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Beyond disclosure

A board framework for sustainability risk oversight in Swiss organisations

June 2026

Contents

Executive summary

Sustainability risks are central drivers of volatility that directly threaten strategy and value creation. Yet most boards still treat sustainability as a compliance checklist rather than a strategic business imperative. This white paper shows Swiss board members how they can transform sustainability risk management from backward-looking disclosure into forward-looking resilience. The steps presented are designed for immediate board-level implementation, with clear accountability assignments and measurable outcomes that align sustainability risk oversight with fiduciary responsibility.

From disclosure to resilience

The urgency is real: 50% of global experts categorised their overall global outlook as "turbulent" in the next two years,[1] with environmental risks dominating the long-term outlook. Geopolitical fragmentation, supply chain vulnerabilities, and climate impacts are converging to create cascading risks.

Governance models

Effective governance rests on three pillars: (1) a clear governance structure—whether through your Audit & Risk Committee, a dedicated sustainability committee, or hybrid model; (2) embedding sustainability risks directly into your Enterprise Risk Management (ERM) Framework; and (3) cross-functional accountability across your C-Suite.

Management models

Implementation requires a disciplined four-step management cycle: Identify → Quantify → Mitigate & Adapt → Monitor & Control.

Boards role

Boards need forward-looking risk indicators, scenario modelling, performance tracking, resilience assessments, supply chain visibility, and incident intelligence to fulfil their fiduciary duty. The critical distinction is whether the board uses this information to react to pressures or to shape the organisation's strategic trajectory, anticipating regulatory shifts, stakeholder expectations, and market transformations before they become constraints.

This paper equips Swiss board members with a framework to embed sustainability risk oversight into governance and strategy, positioning your company for long-term resilience and competitive advantage.

The questions the board should be asking

Is the board asking the right questions about sustainability risk?

Not the compliance questions — those are necessary but insufficient. Not the disclosure questions — those are important but backward-looking. The right questions are forward-looking and strategic:

- Do we understand how sustainability risks threaten our strategy and value creation?
- How do we assess these risks as part of the overall geopolitical environment? Are we anticipating these risks, or reacting to them?
- Does our governance structure (the committee structure, the frequency of meetings, KPI reporting etc.) provide us with early warnings, or do we risk discovering problems too late?
- How resilient are our operations, business strategy, long-term vision and mission to sustainability shocks?

If the board is unable to answer these questions confidently, it wouldn't be alone. Many boards operate in an environment of persistent volatility without any clear governance framework for dealing with sustainability risk.

What are sustainability risks?
Sustainability risks are risks arising from environmental, social, and governance factors that may lead to adverse impacts on society or the environment and, in turn, create financial, operational, or reputational risks for organizations.

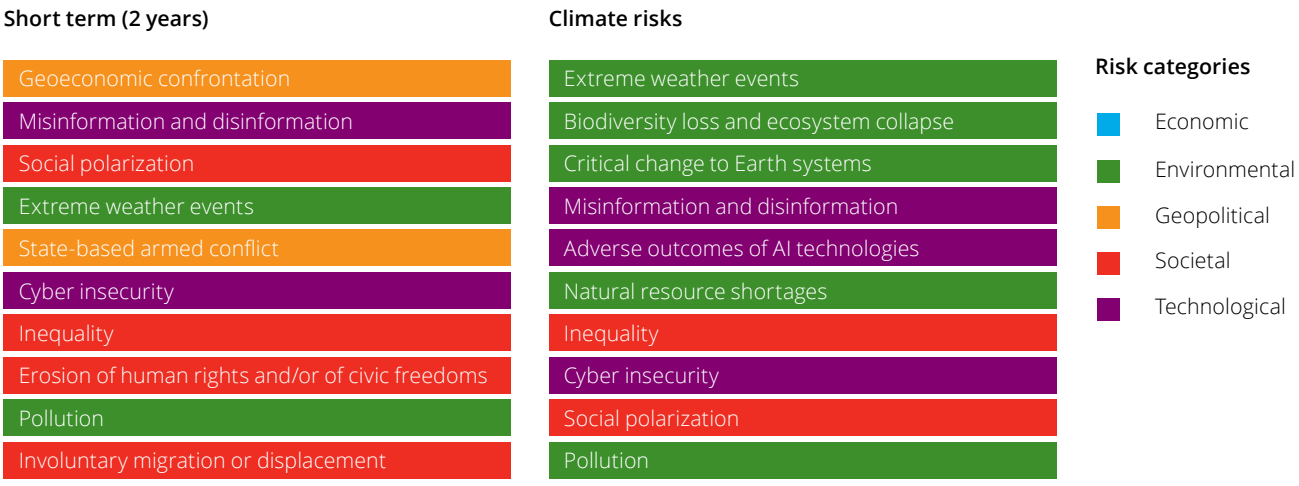
The outlook: Stormy, with long-term environmental and technological risks

The evidence is compelling and global in scope, and it's forcing boards worldwide to confront uncomfortable truths. The World Economic Forum's 2026 Global Risks Report paints a sobering picture: half of the global experts interviewed anticipate a turbulent or stormy outlook over the next two years. And for the next decade even more, 57% expect troubled times. Only 1% foresee a calm outlook.[2]

Geoeconomic confrontation has emerged as the short-term risk that the forecasters believe is most likely to trigger a material global crisis. State-based armed conflict, an economic downturn, and inflation are intensifying as multilateralism retreats. The escalating conflict in Iran exemplifies this dynamic, regional instability has already driven oil prices to record highs, cascading through global supply chains and amplifying inflationary pressures across sectors from energy to transportation to manufacturing. Over the longer term, the risk landscape is dominated by environmental and technological risks, many of which, such as biodiversity loss or critical changes to the Earth's systems operate on a 10-year time horizon. This creates a strategic misalignment: most businesses have a 3-year strategic planning cycle, and are structurally unprepared for risks that materialise over a decade.

Bridging the gap between the two-year crisis horizon and the need to ensure strategic resilience over the next ten years is crucial to the organisation's survival.

Figure 1. Global risks ranked by severity, short term (2 years) and long term (10 years). "Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period."[3]



Source: World Economic Forum Global Risks Perception Survey 2025-2026

The short-term risks compound the long-term ones

The expected short-term geopolitical and economic disruptions directly amplify long-term environmental sustainability risks across three critical dimensions:

Energy security: China has a 70% market share in the refining of 19 out of 20 strategic minerals and over 50% of these critical minerals face export restrictions.[4] This concentration of supply restricts access to materials essential for solar panels, wind turbines, and threatens renewable energy deployment.

Supply chain constraints: Copper and lithium face severe supply shortages. Copper supply is projected to fall 30% short of demand by 2035 and lithium demand is surging.[5] These constraints risk delaying electrification of transport and heating systems, slowing decarbonisation across critical sectors. The energy crisis further compounds this challenge by driving up production costs and competing for limited renewable energy resources needed to power the transition itself.

Infrastructure vulnerability: Over 200 million households face annual weather-related energy disruptions, with transmission and distribution grids vulnerable in 85% of incidents.[6] Climate impacts are, at the same time, degrading the physical infrastructure needed to support the energy transition.

Together, these risks reveal a critical paradox: the energy transition—essential to managing climate risk—is itself increasingly vulnerable to geopolitical fragmentation, economic uncertainty, and climate impacts.

Within this turbulent landscape, sustainability risks are not peripheral concerns, they are central drivers of volatility themselves. Climate volatility disrupts supply chains and destabilises resource availability. Energy and resource pressure reshape capital allocation and competitive positioning. Fast regulatory changes, propelled by climate commitments and rising social expectations, must be complied with, and oblige strategic transformations. Geopolitical uncertainty fragments sourcing networks and market access.

These forces interact between and amplify one another. Competition for critical minerals fuels geoeconomic confrontation. Stranded assets and transition costs accelerate economic downturns. Managing these cascading risks requires integrated oversight: as a risk management imperative for the organisation and not just as a sustainability issue.

The Committee of Sponsoring Organisations of the Treadway Commission's (COSO) Three Lines of Defence Model—internal controls, Enterprise Risk Management (ERM), and assurance—requires sustainability risks to be comprehensively integrated into all risk management processes.[7] This ensures the board, management, and stakeholders have confidence that the organisation is managing existing and emerging sustainability risks systematically.

The real question is not how to disclose sustainability risks, but how to anticipate, manage, and adapt to them dynamically.

The governance trap: Disclosure vs. resilience in the Swiss context

Among Switzerland's top 50 listed companies, 55% view sustainability as a competitive advantage integrated into strategy, while 18% continue to treat it as merely a disclosure requirement.[8] Compliance with reporting standards, stakeholder communication, and ESG metrics dominate the sustainability agenda. From a risk management perspective, such an approach fundamentally misses the strategic imperative of a forward-looking approach. This is crucial given that the risk landscape is dominated by sustainability risks not only in the short-term, but also, the long-term future (see Figure 1). Strategic positioning, adaptation and mitigation are needed to build resilience.

Sustainability risks are not a reporting problem, they are a business resilience problem.

Effective sustainability reporting is an output. Sustainability risk oversight is the capability. The board needs both, but the capability comes first. Without it, your disclosures are backward-looking narratives about risks you didn't anticipate. With it, your disclosures become evidence that the board is actively managing the future.

For Swiss companies, this challenge is particularly acute. Domestic legal frameworks, including the Swiss Code of Obligations and emerging governance requirements, remain the starting point. But increasingly it is EU requirements (CSRD, CSDDD, EU Taxonomy, EUDR, CBAM, ESPR) that are shaping practice through cross-border operations, customer expectations, financing conditions, and supply chain pressures. The board must navigate these frameworks simultaneously, which means building governance capabilities that exceed minimum compliance.

What sustainability risk actually is

Before the board can govern sustainability risk, it needs a clear definition of it. Sustainability risk isn't a single category, but a combination of interconnected environmental, social, and governance challenges that threaten the organisation's long-term viability and value creation.

Environmental risks encompass both climate-related and nature-related dimensions. Climate risks manifest in two forms:

1. Transition risks arise from the shift towards a low-carbon economy and include regulatory changes, technological disruptions, and market shifts.
2. Physical risks result from acute weather events and long-term environmental changes such as rising temperatures, water scarcity, and ecosystem degradation.

In addition to climate risks, nature-related risks, including land use changes, water supply, pollution, and biodiversity loss pose direct threats to supply chains, resource availability, and ultimately, operational continuity and population health.

Social risks extend beyond labour practices to include human rights, health and safety, and stakeholder engagement. Organisations operate within social systems where inequality, discrimination, labour exploitation, and community displacement create both ethical imperatives and business vulnerabilities. Social risks manifest as reputational damage, regulatory penalties, operational disruption, or loss of the social licence to operate.

Governance risks address the control mechanisms, decision-making structures, and ethical frameworks that enable effective management of the business and its stakeholders. This includes board oversight of sustainability, corruption, fraud and transparency issues, executive compensation alignment with sustainability objectives, stakeholder engagement processes, and the integrity of sustainability reporting.

Managing the risks

To govern these interconnected risks effectively, organisations have traditionally relied on the concept of financial materiality, information that could influence economic decisions and financial outcomes. However, sustainability governance demands a broader perspective. The sustainability risks outlined above extend beyond what traditional financial materiality captures; they require organisations to assess not only how ESG factors affect financial performance, but also how their operations impact the environment and society. This expanded lens is captured in the framework of double materiality, which asks two critical questions:

- Outside-in: How do sustainability issues affect your financial performance and value creation?
- Inside-out: How do your activities impact the environment and society?

Using the Double Materiality Assessment (DMA) outcomes as a basis enables the organisation to focus on the most material topics and associated risks. Once material topics are identified through a DMA, organisations must embed these risks into their ERM framework, where they are systematically integrated, assessed, and managed alongside traditional financial and operational risks. This ensures ESG risks receive active governance, with C-suite and board oversight, positioning sustainability as a core component of the organisation's integrated risk landscape rather than a separate compliance function.

Double materiality isn't about compliance — it's about competitive advantage. It's the lens that helps you determine where to allocate resources, which risks require board-level attention, and how to align strategy with long-term value creation.

Three paths to governance: Which is a good fit for your organisation?

The board is ultimately responsible for sustainability risk oversight, but governance extends across the C-suite and all management levels. There is no single 'right' structure; the choice depends on your organisation's structure and complexity, risk profile, and strategic priorities. Ultimately governance structure matters: it shapes how risks are identified, escalated, and managed.

Option 1: Integration into the Audit & Risk Committee
This approach expands the mandate of your Audit & Risk Committee to encompass sustainability risk oversight. It leverages existing governance structures, minimises complexity and ensures sustainability risks are evaluated within the broader enterprise risk context. This works well for organisations with moderate sustainability risk exposure and strong existing risk governance.

The trade-off: Sustainability may compete for attention with financial and operational risks while balancing short-term business strategy and long-term resilient business. An explicit expansion of the mandate and clear escalation protocols are needed.

Option 2: A dedicated Sustainability Committee
This creates a standalone board committee focused solely on sustainability strategy, risk, opportunities, and disclosure. It signals strong commitment, allows for specialised expertise, and elevates sustainability to the board level. This works well for organisations with high sustainability risk exposure or complex stakeholder expectations.

The trade-off: Increases governance complexity and risks siloing sustainability from ERM. Requires explicit integration with the ERM framework.

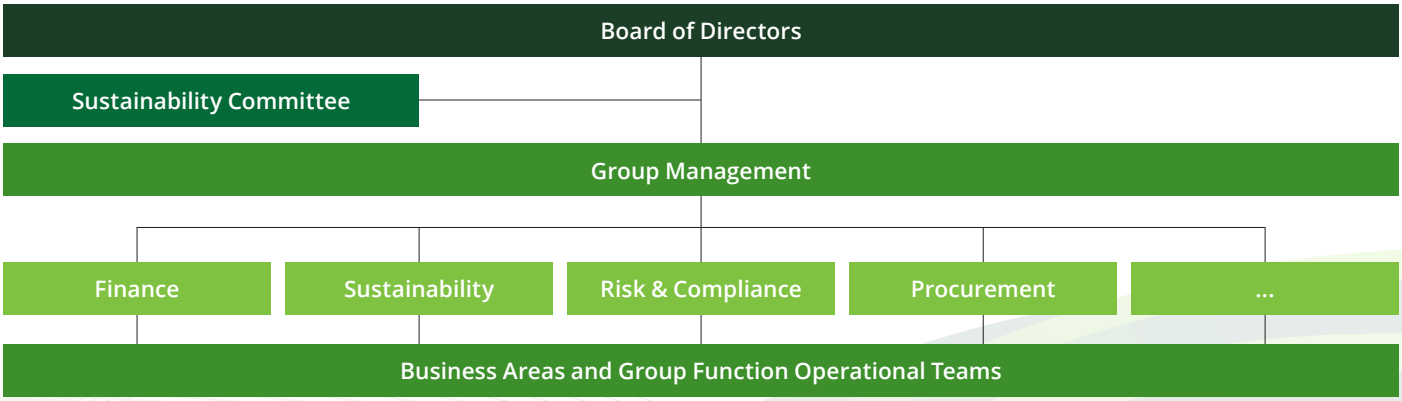
Option 3: A hybrid structure
This combines elements of both approaches: a dedicated Sustainability Committee handles strategy, targets, risks and opportunities, while the Audit & Risk Committee expands its responsibilities to include oversight of sustainability-related disclosures alongside traditional financial reporting. A clear definition of responsibilities prevents gaps and duplications.

However, this structure requires cross-committee alignment on a regular basis to prevent silos at the board level. Some boards have found that establishing formal alignment mechanisms between committees strengthens the effectiveness of governance and ensures cohesive sustainability oversight.

The trade-off: Requires disciplined coordination between committees. Works best when governance protocols are explicit and regularly reviewed.

Regardless of which structure is chosen, one principle is non-negotiable: sustainability risk must be integrated into the Enterprise Risk Management Framework.

Figure 2. Example of a sustainability governance structure with a dedicated Sustainability Committee.



The Chief Risk Officer should be involved

The Chief Risk Officer (CRO) should be actively involved in sustainability risk identification, scenario analysis, and management response. This means sustainability risks are assessed alongside financial, operational, and strategic risks, and the board sees sustainability not as a separate agenda item, but as a core component of enterprise resilience.

At the management level, sustainability risk oversight must reflect the inherently cross-functional nature of these risks. No single executive can manage sustainability risk effectively in isolation. Instead, accountability should be distributed across multiple functions within a coordinated governance structure. The CEO sets the tone from the top; the CFO manages financial implications and capital allocation; the Chief Operating Officer (COO) oversees operational risks and opportunities (supply chain, resilience, efficiency, safety etc.).

In addition to the CEO, CFO, and COO, many organisations recognize the importance of dedicated sustainability leadership, and appoint a Chief Sustainability Officer (CSO) or integrate these responsibilities within existing roles, such as the Chief Strategy Officer.

However, effective sustainability governance extends well beyond the C-suite. It requires active involvement from key functions such as procurement, which plays a critical role in managing supply chain risks related to environmental and social factors. Similarly, legal and compliance teams are essential to ensuring adherence to evolving regulatory requirements, while internal audit provides vital assurance over the effectiveness of sustainability controls and risk management processes. Each risk is assigned a risk owner who is responsible for managing risks in their area and reporting them to the ERM team. This distributed accountability model ensures that sustainability is embedded across the organisation, fostering a culture of responsibility, reducing duplication of efforts outside the core ERM process and enabling more robust sustainability risk management.

A model for sustainability risk management

Your organisation needs a disciplined operating model that translates strategy into action. This model defines how you systematically identify, quantify, treat, and monitor sustainability risks across the enterprise. Sustainability risks are a type of business risk that demand the same rigor, governance, and board oversight as any other enterprise risk.

Four foundational risk capabilities

1. **Definition.** Before you can manage sustainability risks, all stakeholders must share a common understanding. What counts as climate risk? How is Scope 3 exposure defined? Without clear definitions, risks are double counted, missed, or misunderstood across functions. Your organisation needs explicit definitions, documented methodologies, and regular alignment between teams.

2. **Value-chain data.** Sustainability risks often originate in the supply chain. You need cross value chain data including data points such as supplier emissions, water use, labour practices, and geopolitical exposure. This requires supplier engagement, data standards, and traceability systems. Without visibility across your value chain, you risk managing only the risks you can see and missing the ones that matter most.

3. **Scenario analysis.** Rather than relying on a single forecast, develop two to three contrasting scenarios that reflect plausible futures (e.g. 2°C, 4°C, 8°C + global warming or accelerated, moderate, and delayed policy implementation for regulatory risk). For each scenario, model how key risks evolve, which assets become stranded, which supply chains become vulnerable, which regulatory costs emerge. Then ask: how does our business strategy perform across these scenarios? Scenario analysis is most commonly applied for climate risk analysis; however, the framework equally applies to social and nature risks (an example of scenario analysis focusing on energy hedging is illustrated in Appendix I).

4. **Supply chain due diligence.** Your supply chain is a critical source of sustainability risk, yet many organisations lack visibility into supplier practices, certifications, and compliance. Effective supply chain due diligence requires a structured approach: First, map your supply chain into various tiers to understand your supply chain risk profile and prioritise targeted suppliers based on spend, criticality, geography etc. Second, conduct comprehensive risk assessments to systematically gather evidence and documentation on ESG performance, compliance with standards and certifications e.g. ISO 14001 for Environmental Management or ISO 45001 for Occupational Health and Safety. Third, segment suppliers by maturity level and risk profile to tailor engagement and mitigation strategies. Fourth, develop a targeted sourcing plan based on value chain partner capabilities and ESG risk management objectives. For high-maturity suppliers, deepen strategic partnerships. For mid and low-maturity suppliers, implement structured engagement programmes to accelerate their ESG journey. Where suppliers demonstrate insufficient willingness to adapt despite support, consider replacement with stronger ESG performers. Finally, verify compliance through ongoing monitoring, implementation of corrective actions, and continuous performance tracking through reporting and stakeholder engagement. This integrated approach transforms suppliers from passive risk sources into active partners in your sustainability strategy, reducing exposure while building resilience across your value chain.

The core management cycle: Four integrated steps

Once these foundations are in place, focusing on topics prioritised in the Double Materiality Assessment (DMA), your organisation should execute a continuous management cycle with four integrated steps: identify, quantify & assess, mitigate & adapt, and monitor & control.

1. **Identify.** Begins with integrating sustainability risks into the organisations existing risk register. What sustainability risks threaten your strategy, operations, and stakeholder relationships? This requires scanning the environmental, social, and governance dimensions. Identification is anchored in double materiality: which risks matter to the business, and which business impacts matter to stakeholders? Documenting sustainability risks within the broader ERM risk landscape brings visibility and allows leadership to prioritise accordingly.

2. **Quantify & Assess** translates identified risks into measurable terms that inform capital allocation and strategy. This requires assessing the financial impact (revenue loss, costs, asset stranding), probability and timeline, and sustainability metrics (emissions, water use, labour incidents). It also requires scenario analysis: how do risks evolve under different climate pathways, natural resource dependencies, geopolitical outcomes, or regulatory regimes? Quantification is not about false precision; it's about developing ranges that are useful for decision-making and stress testing assumptions to understand the organisation's degree of resilience under plausible though extreme scenarios.

3. **Mitigate & Adapt** are distinct but complementary risk treatments. Mitigation reduces exposure to the underlying risk driver—decarbonising operations, diversifying supply chains, or strengthening governance controls. Adaptation strengthens resilience where risks cannot be fully avoided—investing in water-efficient processes, building supply chain redundancy, or developing alternative sourcing. Both are essential. You cannot mitigate all climate risk; you must also adapt. Similarly, you cannot eliminate supply chain geopolitical risk; you must mitigate it.

4. **Monitor & Control** embed sustainability risk into ongoing ERM processes. This means quarterly reviews of key risk indicators, regular stress testing of assumptions, and rapid escalation and reporting when thresholds are breached. It means linking sustainability risk metrics into operational KPIs and capital allocation decisions. A risk that is not monitored is not managed. Internal control frameworks, policies and procedures and assurance processes should be updated to ensure that they include and mitigate sustainability risks. In addition, every risk should be treated as a strategic business opportunity and managed accordingly.

Together, these four steps create a continuous cycle that embeds sustainability risk into your organisation's DNA and ERM, ensuring that risks are recognised as interconnected and managed holistically rather than in silos. An integrated risk management approach underpins meaningful sustainability transformation, shifting it from a compliance obligation into a strategic competitive advantage.

The information foundation: Data and integrity

Effective sustainability governance depends fundamentally on information quality. Without reliable, comprehensive, and well-documented sustainability data, even the most sophisticated governance structures cannot function effectively. The board cannot make informed decisions. Management cannot execute strategy. Stakeholders cannot assess organisational resilience.

Start with clear data boundaries. The DMA identifies material topics that serve as the foundation for defining relevant KPIs, enabling you to set targets and monitor progress effectively. It is therefore essential to establish explicit scope definitions that specify which entities, operations, geographies, and time periods are included in sustainability reporting. These boundaries should be thoroughly documented, consistently applied, and regularly reviewed to ensure they remain aligned with your organisation's ongoing evolution.

Move from lagging to leading indicators. Traditional sustainability KPIs often report historical losses—emissions already released, waste already generated, incidents already occurred. Leading indicators, by contrast, signal emerging risks before they materialise into material impact. Track signals such as heatwave days in operational regions, disease spread patterns affecting supply chains, and antimicrobial resistance trends in agricultural inputs. These forward-looking metrics enable early intervention, allowing organisations to adjust operations, diversify suppliers, or modify strategies before crises emerge. Leading indicators transform sustainability reporting from a rearview mirror into a strategic early warning system.

Maintain methodological consistency. Document the methodologies used to measure and calculate sustainability metrics, whether related to greenhouse gas emissions, water consumption, social impact indicators, or governance metrics. This documentation should be detailed enough to support both internal audits and external assurance processes. It must align with recognized standards (ESRS, GRI, SASB, IFRS S1/S2 or relevant sector-specific frameworks) and be applied consistently across reporting periods to ensure meaningful trend analysis and comparability.

Govern Scope 3 emissions and supplier sustainability data rigorously. Many organisations' environmental and social footprints extend to third parties beyond their direct control. Establish clear data collection protocols, supplier engagement requirements, and quality assurance processes. Define acceptable data sources (primary data collection, supplier questionnaires, industry averages, or modelling), establish verification procedures, and document data gaps and assumptions. Most organisations face a critical trade-off: comprehensive primary data collection (high accuracy, high cost, long implementation) versus hybrid approaches combining primary data from material suppliers with industry benchmarks for smaller vendors (moderate accuracy, moderate cost, shorter implementation). Without rigorous supply chain governance, you risk material misstatement of your Scope 3 emissions and an inability to identify social and environmental supply chain risks.

Governance quality depends on information quality. You cannot manage what you cannot measure.

What the board needs to know

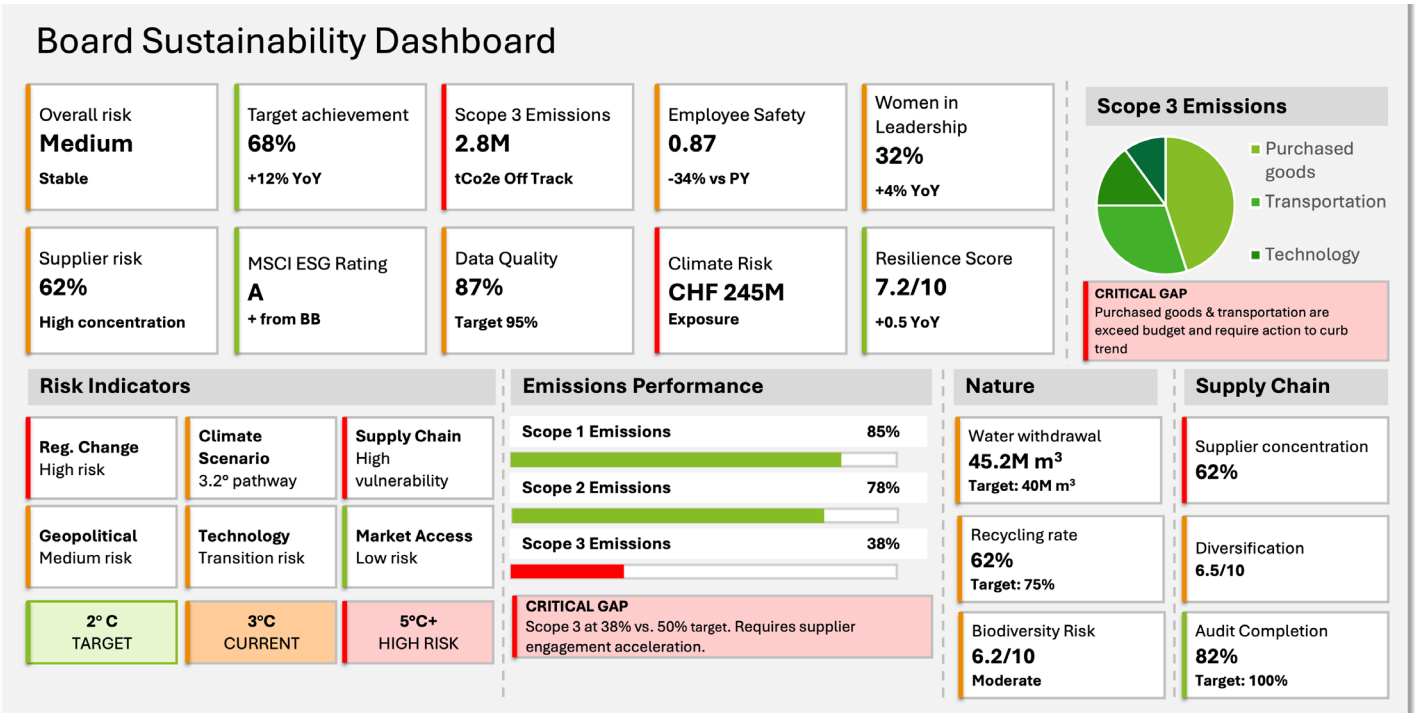
Effective board reporting on sustainability risk focuses on delivering clear and relevant insights rather than extensive details. The board's time is finite, and sustainability reporting must compete with financial, operational, and strategic agenda items. Reporting should therefore be designed as a concise, integrated dashboard that provides the information necessary to fulfil governance responsibilities, i.e. a limited set of KPIs relevant to double materiality topics.

A well-designed board sustainability dashboard combines multiple critical information streams:

- **Forward-looking risk indicators** provide early warning of emerging threats (regulatory changes, climate scenario exposure, supply chain vulnerabilities), enabling the board to anticipate challenges, adjust strategy proactively and develop risks into opportunities.
- **Scenario outcomes** demonstrate organisational resilience under different future conditions, showing how strategy performs under various environmental, social, and regulatory futures.
- **Progress against targets and transition plans** tracks execution of sustainability commitments, KPIs and executive incentive alignment, enabling the board to identify implementation gaps and correct them as needed.
- **Resilience indicators** assess organisational capacity to withstand sustainability shocks—supply chain diversification, operational redundancy, financial reserves for transition investments. These complement risk indicators by showing not just what could go wrong, but how well-positioned you are to respond.
- **Supply chain and Scope 3 exposure** provides visibility into material risks beyond direct operations, including supplier concentration and geographic vulnerabilities.
- **Major incidents or control findings** ensure the board is aware of significant sustainability-related issues that may indicate systemic problems.

The dashboard should be designed for clarity and actionability. Metrics should be presented with context: trend lines showing direction of change, peer or regulatory benchmarks showing relative performance, and clear identification of areas requiring board attention. The goal is to enable the board to understand organisational sustainability risk posture, assess management's execution of sustainability strategy, and make informed decisions about risk appetite, capital allocation, and strategic direction, all within a reasonable time period. A example ESG Dashboard for board level reporting can be seen below in Figure 3.

Figure 3. Example Sustainability Dashboard for presentation at board-level.

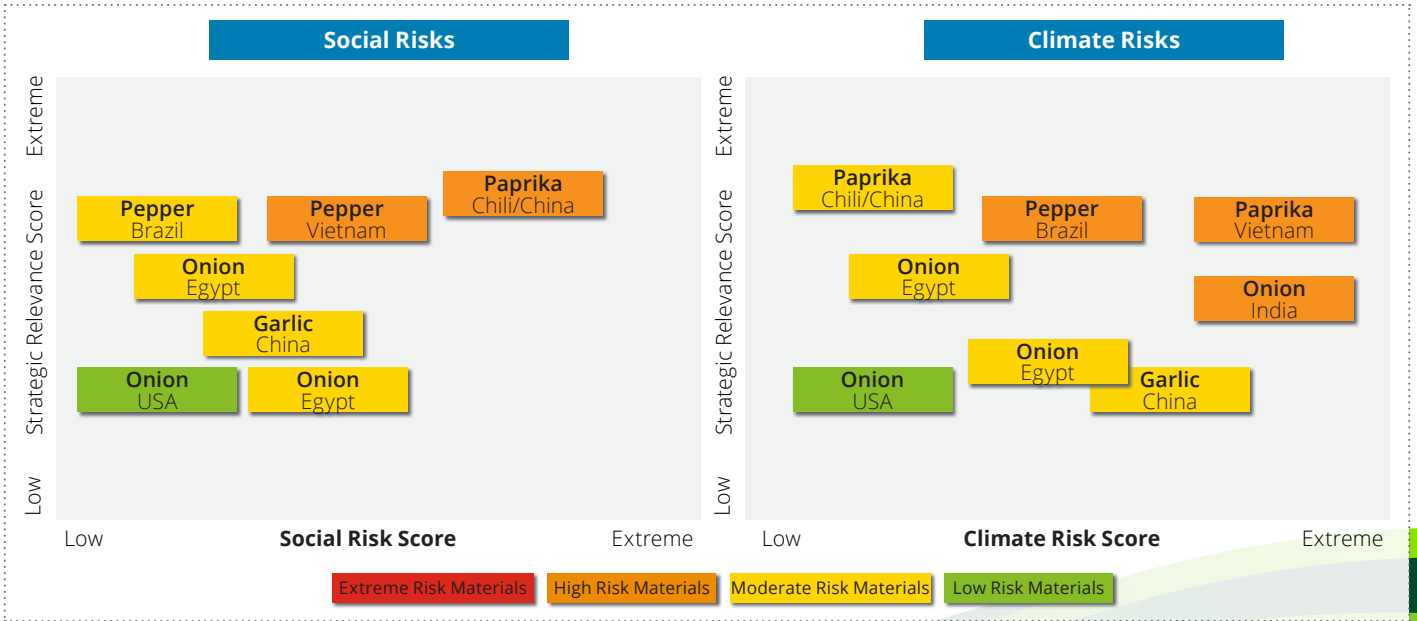


How it works in practice: Building supply chain resilience for spices

The next time you season your meal with black pepper, consider this: the supply chain that brings the pepper to your table is more fragile than most people realise.

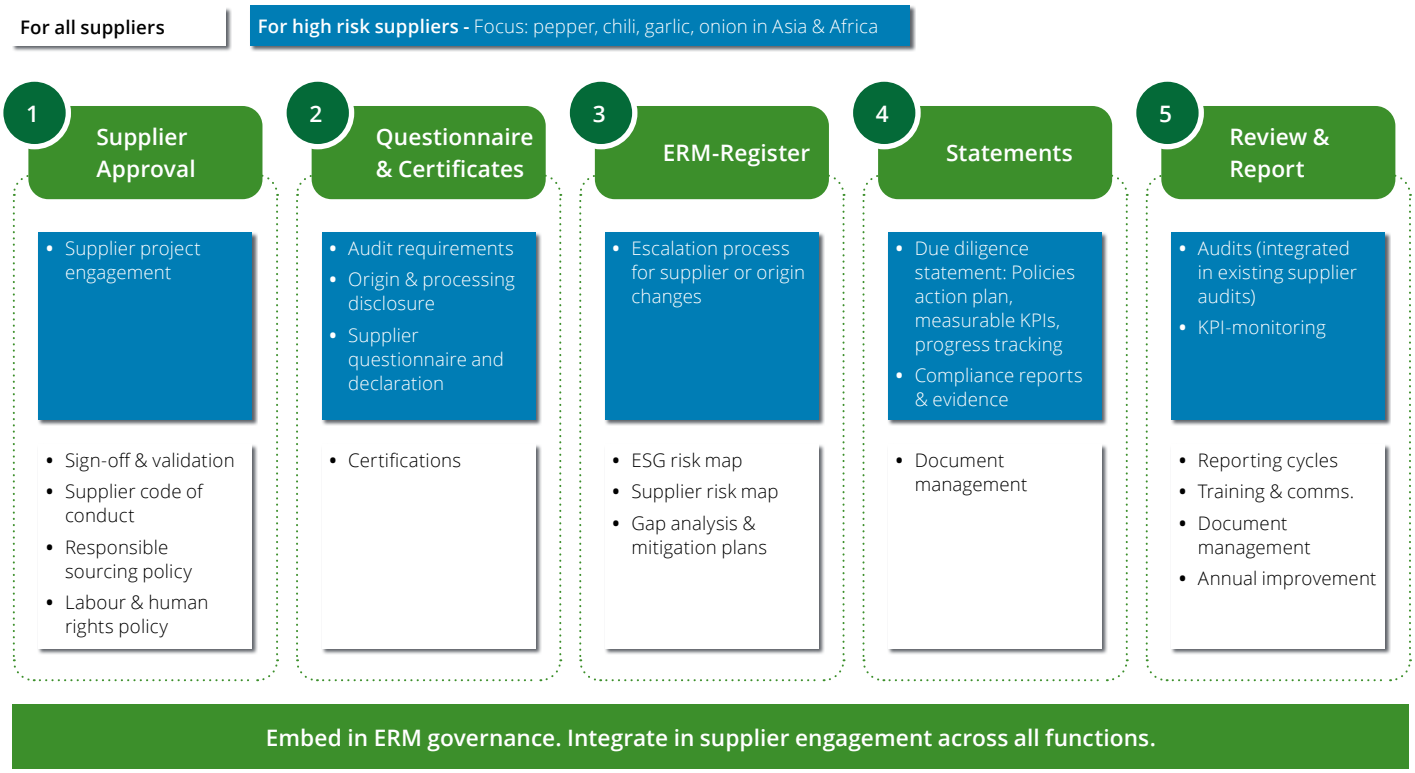
Novataste Group, a global spice and specialty ingredient company headquartered in Austria, deals with the supply chain risks of their products every day. Pepper, which is sourced from Brazil and Vietnam, is exposed to moderate or high risk in both locations.

Figure 4. Novataste Group ESG risk map: High risk raw materials and geographies



To manage these risks, Novataste Group developed a systematic five-step ESG Risk Approach embedded into its ERM Framework and integrated across its supplier engagement. The approach begins with baseline expectations (Supplier Approval), creates transparency through questionnaires and certifications, systematically identifies and maps risks using an ERM Register, develops action plans with measurable KPIs, and continuously monitors progress through audits and reporting. For high-risk suppliers, including pepper sourcing from Brazil and Vietnam, the company implements enhanced due diligence, escalation protocols, and capacity-building support. This structured governance framework (see Figure 5 below) enabled Novataste Group to advance from reactive crisis management to proactive supply chain resilience.

Figure 5. Novataste Group Supply Chain Due Diligence and ESG Risk Approach



The real differentiator

Organisations have a choice. They can treat sustainability as a disclosure requirement — a compliance checklist managed by the sustainability team, reported to the board annually, and largely disconnected from strategic decision-making. This is familiar and requires less effort. But it is also increasingly risky.

The alternative is to build governance capability. Doing this requires acknowledgement of the real barriers: organisational resistance to cross-functional accountability and resource constraints. The organisations that succeed, embark on a multi-year transformation, not a project, and obtain explicit board commitment and sustained resource allocation.

Here's how leading organisations are making this shift:

- Establish a board structure that actively oversees sustainability risk.
- Implement an operating model that systematically identifies, quantifies, and manages these risks.
- Embed sustainability into the ERM Framework, capital allocation decisions, and strategic planning.
- Ensure that the board is asking the right questions, at the right time, with the right information.

The organisations that do this manage risk better. But they also achieve other things, too. They anticipate market shifts faster. They allocate capital more efficiently. They build stakeholder trust more effectively. They create competitive advantage.

The board has the authority to make this choice. The question is: will it make it?

The real differentiator is not disclosure alone. It's the ability to anticipate, adapt, respond and build a competitive advantage.

Contact information

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ESG4Boards is an initiative founded in 2023 that brings together leadership personalities with expertise in the area of sustainability and positions them for board mandates in companies. The aim is to promote the integration of Environmental, Social and Governance (ESG) criteria into corporate management and to achieve this in 80% of Swiss companies with over 250 employees by 2030.

Appendix I

Scenario analysis - Energy disruption

The table below presents a structured scenario analysis examining the potential impact of a major energy disruption on an organization. It outlines the key assumptions, exposed assets, transmission pathways, and quantified financial and operational consequences, alongside mitigation and adaptation measures and the early-warning indicators that would signal the scenario is materializing.

Scenario name:	Energy disruption
Time horizon:	0–6 months (acute shock), with 12–24-month persistence for infrastructure recovery.
Key assumptions:	1. Significant source of energy disruption caused by: • geopolitical escalation disrupts energy supply routes (e.g., Middle East tensions, Russia-Ukraine spillover); or • coordinated cyber-attack on grid operators and energy trading platforms; or • critical grid infrastructure failure (transformer damage, substation outages); or • any other major factor. 2. Energy prices spike 40–80% above baseline. 3. Supply disruptions persist for 6–12 months before recovery. 4. Energy demand remains relatively inelastic in the short-term.
Exposed assets / suppliers:	• Energy-intensive manufacturing facilities. • Single-source energy suppliers in geopolitically volatile regions. • Reliance on just-in-time energy procurement. • Long-term fixed-price contracts with limited flexibility. • Trading counterparties with concentrated exposure.
Transmission pathway:	Supply disruption = energy price volatility = increased energy costs = cash flow strain = production curtailment = revenue loss and margin erosion
Financial / operational impacts:	• 6–12 weeks of partial production shutdown. • Energy costs increase 35–50% above budget. • Working capital increase of 15–25%. • Potential covenant breaches on debt facilities. • Customer contract penalties for non-delivery.
Mitigation actions:	• Diversify energy suppliers across geographies and sources (renewable, nuclear, natural gas). • Establish energy reserve capacity (on-site generation, battery storage). • Negotiate flexible supply contracts with force majeure clauses. • Develop energy efficiency programs to reduce consumption volatility. • Implement demand-side management to reduce peak loads. • Establish strategic energy procurement policies.
Adaptation actions:	• Accelerate transition to renewable energy and distributed generation. • Invest in grid resilience and backup power systems (microgrids, fuel cells); build strategic energy reserves. • Develop demand-response capabilities. • Establish partnerships with energy providers for priority access. • Implement real-time energy monitoring and optimisation systems. • Create alternative production routing to lower-energy facilities.
Trigger indicators / thresholds:	• Geopolitical risk index >70; energy price volatility (VIX equivalent) >40%. • Grid operator alerts for infrastructure vulnerabilities. • Energy cost variance >20% vs. budget. • Supply disruption announcements affecting >30% of sourcing. • Energy availability <95% of required capacity.

Endnotes

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