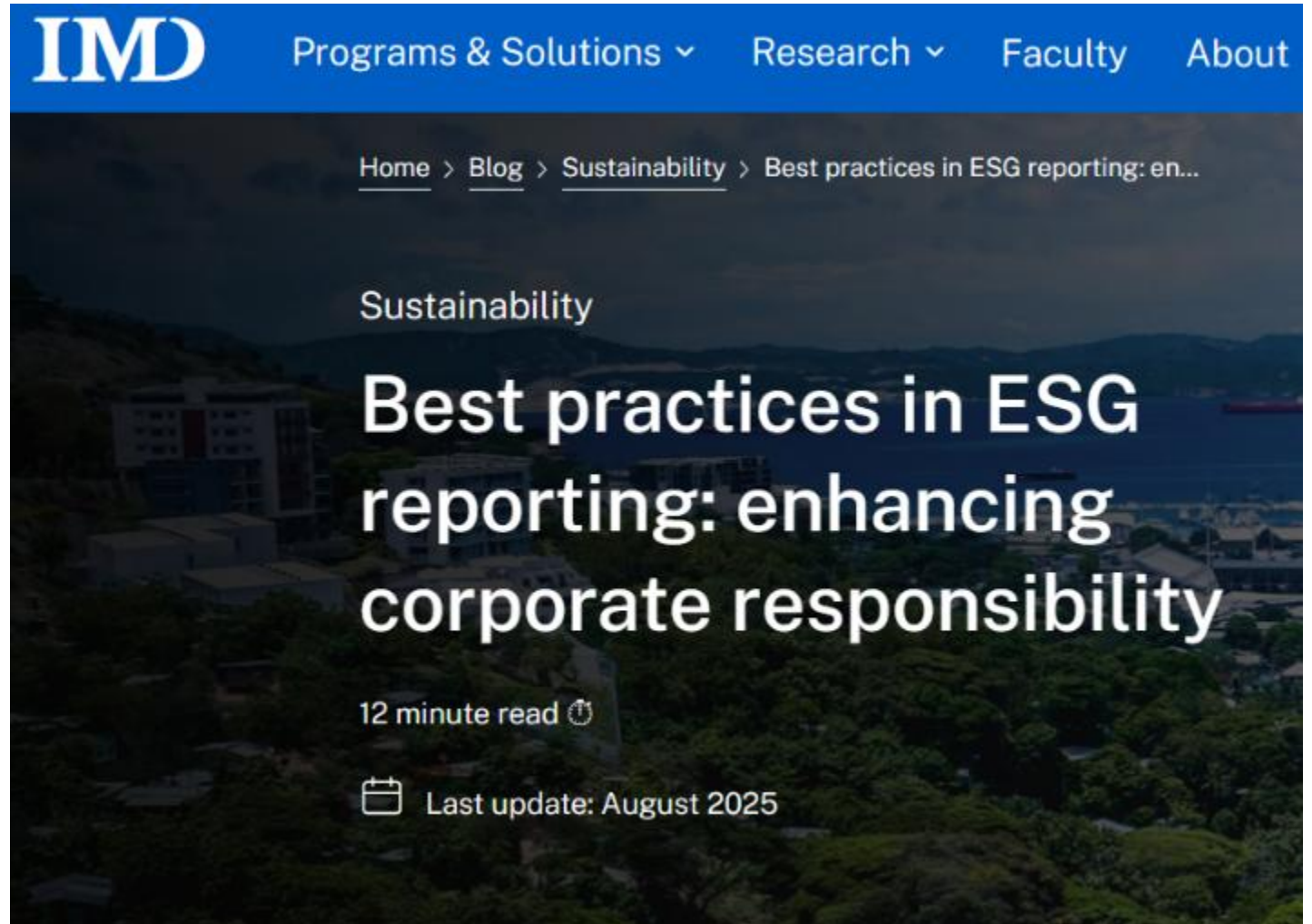


Figure 1. ESG metric coverage by ESG pillars and topics



## Figure 2. Topic coverage across ESG rating products

Topic coverage differs substantially across topics and ESG rating products.

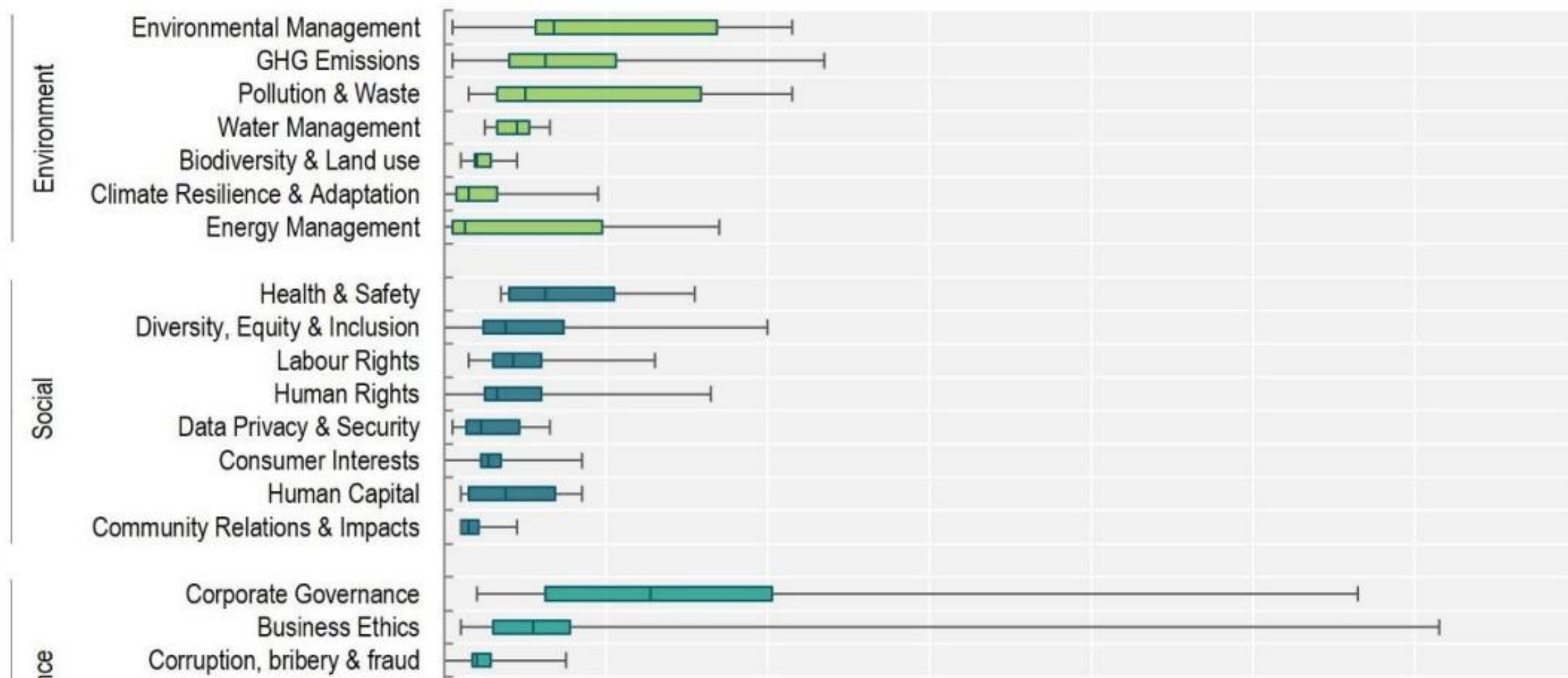


Figure 3. Distribution of metric characteristics

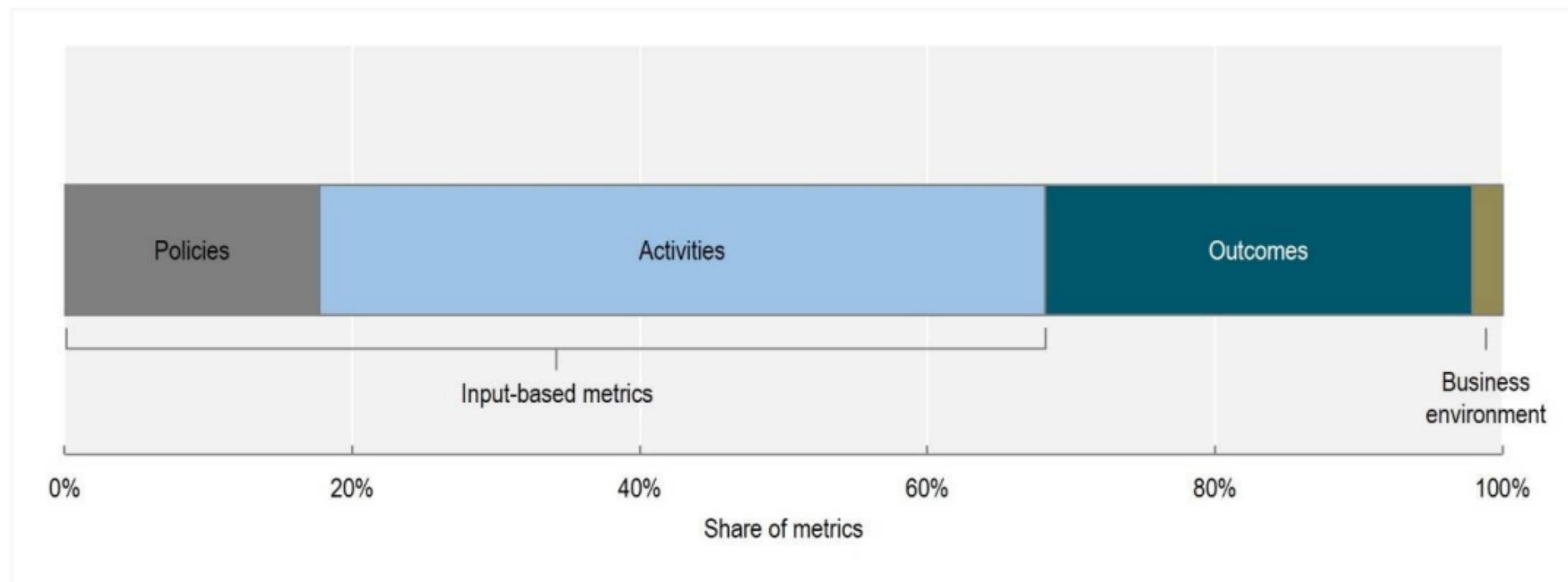
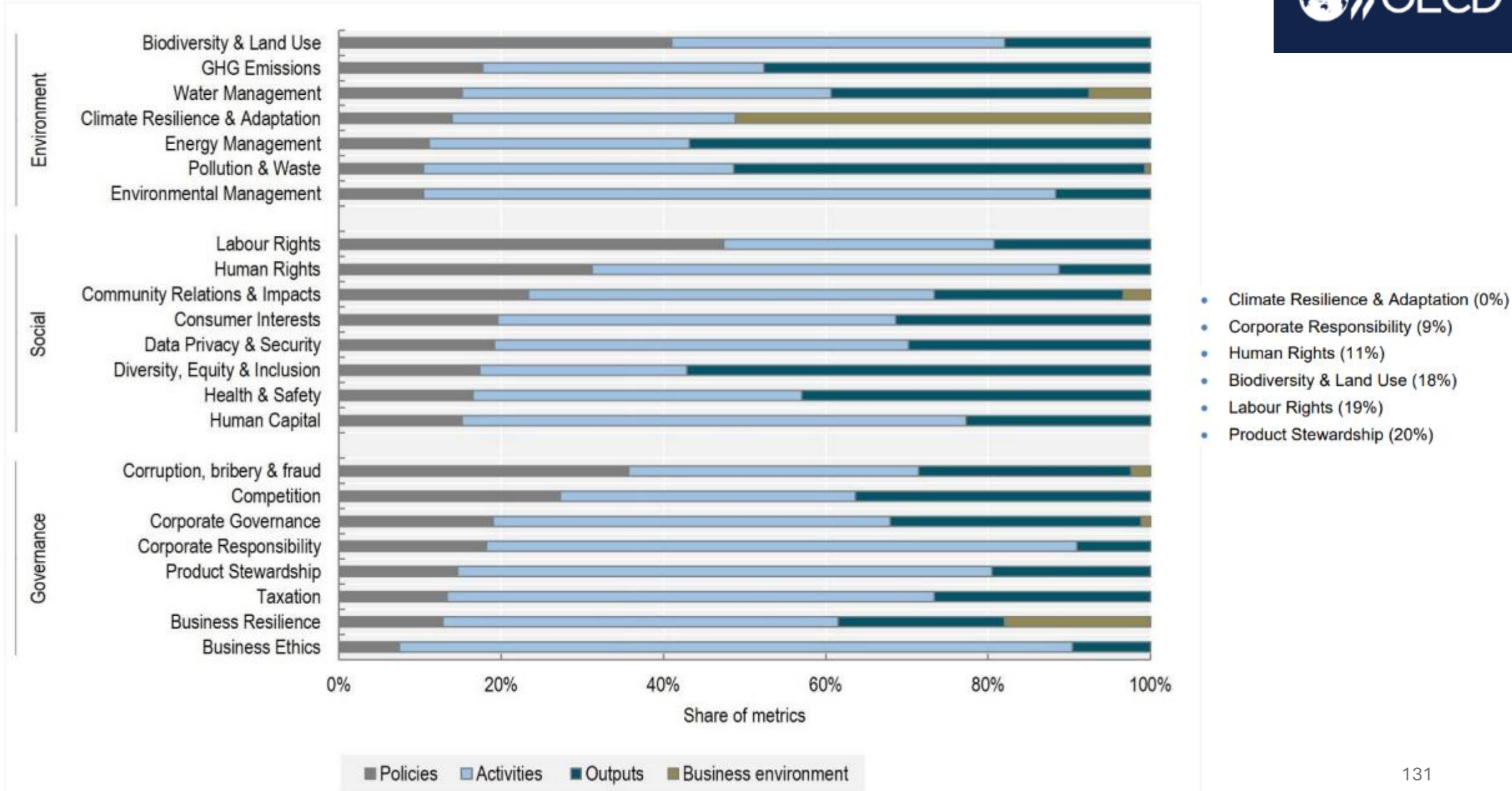


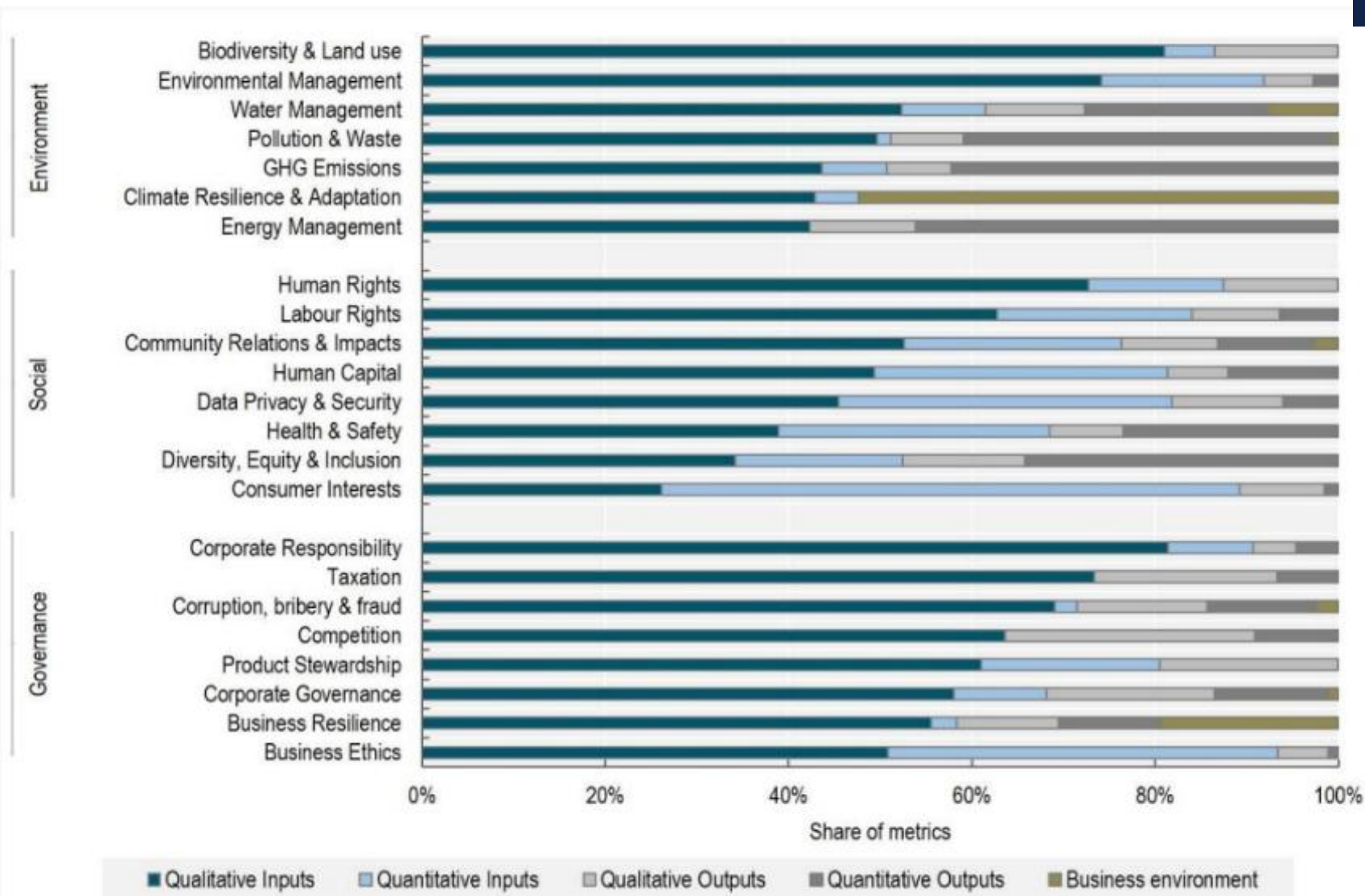
Figure 4. Distribution of policy, activity, output and business environment metrics across topics



**Table 1. Examples of business environment metrics in ESG rating products**

| Type of risk factors                | Metrics                                                                                                      |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Exposure to financial risk factors  | Risk of stranded assets                                                                                      |
|                                     | Presence of core physical assets in areas subject to weather- and climate-related hazards                    |
|                                     | Reliance on highly specialized workforce                                                                     |
|                                     | Tax or investment costs related to policy and regulatory change                                              |
|                                     | Trends in social values that could affect demand for enterprise's products and services or access to capital |
|                                     | Business reliance (incl. throughout the supply chain) on GHG-intensive products, assets, or operations       |
| Exposure to geographic risk factors | Exposure to water stress areas                                                                               |
|                                     | Asset location                                                                                               |
|                                     | Headquarter location                                                                                         |
|                                     | Level of regional corruption                                                                                 |
| Exposure to product risk factors    | Percentage of products sold that are recyclable                                                              |
|                                     | Revenue from products "third-party certified" to environmental and/or social sustainability standards        |
|                                     | Percentage of sale revenue from products with health-related risks                                           |

Figure 6. Prevalence of different combinations of metric characteristics per topic



**Table 2. Examples of metric characteristics that impact performance measurement**

| Pillar      | ESG topics                       | ESG metric characteristics combination                                          |                                                                            |                                                                                         |
|-------------|----------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
|             |                                  | Quantitative output metrics                                                     | Quantitative input metrics                                                 | Qualitative input metrics                                                               |
| Environment | GHG Emissions                    | Scope 3 emissions intensity                                                     | Absolute scope three reduction target                                      | Existence of Scope 3 GHG emissions reporting                                            |
|             | Environmental Management         | Cost of environmental fines                                                     | Total amount of expenditure allocated to environmental management          | Existence of a certified Environment Management System                                  |
|             | Water Management                 | Freshwater withdrawal (total in litres)                                         | KPIs on water use reduction                                                | Water risk management system                                                            |
|             | Pollution & Waste                | Waste recycled to total waste                                                   | Target waste reduction                                                     | Internal recycle and reuse awareness programme                                          |
|             | Energy Management                | Transmission and distribution losses as a % of total energy entering the system | Reduction target for energy transmission leakages                          | Measures to minimise environmental impacts of electricity transmission and distribution |
| Social      | Human Rights                     | N.A.                                                                            | Share of suppliers subject to human rights training programme              | Existence of a human rights training programme                                          |
|             | Human Rights                     | Share of complaints with remediation provided                                   | Share of suppliers covered by grievance                                    | Existence of a grievance mechanism                                                      |
|             | Community Relations & Impacts    | Share of local hiring                                                           | Investment (in USD) in community relation programmes                       | Local procurement policy                                                                |
|             | Health & Safety                  | Contractor fatalities rate                                                      | Costs related to employee safety protection, health, and safety            | Supplier factory monitoring and auditing programme                                      |
|             | Human Capital                    | Employee turnover rate                                                          | Share of employees who responded to survey                                 | Existence of surveys to monitor employee satisfaction                                   |
|             | Diversity, Equity, and Inclusion | Gender-pay gap                                                                  | Gender-pay gap reduction target                                            | Gender pay equality programme                                                           |
| Governance  | Corruption, bribery & fraud      | Cost of fines, penalties, settlements in relation to corruption                 | Percentage of suppliers subject to anti-corruption due diligence processes | Anti-corruption due diligence programme on third party                                  |
|             | Corporate Governance             | Number of ESG-related resolutions                                               | Voting cap in percentage                                                   | Disclosure of voting results                                                            |

**Table 3. Types and examples of dynamic and forward-looking metrics**

| Types of dynamic data                                                                                                         | Topics                          | Examples of metric                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Forward-looking and self-referenced targets</b><br>(e.g. short- or long-term reduction targets or progress)                | GHG Emissions                   | Absolute scope 1; scope 2 or scope 3 emission reduction targets<br>Entity progress towards GHG emission reduction targets (annual, absolute or %)<br>Intensity reduction targets |
|                                                                                                                               | Energy Management               | Time-bound action plan to reduce energy consumption<br>Time-bound action to increase renewable energy use                                                                        |
|                                                                                                                               | Water Management                | Freshwater use reduction targets and action plans                                                                                                                                |
|                                                                                                                               | Pollution & Waste               | Waste reduction targets<br>Resources use reduction targets                                                                                                                       |
|                                                                                                                               | Health & Safety                 | Work-related incident reduction targets<br>Health & Safety performance targets                                                                                                   |
|                                                                                                                               | DEI                             | New Women Employees                                                                                                                                                              |
|                                                                                                                               |                                 |                                                                                                                                                                                  |
| <b>Benchmarking against past performance</b> (e.g. achieved reduction against past performance or past industry performance). | GHG Emissions                   | GHG emissions and energy reduction<br>Reduction of carbon emission in logistics and fleet efficiency<br>Reduction in methane emissions                                           |
|                                                                                                                               | Energy Management               | Reduction in energy consumption per production units<br>Reduction in energy consumption of heating, ventilation, and air conditioning                                            |
|                                                                                                                               | Water Management                | Reduction of water consumption through innovative equipment and technologies                                                                                                     |
|                                                                                                                               | Pollution & Waste               | Reduction of total use of substances of concern in production process<br>Particulate Matter Emission reduction                                                                   |
|                                                                                                                               |                                 |                                                                                                                                                                                  |
| <b>Benchmarking against targets</b> (e.g. quantified progress against targets)                                                | GHG Emissions                   | Quantified progress against emissions reduction targets<br>Demonstrated track record of achieving carbon emission reduction target                                               |
|                                                                                                                               | Pollution & Waste               | Progress against resource use and management efficiency target<br>Progress on toxic emissions and waste reduction targets based on ISO 140001                                    |
|                                                                                                                               | Health & Safety                 | Performance and progress against health and safety indicators                                                                                                                    |
|                                                                                                                               | Corporate Responsibility        | Progress towards specific SDGs                                                                                                                                                   |
| <b>Trends</b> (e.g. average over a defined period)                                                                            | GHG Emissions                   | Carbon Intensity Trend                                                                                                                                                           |
|                                                                                                                               | Water Management                | Water Intensity Trend                                                                                                                                                            |
|                                                                                                                               | Human Capital                   | Trends in employee engagement                                                                                                                                                    |
|                                                                                                                               | Health & Safety                 | Lost Time Incident Trend                                                                                                                                                         |
| <b>Measures with expected dynamic effects</b> (e.g. investments, expenditure)                                                 | Environmental Management        | Total environmental-related R&D in revenue (in million)                                                                                                                          |
|                                                                                                                               | Climate Resilience & Adaptation | Financial quantification of costs and R&D linked to climate change<br>EU Taxonomy Alignment – Capex and Opex                                                                     |
|                                                                                                                               | Business Ethics                 | Share of Lobbying Expenditure                                                                                                                                                    |

Figure 8. Two approaches through which ESG topics are assessed across rating products

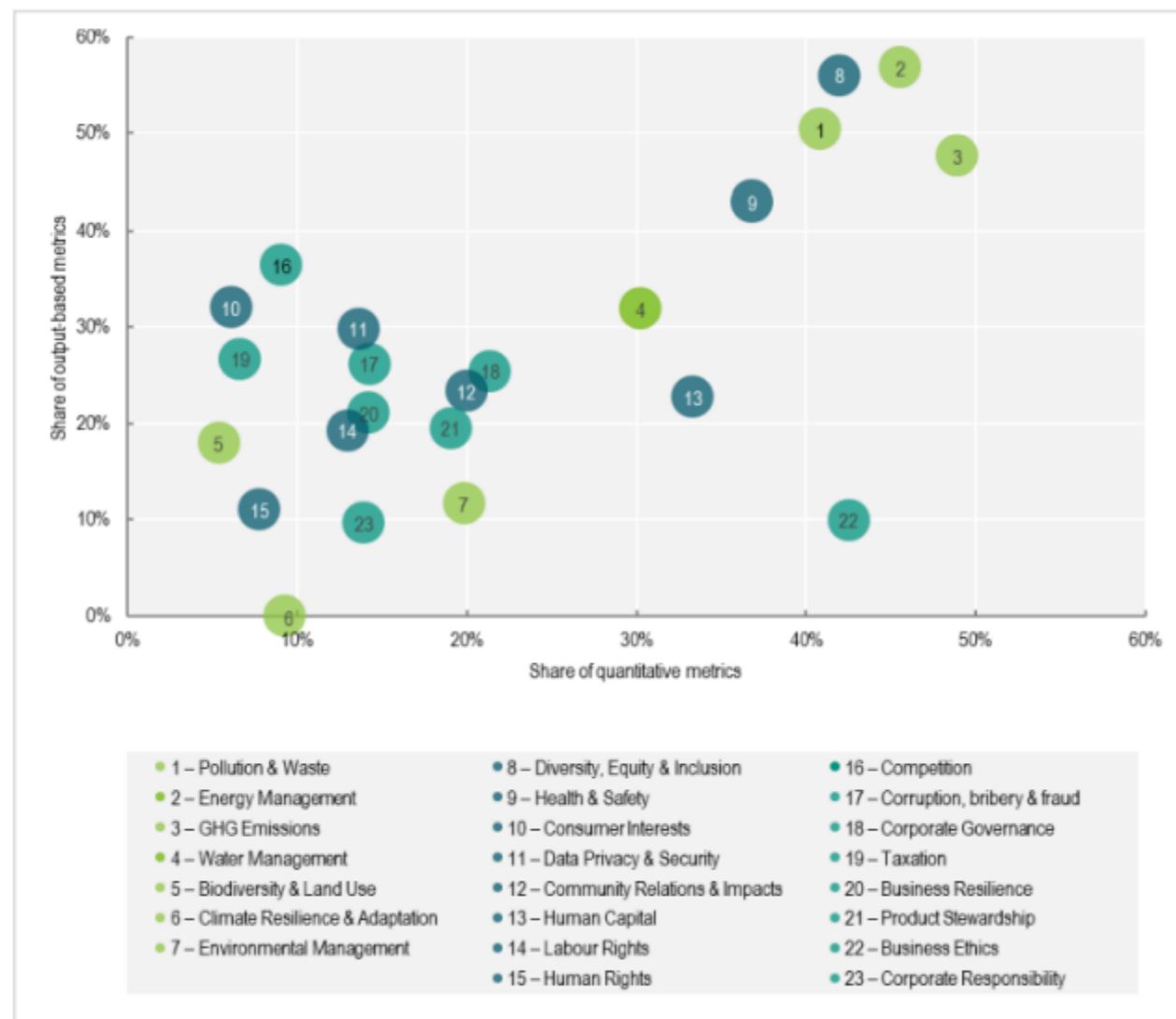
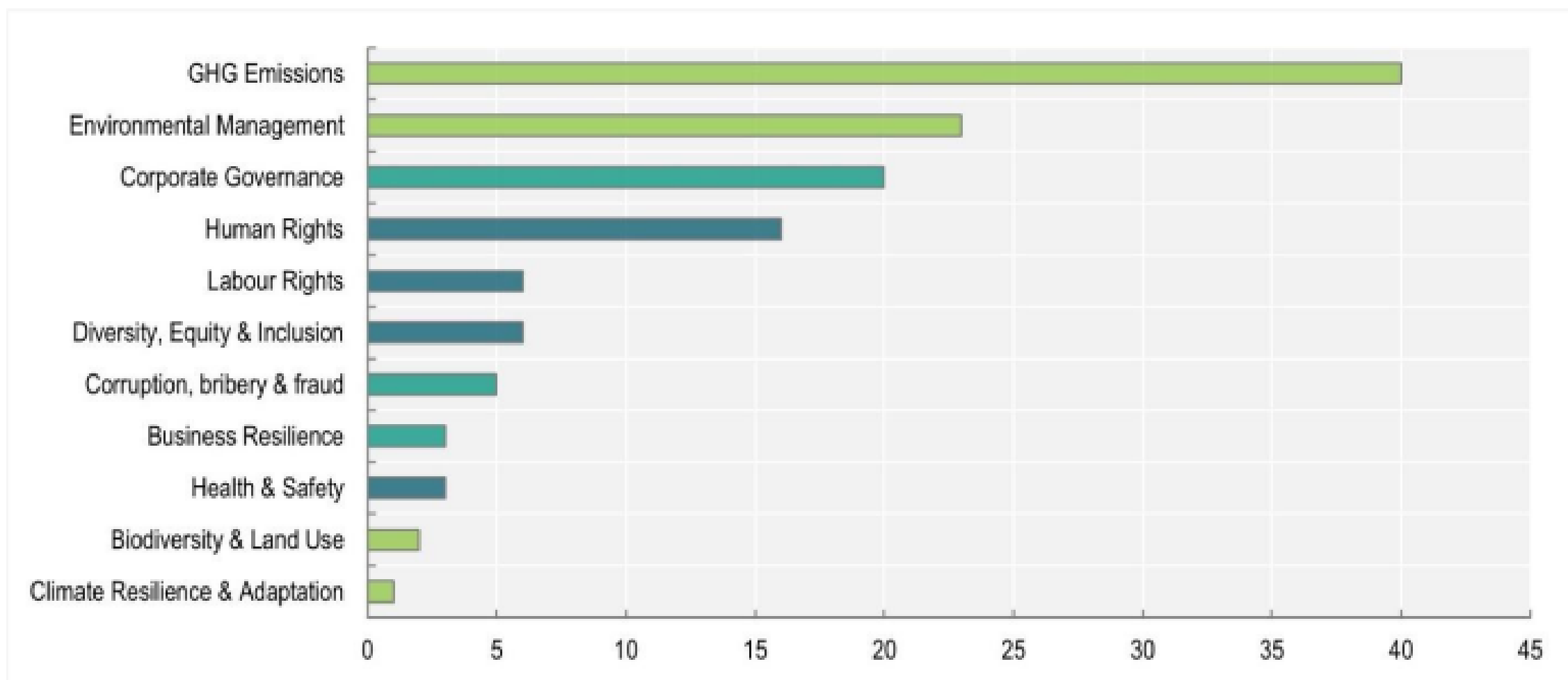


Figure 9. Number of supply chain metrics per ESG topic



Note: This chart illustrates the number of supply chain-related metrics available per topic

 Environmental topics

## Our approach

Exxaro's corporate governance is underpinned by principles that guide the board in meeting its responsibilities to the company, the group, and its stakeholders. These principles enable the company to achieve the King IV governance outcomes and fulfil its purpose to power better lives in Africa and beyond through its own ethical and effective leadership.

### Accountability and responsibility

Exxaro's board is the focal point and custodian of good corporate governance for the group, assuming ultimate accountability and responsibility for the group's performance and affairs. In so doing, it effectively represents and promotes the group's legitimate interests. As a responsible corporate citizen, Exxaro considers its material stakeholders' legitimate interests and expectations to ensure it contributes positively to society and the environment.

### Regulatory compliance

Our governance approach complies with relevant national legislation, particularly the Companies Act, Financial Markets Act, JSE Listings Requirements, SAMREC Code and King IV.

### Beyond compliance

King IV promotes good governance, transparency in leadership and decision making, and a focus on sustainability. Sustainable development is an ethical and economic imperative. It entails economic and social growth to meet present needs without compromising future generations' ability to fulfil their needs. Sustainable development is a fitting response to organisations being an integral part of society, their status as corporate citizens, and meeting stakeholders' needs, interests and expectations. Exxaro expresses its commitment to sustainable development through its Sustainable Growth and Impact strategy.



**Exxaro Resources Limited**  
Environmental, social and governance report  
for the year ended 31 December 2024



# Governance, Standards, Risk, Reporting & Sustainable Finance

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# FREE CLIMATE TRACKING TOOLS

## GREENHOUSE GAS ACCOUNTING & EMISSIONS TRACKING



- **GHG Protocol Calculators**  
ghgprotocol.org/calculators  
Official calculators for corporate value chain (Scope 1, 2 & 3) emissions.



- **Cool Calculator**  
coolcalculator.org  
Calculate and understand your business emissions.



- **SME Climate Hub**  
smeclimatehub.org  
Free emissions calculator and tools for SMEs.

## CARBON FOOTPRINT CALCULATORS



- **Carbon Footprint Calculator (UNFCCC)**  
footprint.undp.org  
Calculate your carbon footprint for lifestyle and businesses.



- **My Climate**  
myclimate.org/en/  
Measure, understand and reduce your footprint.



- **Carbon Independent**  
carbonindependent.org  
Calculate, reduce and offset your carbon footprint.

## CLIMATE & WEATHER DATA VISUALIZATION



- **NASA Climate Data**  
climate.nasa.gov  
Access global climate data and visualizations.



- **Copernicus Climate Change Service (C3S)**  
climate.copernicus.eu  
Free climate data and tools on global climate change.



- **NOAA Climate.gov**  
climate.gov  
Explore climate data, articles and teaching resources.

## ENVIRONMENTAL MONITORING & AIR QUALITY



- **IQAir Air Quality Index**  
iqair.com/air-quality-map  
Real-time air quality map and data.



- **OpenAQ**  
openaq.org  
Global open-source air quality data and API.



- **PurpleAir**  
map.purpleair.com  
Real-time air quality map from global sensors.

## DEFORESTATION & LAND MONITORING



- **Global Forest Watch**  
globalforestwatch.org  
Monitor forests, deforestation, and land use change.



- **Hansen Global Forest Change**  
glad.earthengine.app  
Explore global forest change from 2000 to present.



- **Land & Carbon Lab**  
lmap.purpleair.com  
Free tools to monitor land, carbon and emissions.

## RENEWABLE ENERGY & ENERGY DATA



- **Global Solar Atlas**  
globalsolaratlas.info  
Explore solar resource and PV potential worldwide.



- **Global Wind Atlas**  
globalwindatlas.info  
Assess wind energy potential anywhere in the world.



- **Our World in Data – Energy**  
ourworldindata.org/energy  
Explore global energy data and trends.

## CLIMATE RISK & IMPACT ASSESSMENT



- **Climate Impact Explorer**  
climateimpactexplorer.climateanalytics.org  
Explore future climate impacts by location.



- **ND-GAIN Index**  
gain.nd.edu  
Assess climate vulnerability and readiness of countries.



- **Coastal Risk Screening Tool**  
coastal.climatecentral.org  
Understand coastal flood and risk exposure.

## ESG & SUSTAINABILITY REPORTING TOOLS



- **B Impact Assessment**  
bimpactassessment.net  
Free tool to assess and improve social and environmental impact.



- **Sustainability Tracker (UN SDGs)**  
sdg-tracker.org  
Track progress on the UN Sustainable Development Goals.



- **Open-Source Sustainability (OS-S)**  
os-s.org  
Open-source platform for sustainability reporting.

## COMMUNITY SCIENCE & CITIZEN MONITORING



- **iNaturalist**  
inaturalist.org  
Track biodiversity and contribute to citizen science.



- **eBird**  
ebird.org  
Track bird observations and biodiversity.



- **Globe Observer**  
observer.globe.gov  
Collect local environmental data and contribute to research.

## EDUCATION & LEARNING PLATFORMS



- **Project Drawdown**  
drawdown.org  
Explore climate solutions and track solutions progress.



- **Climate Literacy Project**  
climateliteracy.org  
Learn science-based climate concepts and solutions.



- **FutureLearn – Climate Courses**  
futurelearn.com  
Free climate and sustainability courses from top universities.

# NET ZERO TRACKER

Measuring Progress. Driving Action. Delivering a Net Zero Future.

## PURPOSE

The Net Zero Tracker is a strategic monitoring tool that tracks progress towards net zero emissions across key dimensions of the energy transition and sustainable development.

## WHAT IT DOES

| MONITORS PROGRESS                                      | TRACKS KEY INDICATORS                                                           | IDENTIFIES GAPS AND RISKS                            | SUPPORTS COURSE CORRECTION                      | ENHANCES TRANSPARENCY                                     |
|--------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------|
| Monitors progress against clear targets and benchmarks | Tracks key indicators across emissions, energy, economy, society and governance | Identifies gaps and risks to inform timely decisions | Supports course correction and policy alignment | Enhances transparency and accountability for stakeholders |

## HOW IT WORKS

| 1. COLLECT DATA                                             | 2. ASSESS PROGRESS                                                   | 3. VISUALIZE INSIGHTS                                    | 4. DRIVE ACTION                                                             |
|-------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------|
| Collect data from credible sources and reporting frameworks | Assess progress against national commitments and international goals | Visualize insights through dashboards and trend analysis | Drive action by enabling informed decisions and accelerating implementation |

## INTENDED OUTCOME

| ACCELERATE TRANSITION                           | IMPROVE ACHIEVEMENT                                  | CREATE LONG-TERM VALUE                                   | STRENGTHEN RESILIENCE                              | CLOSE GAPS                                     |
|-------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------|------------------------------------------------|
| Accelerate the transition to a net zero economy | Improve achievement of climate and development goals | Create long-term value for people, planet and prosperity | Strengthen resilience and intergenerational equity | Close gaps and build a net zero future for all |

# NET ZERO TRACKER – COUNTRY COMPARISON

Tracking progress across key dimensions of the net zero transition

| OUTCOME DIMENSIONS                                                       | NORWAY                                     | CHINA                      | KSA                    | KUWAIT                | SOUTH AFRICA                |
|--------------------------------------------------------------------------|--------------------------------------------|----------------------------|------------------------|-----------------------|-----------------------------|
| 1. GHG EMISSIONS<br>(MtCO <sub>2</sub> e, 2023)                          | 40<br>(↓ 9% vs 2010)                       | 11,400<br>(↑ 4% vs 2010)   | 626<br>(↑ 15% vs 2010) | 120<br>(↑ 3% vs 2010) | 456<br>(↓ 3% vs 2010)       |
| 2. RENEWABLE ENERGY SHARE<br>(% of total final energy consumption, 2023) | 89%                                        | 31%                        | 8%                     | 2%                    | 11%                         |
| 3. ENERGY INTENSITY<br>(MJ per USD PPP, 2023)                            | 2.7                                        | 8.0                        | 12.5                   | 13.8                  | 7.6                         |
| 4. GREEN INVESTMENT<br>(USD billion, 2023)                               | 27                                         | 675                        | 70                     | 9                     | 10                          |
| 5. ECONOMY – GDP<br>(Growth %, 2023)                                     | 0.5%                                       | 5.2%                       | -0.8%                  | -3.6%                 | 0.7%                        |
| 6. POPULATION<br>(million, 2023)                                         | 5.5                                        | 1,409                      | 36                     | 4.3                   | 60.6                        |
| 7. CLIMATE POLICY STRENGTH<br>(0 = Weak, 100 = Strong)                   | 76                                         | 60                         | 58                     | 55                    | 62                          |
| 8. NET ZERO TARGET<br>(Target Year)                                      | 2050<br>(Law)                              | 2060<br>(Commitment)       | 2060<br>(Commitment)   | 2050<br>(Commitment)  | 2050<br>(Commitment)        |
| 9. CARBON PRICING<br>(Status, 2023)                                      | Implemented<br>(USD 70/tCO <sub>2</sub> e) | Piloting<br>(National ETS) | Under Development      | Under Development     | Implemented<br>(Carbon Tax) |
| 10. CLIMATE RISK INDEX<br>(0 = Low Risk, 100 = High Risk)*               | 26                                         | 48                         | 42                     | 45                    | 52                          |

\* Index scores are relative indicators based on publicly available data and index sources.

# CLIMATE ACTION TRACKER

Tracking Today. Transforming Tomorrow.

Measuring progress across key dimensions of climate action to accelerate a resilient, low-carbon future.

## PURPOSE

The Climate Action Tracker is a strategic monitoring tool that evaluates countries' climate commitments, policies, implementation and outcomes. It provides clear, comparable insights to inform decisions, mobilize action and drive accountability toward the goals of the Paris Agreement.

## WHAT IT DOES

### TRACKS PROGRESS

Tracks progress against national and international climate targets

### ASSESSES POLICIES

Assesses policies, implementation and real-world outcomes

### IDENTIFIES GAPS

Identifies gaps, risks and opportunities

### SUPPORTS TRANSPARENCY

Supports transparency, stakeholder engagement and accountability

### HELPS COURSE-CORRECT

Helps course-correct and accelerate climate action

## HOW IT WORKS

### 1. COLLECT DATA

Collect data from credible sources, national reports and international datasets

### 2. ASSESS & SCORE

Assess & score performance against key indicators and benchmarks

### 3. ANALYZE & COMPARE

Analyze & compare countries, visualize trends and identify gaps

### 4. INFORM & ACT

Inform & act by turning insights into policies, investments and action

## INTENDED OUTCOME

### ACCELERATE EMISSION REDUCTIONS

Accelerate emission reductions in line with 1.5°C pathways

### ENHANCE RESILIENCE

Enhance resilience and adaptation to climate impacts

### MOBILIZE FINANCE

Mobilize finance and innovation for low-carbon solutions

### BUILD EQUITABLE FUTURE

Build a sustainable, equitable future for all

### STRENGTHEN ACCOUNTABILITY

Strengthen accountability and deliver on global climate goals

# CLIMATE ACTION TRACKER – COUNTRY COMPARISON

Performance across key dimensions of climate action

| OUTCOME DIMENSIONS                                                       | NORWAY                           | CHINA                                | KSA                                | KUWAIT                            | SOUTH AFRICA                      |
|--------------------------------------------------------------------------|----------------------------------|--------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 1. GHG EMISSIONS<br>(MtCO <sub>2</sub> e, 2022)                          | 40<br>(↓ 9% vs 2010)<br>●●●●●●●● | 11,400<br>(↑ 4% vs 2010)<br>●●●●●●●● | 626<br>(↑ 15% vs 2010)<br>●●●●●●●● | 120<br>(↑ 3% vs 2010)<br>●●●●●●●● | 456<br>(↑ 2% vs 2010)<br>●●●●●●●● |
| 2. RENEWABLE ENERGY SHARE<br>(% of total final energy consumption, 2022) | 89%<br>●●●●●●●●                  | 31%<br>●●●●●●●●                      | 8%<br>●●●●●●●●                     | 2%<br>●●●●●●●●                    | 11%<br>●●●●●●●●                   |
| 3. ENERGY INTENSITY<br>(MJ per USD PPP, 2022)                            | 2.7<br>●●●●●●●●                  | 8.0<br>●●●●●●●●                      | 12.5<br>●●●●●●●●                   | 13.8<br>●●●●●●●●                  | 7.6<br>●●●●●●●●                   |
| 4. CLIMATE POLICY STRENGTH<br>(0 = Weak, 100 = Strong)                   | 76<br>●●●●●●●●                   | 60<br>●●●●●●●●                       | 58<br>●●●●●●●●                     | 55<br>●●●●●●●●                    | 62<br>●●●●●●●●                    |
| 5. NDC TARGET AMBITION<br>(Compared to 1.5°C pathway)                    | High<br>●●●●●●●●                 | Medium<br>●●●●●●●●                   | Medium<br>●●●●●●●●                 | Medium<br>●●●●●●●●                | Medium<br>●●●●●●●●                |
| 6. PROGRESS TOWARD NDC TARGETS<br>(% of target achieved*)                | On Track<br>(~80%)<br>●●●●●●●●   | On Track<br>(~60%)<br>●●●●●●●●       | Behind<br>(~30%)<br>●●●●●●●●       | Behind<br>(~25%)<br>●●●●●●●●      | Behind<br>(~40%)<br>●●●●●●●●      |
| 7. ADAPTATION & RESILIENCE<br>(0 = Low, 100 = High)                      | 75<br>●●●●●●●●                   | 60<br>●●●●●●●●                       | 50<br>●●●●●●●●                     | 45<br>●●●●●●●●                    | 55<br>●●●●●●●●                    |
| 8. CLIMATE FINANCE<br>(USD per capita, 2021)**                           | 1,090<br>●●●●●●●●                | 105<br>●●●●●●●●                      | 60<br>●●●●●●●●                     | 85<br>●●●●●●●●                    | 45<br>●●●●●●●●                    |
| 9. CARBON PRICING<br>(Status, 2024)                                      | Implemented<br>(Carbon tax)      | Piloting<br>(ETS national)           | Under Development                  | Under Development                 | Implemented<br>(Carbon tax)       |
| 10. CLIMATE RISK INDEX<br>(0 = Low Risk, 100 = High Risk)***             | 26<br>●●●●●●●●                   | 48<br>●●●●●●●●                       | 42<br>●●●●●●●●                     | 45<br>●●●●●●●●                    | 49<br>●●●●●●●●                    |

# ESG INVESTING TRENDS GLOBALLY AND IN AFRICA

## 1 RISING GLOBAL ESG ASSETS

ESG assets are growing rapidly as investors align capital with purpose and performance.

- ESG assets exceeded \$40 trillion globally
- Strong growth across equities, bonds and funds
- Mainstream adoption by asset managers
- Regulatory support and investor demand
- Long-term outperformance evidence builds confidence

## 2 CLIMATE ACTION AND NET ZERO COMMITMENTS

Climate risk is at the core of ESG strategies and investment decisions.

- Surge in net zero commitments by investors
- Transition finance and decarbonisation focus
- Growth in renewable energy investments
- Carbon pricing and disclosure alignment
- Demand for climate resilience and adaptation

## 3 REGULATORY MOMENTUM AND DISCLOSURE

Stronger regulation and reporting standards are driving transparency and accountability.

- Expansion of ESG disclosure requirements
- ISSB standards gaining global traction
- EU SFDR and taxonomy influencing markets
- Mandatory reporting increases comparability
- Greenwashing scrutiny and investor protection

## 4 SOCIAL IMPACT AND INCLUSIVE INVESTING

Investors are prioritising people, equity and positive social outcomes.

- Focus on human capital and labour practices
- Gender lens and diversity investing grow
- Affordable housing, health and education focus
- Impact investing targets measurable outcomes
- Blending financial returns with social value

## 5 TECHNOLOGY AND ESG DATA EVOLUTION

Data, analytics and technology are transforming ESG investing.

- AI and analytics improve ESG data quality
- Real-time monitoring and risk assessment
- Growth of ESG data providers and ratings
- Use of satellite and alternative data
- Digital platforms increase transparency and access

## 6 AFRICA: GROWING ESG INVESTMENT OPPORTUNITY

ESG is unlocking capital for Africa's sustainable and inclusive growth.

- Rising investor interest in African markets
- Strong pipeline in renewables and infrastructure
- Natural capital and biodiversity advantages
- Demographic dividend and urban growth
- Support for SDGs and regional integration

## 7 AFRICA: LOCAL INNOVATION AND FINANCE SOLUTIONS

Local solutions and innovative finance models are advancing ESG impact.

- Green bonds and sustainability-linked instruments
- Blended finance de-risks investments
- Growth of impact funds and platforms
- Support for SMEs and inclusive businesses
- Community-driven and place-based approaches

## 8 RISKS, RESILIENCE AND JUST TRANSITION

Investors focus on managing ESG risks and supporting a fair transition.

- Managing climate, social and governance risks
- Just transition for workers and communities
- Water, food security and resource resilience
- Strengthening governance and ethics
- Scenario analysis and long-term value creation

## 9 FUTURE OUTLOOK: PURPOSE, PROFIT AND PLANET

ESG investing will continue to reshape markets for a sustainable future.

- ESG integration becomes standard practice
- Capital flows align with sustainability outcomes
- Collaboration across sectors and borders
- Innovation drives scalable impact
- Sustainable growth benefits investors and society

# SUSTAINABLE FINANCE PRINCIPLES

Mobilising capital for long-term value creation, environmental stewardship and social well-being.

## 1 INTEGRATE ESG FACTORS

Incorporate environmental, social and governance considerations into investment and lending decisions.

- Assess material ESG risks and opportunities
- Use ESG data and analysis in decision-making
- Align with long-term financial performance
- Review and update ESG integration processes

## 2 PURSUE SUSTAINABLE OUTCOMES

Direct capital towards activities and solutions that generate positive environmental and social impact.

- Support the transition to a low-carbon economy
- Promote inclusive and equitable development
- Invest in sustainable products and services
- Aim for measurable positive impact

## 3 MANAGE ESG RISKS

Identify, assess and manage ESG risks to protect the value and resilience of investments.

- Conduct ESG risk assessments
- Integrate ESG risk management into processes
- Monitor and report on ESG risk exposure
- Strengthen resilience to long-term risks

## 4 ALIGN WITH GLOBAL STANDARDS

Align activities with internationally recognised standards and frameworks.

- Support the Paris Agreement and climate goals
- Adhere to UN Sustainable Development Goals
- Follow relevant taxonomies and guidelines
- Respect international norms and best practice

## 5 PROMOTE TRANSPARENCY AND DISCLOSURE

Be transparent about ESG practices, impacts and financial performance.

- Disclose ESG policies, practices and risks
- Report on sustainability performance
- Use clear, comparable and reliable information
- Enhance investor and stakeholder trust

## 6 ENGAGE STAKEHOLDERS

Engage with stakeholders to understand expectations and drive better outcomes.

- Engage investors, clients and communities
- Collaborate with peers and partners
- Consider stakeholder interests and feedback
- Build strong, long-term relationships

## 7 FINANCE A JUST TRANSITION

Support a fair and inclusive transition to a sustainable and resilient economy.

- Support workers and communities in transition
- Promote decent work and social inclusion
- Invest in reskilling and economic diversification
- Avoid leaving people or regions behind

## 8 ENSURE GOOD GOVERNANCE

Uphold strong governance, ethics and accountability in all financial activities.

- Maintain strong governance structures
- Ensure ethical conduct and integrity
- Prevent corruption and conflicts of interest
- Promote accountability and oversight

## 9 DRIVE CONTINUOUS IMPROVEMENT

Continuously enhance sustainable finance practices and contribute to system-wide impact.

- Set targets and monitor progress
- Learn from experience and emerging trends
- Invest in innovation and capacity building
- Contribute to policy and market development

# ESG RATINGS AND INVESTOR EXPECTATIONS

Performance, transparency and impact drive investor confidence and long-term value.

**1**

## WHAT ARE ESG RATINGS?

ESG ratings assess a company's environmental, social and governance performance and management of ESG risks and opportunities.

- Evaluate policies, practices and outcomes
- Use standardized frameworks and data
- Cover industry-specific and material factors
- Provide scores, grades or rankings
- Influence investor research and decisions

**2**

## KEY ESG RATING PROVIDERS

Multiple providers assess ESG performance using different methodologies and focus areas.

- MSCI, Sustainalytics, ISS ESG, S&P Global
- CDP, Refinitiv, Morningstar, FTSE Russell
- Each uses unique metrics and weightings
- Coverage and comparability vary
- Understand methodologies and limitations

**3**

## WHY ESG RATINGS MATTER

ESG ratings shape capital allocation, reputation and long-term financial performance.

- Inform investment analysis and valuations
- Affect cost of capital and access to finance
- Influence index inclusion and fund eligibility
- Impact stakeholder trust and brand value
- Drive continuous improvement and disclosure

**4**

## INVESTOR EXPECTATIONS: DISCLOSURE

Investors expect clear, consistent and decision-useful ESG information.

- Comprehensive, material and comparable data
- Aligned with global reporting standards
- Timely and regular disclosure
- Transparent ESG risks and opportunities
- Forward-looking goals and progress updates

**5**

## INVESTOR EXPECTATIONS: PERFORMANCE

Investors expect strong ESG performance and credible management of impacts.

- Robust policies and governance structures
- Measurable targets and key performance indicators
- Effective risk management and oversight
- Positive impact on people and planet
- Evidence of improvement over time

**6**

## INVESTOR EXPECTATIONS: GOVERNANCE

Investors expect sound governance that supports accountability and ethics.

- Independent and diverse boards
- Executive accountability for ESG
- Ethical business conduct and integrity
- Effective controls and risk management
- Alignment of incentives with long-term value

**7**

## RATING DRIVERS AND IMPROVEMENT

Focus on the factors that most influence ratings and drive meaningful improvement.

- Identify material ESG issues by industry
- Address data gaps and quality issues
- Strengthen policies, practices and outcomes
- Engage stakeholders and respond to feedback
- Track performance and report progress

**8**

## COMMON INVESTOR CONCERNS

Investors look for clarity on risks, impact and resilience.

- Greenwashing and misleading claims
- Lack of data quality and transparency
- Unmanaged ESG risks and controversies
- Short-term focus over long-term value
- Poor disclosure and inconsistent reporting

**9**

## BUILDING INVESTOR CONFIDENCE

Consistent performance, disclosure and engagement build trust and attract capital.

- Integrate ESG into strategy and decision-making
- Engage proactively with investors
- Communicate clearly and consistently
- Deliver on commitments and targets
- Create long-term value for all stakeholders

# RESPONSIBLE INVESTMENT STRATEGIES

Invest for long-term value while delivering positive environmental, social and governance outcomes.

## 1. ESG INTEGRATION

- Embed ESG factors in investment decisions.
- Assess material sustainability risks and opportunities.
- Build more resilient, future-ready portfolios.
- Align investments with long-term value.

## 2. ACTIVE OWNERSHIP

- Engage with portfolio companies on ESG.
- Vote on resolutions that drive sustainable change.
- Encourage better disclosure and performance.
- Protect and enhance long-term shareholder value.

## 3. IMPACT INVESTING

- Direct capital to solutions for global challenges.
- Support clean energy, inclusion and innovation.
- Generate measurable positive environmental and social outcomes.
- Create sustainable, long-term returns.

## 4. RISK MANAGEMENT

- Identify and price ESG-related risks.
- Reduce exposure to climate and social risks.
- Build portfolio resilience.
- Align risk with sustainable growth.

## 5. LONG-TERM VALUE CREATION

- Invest in companies with strong ESG performance.
- Improve operational efficiency and innovation.
- Build trust with stakeholders.
- Deliver sustainable, risk-adjusted returns.

## 6. TRANSPARENT REPORTING

- Measure and disclose ESG performance.
- Provide clear, consistent sustainability data.
- Build investor confidence.
- Enable accountability and continuous improvement.

## 7. THEMATIC INVESTING

- Target investment themes with strong sustainability impact.
- Focus on climate action, social inclusion and responsible business.
- Capture emerging opportunities.
- Position portfolios for a sustainable future.

## 8. STAKEHOLDER ALIGNMENT

- Consider interests of all stakeholders.
- Invest in companies with strong governance and ethical conduct.
- Support social licence to operate.
- Create shared long-term prosperity.

## 9. CONTINUOUS IMPROVEMENT

- Review and enhance investment approach.
- Track ESG performance and impact.
- Learn from best practice and innovation.
- Build stronger, more sustainable portfolios.

# RAND MERCHANT BANKS APPROACH TO SUSTAINABILITY FINANCING

Mobilising capital for a sustainable, inclusive and resilient future.

## 1. STRATEGIC COMMITMENT

Sustainability is embedded in our purpose, strategy and client relationships.

- Long-term focus on sustainable value creation
- Align with global and local sustainability goals
- Strong governance and accountability
- Integrate sustainability across the business
- Drive positive impact for clients and society

## 2. CLIENT-CENTRIC SOLUTIONS

We work with clients to design fit-for-purpose sustainability financing solutions.

- Understand client sustainability objectives
- Provide tailored financing and advisory solutions
- Support across sectors and project lifecycles
- Leverage our sector expertise and insights
- Build long-term partnerships and trust

## 3. DISCIPLINED RISK MANAGEMENT

We apply rigorous environmental, social and governance risk management.

- Robust ESG risk assessment and due diligence
- Apply international standards and best practice
- Manage environmental and social risks proactively
- Monitor performance and compliance
- Promote transparency and responsible banking

## 4. INNOVATIVE FINANCING

We offer innovative products to mobilise capital for sustainable outcomes.

- Green loans and sustainability-linked loans
- Green bonds and other sustainable instruments
- Blended finance and impact solutions
- Trade finance for sustainable supply chains
- Structured finance for green infrastructure

## 5. IMPACT AND VALUE CREATION

We focus on measurable impact and sustainable value for all stakeholders.

- Support the transition to a low-carbon economy
- Promote inclusive and equitable growth
- Create jobs and build resilient communities
- Contribute to climate resilience and adaptation
- Deliver financial returns and positive impact

## 6. TRANSPARENCY AND REPORTING

We are committed to transparency, disclosure and continuous improvement.

- Clear reporting on sustainability performance
- Align with global reporting frameworks
- Engage openly with stakeholders
- Learn and adapt to emerging best practice
- Drive accountability and long-term impact

# IMPACT INVESTING AND BLENDED FINANCE

Mobilising capital for measurable impact and sustainable development.

## 1. WHAT IS IMPACT INVESTING?

Investments made with the intention to generate positive, measurable social and environmental impact alongside financial returns.

- Targets real-world challenges
- Measures outcomes and impact
- Seeks competitive financial returns
- Focuses on long-term value creation

## 2. PRINCIPLES OF IMPACT INVESTING

Guiding principles to ensure impact is intentional, measurable and aligned with investor goals.

- Intentionality: Clear impact objectives
- Additionality: Creates impact beyond what would happen anyway
- Measurement: Track and report outcomes
- Transparency: Disclose impact and performance
- Accountability: Align incentives and govern well

## 3. WHY IMPACT INVEST?

Impact investing contributes to a better world and a more resilient, inclusive economy.

- Addresses unmet social and environmental needs
- Supports the Sustainable Development Goals
- Enhances risk management and resilience
- Builds trust and strengthens reputation
- Attracts purpose-driven capital

## 4. WHAT IS BLENDED FINANCE?

The strategic use of development finance for mobilising additional capital towards impact.

- Uses concessional or catalytic capital
- De-risks investments to attract private capital
- Improves risk-adjusted returns
- Expands scale and sustainability of impact

## 5. HOW BLENDED FINANCE WORKS

Blends public, philanthropic and private capital to bridge gaps and unlock investment.

- Concessional capital absorbs first losses
- Guarantees and risk-sharing reduce risk
- Technical assistance builds capacity
- Structures tailored to project needs
- Mobilises multiples of private investment

## 6. FINANCIAL INSTRUMENTS USED

A range of instruments enable impact and blended finance solutions.

- Grants and concessional loans
- Guarantees and risk-sharing facilities
- Equity and quasi-equity
- Senior and subordinated debt
- Results-based financing and pay-for-success

## 7. KEY IMPACT AREAS

Impact investments target sectors that drive sustainable and inclusive growth.

- Renewable energy and climate action
- Affordable housing and infrastructure
- Health, education and basic services
- Sustainable agriculture and food systems
- Financial inclusion and livelihoods

## 8. MEASURING IMPACT

Measuring impact is critical to demonstrate results and drive improvement.

- Define expected outcomes and indicators
- Use appropriate metrics and methodologies
- Monitor, evaluate and learn continuously
- Report transparently to stakeholders
- Link impact to decision-making and incentives

## 9. CHALLENGES AND SUCCESS FACTORS

Overcoming challenges and applying best practice drives effective impact and blended finance.

- Challenges: risk, complexity, data gaps, alignment
- Ensure strong governance and accountability
- Build partnerships and stakeholder trust
- Design investable, scalable solutions
- Focus on long-term impact and sustainability

# GREEN FINANCING OPPORTUNITIES

Mobilising capital for a low-carbon, resilient and inclusive future.

## 1. GROWING GLOBAL MARKET

Green finance is expanding rapidly as investors, businesses and governments prioritise sustainability.

- Rising demand for sustainable solutions
- Policy and regulatory support increasing
- Shift to low-carbon and climate-resilient economies
- Strong investor and stakeholder expectations

## 2. GREEN BONDS

Debt instruments used to finance projects with positive environmental impact.

- Green bond proceeds fund eligible projects
- Attracts ESG-focused and impact investors
- Transparent use of proceeds and reporting
- Wide range: sovereign, corporate, municipal

## 3. SUSTAINABILITY-LINKED LOANS

Loans with interest rates linked to the borrower's sustainability performance.

- Incentivises measurable ESG improvement
- Aligns financial terms with sustainability goals
- Flexible use of proceeds
- Growing adoption across sectors and regions

## 4. GREEN EQUITY AND FUNDS

Equity investments and funds focused on sustainable businesses and projects.

- Invest in companies driving green solutions
- Supports innovation and clean technologies
- Access to dedicated green funds and ETFs
- Long-term value and impact creation

## 5. PROJECT FINANCE FOR GREEN ASSETS

Financing structures tailored to large-scale green infrastructure and energy projects.

- Suitable for renewable energy and infrastructure
- Risk allocation improves bankability
- Attracts institutional and development capital
- PPPs unlock scale and impact

## 6. BLENDED FINANCE

Combines public, philanthropic and private capital to de-risk and unlock investment.

- Concessional capital improves viability
- Crowds in private investment
- Supports projects in emerging markets
- Delivers both impact and financial returns

## 7. CARBON MARKETS AND CREDITS

Finance through carbon markets and high-quality carbon credit mechanisms.

- Generate revenue from emissions reductions
- Voluntary and compliance market opportunities
- Supports climate action and net-zero goals
- Finances nature-based and adaptation projects

## 8. GREEN INNOVATION FINANCE

Funding innovative solutions that drive the green transition.

- Supports clean tech and circular economy
- Venture capital and growth equity opportunities
- Accelerates research, development and scaling
- Builds competitive and future-ready businesses

## 9. POLICY AND INCENTIVE SUPPORT

Enabling policies and incentives create strong green financing opportunities.

- Tax incentives and green subsidies
- Green taxonomy and disclosure standards
- Risk mitigation and credit enhancement
- Stable policy drives private sector confidence

# SUCCESSFUL CLIMATE FINANCE EXAMPLES IN AFRICA

Real projects. Real impact. A sustainable future for Africa.

## 1. NOOR Ouarzazate Solar Complex – Morocco

One of the world's largest concentrated solar power projects.

**Finance:** Green bonds, multilateral development banks, climate funds

**Impact:** 580 MW of clean energy, powering over 1 million homes and reducing CO<sub>2</sub> emissions

**Why successful:** Strong policy support, bankable project structure, and long-term power purchase agreement

**Outcome:** Demonstrates how blended finance and green bonds can mobilise large-scale private capital

## 2. Lake Turkana Wind Power – Kenya

Africa's largest wind farm and a game changer for renewable energy.

**Finance:** Equity, debt, and concessional loans from development finance institutions

**Impact:** 365 MW of wind power, supplying clean energy to hundreds of thousands of homes

**Why successful:** Innovative financing, risk mitigation, and strong public-private partnership

**Outcome:** Reduced energy costs, lower emissions, and a model for renewable investment in Africa

## 3. Green Mini-Grids – Nigeria

Bringing clean energy access to off-grid communities.

**Finance:** Blended finance, grants, and impact investors

**Impact:** Clean electricity for rural communities, schools, and businesses

**Why successful:** Community engagement, affordable solutions, and innovative business models

**Outcome:** Improved livelihoods, economic growth, and climate resilience through clean energy access

## 4. Great Green Wall Initiative – Across the Sahel

Restoring degraded landscapes and building climate resilience.

**Finance:** Climate funds, grants, and blended finance mechanisms

**Impact:** Restoration of millions of hectares, improved livelihoods, and carbon sequestration

**Why successful:** Regional collaboration, strong governance, and long-term commitment

**Outcome:** Enhanced food security, biodiversity, and resilience for millions of people

# SUCCESSFUL CLIMATE FINANCE EXAMPLES BY SOUTH AFRICAN BANKS

South African banks are mobilising capital for a low-carbon, resilient and inclusive future.

## 1. Standard Bank – Renewable Energy Finance

- What it is:** Financing large-scale renewable energy projects across Africa.
- Finance provided:** Project finance, green loans, and guarantees
- Impact:** Supported over 2 GW of renewable energy capacity, reducing millions of tonnes of CO<sub>2</sub> emissions
- Why successful:** Strong project pipeline, technical expertise, and long-term partnerships
- Outcome:** Accelerates the transition to clean energy and supports energy security and job creation

## 2. FirstRand – Green Building Finance

- What it is:** Financing green buildings and energy-efficient developments.
- Finance provided:** Green mortgages, loans, and sustainability-linked facilities
- Impact:** Supports energy-efficient buildings that reduce emissions and operating costs
- Why successful:** Integrated ESG assessment and strong client engagement
- Outcome:** Promotes sustainable cities and reduces the environmental footprint of the built environment

## 3. Nedbank – Sustainable Trade and Climate Finance

- What it is:** Supporting sustainable trade and climate-friendly projects.
- Finance provided:** Trade finance, green bonds, and sustainability solutions
- Impact:** Enabled low-carbon projects and sustainable supply chains across sectors
- Why successful:** Innovative products, risk management, and strong ESG governance
- Outcome:** Drives sustainable economic growth and supports businesses to transition to a low-carbon economy

## 4. Absa – Sustainable Agriculture and Water Finance

- What it is:** Financing climate-smart agriculture and sustainable water solutions.
- Finance provided:** Green loans, blended finance, and advisory services
- Impact:** Supports water security, improved productivity, and climate resilience for farming communities
- Why successful:** Client-centric solutions, partnerships, and focus on rural impact
- Outcome:** Enhances food security, builds resilience, and supports inclusive and sustainable development

# Implementation, Transformation & Boardroom Decision-Making

Module 11 - ESG Strategy Development & Implementation



Module 12 - ESG as a Business Transformation Driver

Module 13 - Boardroom ESG Simulations & Executive Decision-Making

Module 14 - Building an ESG Action Plan

# 9 MISSION CRITICAL INTERVENTIONS AROUND ESG

## REQUIRED BY THE BOARD OF DIRECTORS

Strategic actions to protect value, strengthen resilience and deliver sustainable long-term performance.

### 1 INTEGRATE ESG INTO STRATEGY AND DECISION-MAKING

- Embed ESG in purpose, strategy and risk appetite.
- Align ESG priorities with long-term value creation.
- Ensure ESG is a standing agenda item at every Board meeting.

### 2 STRENGTHEN ESG GOVERNANCE AND OVERSIGHT

- Define clear Board oversight accountabilities.
- Establish or empower a Board ESG committee.
- Ensure robust policies, charters and delegation frameworks for ESG.

### 3 ENHANCE ESG RISK MANAGEMENT AND INTERNAL CONTROLS

- Identify, assess and monitor material ESG risks.
- Integrate ESG risks into enterprise risk management.
- Assure effective controls and independent oversight of ESG risks.

### 4 DRIVE CLIMATE ACTION AND DECARBONISATION

- Set science-aligned climate targets and transition plans.
- Prioritise energy efficiency and low-carbon solutions.
- Monitor climate-related risks and opportunities across the value chain.

### 5 STRENGTHEN PEOPLE, CULTURE AND SOCIAL IMPACT

- Promote a culture of ethics, inclusion and respect.
- Ensure health, safety and wellbeing of employees.
- Create positive social impact and respect for human rights.

### 6 ENSURE ETHICAL LEADERSHIP AND INTEGRITY

- Set the tone from the top on ethics and integrity.
- Strengthen anti-corruption, whistleblowing and conflict of interest controls.
- Hold leadership accountable for ESG performance.

### 7 IMPROVE ESG DATA QUALITY, DISCLOSURE AND TRANSPARENCY

- Ensure accurate, reliable and decision-useful ESG data.
- Disclose material ESG matters transparently and timely.
- Align reporting with global standards and stakeholder expectations.

### 8 ENGAGE STAKEHOLDERS AND BUILD TRUST

- Proactively engage key stakeholders on ESG priorities.
- Understand stakeholder expectations and concerns.
- Build trust through transparency, responsiveness and collaboration.

### 9 DRIVE CONTINUOUS IMPROVEMENT AND PERFORMANCE

- Set measurable ESG objectives and KPIs.
- Monitor performance against targets and benchmarks.
- Promote innovation and continuous improvement in ESG practices.

# ROADMAP TOWARDS INTEGRATING ESG INTO ORGANISATIONAL STRATEGY

A step-by-step journey to embed ESG into strategy and create long-term value.



Integrating ESG into organisational strategy drives resilience, innovation, and sustainable value for all stakeholders.

# ROADMAP TOWARDS ESG LEADERSHIP ALIGNMENT AND CULTURE CHANGE

A step-by-step journey to align leadership and embed ESG into strategy, decisions and daily behaviours.



## SUCCESSFUL EXAMPLE: UNILEVER

ESG leadership alignment and culture that drive sustainable value

|                     |                                                                                                                                                                                                                                                                                                                 |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CONTEXT             | Growing stakeholder expectations, climate risks and resource constraints required Unilever to embed sustainability across its global operations.                                                                                                                                                                |
| LEADERSHIP APPROACH | The CEO and leadership team positioned sustainability as a core business driver through the Unilever Sustainable Living Plan, aligning purpose, strategy and culture.                                                                                                                                           |
| ACTIONS TAKEN       | <ul style="list-style-type: none"> <li>ESG targets linked to executive performance and incentives</li> <li>Integrated ESG into strategy, innovation and brand decisions</li> <li>Engaged employees and suppliers through global programmes</li> <li>Transparent reporting and stakeholder engagement</li> </ul> |
| OUTCOME             | <ul style="list-style-type: none"> <li>Reduced GHG emissions from operations by over 60% (vs 2010 baseline)</li> <li>100% renewable electricity in operations</li> <li>Stronger brands and customer loyalty</li> <li>Consistently ranked among global sustainability leaders</li> </ul>                         |
| KEY LEARNINGS       | Clear purpose, leadership role modelling, integration into systems and empowering people creates a culture where ESG drives innovation, resilience and long-term value.                                                                                                                                         |

## UNSUCCESSFUL EXAMPLE: EXXONMOBIL (HISTORICAL)

Lack of ESG leadership alignment and culture change that created long-term risk

|                              |                                                                                                                                                                                                                                                                                                                  |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CONTEXT                      | Rising awareness of climate change and energy transition created growing expectations for action and disclosure.                                                                                                                                                                                                 |
| LEADERSHIP APPROACH          | Leadership prioritised short-term profitability and resisted aligning with the urgency of the energy transition and ESG expectations.                                                                                                                                                                            |
| ACTIONS TAKEN (OR NOT TAKEN) | <ul style="list-style-type: none"> <li>Downplayed climate risks in public communications</li> <li>Limited investment in low-carbon technologies relative to peers</li> <li>Weak integration of ESG into strategy and capital allocation</li> <li>Insufficient transparency and stakeholder engagement</li> </ul> |
| OUTCOME                      | <ul style="list-style-type: none"> <li>Reputational damage and loss of investor confidence</li> <li>Legal and regulatory challenges and shareholder activism</li> <li>Stranded asset risk and pressure on long-term value</li> </ul>                                                                             |
| KEY LEARNINGS                | Without leadership alignment, transparency and culture change, organisations risk losing trust, competitiveness and long-term sustainability.                                                                                                                                                                    |

# ROADMAP TOWARDS ESG TECHNOLOGY AND DIGITAL ENABLEMENT

A step-by-step journey to leverage technology and data to drive ESG performance, transparency and impact.



## INTERNATIONAL EXAMPLES OF SUCCESSFUL ESG TECHNOLOGY AND DIGITAL ENABLEMENT

| 1. UNILEVER<br><i>Purpose-led digital transformation</i> |                                                                                                                                                                                                                                                                                           | 2. ØRSTED<br><i>Digitalising for a green energy future</i> |                                                                                                                                                                                                                                                                    | 3. SAP<br><i>Embedding ESG into enterprise software</i> |                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overview                                                 | Unilever embedded sustainability into its business strategy and leveraged digital to drive measurable impact across its operations and value chain.                                                                                                                                       | Overview                                                   | Ørsted used digital technologies to accelerate its transition from fossil fuels to renewable energy and improve ESG performance.                                                                                                                                   | Overview                                                | SAP integrated ESG into its core enterprise applications to help customers manage sustainability data and drive responsible business.                                                                                                                                                |
| Technology Approach                                      | <ul style="list-style-type: none"><li>Integrated ESG data platform across 400+ brands</li><li>Real-time data collection from sites and suppliers</li><li>Advanced analytics and dashboards for decision-making</li><li>Supplier collaboration platform for sustainable sourcing</li></ul> | Technology Approach                                        | <ul style="list-style-type: none"><li>Digital twins for offshore wind farms</li><li>AI and IoT for predictive maintenance</li><li>Advanced analytics for grid optimisation and trading</li><li>Integrated ESG data and reporting platform</li></ul>                | Technology Approach                                     | <ul style="list-style-type: none"><li>Embedded ESG metrics in SAP S/4HANA Cloud</li><li>Real-time ESG data collection and reporting</li><li>Sustainability control tower with analytics</li><li>API ecosystem for partner and data integration</li></ul>                             |
| Outcomes Impact                                          | <ul style="list-style-type: none"><li>60% reduction in GHG emissions from operations (vs 2010)</li><li>100% renewable electricity for operations</li><li>Improved supplier sustainability performance</li><li>Enhanced transparency and stakeholder trust</li></ul>                       | Outcomes Impact                                            | <ul style="list-style-type: none"><li>99% reduction in coal consumption since 2006</li><li>Higher asset reliability and lower operating costs</li><li>Data-driven decisions improved project delivery</li><li>Recognised globally for climate leadership</li></ul> | Outcomes Impact                                         | <ul style="list-style-type: none"><li>Thousands of customers using SAP for ESG management</li><li>Improved data transparency and reporting efficiency</li><li>Enabled customers to reduce environmental impact</li><li>Recognised leader in sustainable software solutions</li></ul> |

Digital enablement turns ESG ambition into action, driving measurable impact, resilience and long-term value.

# Implementation, Transformation & Boardroom Decision-Making

Module 11 - ESG Strategy Development & Implementation

Module 12 - ESG as a Business Transformation Driver



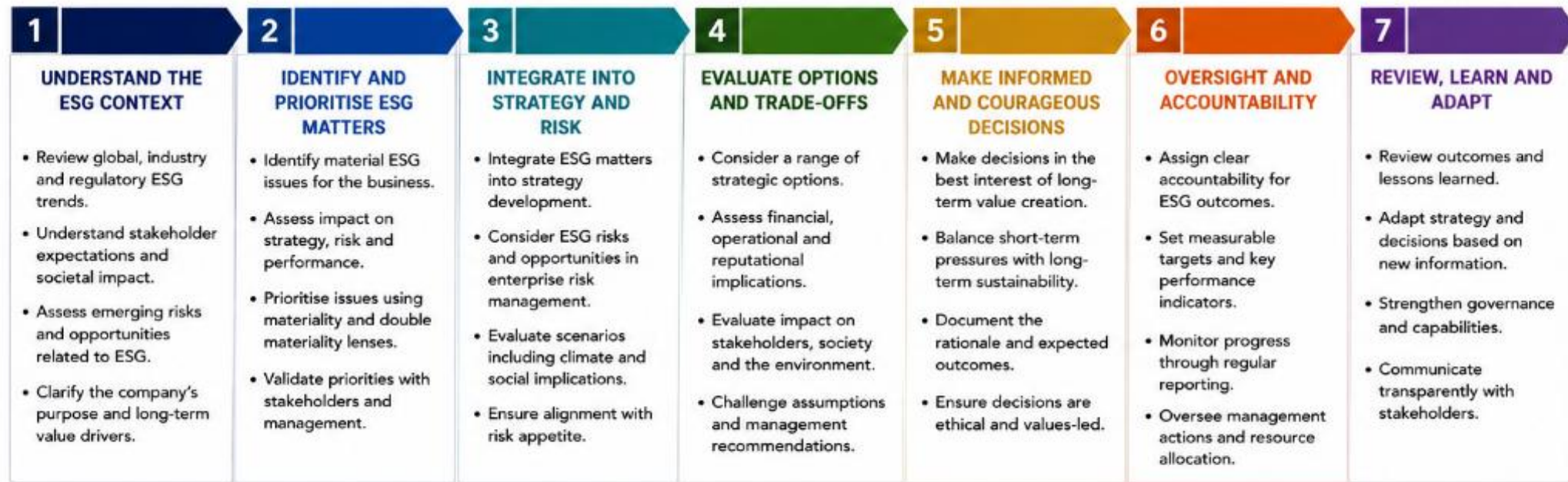
Module 13 - Boardroom ESG Simulations & Executive Decision-Making

Module 14 - Building an ESG Action Plan

# BOARD DECISION-MAKING UNDER ESG PRESSURE

A structured approach for boards to make informed, balanced and courageous decisions in a complex ESG environment.

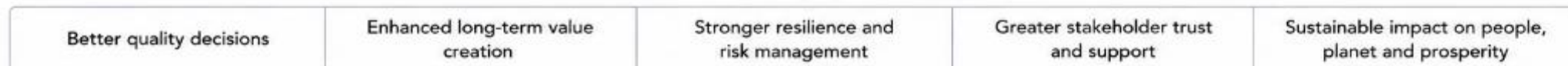
## THE BOARD ESG DECISION-MAKING JOURNEY



## KEY ENABLERS FOR EFFECTIVE BOARD ESG DECISION-MAKING



## OUTCOMES



# ESG DRIVEN INNOVATION

Innovating for a sustainable future while creating measurable business value.

| TYPE OF INNOVATION                                                                                                                   | ALIGNMENT TO MISSION<br>CRITICAL OBJECTIVES                                                             | VALUE CREATION MEASUREMENT                                                                                                                                                                   | EFFICIENCY GAINS                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SUSTAINABLE PRODUCT INNOVATION</b><br>Developing products and services that solve environmental or social challenges.             | Deliver sustainable, high-quality products that meet stakeholder needs and advance a low-carbon future. | <ul style="list-style-type: none"><li>• Revenue from sustainable products</li><li>• Market share growth in green segments</li><li>• Customer satisfaction and loyalty</li></ul>              | <ul style="list-style-type: none"><li>• Reduced material use and lifecycle impact</li><li>• Lower product returns and defects</li><li>• Streamlined design and development</li></ul> |
| <b>PROCESS INNOVATION</b><br>Improving operations to reduce environmental impact and resource use.                                   | Achieve operational excellence through resource efficiency, emissions reduction and waste minimisation. | <ul style="list-style-type: none"><li>• Reduction in GHG emissions</li><li>• Resource savings (energy, water, materials)</li><li>• Waste reduction and circularity metrics</li></ul>         | <ul style="list-style-type: none"><li>• Lower energy and water consumption</li><li>• Reduced waste disposal costs</li><li>• Improved process yield and uptime</li></ul>              |
| <b>BUSINESS MODEL INNOVATION</b><br>Creating new business models that deliver ESG value and commercial returns.                      | Build resilient, future-ready businesses that create long-term value and competitive advantage.         | <ul style="list-style-type: none"><li>• New revenue streams</li><li>• Return on innovation investment</li><li>• Business resilience and risk reduction</li></ul>                             | <ul style="list-style-type: none"><li>• Lower cost of capital through ESG leadership</li><li>• Optimised asset utilisation</li><li>• Reduced compliance and risk costs</li></ul>     |
| <b>DIGITAL AND TECHNOLOGY INNOVATION</b><br>Using digital solutions and emerging technologies to enable ESG outcomes and efficiency. | Leverage data and technology to improve decision-making, transparency and ESG performance.              | <ul style="list-style-type: none"><li>• Efficiency gains through digital solutions</li><li>• Data-driven ESG performance improvement</li><li>• Cost savings and productivity gains</li></ul> | <ul style="list-style-type: none"><li>• Automation and process optimisation</li><li>• Faster reporting and decision-making</li><li>• Reduced manual effort and errors</li></ul>      |
| <b>SOCIAL INNOVATION</b><br>Innovating to improve social impact, inclusion and community well-being.                                 | Create positive social impact by advancing inclusion, health, safety and community development.         | <ul style="list-style-type: none"><li>• Number of lives positively impacted</li><li>• Employee engagement and diversity metrics</li><li>• Community investment outcomes</li></ul>            | <ul style="list-style-type: none"><li>• Reduced employee turnover</li><li>• Lower health and safety incidents</li><li>• Stronger social licence to operate</li></ul>                 |

## REAL CASE EXAMPLE: ØRSTED (DENMARK)

| INNOVATION FOCUS                                                                                                                                  | MISSION ALIGNMENT                                                                           | VALUE CREATED                                                                                                                                                                                                                      | EFFICIENCY GAINS                                                                                                                                                                                                                                    | OUTCOMES                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Transitioned from oil and gas to offshore wind energy through large-scale investment and innovation in renewable technology and project delivery. | Support the global energy transition and create a world that runs entirely on green energy. | <ul style="list-style-type: none"><li>• Over 99% reduction in carbon emissions since 2006</li><li>• Market leader in offshore wind with strong pipeline growth</li><li>• Improved brand reputation and stakeholder trust</li></ul> | <ul style="list-style-type: none"><li>• Cost of energy reduced by ~50% over the last decade</li><li>• Scalable project delivery model drives cost competitiveness</li><li>• Optimised operations through digital monitoring and analytics</li></ul> | Strong financial performance, resilient business model and significant contribution to a low-carbon future. |

ESG DRIVEN INNOVATION CREATES SUSTAINABLE VALUE, IMPROVES EFFICIENCY AND BUILDS A BETTER FUTURE.

# ESG DRIVEN INNOVATION WHEN USING AI – BANKING INDUSTRY

Leveraging AI to advance environmental stewardship, social impact and governance excellence while creating measurable business value.

| TYPE OF INNOVATION                                                                                                                                                | ALIGNMENT TO MISSION CRITICAL OBJECTIVES                                                                           | VALUE CREATION MEASUREMENT                                                                                                                                                                                                                               | EFFICIENCY GAINS                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AI POWERED SUSTAINABLE FINANCE</b><br>AI models assess ESG risk and impact to originate and price sustainable loans and investments.                           | Mobilise capital for a low-carbon and inclusive economy while managing ESG risk and supporting responsible growth. | <ul style="list-style-type: none"><li>• Growth in green/sustainable loan portfolio</li><li>• Increase in ESG-linked revenue</li><li>• Reduction in credit losses from ESG risk</li><li>• Improved ESG ratings and investor trust</li></ul>               | <ul style="list-style-type: none"><li>• Faster credit risk assessment</li><li>• Automated ESG due diligence</li><li>• Lower manual review time and cost</li><li>• Scalable portfolio screening</li></ul>         |
| <b>AI DRIVEN CLIMATE RISK ANALYTICS</b><br>AI analyses climate scenarios and geospatial data to assess physical and transition risks across the portfolio.        | Strengthen resilience by embedding climate risk into decision-making and safeguarding long-term value.             | <ul style="list-style-type: none"><li>• Reduced climate-related loan losses</li><li>• Capital optimisation through better risk pricing</li><li>• Avoided losses from stranded assets</li><li>• Enhanced regulatory compliance</li></ul>                  | <ul style="list-style-type: none"><li>• Faster climate risk reporting</li><li>• Reduced reliance on third-party data</li><li>• Automated scenario analysis</li><li>• Lower model development time</li></ul>      |
| <b>AI ENABLED OPERATIONAL SUSTAINABILITY</b><br>AI optimises energy use, reduces paper consumption and improves resource efficiency in branches and data centres. | Reduce environmental footprint and operating costs while advancing net zero and responsible operations.            | <ul style="list-style-type: none"><li>• Reduction in GHG emissions (Scope 1, 2)</li><li>• Lower energy and water consumption</li><li>• Cost savings realised</li><li>• Progress toward net zero targets</li></ul>                                        | <ul style="list-style-type: none"><li>• Predictive energy management</li><li>• Reduced waste and paper use</li><li>• Lower facilities and IT operating costs</li><li>• Automated monitoring and alerts</li></ul> |
| <b>AI ENHANCED FINANCIAL INCLUSION</b><br>AI uses alternative data and analytics to expand access to banking for underserved and SME customers.                   | Advance inclusive growth and customer well-being while expanding market opportunity.                               | <ul style="list-style-type: none"><li>• Increase in customers served (underserved/SMEs)</li><li>• Higher deposits and loans from new segments</li><li>• Improved customer retention and satisfaction</li><li>• Social impact score improvement</li></ul> | <ul style="list-style-type: none"><li>• Automated onboarding and KYC</li><li>• Lower cost-to-serve per customer</li><li>• Reduced credit assessment time</li><li>• Scalable digital channels</li></ul>           |

## REAL CASE EXAMPLE: DBS BANK – AI FOR ESG AND SUSTAINABLE BANKING

| INNOVATION FOCUS                                                                                                                                                                     | MISSION ALIGNMENT                                                                                                                               | VALUE CREATED (MEASUREMENT)                                                                                                                                                                                                                                                                      | EFFICIENCY GAINS                                                                                                                                                                                                                                                                                    | OUTCOMES                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DBS uses AI and data analytics to embed ESG across lending, operations and customer engagement. The bank combines AI with geospatial data, ESG data and natural language processing. | To be the “Best Bank for a Better World” by mobilising sustainable finance, operating responsibly and creating positive social impact at scale. | <ul style="list-style-type: none"><li>• Over SGD 50 billion in sustainable financing committed (2021–2023)</li><li>• Recognised as Global Leader in Sustainable Finance (Euromoney)</li><li>• Improved ESG ratings (MSCI AAA)</li><li>• Increased customer trust and market leadership</li></ul> | <ul style="list-style-type: none"><li>• AI driven credit assessment reduced turnaround time by ~30%</li><li>• Automated ESG screening improved productivity by ~40%</li><li>• Paperless processes reduced costs and emissions</li><li>• Scalable digital onboarding lowered cost-to-serve</li></ul> | DBS demonstrates how AI accelerates ESG outcomes while improving efficiency and profitability. The bank continues to innovate to create long-term value for customers, communities and the planet. |

# ESG DRIVEN INNOVATION WHEN USING AI – AGRICULTURE INDUSTRY

Using AI to drive sustainable agriculture, strengthen food security and create measurable environmental, social and economic value.

| TYPE OF INNOVATION                                                                                                                                                     | ALIGNMENT TO MISSION CRITICAL OBJECTIVES                                                                              | VALUE CREATION MEASUREMENT                                                                                                                                                                                                                                                                    | EFFICIENCY GAINS                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AI POWERED PRECISION FARMING</b><br>AI analyses data from sensors, drones and satellites to enable precise planting, irrigation, fertilisation and crop protection. | Increase crop productivity and quality sustainably while optimising resource use and minimising environmental impact. | <ul style="list-style-type: none"> <li>• Increase in crop yield per hectare</li> <li>• Improvement in crop quality and market value</li> <li>• Reduction in input costs</li> <li>• Increase in farm profitability</li> <li>• Lower greenhouse gas emissions</li> </ul>                        | <ul style="list-style-type: none"> <li>• Reduced water usage</li> <li>• Optimised use of fertilisers and pesticides</li> <li>• Lower fuel and labour costs</li> <li>• Timely interventions reduce crop loss</li> <li>• Higher operational efficiency</li> </ul> |
| <b>AI DRIVEN SOIL HEALTH MANAGEMENT</b><br>AI models analyse soil data and historical patterns to predict soil health and recommend regenerative practices.            | Build long-term soil health and biodiversity to ensure sustainable production and climate resilience.                 | <ul style="list-style-type: none"> <li>• Improvement in soil organic matter</li> <li>• Long-term yield stability and productivity</li> <li>• Reduced soil degradation</li> <li>• Carbon sequestration increase</li> <li>• Compliance with sustainability standards</li> </ul>                 | <ul style="list-style-type: none"> <li>• Targeted soil amendments</li> <li>• Reduced need for chemical inputs</li> <li>• Lower soil testing and monitoring costs</li> <li>• Efficient allocation of resources</li> </ul>                                        |
| <b>AI ENABLED CLIMATE RISK MANAGEMENT</b><br>AI predicts weather patterns, extreme events and climate risks to support supply chain and farm resilience.               | Enhance resilience to climate change and protect farmers' livelihoods and business continuity.                        | <ul style="list-style-type: none"> <li>• Reduced losses from weather events</li> <li>• Improved planning and decision-making</li> <li>• Lower insurance costs</li> <li>• More resilient supply chains</li> <li>• Increased production reliability</li> </ul>                                  | <ul style="list-style-type: none"> <li>• Early warnings reduce response time</li> <li>• Better resource and logistics planning</li> <li>• Reduced downtime and disruptions</li> <li>• Lower costs from climate-related losses</li> </ul>                        |
| <b>AI DRIVEN SUSTAINABLE SUPPLY CHAINS</b><br>AI provides end-to-end traceability and monitors ESG performance across the agri supply chain.                           | Ensure responsible sourcing, traceability and fair practices while meeting market and regulatory ESG requirements.    | <ul style="list-style-type: none"> <li>• Improved traceability and transparency</li> <li>• Reduced non-compliance risks</li> <li>• Access to premium markets</li> <li>• Stronger brand trust and reputation</li> <li>• Improved social outcomes for communities</li> </ul>                    | <ul style="list-style-type: none"> <li>• Automated data collection and reporting</li> <li>• Faster audits and compliance checks</li> <li>• Reduced administrative costs</li> <li>• Streamlined supplier management</li> </ul>                                   |
| <b>AI ENHANCED LIVESTOCK MANAGEMENT</b><br>AI uses sensors and computer vision to monitor animal health, welfare and productivity in real time.                        | Improve animal welfare and health while increasing productivity and reducing emissions intensity.                     | <ul style="list-style-type: none"> <li>• Improved animal health and survival rates</li> <li>• Higher milk/meat yield and quality</li> <li>• Reduced methane emissions per unit</li> <li>• Lower veterinary and treatment costs</li> <li>• Compliance with animal welfare standards</li> </ul> | <ul style="list-style-type: none"> <li>• Early disease detection and treatment</li> <li>• Reduced labour for monitoring</li> <li>• Optimised feed usage</li> <li>• Improved herd management efficiency</li> </ul>                                               |

# Implementation, Transformation & Boardroom Decision-Making

Module 11 - ESG Strategy Development & Implementation

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Module 14 - Building an ESG Action Plan

# GOVERNANCE AND ETHICS SCANDALS AROUND ESG

When ESG is misrepresented or poorly governed, it destroys trust, value and credibility.

| 1. VOLKSWAGEN – DIESEL EMISSIONS SCANDAL (GERMANY) |                                                                                                                                                                                                                                          | 2. EQUINOR – BRIBERY AND CORRUPTION CASE (NORWAY) |                                                                                                                                                                                                                                         | 3. DWS GROUP – ESG GREENWASHING CASE (UNITED STATES) |                                                                                                                                                                                                                                                                    |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background                                         | Volkswagen promoted its vehicles as clean diesel technology that met environmental standards.                                                                                                                                            | Background                                        | Equinor (formerly Statoil) positioned itself as a leader in sustainability and responsible business.                                                                                                                                    | Background                                           | DWS marketed several funds as sustainable and ESG-focused.                                                                                                                                                                                                         |
| What Happened                                      | <ul style="list-style-type: none"><li>• VW installed “defeat devices” in diesel vehicles to cheat emissions tests.</li><li>• Real-world emissions were up to 40 times higher than claimed.</li></ul>                                     | What Happened                                     | <ul style="list-style-type: none"><li>• Equinor was involved in a corruption scandal in Iraq through its joint venture partner.</li><li>• Payments were made to secure contracts and business advantages.</li></ul>                     | What Happened                                        | <ul style="list-style-type: none"><li>• US regulators accused DWS of greenwashing.</li><li>• ESG claims overstated and not backed by investment practices.</li><li>• Internal documents contradicted public claims.</li></ul>                                      |
| Governance & Ethics Failures                       | <ul style="list-style-type: none"><li>• Pressure to meet emissions targets and protect reputation.</li><li>• Lack of ethical leadership and oversight by the Board.</li><li>• Inadequate challenge and weak internal controls.</li></ul> | Governance & Ethics Failures                      | <ul style="list-style-type: none"><li>• Weak oversight of joint ventures and third parties.</li><li>• Inadequate due diligence and monitoring.</li><li>• Failure to uphold ethical standards in high-risk markets.</li></ul>            | Governance & Ethics Failures                         | <ul style="list-style-type: none"><li>• Misalignment between marketing and actual investment decisions.</li><li>• Weak oversight and challenge from senior management and Board.</li><li>• Inadequate controls over ESG disclosures.</li></ul>                     |
| Consequences                                       | <ul style="list-style-type: none"><li>• Over €30 billion in fines, settlements and compensation.</li><li>• Criminal charges and executive resignations.</li><li>• Severe reputational damage and loss of stakeholder trust.</li></ul>    | Consequences                                      | <ul style="list-style-type: none"><li>• Paid over USD 1 billion in penalties and settlements.</li><li>• Damage to reputation as a responsible energy leader.</li><li>• Increased regulatory scrutiny and compliance costs.</li></ul>    | Consequences                                         | <ul style="list-style-type: none"><li>• USD 19 million fine by the SEC.</li><li>• Reputational damage and loss of client trust.</li><li>• Increased compliance and remediation costs.</li></ul>                                                                    |
| Key Lessons                                        | <ul style="list-style-type: none"><li>• ESG claims must be accurate, verifiable and transparent.</li><li>• Strong governance and a speak-up culture are essential.</li><li>• Ethics cannot be compromised for performance.</li></ul>     | Key Lessons                                       | <ul style="list-style-type: none"><li>• ESG leadership requires integrity across the value chain.</li><li>• Robust governance must extend to partners and suppliers.</li><li>• Strong ethics controls prevent long-term harm.</li></ul> | Key Lessons                                          | <ul style="list-style-type: none"><li>• ESG disclosures must be credible, consistent and evidence-based.</li><li>• Boards must ensure integrity in ESG reporting and communications.</li><li>• Greenwashing erodes trust and attracts regulatory action.</li></ul> |

Strong governance, ethical leadership and transparent reporting are the foundation of credible ESG performance.

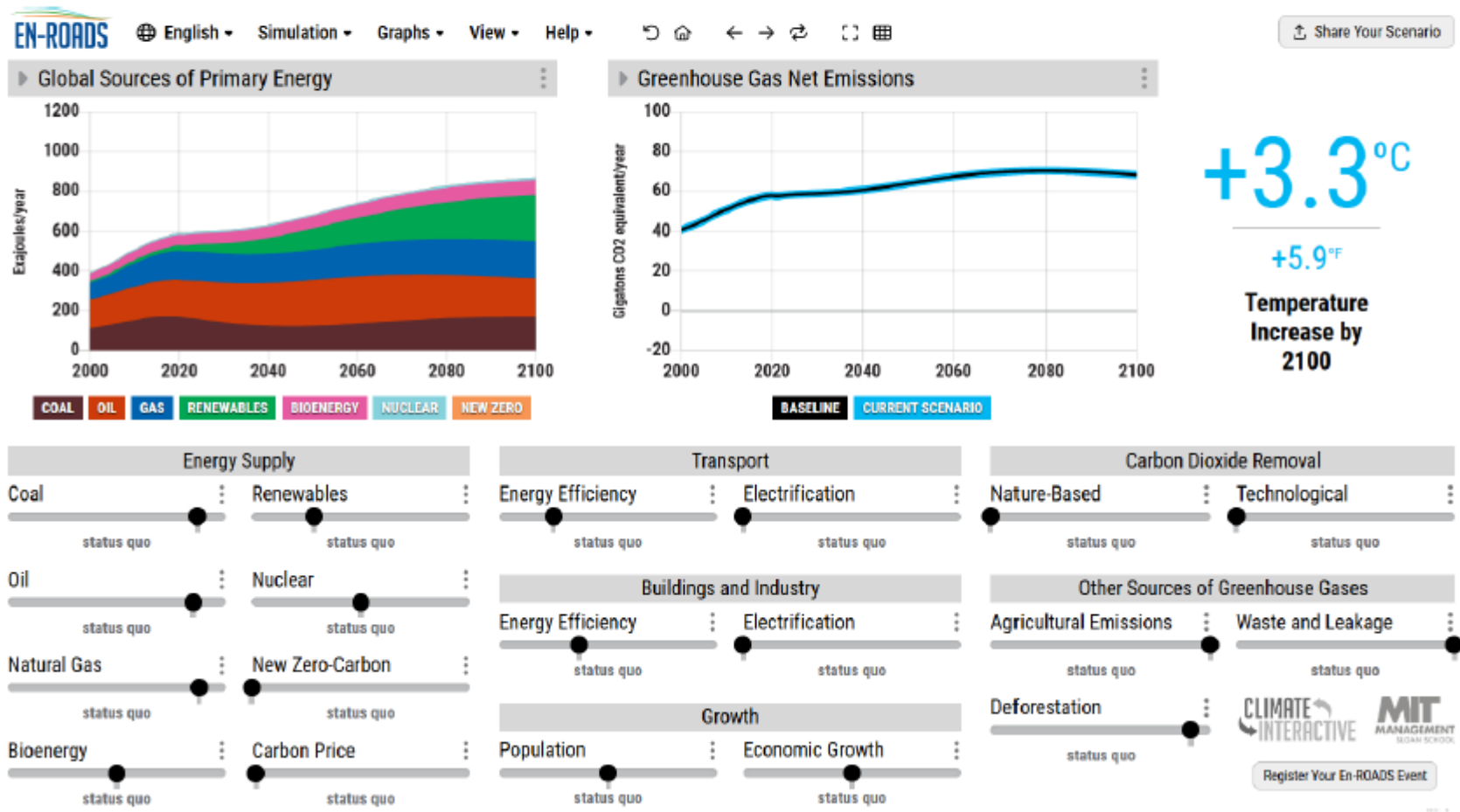
# ESG REPORTING CONTROVERSIES

When ESG reporting is misleading, inconsistent or incomplete, trust and credibility are at risk.

| 1. SHELL – CLIMATE TARGETS CONTROVERSY (NETHERLANDS / UK) |                                                                                                                                                                                                                                                                                          | 2. RIO TINTO – DESTRUCTION OF JUUKA FOREST (AUSTRALIA) |                                                                                                                                                                                                                                                                                                               | 3. LVMH – SUPPLY CHAIN TRANSPARENCY DISPUTE (FRANCE) |                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overview                                                  | Shell faced criticism over how it reported climate targets and progress in its sustainability reports.                                                                                                                                                                                   | Overview                                               | Rio Tinto was criticised after it reported strong environmental performance while destroying an ancient Aboriginal heritage site.                                                                                                                                                                             | Overview                                             | LVMH was challenged over its claims of responsible sourcing in its supply chain disclosures.                                                                                                                                                                                                                                      |
| What Happened                                             | <ul style="list-style-type: none"><li>• Shell promoted net-zero ambitions for 2050.</li><li>• Critics said the company overstated progress on reducing emissions.</li><li>• Reported reductions were influenced by selling assets rather than real operational emissions cuts.</li></ul> | What Happened                                          | <ul style="list-style-type: none"><li>• Rio Tinto destroyed the Juukan Gorge caves in 2020 to expand an iron ore mine.</li><li>• The company had reported it respected Indigenous heritage and had robust ESG practices.</li><li>• Destruction of a 46,000-year-old site caused widespread outrage.</li></ul> | What Happened                                        | <ul style="list-style-type: none"><li>• LVMH stated it had strong ESG standards and supplier oversight.</li><li>• Investigations found human rights and environmental issues in supplier factories, including poor working conditions.</li><li>• Stakeholders said disclosures were incomplete and lacked transparency.</li></ul> |
| Reporting Issues                                          | <ul style="list-style-type: none"><li>• Lack of clarity on what emissions were included in targets.</li><li>• Inconsistent metrics and explanations.</li><li>• Overemphasis on future plans over current performance.</li></ul>                                                          | Reporting Issues                                       | <ul style="list-style-type: none"><li>• ESG reports did not reflect the real impact on Indigenous rights and heritage.</li><li>• Material cultural and social risks were missing or downplayed.</li><li>• Gap between reported values and actual actions.</li></ul>                                           | Reporting Issues                                     | <ul style="list-style-type: none"><li>• Limited disclosure of supplier environmental and social risks.</li><li>• Lack of data on audits, corrective actions and impacts.</li><li>• Insufficient transparency on high-risk suppliers.</li></ul>                                                                                    |
| Consequences                                              | <ul style="list-style-type: none"><li>• Legal action from investors and NGOs.</li><li>• Reputational damage and loss of trust.</li><li>• Greater scrutiny from regulators and stakeholders.</li></ul>                                                                                    | Consequences                                           | <ul style="list-style-type: none"><li>• CEO and senior executives resigned.</li><li>• Significant reputational damage.</li><li>• Loss of investor confidence.</li><li>• Review and overhaul of governance and reporting processes.</li></ul>                                                                  | Consequences                                         | <ul style="list-style-type: none"><li>• Criticism from NGOs and media.</li><li>• Pressure from investors for better disclosure.</li><li>• Commitments to improve supply chain transparency and reporting.</li></ul>                                                                                                               |
| Key Lesson                                                | ESG reports must be clear, consistent and based on real performance, not just aspirations.                                                                                                                                                                                               | Key Lesson                                             | ESG reporting must include all material environmental, social and governance impacts, including cultural heritage and human rights.                                                                                                                                                                           | Key Lesson                                           | ESG reports must provide transparent, verifiable information on supply chains and demonstrate accountability for impacts.                                                                                                                                                                                                         |

# The En-ROADS Climate Solutions Simulator

En-ROADS is an online simulator that provides policymakers, educators, businesses, the media, and the public with the ability to test and explore cross-sector climate solutions.



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# ESG ACTION PLAN – SHORT, MEDIUM & LONG TERM

A phased roadmap to embed ESG into strategy, operations and culture to create long-term value.

| FOCUS AREA                                                                                                         | SHORT TERM (0–12 MONTHS)<br>Lay the Foundations                                                                                                                                                                                                                                                                                                                                                                                                                        | MEDIUM TERM (1–3 YEARS)<br>Scale and Integrate                                                                                                                                                                                                                                                                                                                                                                                                         | LONG TERM (3+ YEARS)<br>Lead and Future-Proof                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ENVIRONMENTAL</b><br><br>Protect the planet, manage resources responsibly and build climate resilience.         | <ul style="list-style-type: none"><li>Conduct materiality assessment for environmental issues.</li><li>Establish baseline for key metrics (energy, emissions, water, waste).</li><li>Set initial environmental policies and operating standards.</li><li>Implement quick wins: energy efficiency, waste reduction, recycling.</li><li>Develop climate risk assessment and scenario analysis.</li><li>Build awareness and capability across the organisation.</li></ul> | <ul style="list-style-type: none"><li>Set science-aligned targets for emissions reduction, energy, water and waste.</li><li>Implement emissions reduction roadmap and renewable energy initiatives.</li><li>Embed sustainable procurement and supply chain environmental criteria.</li><li>Invest in resource efficiency, circular economy and low-carbon solutions.</li><li>Enhance climate resilience and adapt to physical climate risks.</li></ul> | <ul style="list-style-type: none"><li>Achieve net-zero pathway or industry-leading decarbonisation.</li><li>Innovate in clean technologies and nature-positive solutions.</li><li>Restore and regenerate ecosystems and biodiversity.</li><li>Embed circular economy across the value chain.</li><li>Lead sector collaboration on global environmental challenges.</li></ul> |
| <b>SOCIAL</b><br><br>Create positive impact for people, communities and society.                                   | <ul style="list-style-type: none"><li>Identify key social impacts and stakeholder groups.</li><li>Ensure health, safety and wellbeing standards.</li><li>Promote diversity, equity and inclusion (DEI) baseline and policies.</li><li>Engage with communities and understand their needs.</li><li>Implement community investment quick wins.</li><li>Establish grievance mechanisms and human rights due diligence.</li></ul>                                          | <ul style="list-style-type: none"><li>Develop and implement social impact strategy.</li><li>Invest in employee development, skills and career growth.</li><li>Advance DEI targets and inclusive culture.</li><li>Strengthen community partnerships and local development programs.</li><li>Embed human rights across operations and supply chain.</li><li>Measure and report on social outcomes.</li></ul>                                             | <ul style="list-style-type: none"><li>Be an employer of choice with inclusive and diverse leadership.</li><li>Drive systemic social impact and shared value.</li><li>Empower communities and support economic inclusion.</li><li>Champion human rights leadership in the industry.</li><li>Create a legacy of positive impact for future generations.</li></ul>              |
| <b>GOVERNANCE</b><br><br>Uphold strong governance, ethics and accountability to build trust and sustainable value. | <ul style="list-style-type: none"><li>Clarify Board oversight of ESG and assign accountabilities.</li><li>Establish ESG governance structure and policies.</li><li>Integrate ESG risks into enterprise risk management.</li><li>Strengthen ethics, anti-corruption and compliance controls.</li><li>Ensure transparent ESG reporting in line with recognised standards.</li><li>Build Board and executive ESG capability.</li></ul>                                    | <ul style="list-style-type: none"><li>Embed ESG in strategy, performance management and executive incentives.</li><li>Enhance data quality, systems and reporting maturity.</li><li>Strengthen stakeholder engagement and disclosure.</li><li>Conduct regular ESG assurance and independent oversight.</li><li>Monitor regulatory developments and ensure compliance readiness.</li></ul>                                                              | <ul style="list-style-type: none"><li>Achieve leading governance practices and global recognition.</li><li>Embed continuous improvement and innovation in governance.</li><li>Influence policy and industry standards.</li><li>Ensure long-term value creation with ethical leadership and accountability.</li><li>Build enduring trust with all stakeholders.</li></ul>     |

# Questions?



**Deon van der Westhuizen**

Governance | Risk | Combined Assurance | ESG now | Supply Chain  
Sustainability



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