

swisscanto

Managed by



Zürcher
Kantonalbank

Global & Thematic Engagement

Q1 Engagement Report 2026

Engagement is an essential part of the sustainable investor's toolkit, promoting sustainable business practices and helping maximize risk-adjusted returns.

Our Engagement Activities

As global investor with a strong Swiss heritage and forward-looking role in sustainable investing, the asset management of Zürcher Kantonalbank with its Swisscanto brand recognizes that environmental, social, and corporate governance (ESG) factors can present material risks to portfolio investments and opportunities for better risk-adjusted returns.

Responsible and sustainability investing is a crucial element of our asset management strategy. We are convinced that integrating ESG factors may result in better-informed investment decisions allowing the generation of value for investors. Our investment stewardship activities complement our ESG-integrated investment focus and sustainability strategy.

Through our investment stewardship, we, or the fund management companies of the group of Zürcher Kantonalbank, seek to promote sustainable business practices while fostering compliance with renowned international principles and widely accepted ESG best-practice standards. This may include promoting compliant practices, check-and-balance principles, adequate pay-for-performances, environmental protection and climate change stewardship, supporting biodiversity, fair labour practices, non-discriminatory work and the protection of human rights, and other relevant ESG best practices. The investment stewardship of the asset management of Zürcher Kantonalbank or the respective fund management companies comprises the following active ownership elements:

- With **proxy voting**, we cast actively and responsibly our votes along our sustainable oriented mindset and strategy.
- By **engaging** actively with issuers, we promote best-practice ESG standards and convey our climate change message and strategy.

Engagement is primarily driven and led by our fundamental bottom-up capabilities and focuses on equity and fixed income securities. Our engagement activities are based on three major pillars as set out hereafter:

- **Direct dialogue with Swiss issuers:** Our focus is to create visibility among companies as an active and sustainable asset manager by promoting ESG best practices in the interest of our investors by leveraging on our home base expertise.

- **Collaborative engagements:** The focus is to promote ESG best practices for entire industries as well as their achievement of environmental and/or social goals (i.e. 17 UN SDGs). These collaborative engagements are mostly driven by the UN PRI platform, but opportunistic direct interactions with companies also take place. In addition, we support various ESG initiatives such as Climate Action 100+, Nature Action 100, TNFD, Climate Bond Initiative etc.
- **Global and thematic engagements:** Our engagements aim to promote best-practice ESG standards and sustainable themes on a global scale in the interests of our investors. Within thematic engagements, we focus on climate change, biodiversity, circular economy and healthy longevity. We commissioned Sustainalytics to leverage existing resources and convey our key sustainability messaging globally. Depending on relevance and materiality, we may also participate in these corporate dialogues.

We believe that the best way to promote improved market practices and ESG best-practice standards is through direct dialogues (engagements).

An important element is to convey our climate change strategy to issuers globally. We may actively ask issuers to:

- Formulate an ambitious and transparent climate strategy to reduce greenhouse gas emissions.
- Clearly define responsibilities and accountability for the definition, control and implementation of the climate strategy.
- Establish incentive systems for implementing the climate strategy (e.g. ESG KPIs in compensation schemes).

Besides our climate-related engagement, we prioritize our engagements in general according to breaches against the UN Global Compact Principles and focus on promoting the UN SDGs. We believe that investors are well positioned to influence ESG best-practices among their investments, especially in material holdings.

About the following Engagement Report from Morningstar Sustainalytics

Morningstar Sustainalytics is our partner for engagement activities at international companies. The following report is provided by Morningstar Sustainalytics and covers the engagements they conduct on our behalf. It shows an overview of global and thematic engagements.

About Morningstar Sustainalytics

Morningstar Sustainalytics is a leading ESG data, research, and ratings firm that supports investors around the world with the development and implementation of responsible investment strategies. For more than 30 years, the firm has been at the forefront of developing high quality, innovative solutions to meet the evolving needs of global investors. Today, Morningstar Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG information and assessments into their investment processes.

The firm also works with hundreds of companies and their financial intermediaries to help them consider material sustainability factors in policies, practices, and capital projects. Morningstar Sustainalytics has analysts around the world with varied multidisciplinary expertise across more than 40 industry groups. For more information, visit www.sustainalytics.com.

Asset Management of Zürcher Kantonalbank

Proven specialists manage high-quality investment and pension solutions for private investors, companies, and institutions. With its Swisscanto brand, Zürcher Kantonalbank Group is one of Switzerland's largest asset managers. It is also known for its role in sustainable investments.

Swiss fund management for Zürcher Kantonalbank and third parties

Swisscanto Fund Management Company Ltd., part of the Zürcher Kantonalbank Group, was established in 1960 and serves as the fund management company of the Swisscanto funds domiciled in Switzerland. Furthermore, Swisscanto Fund Management Company Ltd. also supports an increasing number of third-party customers with tailor-made services and flexible solutions.

Swisscanto Asset Management International S.A.

Swisscanto Asset Management International S.A., part of the Zürcher Kantonalbank Group, is a Luxembourg based investment fund management company offering a range of fund solutions across various asset classes and risk profiles. In addition to serving as the in-house management company for Swisscanto funds under Luxembourg law, it operates as a third-party management company for private label funds, providing tailored solutions to meet specific client needs.

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www.swisscanto.com

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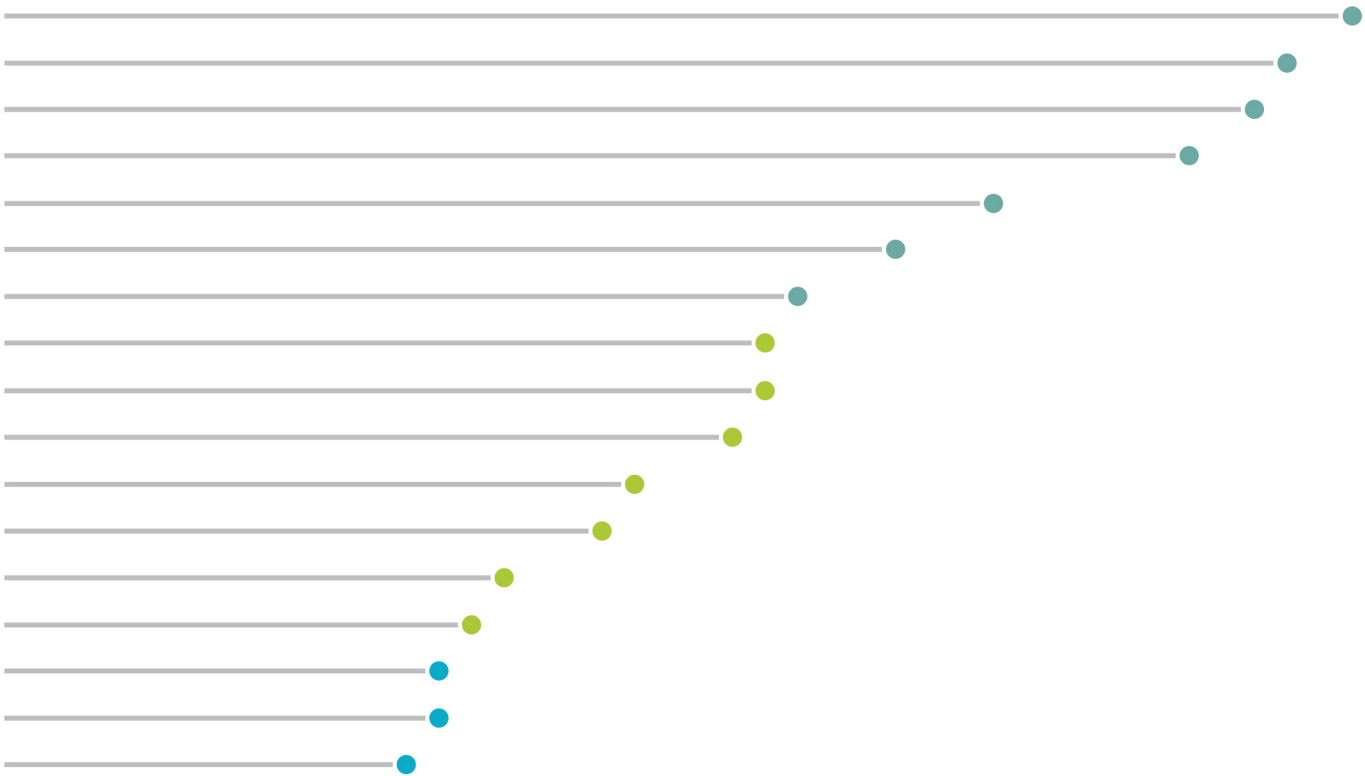
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Engagement 360

2026 Q1 Report



Stewardship is where insights become action. Engagement 360 supports a holistic approach to mitigating ESG risks and capitalizing opportunities.

Table of Contents

Stewardship Approach	1
Quarter in Review	2
Stewardship Overview.	4
Engagement Status	5
Trigger for Engagement	5
Industry Distribution	6
Engagements by Headquarter Location.	7
Engagement Topics	8
Sustainable Development Goals – Mapping Engagements	9
Case Study: Wilmar International Ltd. . . . .	.10
Case Study: The Williams Cos., Inc. . . . .	.11
Case Study: Shoprite Holdings Ltd. . . . .	.12
Case Study: Swisscom AG . . . . .	.13
Engagement Results . . . . .	.14
Engagement Progress . . . . .	.15
Engagement Response . . . . .	.15
Engagement Performance . . . . .	.16
Engagement Milestones. . . . .	.17
Engagements Resolved . . . . .	.18
Resolved Q1 - Siemens AG . . . . .	.19
Low Performance Engagements . . . . .	.20
Engagement Status Updates. . . . .	.27
New Engage. . . . .	.27
New Associated. . . . .	.30
New Archived . . . . .	.31
Universe Change Impact. . . . .	.32

Table of Contents (cont.)

Sustainability Insights. . . . .	.33
Why Culture is a Key Driver for Tackling Governance Risks in Family-Controlled Conglomerates (Chaebol Context)	33
Board Effectiveness: How Japan Compares to Leading Asia-Pacific Region. . . . .	.35
Nature Transition Plans: Turning Biodiversity Ambition into Corporate Action . . . . .	.38
Why Human Capital Management Fails Without Governance . . . . .	.41
Capturing Carbon vs Electrifying Everything: how China and the United States are Staking Claims in the Net Zero Transition	43
AI as Enterprise Risk: Why Corporate Governance Must Catch Up. . . . .	.45
Endnotes . . . . .	.49
About Morningstar Sustainalytics and Contacts . . . . .	.52

This report summarizes the shareholder engagement activities that Morningstar Sustainalytics performed on behalf of Swisscanto / Zürcher Kantonalbank between January and March 2026. If there is no specific reference to date in graphs and tables, the data is presented as per end of the reporting period. The report has been produced in May 2026 and uses data for the quarter ending 31 March 2026. Version 1 was disseminated on 20 May 2026. Use of and access to this information is limited to clients of Morningstar Sustainalytics and is subject to Morningstar Sustainalytics legal terms and conditions.

Stewardship Approach

Engagement 360 is a holistic stewardship offering that promotes and protects the world's leading asset owners' and managers' long-term shareholder values through consistent engagement outcomes. Engagement 360 addresses ESG risks and strives to create positive social and environmental outcomes.

ESG STRATEGY AND RISK promotes and protects long-term value by flagging high- and severe- risk companies to proactively engage unmanaged and financially material ESG issues. The focus is on companies with unmanaged ESG risk greater than 30 as identified by Morningstar Sustainalytics' ESG Risk Ratings.

INCIDENT engagements address companies that severely or systematically violate international standards, such as the UN Global Compact and OECD Guidelines for Multinationals to ensure that investors are managing associated reputation risk. This engagement aims to not only to verify how a company addresses the incident but also to effectuate change in the company's policies and/or processes to ensure proper policies and programmes are in place to avoid future reoccurrences and improve its ESG disclosure. Companies flagged as Watchlist or Non-Compliant as identified by Morningstar Sustainalytics' Global Standards Screening research are targeted for this engagement.

THEMES are SDG-aligned proactive engagements that enable investors to align their interests in addressing specific systemic issues across the ESG spectrum. Thematic engagement's philosophy centers around systematic change, collaboration, root causes and best practice sharing at its core. The purpose of this engagement is to influence companies to proactively manage specific ESG risks and capitalize on opportunities.

Morningstar Sustainalytics' ESG Voting Policy Overlay provides vote recommendations that align to widely accepted ESG principles, sustainability objectives, ongoing corporate engagements and ESG issues most important to investors.



Quarter in Review

We are pleased to report on the activities and outcomes of Morningstar Sustainalytics' Engagement 360 in Q1 2026, offering insights into our stewardship work throughout the quarter.

Highlights of the Quarter

The first quarter of 2026 underscored governance quality as a defining factor in corporate resilience, risk management, and long-term value creation. Across engagement themes, companies with clear board oversight, defined accountability, and effective escalation mechanisms appear better positioned to manage uncertainty, respond to regulatory change, and mitigate ESG-related risks. Where these foundations were weak, risks tended to compound, increasing operational, financial, and reputational exposure.

This pattern was most evident in Strategy and Risk engagements. Companies with independent, skilled boards and robust internal reporting structures were better able to anticipate emerging risks and respond in a timely, coordinated manner. In contrast, insufficient independence, limited expertise, and entrenched practices often constrained effective oversight. Our targeted assessment of board effectiveness across selected Asia-Pacific markets reinforced these dynamics. Australia ranked highest among the markets reviewed, followed by Singapore and South Korea, while Japan lagged peers on board independence and skills depth, highlighting continued scope for governance enhancement as reforms progress.

The importance of governance and culture was particularly visible in incident-driven engagements. Companies with credible accountability mechanisms and strong speak-up cultures were better able to contain incidents and restore stakeholder trust, while weak governance often amplified the severity and duration of controversies. Asia remained a priority region, accounting for over a third of incident engagements, reflecting the governance complexity of large corporate groups. A retrospective review of engagements with family-controlled conglomerates in South Korea highlighted the operational and reputational consequences of repeated governance failures but also demonstrated that sustained engagement focused on governance and culture change can deliver meaningful outcomes.

Expectations for corporate action on biodiversity and natural capital intensified during the quarter. The entry into force of the High Seas Treaty, alongside updated benchmarks and new TNFD guidance on nature transition plans, raised the bar for credible execution. Engagements revealed uneven progress, with some companies building on early disclosures while others lost momentum after initial reporting. Stewardship therefore focused on targeted capability-building and strengthening the link between nature-related risks, governance, and decision-making. Encouragingly, financial institutions increasingly connected biodiversity considerations with established climate finance frameworks.

At the same time, progress toward a net zero transition continued to advance at a slower and more uncertain pace across the board. Record investment contrasts with rising policy uncertainty, particularly in Europe. Engagements focused on implications of evolving EU climate reforms and higher credibility thresholds emerging from proposed revisions to the SBTi and GHG Protocol, reinforcing the importance of governance, disciplined capital allocation, and robust emissions data.

Human capital management engagements remained constructive. A consistent insight was the persistence of a governance gap: while workforce commitments are increasingly disclosed, fewer companies demonstrate clear board ownership or explain how performance is assessed over time. Engagements emphasized defined responsibilities, structured oversight, and outcome-focused metrics, reinforcing the treatment of human capital as a financially material, governed system.

Within human rights and transition, engagement expanded in scope and effectiveness, with increased focus on advancing human rights due diligence and improving disclosure quality. European utilities and mining companies continue to lead amid improving regulatory clarity, while gaps persist in outcome-based targets, remediation, and board accountability across regions and sectors. Stewardship remains critical in supporting progress beyond baseline compliance.

Finally, engagements focused on circularity highlighted ongoing structural challenges despite incremental progress. Discussions increasingly centred on value-creating pathways such as product design, lifetime extension, and reuse, particularly in EV battery value chains, where circular-ready design and regulatory preparedness are emerging as key drivers of long-term value.

Overall, the quarter indicates an emerging perspective, emphasizing the importance of strong governance. Companies that strengthen board effectiveness, accountability, and culture are likely better positioned to manage emerging ESG risks, such as AI, respond to incidents, and translate sustainability ambition into durable long-term performance.

Looking Ahead

Looking ahead to 2026, Incidents engagement will focus on whether governance reforms translate into durable cultural change. Building on this quarter's governance and risk oversight themes, we will continue to emphasize alignment between disclosure and material risks, embedding ESG, and strengthening organizational resilience amid rising geopolitical and policy uncertainty.

Recent developments in the Middle East underscore the growing complexity of the risk environment, as geopolitical tensions increasingly test supply chain resilience, strategic preparedness, and risk management practices in this context, governance quality and resilience will remain central to our global engagement priorities and long-term value creation. While on Themes we will reinforce momentum through targeted initiatives, including a joint investor-issuer event on executive remuneration and transition planning. Across programmes, the emphasis will be on strengthening governance, aligning incentives with long-term value creation and risk management, and advancing practical, market-driven transition strategies on climate and biodiversity aligned with emerging best practice.

Stewardship Overview



806

engagements as of 31
March 2026

35

new engagements



Utilities

is the most engaged industry



United States
Highest number of
engagements in a
single market

**Climate Change -
Transition Risk and
Disclosure**
are the most engaged
topics

SDG 12
(54%) linked to
engagement
objective



Engagement Status

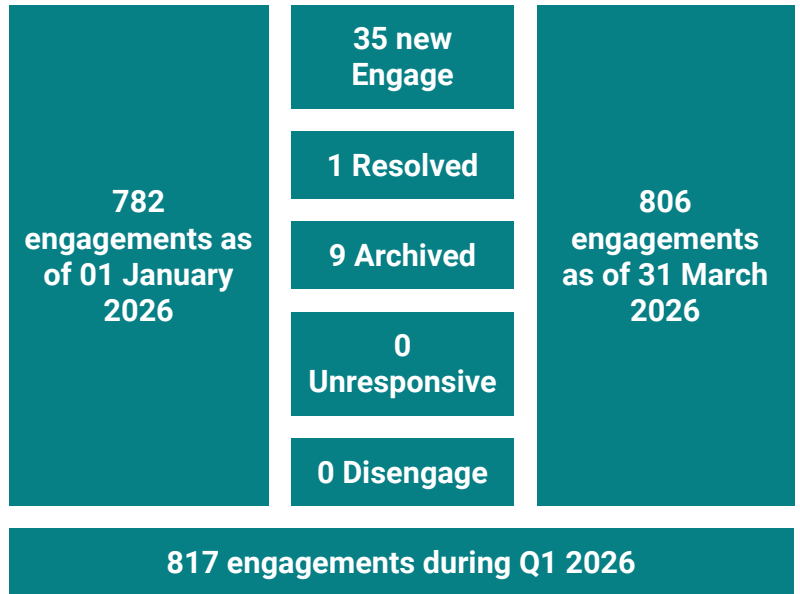
When we open an engagement, the status is Engage. We will then pursue engagement until we change status to:

- Resolved** The company has achieved the engagement objective.

- Archived** Engagement is concluded, the engagement objective has not been achieved.

- Unresponsive** Unresponsive is the final step in the escalation for companies not responding to our engagement. At this final step, we have exhausted all other engagement tools.

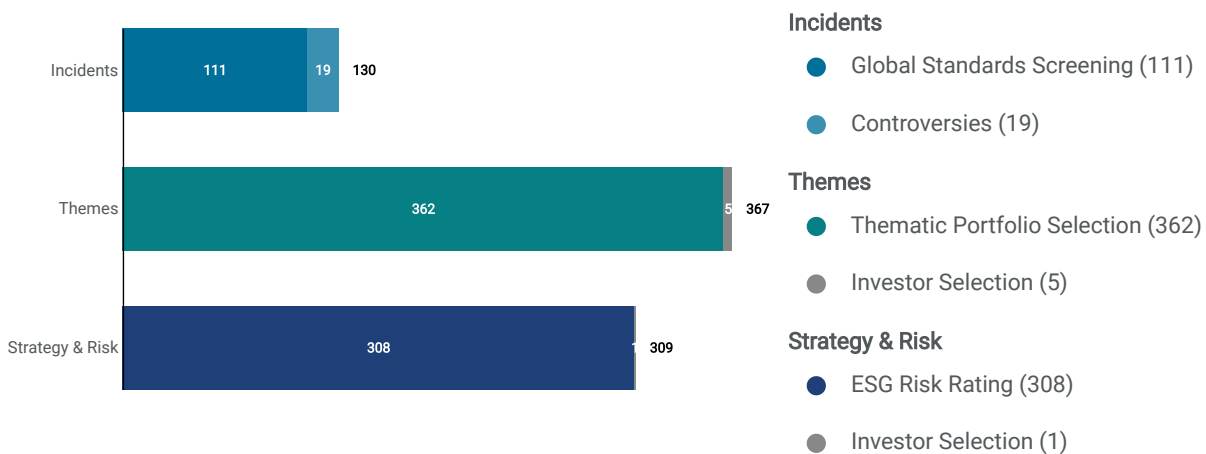
- Disengage** Engagement is deemed unlikely to succeed.



On a regular basis, universes are rebalanced and issuers might therefore be removed from our data set. Corporate changes can also affect case status. In such circumstances, opening and closing engagement counts will not match. Impacted companies may or may not overlap with investor holdings.

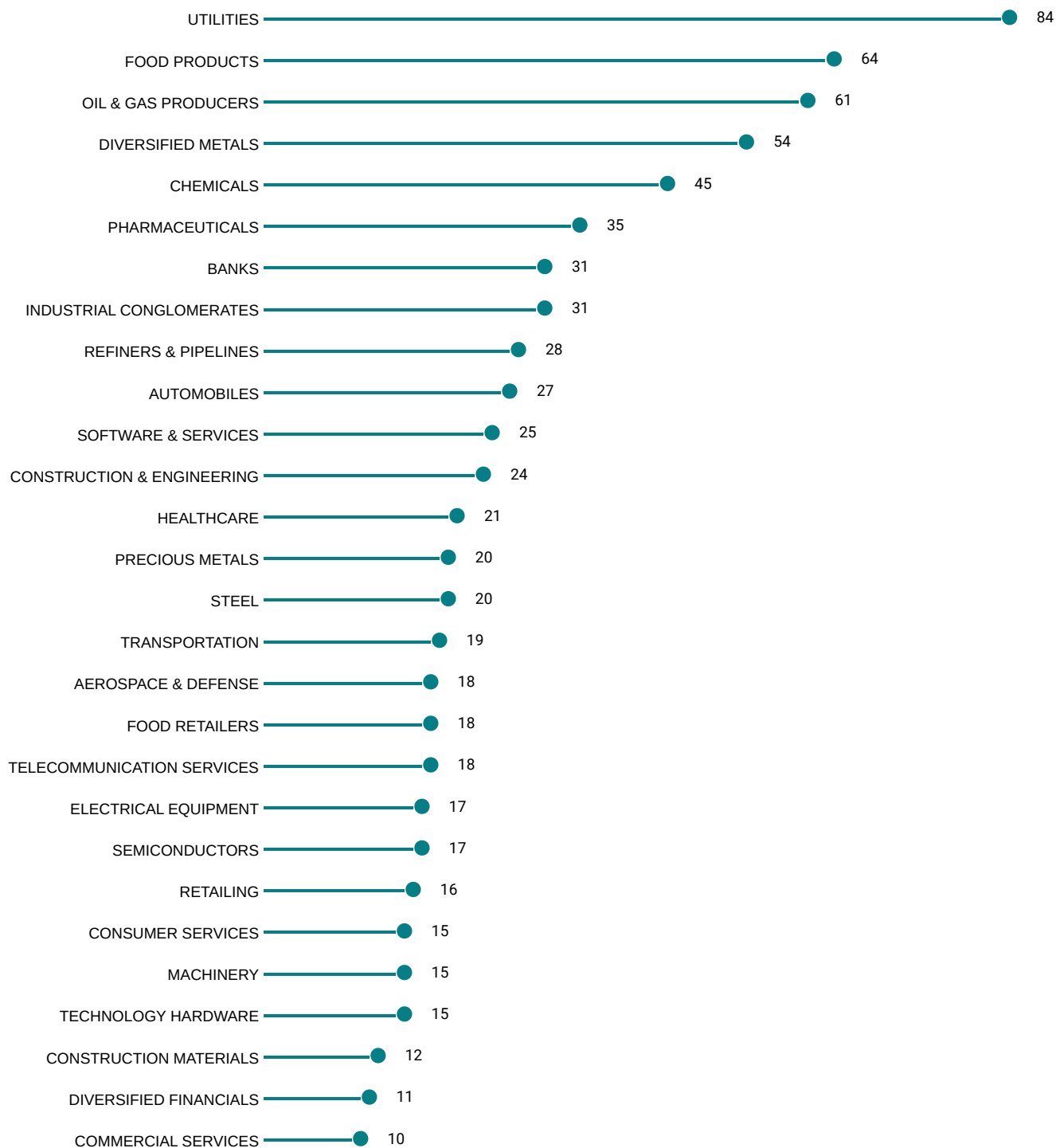
Trigger for Engagement

Trigger for Engagement identifies if research or investor interest initiated the engagement. Research options are Global Standards Screening, Controversies and ESG Risk Rating. Investor client options are Thematic Portfolio Selection and Investor Selection.

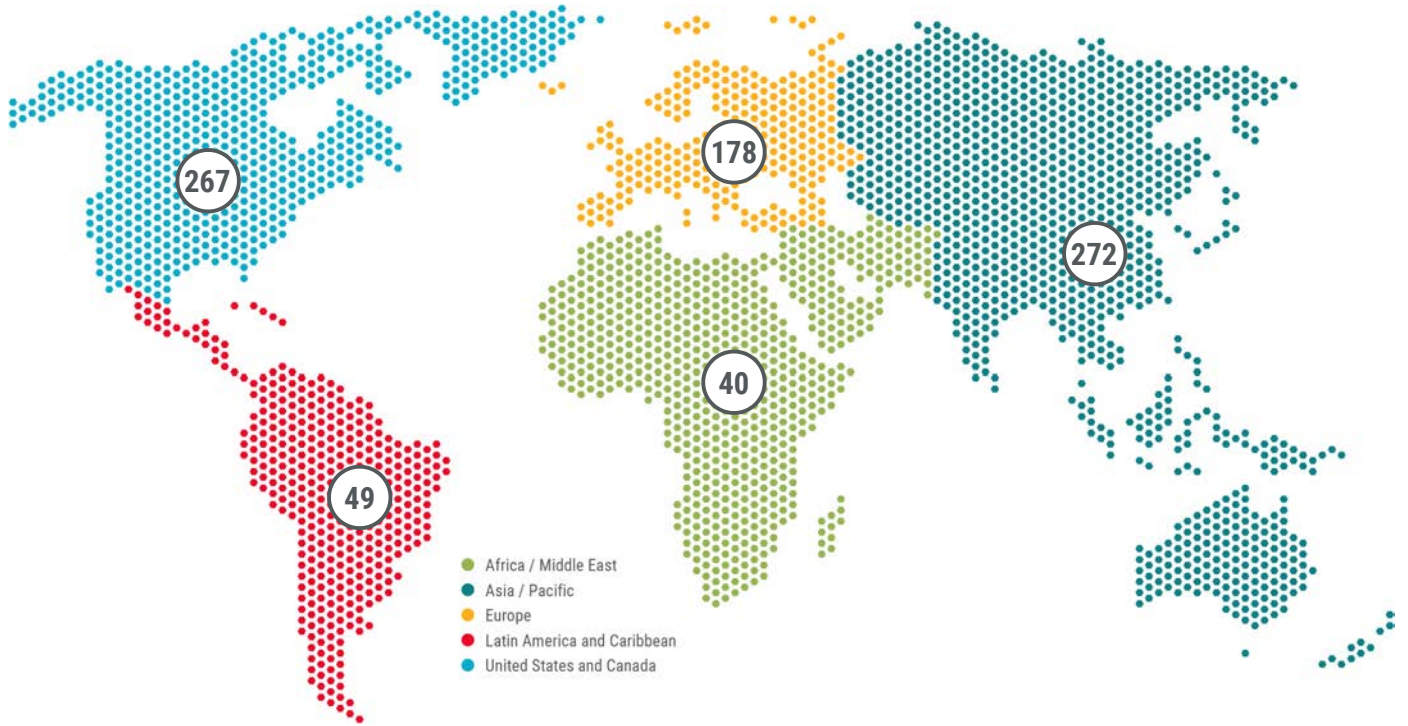


Industry Distribution

(Industries with a minimum of 10 engagements)



Engagements by Headquarter Location

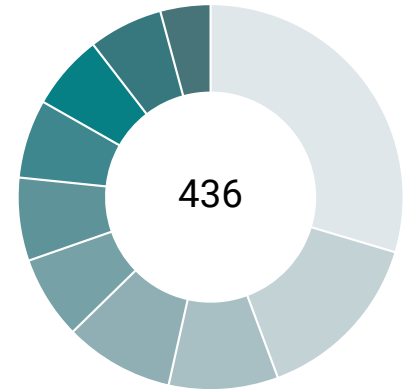


Engagement Topics

At the end of the reporting period, our engagements addressed a number of topics across the environmental, social and governance pillars.

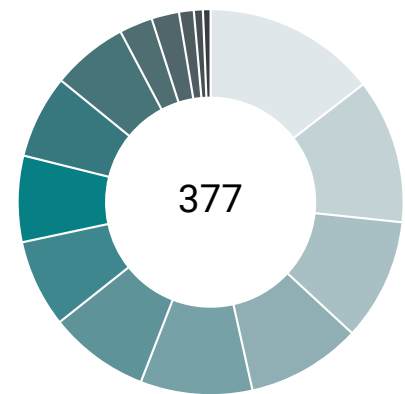
Environmental

- CLIMATE CHANGE - TRANSITION RISK (320)
- WASTE MANAGEMENT (98)
- LAND POLLUTION AND SPILLS (74)
- BIODIVERSITY (70)
- CIRCULAR ECONOMY (66)
- WATER SECURITY (158)
- WATER QUALITY (98)
- NATURAL RESOURCE USE (74)
- DEFORESTATION (67)
- AIR POLLUTANT EMISSIONS (44)



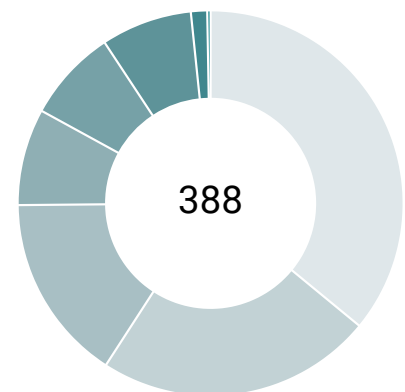
Social

- HUMAN RIGHTS (120)
- HUMAN CAPITAL (84)
- PRODUCT QUALITY AND SAFETY (77)
- DIVERSITY, EQUITY AND INCLUSION (DEI) (60)
- FORCED LABOUR (57)
- DATA PRIVACY AND SECURITY (22)
- MARKETING PRACTICES (9)
- HIGH-RISK TERRITORIES (4)
- JUST TRANSITION (100)
- COMMUNITY RELATIONS (79)
- INDIGENOUS PEOPLE (69)
- OCCUPATIONAL HEALTH AND SAFETY (59)
- CHILD LABOUR (52)
- LABOUR RIGHTS (18)
- WEAPONS (5)



Governance

- DISCLOSURE (297)
- BOARD COMPOSITION (129)
- SHAREHOLDERS RIGHTS (63)
- COMPETITION (10)
- ESG GOVERNANCE (191)
- ACCOUNTING AND TAXATION (66)
- BUSINESS ETHICS, BRIBERY AND CORRUPTION (62)
- SANCTIONS (1)



Note: Each engagement case may address multiple ESG topics. The numbers in parentheses indicate how many engagements include that specific topic. The total in the chart reflects the count of engagements with an Environmental, Social, or Governance focus. While a single engagement may span multiple ESG pillars, it is counted only once in the total. However, there is no limit to the number of topics an engagement can cover, so the topic counts will not sum to the total per pillar.

Sustainable Development Goals – Mapping Engagements

All engagements are mapped to the 17 UN Sustainable Development Goals (SDGs). The mapping is done by Morningstar Sustainalytics and refers to the focus and objective(s) of the engagement.

1 No Poverty	7%	10 Reduced Inequality	8%
2 Zero Hunger	14%	11 Sustainable Cities and Communities	10%
3 Good Health and Well-Being	29%	12 Responsible Consumption & Production	54%
4 Quality Education	6%	13 Climate Action	45%
5 Gender Equality	7%	14 Life Below Water	8%
6 Clean Water and Sanitation	10%	15 Life on Land	11%
7 Affordable and Clean Energy	21%	16 Peace & Justice, Strong Institutions	33%
8 Decent Work and Economic Growth	31%	17 Partnerships to Achieve the Goal	2%
9 Industry, Innovation & Infrastructure	30%		

Case Study: Wilmar International Ltd.

Global Standards/Incidents Engagement | Trigger for Engagement: Global Standards Screening | Engagement Since: May 2019



Industry: **Food Products**

Country: **Singapore**

Incident Location: **Indonesia**

Global Standards Screening: **Watchlist**

Wilmar faces criticism from local communities and NGOs for allegedly engaging in controversial land acquisitions and development in Southeast Asia and Africa, with negative human rights impacts.

Progress: **Standard** | Response: **Standard** | Latest Milestone: **4 Engagement Update**

Our engagement with Wilmar on community relations and Indigenous peoples has been constrained by intermittent dialogue and limited responsiveness. While engagement was re-established at points, maintaining consistent dialogue proved difficult, though there has been significant improvement since 2024. The most recent engagement in July 2025 focused on gaps in traceability targets, grievance mechanism effectiveness, and challenges in implementing human rights due diligence. A follow-up engagement is planned for H2 2026 to assess progress and delivery.

Focus Area

Wilmar is a publicly listed company with a concentrated ownership structure, anchored by a founding family group and a strategic global agribusiness partner, subsequently it has operations in many regions of the world, presenting challenges in ensuring cohesive community engagement. Wilmar has a strong approach to delivering human rights due diligence but evidence is still being collected to confirm the robustness of this approach.

Engagement Outcomes

Wilmar has strengthened its governance by embedding human rights into formal policies and systems, including group-level frameworks and defender protections aligned with international standards. It has improved oversight of labour and human rights risks through structured assessments and expert collaboration, and enhanced grievance handling through systematic tracking, supplier engagement, and monitoring tools. These measures reflect a shift from reactive responses toward more preventive and accountable risk management.

Insights & Outlook

In the past, Wilmar was routinely at the centre of human rights controversies, including allegations of land grabbing, labour abuses, and conflicts with local communities. Over the last decade, however, the company has developed one of the most comprehensive and effective human rights governance frameworks in the sector, as evidence in the progress of the engagement over the past two years, currently being at advanced stages of the engagement.

Case Study: The Williams Cos., Inc.

Net Zero Transition Stewardship Programme | Engagement Since: July 2023



Industry: **Refiners & Pipelines**

Base Location: **United States**

Williams' extensive infrastructure makes its transition strategy materially important for enabling a lower-carbon trajectory. Our engagement ensures its long-term capital allocation aligns with a net zero future, driving robust climate governance and absolute GHG emission reductions.

Progress: **Standard** | Response: **Good** | Latest Milestone: 1

Engagement Update

Since 2023, the dialogue has progressed from understanding the company's foundational climate commitments to evaluating the specific mechanics of its transition strategy. Discussions have centered on the evolution of executive compensation metrics, emphasizing the need to eventually shift from intensity-based to absolute GHG reduction targets. Additionally, while established scope 1 and 2 targets are linked to remuneration. The engagement consistently prioritizes the need for expanded scope 3 transparency to fully address value-chain transition risks.

Focus Area

The primary focus is bridging the gap between Williams' current operational efficiency and its long-term transition viability. Discussions center on the robustness of 2030 interim goals and the necessity of incorporating scope 3 reporting to capture the full transition risk profile of natural-gas infrastructure, particularly as advancing battery storage and emerging CCS markets begin reshaping expectations for the long-term role of such assets. A key priority is ensuring that long-term capital allocation, specifically the company's multi-billion dollar "Power Innovation" projects aligns with a net zero future while governance structures evolve towards value-chain accountability.

Engagement Outcomes

A primary outcome of this ongoing dialogue is a clearly defined roadmap of the company's climate governance relative to evolving best practices. The engagement has secured management's commitment to phased scope 3 reporting, providing critical visibility into downstream risks. Furthermore, discussions have established a transparent framework to monitor capital allocation alongside the company's existing intensity-based compensation metrics. These milestones ensure continuous management accountability and lay the necessary groundwork to effectively advocate for absolute reduction targets as the transition strategy matures.

Insights & Outlook

The outlook for Williams rests on its ability to balance infrastructure growth with long-term decarbonization. The market is already rewarding this dual focus; the share price has surged to near all-time highs as Williams actively monetizes its net zero capabilities through its "Power Innovation" strategy for energy-hungry AI data centers. By leveraging strong climate governance to reframe its infrastructure from a transition risk into a growth driver, Williams has earned a significant valuation premium. Future engagement will leverage this high investor trust to encourage the eventual integration of comprehensive, absolute emissions accountability into executive compensation.

Case Study: Shoprite Holdings Ltd.

Biodiversity and Natural Capital Stewardship Programme | Engagement Since: July 2022



Industry: **Food Retailers**

Base Location: **South Africa**

Shoprite is Africa's largest food retailer with a widespread presence across multiple African countries, with a workforce of more than 168,000 employees. Its dependence on agricultural ecosystem services exposes it to substantial nature-related risks throughout its value chain.

Progress: **Standard** | Response: **Standard** | Latest Milestone: **1**

Engagement Update

Engagement has increasingly focused on strengthening Shoprite's approach to biodiversity risk assessment, water strategy, and responsible sourcing. Through ongoing dialogue, the company has demonstrated growing openness to engage. In February 2026, we held a closed call to discuss its materiality assessment and localized water initiatives and proposed potential enhancements to strengthen its nature-related risk assessment and improve water management through greater supplier engagement.

Focus Area

Our dialogue with Shoprite has increasingly focused on strengthening its approach to biodiversity initiatives, nature-related risk assessment, and water management, reflecting both investor expectations and the company's evolving needs. In 2025, discussions centered on reconnecting with senior leadership, clarifying the value of engagement, and reviewing its biodiversity and responsible-sourcing commitments. In 2026, the focus shifted to more technical topics, reviewing Shoprite's materiality assessment, proposing enhancements to its nature-risk assessment, and examining locally grounded water-risk initiatives. This reflects the company's move from high-level themes to underlying technical elements.

Engagement Outcomes

Shoprite has made meaningful progress in recognizing the importance of biodiversity, reflected in its Position Statement on Biodiversity and Responsible Sourcing and related sustainability disclosures. It completed a pilot biodiversity footprint assessment with the Endangered Wildlife Trust and is considering adopting the TNFD LEAP framework to deepen its understanding of biodiversity risks across the value chain. It also highlighted several initiatives during our discussions, including a partnership with WWF supporting sustainable small-scale fisheries on South Africa's west coast, helping restore marine ecosystems while protecting local livelihoods.

Insights & Outlook

As a South African-based retailer, Shoprite benefits from a relatively concentrated set of supply origins, shorter distribution distances, and sourcing relationships with nearby farms. Consequently, its potential exposure to deforestation-related risks is lower than that of multinational retailers with more complex global supply chains. However, South Africa faces significant water stress, and most of Shoprite's water withdrawals occur in high-risk areas. Effective water risk management and stewardship are therefore critical for maintaining essential hygiene, cleaning, and food safety needs, as well as ensuring long-term business continuity.

Case Study: Swisscom AG

Scaling Circular Economies Stewardship Programme | Engagement Since: March 2025

Industry: **Telecommunication Services**

Base Location: **Switzerland**

Swisscom holds significant influence across its value chain due to its scale and expanding footprint, including the acquisition of Vodafone Italia acquisition in 2024. This enables it to shape how circular economy approaches develop in telecommunications networks and devices.

Progress: **Standard** | Response: **Standard** | Latest Milestone: **1**

Engagement Update

After an introductory call in May 2025 and following the publication of an updated materiality assessment and new sustainability strategy by Swisscom, we held a first engagement call with representatives of the company's corporate sustainability and investor relations teams in March 2026. In November 2025, the company also attended a webinar on "Investing in the Circular Electronics Transition," a joint initiative of the Circular Electronics Partnership and Morningstar Sustainalytics.

Focus Area

Swisscom's Sustainability Strategy 2030 includes four circular economy targets on: carbon footprint reduction; mobile phone take-back rate (Switzerland); home network take-back rate (Switzerland); and branded devices reuse rate (Italy). This is consistent with the impact analysis in the Annual Report 2025, which, for example, underlines the short-term, downstream, positive impact of circular economy principles, manifested in take-back, refurbishment, and second-life programmes. We were keen to understand the overarching rationale for the strategy, as well as any perceived risks or opportunities.

Engagement Outcomes

On the call, Swisscom advised that climate impact reduction was the strategic principle unifying all four circularity targets. Indeed, the company views circularity and climate action as inseparable, with changes in product design and material flows directly influencing carbon performance. Swisscom also highlighted infrastructure-sharing as another area of opportunity, demonstrated by the agreement between its Italian subsidiary Fastweb+Vodafone on the one hand and TIM on the other to share its radio access networks.¹ The company envisages that such sharing will free up resources for further investment and support the continued rollout of 5G.

Insights & Outlook

Swisscom's strong mobile phone take-back rate is driven by its decision to bring the trade-in programme in house and by Switzerland's nationwide recycling scheme, which connects to the company's Mobile Aid programme and supports second life options. The discussion highlighted circular opportunities across both devices and network efficiency. Swisscom already demonstrates leading practice in target setting and reporting on circularity in our view. Looking ahead, we will review progress on its Sustainability Strategy 2030 and encourage enhanced reporting, including integrating infrastructure sharing into its impacts, risks and opportunities analysis and reinforcing the nexus between emissions reduction and circularity targets.

Engagement Results



160

meetings, including 2 in-person meetings



2,758

emails and phone calls exchanged



1

engagement Resolved



229

Milestones achieved

221

Positive Developments



31%

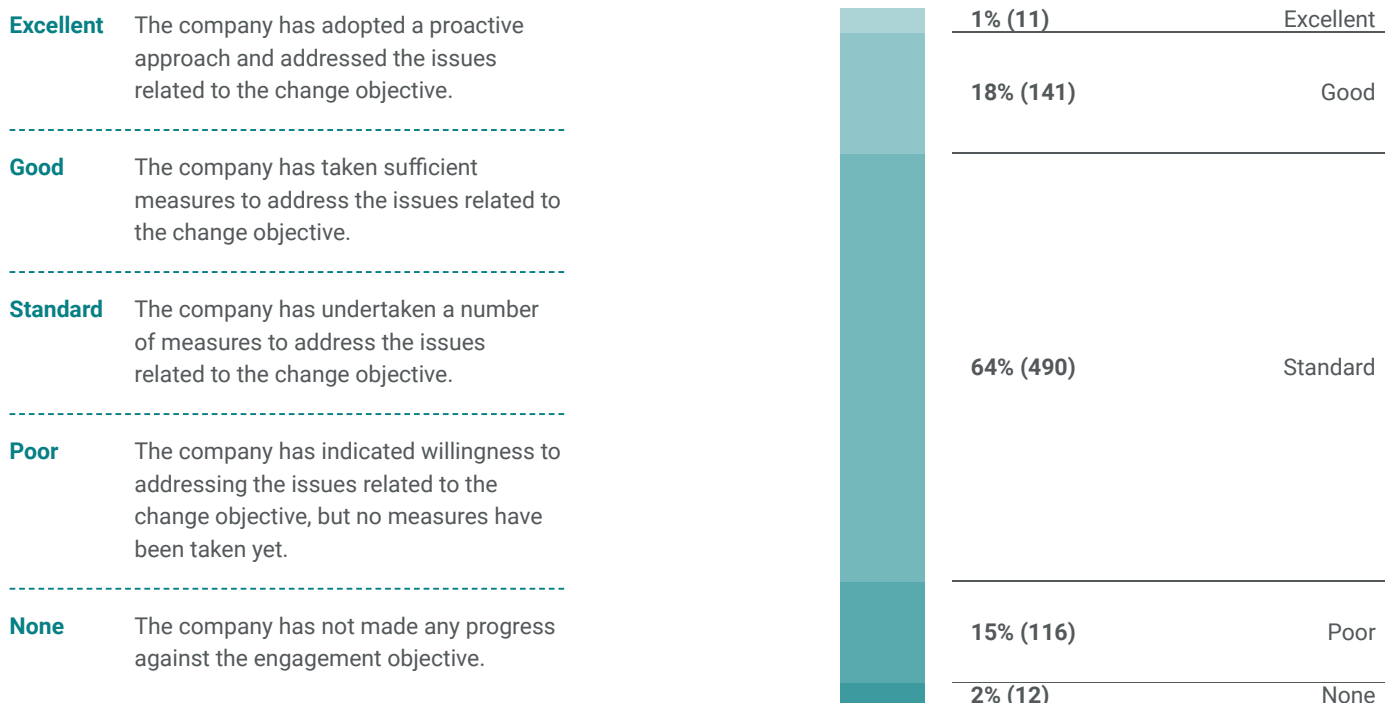
of engagements with Excellent or Good Response

20%

of engagements with Excellent or Good Progress

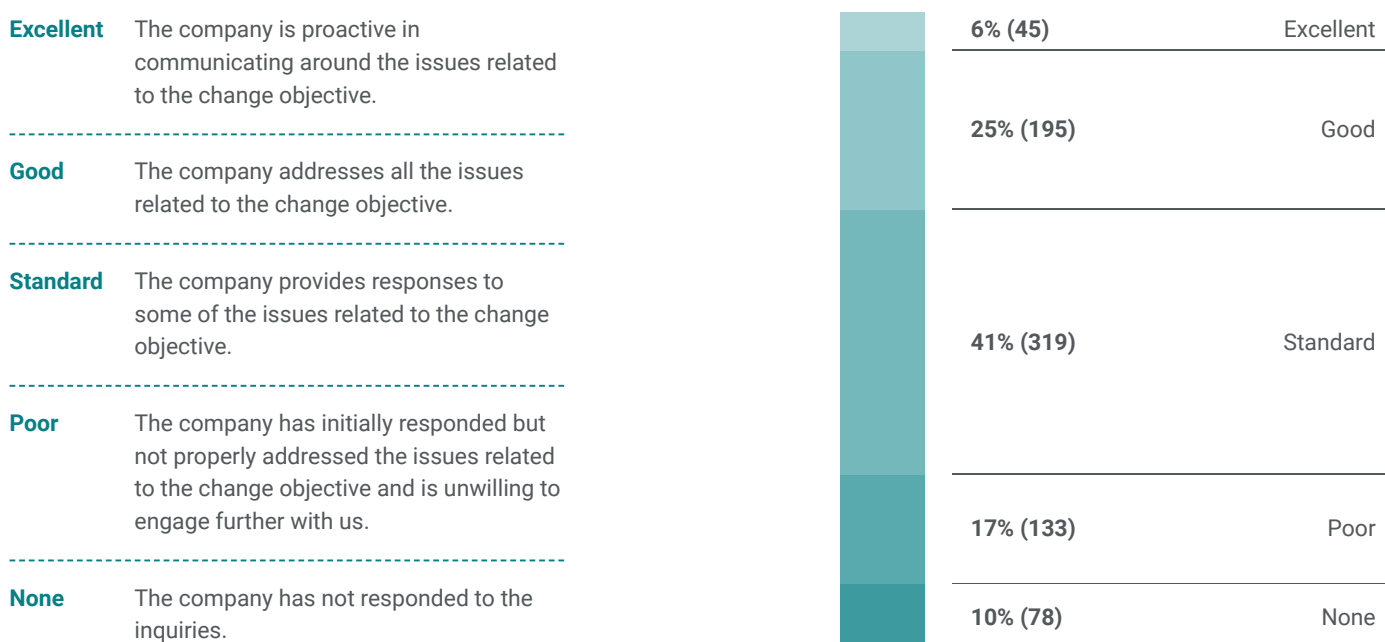
Engagement Progress

Progress reflects the pace and scope of changes towards the engagement objective that the company is making, assessed on a five-point scale.



Engagement Response

Response reflects the company’s willingness to engagement dialogue with investors, assessed on a five-point scale.

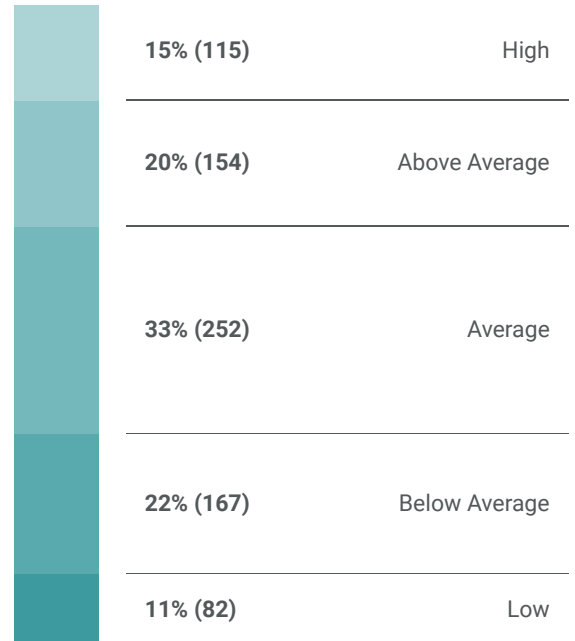


Engagement Performance

Performance describes the combined company Progress and Response.

We have five tiers to offer a nuanced understanding, the tiers are: Low, Below Average, Average, Above Average, and High.

The Progress and Response matrix below is used to determine performance.



Progress and Response Matrix

		RESPONSE				
		EXCELLENT	GOOD	STANDARD	POOR	NONE
PROGRESS	EXCELLENT	High	High	Above Average	Average	Average
	GOOD	High	High	Above Average	Average	Average
	STANDARD	Above Average	Above Average	Average	Below Average	Below Average
	POOR	Average	Average	Below Average	Low	Low
	NONE	Average	Average	Below Average	Low	Low

Engagement Milestones

Milestones are our five-stage tracking of progress in achieving the engagement objective.

**229 Milestones
achieved in Q1 2026**

Milestones Framework

Resolved Case successfully closed.

Milestone 5 Change objective is considered fulfilled.

Milestone 4 Implementation of strategy has advanced meaningfully, and related issuer disclosure maturing.

Milestone 3 Strategy is well formed and has moved into early stages of implementation.

Milestone 2 Issuer establishes a strategy to address the issue.

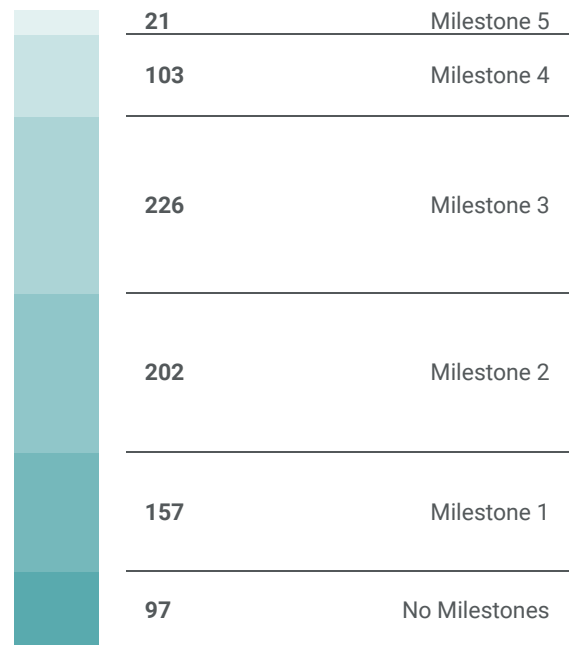
Milestone 1 Acknowledge of issue(s) and commitment to mitigation.

YTD Highest Milestone Achieved (Resolved)



Note: Cumulative year to date resolved cases.

Highest Milestone Achieved (Engage)



Note: Milestone distribution of ongoing Engage cases at the end of the reporting period.



Engagements Resolved

COMPANY	COUNTRY	ISSUE	RELATED COMPANY
Siemens AG	Germany	Human Capital Management	None

Resolved Q1 - Siemens AG

Engagement Since: 11 January 2024



INDUSTRY:

Industrial Conglomerates

COUNTRY:

Germany

SUMMARY:

Siemens is a global technology powerhouse focusing on intelligent infrastructure, automation and digitalization, and smart mobility solutions, employing over 300,000 people worldwide. Given its scale and reliance on capabilities, understanding its human capital management strategy is crucial for investors.

CHANGE OBJECTIVE

Engagement with Siemens aimed to assess the company's readiness to navigate evolving trends affecting the workforce and organizational structure, ensuring the company's continued leadership in the industry. Through the engagement, Siemens has set and met targets aligned with international frameworks and recognized best practice, and has subsequently refined these targets, making them more ambitious where appropriate to support long-term value creation and reinforcing investor confidence in human capital management approach.

Engagement Outcomes

- Siemens reports against various ESG frameworks, such as the Global Reporting Initiative, including a sizeable number of human capital management indicators. The business has comprehensive oversight of its workforce and there is a strong sense that the workforce is always being advanced.
- The company has implemented a comprehensive and effective scope of human capital management measures which have not only given investors appropriate insight but also evidently distinguished the business among its peers.
- Siemens has an ambition to make a critical mass of its workforce AI proficient and has created KPIs at executive level to support this drive. The company confirmed that AI has increased factory productivity by 7% year on year since 2005.

Conclusion: Siemens' forward-looking approach is detailed in their comprehensive sustainability reports and demonstrated through various programs and initiatives designed to future-proof the workforce and to provide continuous development opportunities. This strategic foresight has enabled Siemens to maintain its leadership position and should give investors ample confidence. It has been important for us to maintain this engagement with a leader like Siemens, as it empowers us to better define best practice and to anticipate potential industry shifts. Considering the company's thorough disclosures and strong performance against objectives, Morningstar Sustainalytics has resolved this case.

Low Performance Engagements

The following list displays Low Performance companies with Poor or None Progress in combination with Poor or None Response.

When a case is added to the Low Performance list, a 24-month process of specific engagement using a wide range of engagement tools e.g. collaborative investors letters or letters to the company's board, will take place. After two years, the case will be reviewed and a Disengage status can be selected to reflect all other engagement options have been ineffective.

For each Low Performance case, there is a **Low Performance Time Tracker** which illustrates the time elapsed.

COMPANY	COUNTRY	ISSUE	FOCUS AREA	ESCALATION ACTIVITIES	TIME TRACKER
Al Rajhi Bank	Saudi Arabia	Sustainability and Good Governance	Themes		<div style="text-align: right; font-size: small;">One piece equals three months.</div>
Alibaba Group Holding Ltd.	China	Sustainability and Good Governance	Themes		
Amgen, Inc.	United States	Sustainability and Good Governance	Themes		
BNP Paribas SA	France	Sustainability and Good Governance	Themes		
Canadian Natural Resources Ltd.	Canada	Focus on Carbon Products and Services	Strategy & Risk		
Chevron Corp.	United States	Focus on Carbon Products and Services	Strategy & Risk		
Coca-Cola Consolidated, Inc.	United States	Focus on E&S Impact of Products and Services	Strategy & Risk		
Dassault Systèmes SE	France	Sustainability and Good Governance	Themes		
DTE Energy Co.	United States	Net Zero Transition	Themes		
Eneva SA	Brazil	Focus on Carbon and Emissions, Effluents and Waste	Strategy & Risk		
EQT Corp.	United States	Focus on Carbon and Community Relations	Strategy & Risk		
Geo-Jade Petroleum Corp.	China	Accounting and Taxation	Incidents		

COMPANY	COUNTRY	ISSUE	FOCUS AREA	ESCALATION ACTIVITIES	TIME TRACKER
One piece equals three months.					
Goldwind Science & Technology Co., Ltd.	China	Human Rights and Transition	Themes		 0-3
Infineon Technologies AG	Germany	Sustainability and Good Governance	Themes		 0-3
Kikkoman Corp.	Japan	Focus on Product Governance	Strategy & Risk		 0-3
Masimo Corp.	United States	Focus on Risk Assessment and ESG Disclosure	Strategy & Risk	Investor Letter, Voting Recommendations	 0-3
Mattel, Inc.	United States	Quality and Safety - Human Rights	Incidents		 0-3
Mesaieed Petrochemical Holding Co. QSC	Qatar	Focus on Risk Assessment and ESG Disclosure	Strategy & Risk		 0-3
PacifiCorp	United States	Quality and Safety	Incidents		 0-3
PPB Group Bhd.	Malaysia	Focus on Land Use and Biodiversity Supply Chain	Strategy & Risk		 0-3
Royal Bank of Canada	Canada	Sustainability and Good Governance	Themes		 0-3
SABIC Agri-Nutrients Co.	Saudi Arabia	Focus on Risk Assessment and ESG Disclosure	Strategy & Risk		 0-3
Shanghai Aiko Solar Energy Co., Ltd.	China	Human Rights and Transition	Themes		 0-3
Shanghai Electric Group Co., Ltd.	China	Human Rights and Transition	Themes		 0-3

COMPANY	COUNTRY	ISSUE	FOCUS AREA	ESCALATION ACTIVITIES	TIME TRACKER
One piece equals three months.					
Spotify Technology SA	Luxembourg	Sustainability and Good Governance	Themes		 0-3
Südzucker AG	Germany	Focus on Carbon and Resource Use	Strategy & Risk		 0-3
Sunrun, Inc.	United States	Human Rights and Transition	Themes		 0-3
Tencent Holdings Ltd.	China	Involvement With Entities Violating Human Rights	Incidents		 0-3
The Middleby Corp.	United States	Focus on Occupational Health and Safety and Emissions, Effluents and Waste	Strategy & Risk		 0-3
Tyson Foods, Inc.	United States	Biodiversity and Natural Capital	Themes		 0-3
Viking Holdings Ltd. (Bermuda)	Bermuda	Focus on Product Governance	Strategy & Risk		 0-3
Alphabet, Inc.	United States	Net Zero Transition	Themes		 3-6
Amazon.com, Inc.	United States	Freedom of Association	Incidents	Director Letter	 3-6
Berkshire Hathaway, Inc.	United States	Net Zero Transition	Themes		 3-6
Blue Owl Capital, Inc.	United States	Focus on Product Governance	Strategy & Risk		 3-6
Brookfield Corp.	Canada	Sustainability and Good Governance	Themes	Director Letter	 3-6

COMPANY	COUNTRY	ISSUE	FOCUS AREA	ESCALATION ACTIVITIES	TIME TRACKER
One piece equals three months.					
Canon, Inc.	Japan	Sustainability and Good Governance	Themes		 3-6
Glencore Plc	Switzerland	Net Zero Transition	Themes		 3-6
Industries of Qatar Co.	Qatar	Focus on Risk Assessment and ESG Disclosure	Strategy & Risk		 3-6
Occidental Petroleum Corp.	United States	Focus on Carbon and Emissions, Effluents and Waste	Strategy & Risk		 3-6
Reliance Industries Ltd.	India	Focus on Risk Assessment and ESG Disclosure	Strategy & Risk		 3-6
Steel Dynamics, Inc.	United States	Net Zero Transition	Themes	Director Letter	 3-6
Zoomlion Heavy Industry Science & Technology Co., Ltd.	China	Focus on Carbon and Product Governance	Strategy & Risk	Director Letter	 3-6
China Northern Rare Earth (Group) High-Tech Co., Ltd.	China	Human Rights and Transition	Themes	Director Letter	 6-9
DraftKings, Inc.	United States	Focus on Business Ethics	Strategy & Risk	Director Letter	 6-9
Jiangxi Copper Co., Ltd.	China	Human Rights and Transition	Themes	Director Letter	 6-9
Marathon Petroleum Corp.	United States	Net Zero Transition	Themes	Director Letter	 6-9
ARC Resources Ltd.	Canada	Focus on Emissions, Effluents and Waste	Strategy & Risk	Director Letter	 9-12
Encompass Health Corp.	United States	Focus on Product Governance and Emissions, Effluents and Waste	Strategy & Risk	Director Letter	 9-12

COMPANY	COUNTRY	ISSUE	FOCUS AREA	ESCALATION ACTIVITIES	TIME TRACKER
One piece equals three months.					
Exxon Mobil Corp.	United States	Net Zero Transition	Themes	Director Letter	 9-12
Occidental Petroleum Corp.	United States	Net Zero Transition	Themes	Director Letter	 9-12
OCI NV	Netherlands	Net Zero Transition	Themes	Director Letter	 9-12
The Walt Disney Co.	United States	Human Capital Management	Themes		 9-12
Amazon.com, Inc.	United States	Net Zero Transition	Themes	Director Letter	 12-15
Athabasca Oil Corp.	Canada	Focus on Carbon and Emissions, Effluents and Waste	Strategy & Risk	Director Letter	 12-15
Baytex Energy Corp.	Canada	Focus on Risk Assessment and ESG Disclosure	Strategy & Risk	Director Letter	 12-15
HF Sinclair Corp.	United States	Focus on Carbon and Emissions, Effluents and Waste	Strategy & Risk	Director Letter	 12-15
ORION Corp.	South Korea	Focus on Product Governance	Strategy & Risk	Director Letter, Investor Letter, Voting Recommendations	 12-15
Yunnan Baiyao Group Co., Ltd.	China	Focus on Product Governance	Strategy & Risk	Director Letter, Investor Letter, Voting Recommendations	 12-15
Zhangzhou Pientzehuang Pharmaceutical Co., Ltd.	China	Focus on Risk Assessment and Corporate Governance	Strategy & Risk	Director Letter, Investor Letter	 12-15
China State Construction Engineering Corp. Ltd.	China	Focus on Risk Assessment	Strategy & Risk	Director Letter	 15-18

COMPANY	COUNTRY	ISSUE	FOCUS AREA	ESCALATION ACTIVITIES	TIME TRACKER
One piece equals three months.					
EOG Resources, Inc.	United States	Focus on Emissions, Effluents and Waste	Strategy & Risk	Director Letter	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 15-18 </div> </div>
General Dynamics Corp.	United States	Focus on Risk Assessment and ESG Disclosure	Strategy & Risk	Director Letter	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 15-18 </div> </div>
Saudi Industrial Investment Group	Saudi Arabia	Focus on Risk Assessment and ESG Disclosure	Strategy & Risk	Director Letter, Investor Letter	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 15-18 </div> </div>
Saudi Kayan Petrochemical Co.	Saudi Arabia	Focus on Emissions, Effluents and Waste and Community Relations	Strategy & Risk	Director Letter, Investor Letter	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 15-18 </div> </div>
Whitecap Resources, Inc.	Canada	Focus on ESG Disclosure	Strategy & Risk	Director Letter	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 15-18 </div> </div>
James Hardie Industries Plc	Ireland	Net Zero Transition	Themes	Director Letter, Investor Letter, Voting Recommendations	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 18-21 </div> </div>
Power Construction Corporation of China, Ltd.	China	Controversial Project(s) - Environmental and Human Rights Impacts	Incidents	Director Letter, Investor Letter, Voting Recommendations	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 18-21 </div> </div>
Targa Resources Corp.	United States	Focus on Emissions, Effluents and Waste and Community Relations	Strategy & Risk	Director Letter, Investor Letter	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 18-21 </div> </div>
Tata Steel Ltd.	India	Net Zero Transition	Themes	Director Letter	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 18-21 </div> </div>
China National Building Material Co., Ltd.	China	Net Zero Transition	Themes	Director Letter	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 21-24 </div> </div>
China Railway Construction Corp. Ltd.	China	Controversial Project(s) - Human Rights and Environmental Impacts	Incidents	Director Letter, Investor Letter, Voting Recommendations	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 21-24 </div> </div>
Suncor Energy, Inc.	Canada	Focus on ESG Disclosure	Strategy & Risk	Director Letter	<div style="display: flex; justify-content: space-between;"> <div style="width: 100px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="width: 100px;"> 21-24 </div> </div>

COMPANY	COUNTRY	ISSUE	FOCUS AREA	ESCALATION ACTIVITIES	TIME TRACKER
One piece equals three months.					
Suncor Energy, Inc.	Canada	Focus on ESG Disclosure	Strategy & Risk	Director Letter	□□□□□□□■ 21-24
China Petroleum & Chemical Corp.	China	Focus on Carbon and Emissions, Effluents and Waste	Strategy & Risk	Director Letter, Investor Letter	□□□□□□□■+ Above 24
Exxon Mobil Corp.	United States	Focus on Carbon and Emissions, Effluents and Waste	Strategy & Risk	Director Letter	□□□□□□□■+ Above 24
Grupo Carso SAB de CV	Mexico	Focus on Risk Assessment and ESG Disclosure	Strategy & Risk	Director Letter, Voting Recommendations	□□□□□□□■+ Above 24
GS Holdings Corp.	South Korea	Focus on Carbon Own Operations	Strategy & Risk	Director Letter, Investor Letter, Voting Recommendations	□□□□□□□■+ Above 24
Hindustan Petroleum Corp. Ltd.	India	Focus on Carbon and Community Relations	Strategy & Risk	Director Letter, Investor Letter	□□□□□□□■+ Above 24
Hoshine Silicon Industry Co., Ltd.	China	Forced Labour	Incidents	Director Letter, Investor Letter, Voting Recommendations	□□□□□□□■+ Above 24
National Industrialization Co.	Saudi Arabia	Focus on Emissions, Effluents and Waste and Land Use and Biodiversity	Strategy & Risk		□□□□□□□■+ Above 24
Shanghai Fosun Pharmaceutical (Group) Co., Ltd.	China	Focus on Product Governance	Strategy & Risk	Director Letter, Voting Recommendations	□□□□□□□■+ Above 24
Starbucks Corp.	United States	Biodiversity and Natural Capital	Themes	Director Letter, Investor Letter	□□□□□□□■+ Above 24

Morningstar Sustainalytics does not provide investment advice; the decision of investment or exclusion lies solely with investors. Morningstar Sustainalytics provides insights, information, and services, and it remains the client's sole responsibility and decision to manage their portfolio. Morningstar Sustainalytics' Stewardship clients benefit from engagement activities, such as participating in company meetings, webinars, and roundtable events. Investor clients are also provided with insights and data stemming from those activities.

Engagement Status Updates

The following is an overview of all engagement status updates from 1 October to 31 December 2025.

New Engage

COMPANY	COUNTRY	ISSUE	FOCUS AREA
<i>Adani Green Energy Ltd.</i> Controversies	India	Bribery and Corruption	Incidents
<i>ADLER Group SA</i> Controversies	Luxembourg	Accounting and Taxation	Incidents
<i>Banpu Public Co. Ltd.</i> ESG Risk Rating	Thailand	Focus on Emissions, Effluents and Waste and Resource Use	Strategy & Risk
<i>Celsius Holdings, Inc.</i> ESG Risk Rating	United States	Focus on Product Governance	Strategy & Risk
<i>Compass Diversified Holdings</i> Global Standards Screening	United States	Accounting and Taxation	Incidents
<i>CPFL Energia SA</i> ESG Risk Rating	Brazil	Focus on Product Governance	Strategy & Risk
<i>Dole Plc</i> Controversies	Ireland	Occupational Health and Safety	Incidents
<i>EOFlow Co., Ltd.</i> Controversies	South Korea	Business Ethics	Incidents
<i>General Motors Co.</i> Controversies	United States	Quality and Safety	Incidents
<i>Genesis Minerals Ltd.</i> ESG Risk Rating	Australia	Focus on Carbon and Resource Use	Strategy & Risk
<i>Honda Motor Co., Ltd.</i> Controversies	Japan	Quality and Safety	Incidents
<i>Indian Railways</i> Controversies	India	Quality and Safety	Incidents
<i>Inner Mongolia Baotou Steel Union Co. Ltd.</i> Controversies	China	Occupational Health and Safety	Incidents

COMPANY	COUNTRY	ISSUE	FOCUS AREA
<i>Ithaca Energy Plc</i> ESG Risk Rating	United Kingdom	Focus on Corporate Governance and Carbon Products and Services	Strategy & Risk
<i>Jiangxi Hongdu Aviation Industry Co., Ltd.</i> Controversies	China	Involvement With Entities Violating Human Rights	Incidents
<i>K92 Mining, Inc.</i> ESG Risk Rating	Canada	Focus on Emissions, Effluents and Waste	Strategy & Risk
<i>Martin Marietta Materials, Inc.</i> Investor Selection	United States	Net Zero Transition	Themes
<i>Mowi ASA</i> Controversies	Norway	Anti-Competitive Practices	Incidents
<i>Nexans SA</i> Controversies	France	Anti-Competitive Practices	Incidents
<i>NKT A/S</i> Controversies	Denmark	Anti-Competitive Practices	Incidents
<i>North Atlantic Energies</i> ESG Risk Rating	France	Focus on Corporate Governance and Carbon Products and Services	Strategy & Risk
<i>Northern Dynasty Minerals Ltd.</i> Controversies	Canada	Community Relations	Incidents
<i>Oi SA</i> Controversies	Brazil	Business Ethics	Incidents
<i>PacifiCorp</i> Controversies	United States	Quality and Safety	Incidents
<i>PDD Holdings, Inc.</i> Investor Selection	Ireland	Focus on Product Governance	Strategy & Risk

COMPANY	COUNTRY	ISSUE	FOCUS AREA
<i>Pegasystems, Inc.</i> Controversies	United States	Business Ethics	Incidents
<i>Ping An Insurance (Group) Co. of China Ltd.</i> Investor Selection	China	Sustainability and Good Governance	Themes
<i>Seabridge Gold, Inc.</i> ESG Risk Rating	Canada	Focus on Occupational Health and Safety	Strategy & Risk
<i>Siemens AG</i> Investor Selection	Germany	Net Zero Transition	Themes
<i>SolarWinds Corp.</i> Controversies	United States	Data Privacy and Security	Incidents
<i>Ternium SA</i> Controversies	Luxembourg	Business Ethics	Incidents
<i>Thai Oil Public Co. Ltd.</i> ESG Risk Rating	Thailand	Focus on Emissions, Effluents and Waste	Strategy & Risk
<i>Tyson Foods, Inc.</i> Controversies	United States	Anti-Competitive Practices	Incidents
<i>Vår Energi ASA</i> ESG Risk Rating	Norway	Focus on Carbon and Emissions, Effluents and Waste	Strategy & Risk
<i>YTL Power International Bhd.</i> ESG Risk Rating	Malaysia	Focus on Carbon and Emissions, Effluents and Waste	Strategy & Risk

New Associated

COMPANY	COUNTRY	ISSUE	FOCUS AREA	RELATED COMPANY
<i>ADLER Real Estate GmbH</i> Controversies	Germany	Accounting and Taxation	Incidents	ADLER Group SA
<i>Compass Group Diversified Holdings LLC</i> Global Standards Screening	United States	Accounting and Taxation	Incidents	Compass Diversified Holdings
<i>Tata Capital Ltd.</i> Global Standards Screening	India	Nuclear Weapons	Incidents	Tata Sons Pvt Ltd.
<i>Zijin Gold International Co., Ltd.</i> Global Standards Screening	Hong Kong	Activities Resulting in Adverse Environmental Impacts	Incidents	Zijin Mining Group Co., Ltd.
<i>Zijin Gold International Co., Ltd.</i> Global Standards Screening	Hong Kong	Activities Resulting in Adverse Human Rights Impacts	Incidents	Zijin Mining Group Co., Ltd.

New Archived

COMPANY	COUNTRY	ISSUE	FOCUS AREA	PREVIOUS STATUS	RELATED COMPANY
<i>China State Construction International Holdings Ltd.</i> ESG Risk Rating	Hong Kong	Focus on Occupational Health and Safety and Human Capital	Strategy & Risk	Engage	None
<i>Formosa Petrochemical Corp.</i> ESG Risk Rating	Taiwan	Focus on Carbon Own Operations	Strategy & Risk	Engage	None
<i>HDC Hyundai Development Co.</i> Global Standards Screening	South Korea	Quality and Safety	Incidents	Engage	None
<i>International Distribution Services Ltd. (United Kingdom)</i> Thematic Portfolio Selection	United Kingdom	Human Capital Management	Themes	Engage	None
<i>Jinko Solar Co., Ltd.</i> ESG Risk Rating	China	Focus on Corporate Governance and Human Rights	Strategy & Risk	Engage	None
<i>Kellanova</i> ESG Risk Rating	United States	Focus on Product Governance	Strategy & Risk	Engage	None
<i>MicroPort Scientific Corp.</i> ESG Risk Rating	China	Focus on Risk Assessment and Corporate Governance	Strategy & Risk	Engage	None
<i>Parkland Corp.</i> ESG Risk Rating	Canada	Focus on Carbon and Emissions, Effluents and Waste	Strategy & Risk	Engage	None
<i>UBE Corp.</i> ESG Risk Rating	Japan	Focus on Carbon Own Operations	Strategy & Risk	Engage	None

Universe Change Impact

COMPANY	COUNTRY	ISSUE	FOCUS AREA	NOTES
Chrome Holding	United States	Data Privacy and Security	Incidents	Entity no longer eligible for Morningstar Sustainalytics' research. Previous status: Engage
Mallinckrodt Plc	Ireland	Quality and Safety - Human Rights	Incidents	Entity no longer eligible for Morningstar Sustainalytics' research. Previous status: Engage

Sustainability Insights

Why Culture is a Key Driver for Tackling Governance Risks in Family-Controlled Conglomerates (Chaebol Context)

A resilient company is one that can exhibit five key traits and characteristics: preparedness, adaptability, collaboration, trust, and responsibility. These traits enable businesses to anticipate disruptions, respond effectively, and recover quickly. In markets where family-controlled conglomerates dominate, weaknesses in governance often stem from culture – how power is exercised, how decisions are made, and whether people feel empowered to speak up. Strengthening culture is therefore essential not only for preventing violations of international norms, but also for building resilience over time, assuring investments.

Chaebols are a distinctive feature of the South Korean business landscape. They emerged in South Korea after the Korean War through close state – business partnerships that enabled politically connected entrepreneurs to acquire former Japanese industrial assets. Their rapid growth was fueled by US aid, government relief funds, foreign currency access, and state directed bank loans. In the 1960s, government-led industrial policy and preferential support further entrenched these firms, shaping them into the large conglomerates known today.

Over the last decade South Korea has actively pursued corporate governance reforms aimed at reducing chaebol related risks, particularly following high-profile corruption scandals. Key measures include strengthened enforcement of the Fair Trade Act, restrictions on cross shareholding, expanded independent director requirements, and enhanced disclosure of related-party transactions. The introduction of the Korean Stewardship Code (2016) has increased pressure on boards regarding accountability, capital allocation, and succession planning.

Why Strong Governance is a Challenge for Chaebols

The chaebol model concentrates control in founding families and maintains sprawling groups of affiliates. This structure can enable opaque decision-making, related-party transactions, and succession practices that prioritize dynastic control over minority-shareholder rights. These features can weaken board independence, reduce transparency in strategy, and hinder effective oversight of compliance, labour, and supply-chain risks.

Over the past five years our incident-driven engagements have been active in engaging with a number of these chaebols, principally on issues of corporate governance, linked to business ethics controversies. Bribery, corruption, and embezzlement cases have had material operational and reputational impacts on several leading chaebols. Court established cases involving a number of South Korean companies resulted in executive arrests, leadership disruptions, delayed strategic decisions, and postponed investments, particularly during periods of legal uncertainty.

Cultural Red Flags that Show Up as Governance Failures

- Ethical standards exist on paper but are inconsistently applied: Codes of Conduct and group policies may be extensive, yet enforcement wavers when issues implicate senior leadership or core affiliates.
- Leadership tone and example: When founders or heirs are seen as above policy, managers hesitate to escalate concerns; oversight bodies struggle to hold leaders to account.
- Low employee empowerment: Hierarchical structures suppress challenges and reduce the likelihood of early warnings reaching the board.
- Inadequate or compliance-only training: Training focused on rules rather than scenarios, incentives, and accountability fails to change behavior.

- Pressure to deliver at all costs: Target-driven environments can normalize corner-cutting, creating blind spots in quality, safety, and disclosure.
- Weak consequences and incentive systems: Misconduct may be rationalized as loyalty or necessity; positive behaviors go unrewarded, eroding trust.

Over several years we engaged with Samsung Electronics to understand how its governance and culture interacted across its multiple affiliates. Public controversies around a high-stakes affiliate merger and subsequent legal proceedings highlighted challenges in board oversight, disclosure, and the perceived independence of decision-making at the very top of the group.

In response, the group elevated compliance as a formal priority. A group-level compliance committee with largely external membership was tasked with reviewing of selected board agendas and risk investigations across major affiliates. Operational changes followed: stronger codes of conduct, clearer compliance-officer structures, enhanced training, and more integrated risk-management systems.

These steps are positive signals, but structural risks persist. Cross-shareholdings and dynastic succession can still concentrate influence and slow culture change. The long-term test is whether speak-up channels function without retaliation, audit and consequence management apply equally to senior leadership, and the board sustains genuine independence through future cycles of leadership transition.

How We Assess Culture to Reduce Governance Risk

When reviewing potential root causes of governance failures, we use open-ended questions that help distinguish system breakdowns from isolated human error and then test whether those insights replicate across affiliates. Our engagement probes focus on:

- Evidence that ethical standards exist are communicated, and are enforced consistently across the group and for senior leaders.
- Board composition and independence: clarity of mandates, quality of information flows, and the ability to challenge.
- Employee empowerment and speak-up: protection from retaliation, investigation quality, and remediation transparency.
- Training quality and reach: from rule-based modules to scenario-based learning tied to incentives.
- Performance pressure and goal setting: how targets are set, reviewed, and balanced with risk management.
- Consequence and incentive frameworks: application to senior leadership, and recognition of positive behaviours.

Signals of Progress We Look For

- Independent oversight bodies with real remit (pre-review authority, transparent reporting, and direct access to the board).
- Fewer exceptions to policy for core affiliates and controlling families, evidenced in audit trails and consequence management.
- Rising volumes of high-quality speak-up reports with timely, disclosed remediation.
- Improved cross-functional collaboration that reduces silos between compliance, internal audit, HR, and operations.
- Disclosure that moves beyond minimum legal requirements to decision-useful transparency for stakeholders.

Conclusion

Building a resilient chaebol-group requires more than formal structures. Sustainable change depends on culture – shared values, meaningful employee engagement, authentic leadership tone, collaboration across affiliates, well-being, and trust. By prioritizing culture as the engine of governance, family-controlled groups can reduce the likelihood of violations, withstand succession shocks, and deliver more reliable long-term performance for all shareholders.

While these reforms have improved transparency and minority shareholder protections, regulators and academics note that implementation and enforcement remain uneven across chaebol groups, reflecting continued family influence over governance structures.

Board Effectiveness: How Japan Compares to Leading Asia-Pacific Region

Japan's Corporate Governance Code was introduced in 2015, and a third round of revisions is expected mid-2026.² While the code and relevant initiatives have contributed to progress in corporate governance reforms, there is a growing demand for more substantive reform, going beyond compliance.³ Against this backdrop, the upcoming revisions including the Code and related frameworks aim to foster an institutional environment that enhances "board effectiveness," one of the key pillars of Japan's broader governance reforms.

In the context of Japan's governance reforms, strengthening board effectiveness broadly refers to enhancing the board's decision-making and oversight capabilities to support sustainable corporate value. This places particular focus on practical mechanisms, such as board secretariat functions, that facilitate effective interactions between boards and management. Accordingly, further improving the structures that underpin board effectiveness has become a practical cornerstone of Japan's reform agenda.

This article offers a comparative analysis of Japanese company board effectiveness relative to leading Asia-Pacific companies, focusing on the factors that underpin effective boards. Based on this comparison, the analysis highlights areas where Japanese boards could further improve effectiveness. Notably, while the Japanese Corporate Governance Code emerged from a global movement to institutionalize corporate accountability, largely shaped by practices in the US and Europe, the Asia-Pacific region provides a relevant benchmark given that key regional economies face governance reform pressures that differ in nature but are shaped by some common market- and institution-driven dynamics.

What is Board Effectiveness?

Most international corporate governance codes place the corporate board at the heart of good governance. While no single definition emerges, there is broad convergence on what matters in practice: providing strategic guidance, overseeing management, and ensuring accountability. For example, the G20/OECD Principles of Corporate Governance outline key board responsibilities – from overseeing risk management and compliance to setting strategic direction and monitoring management.⁴ Similarly, the UK Corporate Governance Code states that "a successful company is led by an effective and entrepreneurial board" that promotes long-term sustainable success.⁵ Principle 1 of the International Corporate Governance Network's Global Governance Principles states that "The board should promote the long-term best interests of the company by acting...for the benefit of shareholders, while having regard to relevant stakeholders."⁶

Taken together, these frameworks suggest that board effectiveness is best understood as the board's capability to move beyond formal structures and fulfill its essential responsibilities in a way that drives corporate value creation.

Why does board effectiveness matter for investors? The reason is straightforward: boards represent the company and shareholders' interests through the effective monitoring and oversight of company management. Strong board leadership and accountable management protect against downside risks while driving long-term, sustainable corporate value.

Board Effectiveness in Japan and the Asia-Pacific Region

There are various indicators and approaches for assessing the effectiveness of a board of directors, and cross-company comparisons require multiple perspectives. However, we have determined that boards can be compared against a few key dimensions.

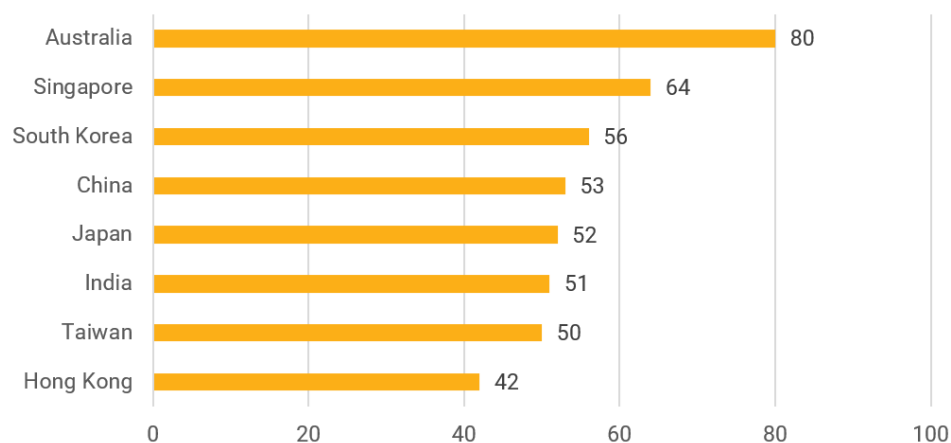
To benchmark Japanese company board effectiveness, we considered how they compared with a large number of companies across the Asia-Pacific region which have been analyzed by Morningstar Sustainalytics' "Board Effectiveness" Risk Rating indicator. This indicator is a key component of the ESG Risk Rating's Corporate Governance analysis and evaluates a board's effectiveness based on three important criteria – independence, expertise, and commitment – scoring each from 0 to 100 in 25-point increments.

To begin our analysis, the average company score for each country and region evaluated was calculated. Given the uneven coverage across jurisdictions, countries with a small number of companies covered by the rating were excluded.⁷ The analysis was therefore conducted focusing on the eight major countries and regions.

The results of the analysis show the following ranking from highest to lowest: Australia, Singapore, South Korea, China, Japan, India, Taiwan, and Hong Kong. See Figure 1. Based on this ranking, Australia leads in board effectiveness with an average score of 80. Singapore and South Korea follow with 64 and 56, respectively. Japan places fifth, with an average board effectiveness indicator score of 52, positioning it mid-way among peers in the Asia region ranking.

While the analysis reflects multiple factors, Japan's outcome may be partly attributed to the country's comparatively later adoption of its governance framework, including the Corporate Governance Code which was introduced more than a decade after similar frameworks in leading countries – highlighting the importance of examining the underlying drivers of board effectiveness in greater detail.⁸

Figure 1 Ranking of Board Effectiveness Average Scores by ESG Risk Rating in Japan and the Asia-Pacific Region



Source: Morningstar Sustainalytics' ESG Risk Rating Data. Data as of February 2026. For informational purposes only.

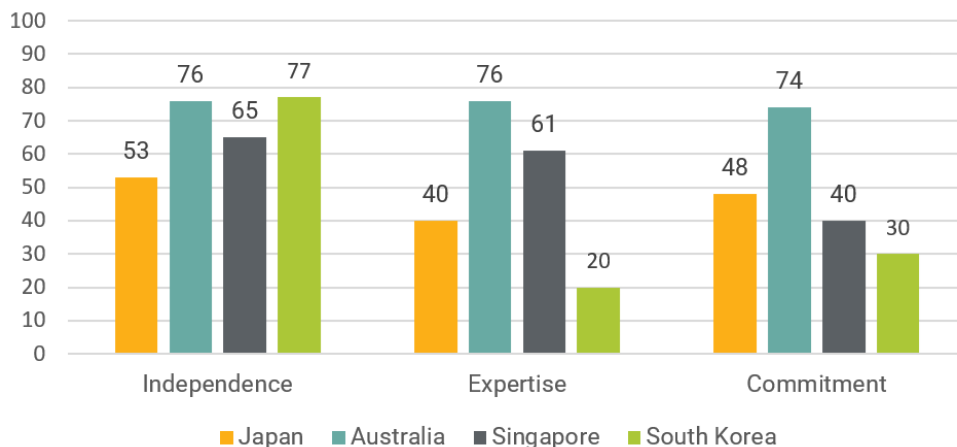
Component-Level Board Effectiveness: Japan and Leading Asia-Pacific Countries

To obtain a more detailed understanding of board effectiveness in Japan and the broader Asia-Pacific region (Australia, Singapore, South Korea), the analysis focuses on the individual components – independence, expertise, and commitment – underlying the ESG Risk Ratings' assessment of board effectiveness. As the ESG Risk Rating does not disclose scores for each criterion, other relevant corporate governance indicators within the rating were used.⁹

- **Independence** was assessed through indicators on the presence of independent directors on the board and key committees.
- **Expertise** was examined through indicators capturing whether the board has an appropriate mix of executive and non executive experience.
- **Commitment** was examined through compensation related indicators tied to short , medium , and long-term incentive schemes, reflecting directors' dedication to long-term objectives.

Based on these indicators, average scores were calculated for each country to derive a more granular picture of board effectiveness, focusing on Australia, Singapore, South Korea, and Japan (see Figure 2).

Figure 2 Component-Level Board Effectiveness: Japan and Leading APAC Countries



Source: Morningstar Sustainalytics' ESG Risk Rating Data. Data as of February 2026. For informational purposes only.

Figure 2 shows Japan's position on each of the three key components of board effectiveness, relative to Australia, Singapore, and South Korea; the leading markets in the Asia-Pacific region as determined in Figure 1. Australian companies' aggregate scores are consistently high across independence, expertise, and commitment. Singapore also demonstrates relatively high levels of independence and expertise; however, incentive structures that may reflect director commitment tend to be comparatively restrained. South Korea shows a different pattern: independence remains high, but expertise and commitment are the lowest among the comparison group.

Focusing on Japan, which ranks fifth in the board-effectiveness indicator evaluated for Figure 1, levels of independence and expertise remain lower than those observed in Australia and Singapore, indicating that there may be scope for further enhancement. In contrast, remuneration practices appear stronger than those of companies in Singapore and South Korea, though still below those of Australia. Although Japan's governance framework outlines expectations regarding independence, a diverse mix of board skills, and incentive structures for directors, the results suggest that challenges may remain in the effective implementation of these elements.

Taken together, these comparisons indicate that strengthening independence and expertise could represent an important opportunity for improving the overall effectiveness of Japanese boards relative to regional leaders.

Conclusion

Board effectiveness can be assessed through a wide range of indicators and methodological approaches. While there are similarities in the economic and market contexts across Asia-Pacific countries and regions, material differences limit the comparability of assessments based solely on a narrow set of indicators. Nonetheless, indicator based analysis provides a valuable benchmark for evaluating whether corporate governance frameworks and code revisions are positioned to support stronger board effectiveness.

To complement this analysis, Morningstar Sustainalytics' Stewardship team seeks to deepen dialogue through our Strategy & Risk Engagement Service. Engagement adds important qualitative depth to the Risk Rating methodology by enabling a more contextual assessment of board effectiveness, taking into account each company's overall governance profile.

Through ongoing engagement with Japanese companies, our discussions consider how boards assess their own effectiveness in practice as well as the broader governance factors that underpin board effectiveness, such as director independence, board skills composition, and remuneration structures. In these dialogues, we delve into board effectiveness assessments, for example, how the processes work, key findings from these assessments, identification of areas for improvement, and the level of transparency in related discussions. This allows us to understand the specific actions companies are taking, the level of detail they disclose, and the direction in which their governance practices are evolving. Considering all this information holistically, we identify both common strengths and gaps across companies and provide insights into where boards may benefit from further development to enhance effectiveness and align with global best practices.

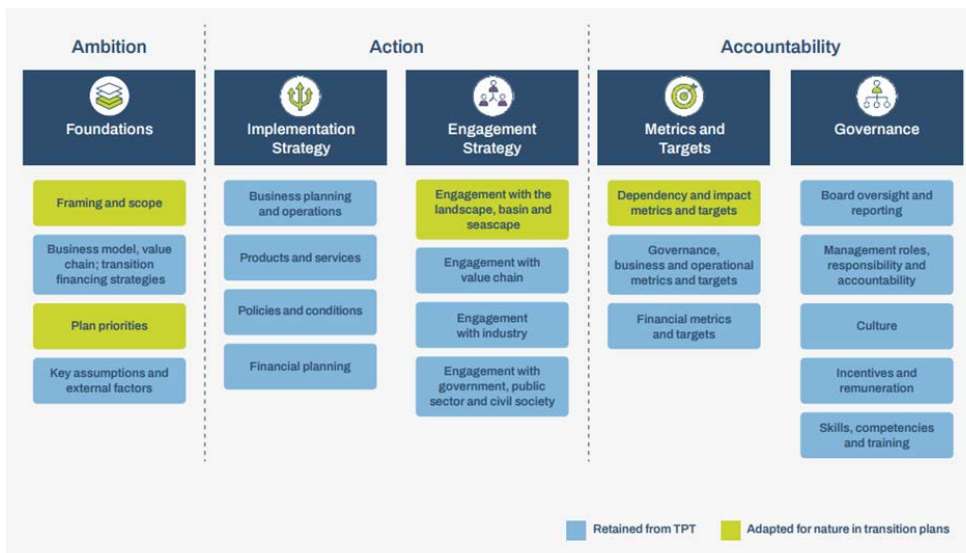
Taken together, the combination of indicator based benchmarking and engagement insights provides a more comprehensive perspective on board effectiveness in general. Building on this analysis, engagement efforts will continue with a focus on the key factors that support stronger board effectiveness, with the aim of contributing to further improvements in corporate governance overall.

Nature Transition Plans: Turning Biodiversity Ambition into Corporate Action

With only four years remaining to meet the 2030 goal of halting and reversing biodiversity loss under the Kunming Montreal Global Biodiversity Framework (GBF), the focus is shifting from identifying nature-related risks to implementing credible nature transition plans. These plans are essential for translating commitments into measurable outcomes. Companies must now move beyond high level risk assessments and take concrete steps to adapt operations, integrate nature into decision making and demonstrate tangible progress.

To support this shift, global frameworks have emerged to guide companies in defining transition pathways. In November 2025, the Taskforce on Nature related Financial Disclosures (TNFD) released its guidance on nature in transition plans, aimed to bridge the gap between global and national goals and company level targets. TNFD defines nature transition plans as a structured set of goals, targets, actions, accountability mechanisms and resources that contribute to the transition envisioned by the GBF (see Figure 1).¹⁰ The guidance builds on established frameworks such as the Transition Plan Taskforce (TPT), which helps organizations adopt an integrated approach across nature, climate and wider sustainability objectives.

Figure 1 TNFD – Structure of Nature in Transition Plans



Source: Taskforce on Nature-related Financial Disclosures (2025).

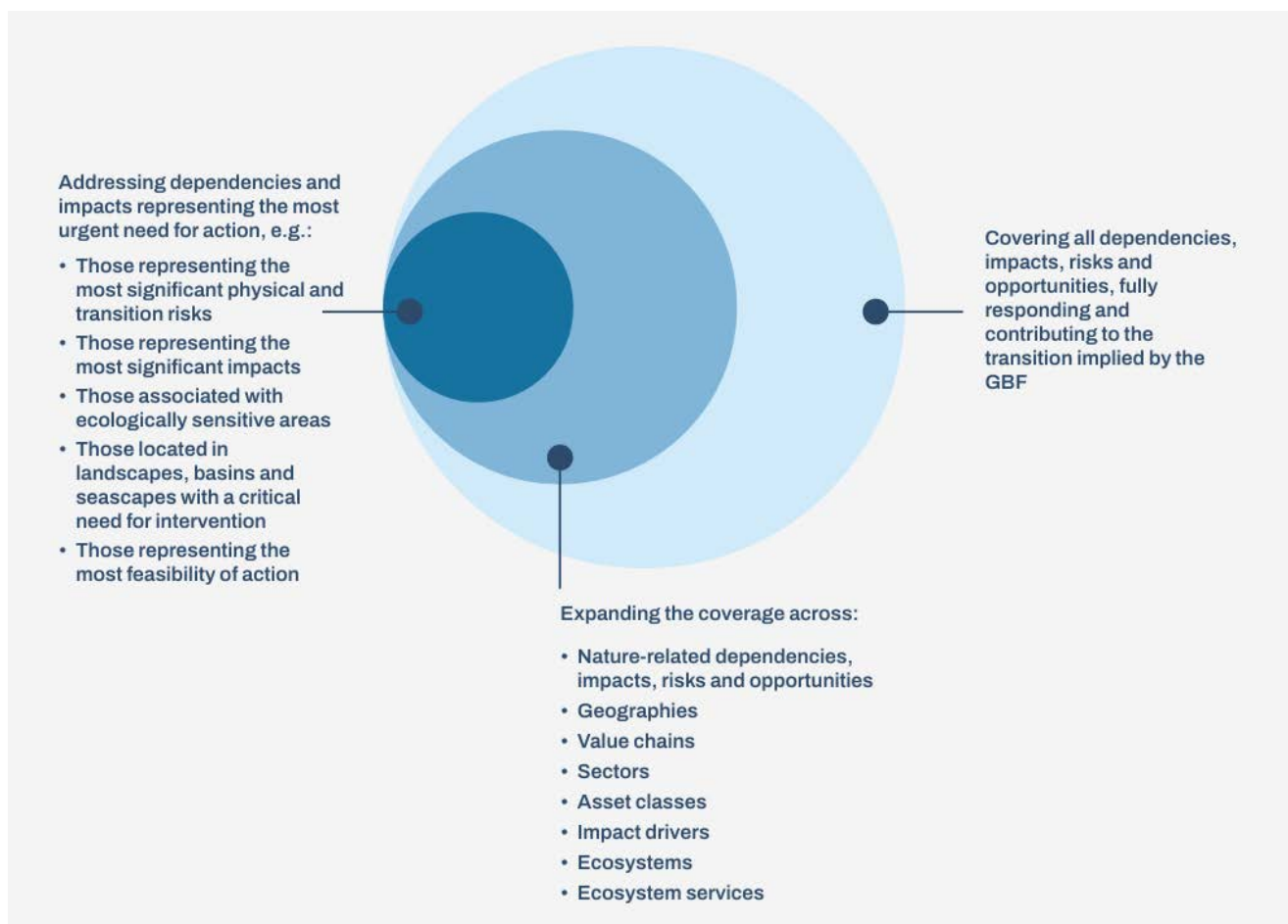
How to Build a Nature Transition Plan and Overcome Common Challenges

Insights from Morningstar Sustainalytics' Biodiversity and Natural Capital Stewardship Programme indicate that companies have made the most progress in identifying impact and dependency hotspots and establishing governance structures for nature related issues. However, many still lack a comprehensive nature-related risk assessment, which is essential for developing a credible nature transition plan. At the same time, recognizing the financial materiality of nature and embedding nature oversight at board and senior leadership levels remains a significant gap. Without this governance commitment, companies are unlikely to allocate the resources needed to strengthen risk assessment or to set meaningful ambitions, actions and targets within their nature transition plans. Our stewardship programme will continue focusing on addressing these gaps in 2026.

Additionally, moving from initial assessments to a comprehensive strategy proves even more challenging for companies. Defining plan priorities and translating them into implementation, requires robust data, adequate resources and a clear understanding of material impacts and dependencies across multiple locations. For example, companies lack consistent, comparable and location-specific information to assess risks, track progress, or engage suppliers effectively. These complexities are particularly pronounced within sectors such as agrifood, beverages and consumer staples, where supply chains are multilayered, rely on upstream actors with varying data quality, and span diverse geographies. For instance, two suppliers may report land-use impacts using different boundaries, timeframes or methodologies, preventing meaningful comparison across suppliers. In other cases, companies may have footprint estimates at national scale but lack site-level data to understand which specific sourcing areas drive ecosystem conversion or water stress.

Companies must set metrics and targets at multiple scales, often requiring landscape level coordination among stakeholders with different interests and pressures. In line with recommendations from the Science Based Targets Network (SBTN), the TNFD advises organizations to begin with the most material issues and gradually broaden commitments as capabilities mature (see Figure 2).¹¹

Figure 2 TNFD Recommended Approach to Gradually Integrate Nature in Transition Plans



Source: Taskforce on Nature-related Financial Disclosures (2025).

Despite the availability of sectoral guidance, prioritization remains difficult. TNFD proposes criteria addressing both business factors such as strategic relevance, risk exposure, cost and feasibility, and nature-related factors such as the state of ecosystems, magnitude of impacts and implications for people and human rights.

Corporate Progress to Date

Morningstar Sustainalytics' assessment of 50 engaged companies across the agricultural value chain shows that 92% have commitments addressing nature-related impacts, dependencies, risks and opportunities. This is unsurprising given the direct exposure of these sectors to land, water, and biodiversity pressures. However, while 64% of companies articulate a strategic approach to nature-related risks, these strategies lack the comprehensiveness required for credible transition planning. Only 4% have begun implementing biodiversity strategies at a holistic level.

Viewed against the five pillars of a nature transition plan, these results suggest that companies have made progress in building foundational elements, but most have yet to disclose a robust integrated strategy. Nevertheless, early leaders are emerging.

Good Practices are Emerging

Although most companies remain at an early stage, several illustrative practices demonstrate how to operationalize nature transition plans:

- **Mowi ASA:** In its TNFD report, Mowi shows a clear application of the TNFD LEAP approach, with detailed policies, mitigation actions and targets. Mowi identifies sites in protected or high biodiversity areas and outlines actions taken with high-risk suppliers.¹²
- **Carrefour SA:** Carrefour's Protecting Biodiversity Carrefour 2024 Group strategy document includes time bound, quantified targets linked to material nature-related issues and tracks progress through KPIs. Oversight mechanisms, senior management incentives and clear actions for sensitive raw materials are disclosed.¹³
- **JDE Peet's N.V.:** In its 2024 Annual Report, the company outlines a nature transition plan aligned with the SBTN AR3T framework and the mitigation hierarchy. The company emphasizes farmer engagement rather than exclusionary sourcing alone.¹⁴

Conclusion

Nature-related commitments are increasingly common, but the gap between ambition and execution remains wide. Companies that develop and operationalize nature transition plans, and embed biodiversity and natural capital into governance, capital allocation and supply chain decision making, will be better positioned to protect cash flows, maintain market access and capture long term value as investor and regulatory expectations intensify.

Early adopters show that meaningful progress is achievable. The imperative now is scale and speed. Clear plans, measurable targets, and transparent evidence of delivery provide a practical pathway to mitigate risks and unlock durable returns. Morningstar Sustainalytics will continue to support issuers through engagement, practical guidance and insights into leading practices to accelerate credible adoption of nature transition planning.

Why Human Capital Management Fails Without Governance

In our human capital management engagements, we frequently hear companies describe their employees as their “greatest asset.” Yet in practice, many organizations struggle to translate that sentiment into measurable value. The reason is straightforward: without robust governance, even the most well-intentioned initiatives fail to deliver meaningful impact.

In our engagement dialogues we frequently find issuers disclose foundational ESG governance practices including clear roles and responsibilities at the board of directors and executive management. However, there appears to be a lack of detailed information on how the board of directors oversees the performance of the human capital management strategy over time and how companies maintain a healthy, engaged, and productive workforce.

Human capital only becomes a strategic asset when companies put in place the systems, oversight, and accountability mechanisms needed to manage it effectively. Good governance is the differentiator that determines whether workforce investments drive performance, resilience, and long-term value creation.

Across the US, EU, and APAC, regulatory expectations have accelerated this shift, underscoring that human capital is not simply a social consideration. It is a financially material factor that shapes business outcomes. These regulatory developments are not mere compliance requirements. They signal a broader market transition toward treating human capital management as a governed system, one that requires structured oversight comparable to financial reporting.

In the United States, the Securities and Exchange Commission’s (SEC) modernization of Regulation S-K in 2020 marked a significant turning point. Public companies must now disclose material human capital measures and objectives, moving well beyond traditional metrics such as headcount. The rule is intentionally flexible but expects companies to explain how workforce-related factors influence performance.¹⁵

That flexibility creates a governance test. Without clear oversight, board ownership, defined metrics and data controls companies resort to vague, feel good narratives. The SEC’s final rule is materiality-driven, meaning disclosures should reflect what genuinely matters for business and investor decisions.¹⁶

The EU’s Corporate Sustainability Reporting Directive (CSRD) requires detailed, externally assured social and workforce disclosures from pay equity, to safety, to diversity treating human capital management data as financially material and comparable across companies. This mandate applies not only to EU companies but also to non-EU multinationals with a significant EU footprint, massively expanding investor visibility into workforce risk and capability.¹⁷

This expansion significantly increases investor visibility into how companies identify, manage, and mitigate workforce risks. Under the CSRD, human capital data is treated as financially material, standardized, and comparable, reinforcing the need for rigorous governance and internal controls.

The Corporate Sustainability Due Diligence Directive (CSDDD) raises expectations even further. Beginning in 2029, companies must identify, prevent, mitigate, and remedy adverse human rights and workforce impacts across their entire value chain, not just their own operations.

This mandate forces companies to build real governance infrastructure such as risk mapping, escalation processes, stakeholder engagement, and remediation mechanisms. Human capital management governance should be understood as a core component of operational governance, directly influencing supply chain stability, safeguarding corporate reputation, and supporting long-term value creation.

Beyond the US and the EU, similar regulatory momentum is emerging across APAC. Since March 2023, Japan has required listed companies to disclose 19 human capital related items across seven categories, including workforce quality, development, and retention. The requirement has significantly elevated reporting expectations and highlighted clear disparities between companies with robust governance frameworks and those that rely on superficial human resources focused statements.¹⁸

The International Finance Corporation (IFC) has also strengthened its technical guidance for emerging markets, helping companies collect and disclose human capital data aligned to global frameworks like GRI and ISSB – another sign that human capital management governance is becoming universal.¹⁹

Taken together, global regulatory shifts highlight a clear message: human capital practices are measurable, comparable, and financially material. For investors, the implications are significant. Companies with strong governance consistently demonstrate improved performance across several critical dimensions.

First, they experience lower operational and legal risk. Effective governance helps prevent workforce disruptions, from labour disputes to health and safety incidents and supply chain instability. CSRD's assurance requirement underscores the financial relevance of accurate, controlled workforce data.

Second, they produce more reliable and comparable workforce metrics. Governance ensures that KPIs are not only well-defined but also subject to board oversight and internal controls. This increases the usefulness of disclosures and reduces information risk for investors.

Third, companies with strong governance execute strategy more effectively. Boards that oversee human capital view the workforce as a core strategic resource. This enables better alignment of skills, development, workforce planning, and succession to long-term business needs; a key objective behind the SEC's modernized reporting framework.

Fourth, strong governance strengthens value chain resilience. CSDDD-aligned systems support more robust supplier oversight and risk mitigation, contributing directly to cashflow stability.

Finally, companies with evidence-based human capital management approaches gain competitive advantage. They can measure, understand, and influence workforce outcomes more effectively, enabling higher productivity, innovation, and adaptability in a fast-changing market environment.

Capturing Carbon vs Electrifying Everything: how China and the United States are Staking Claims in the Net Zero Transition

In January at the World Economic Forum in Davos, Canadian Prime Minister Mark Carney declared the end of the post-war rules-based international order. He argued that great power rivalry is reshaping the global order and that middle powers must adapt to “a rupture, not a transition,” by building strategic autonomy across energy, finance, and supply chains.²⁰ This rivalry has become increasingly visible within the net zero transition with China and the United States now embodying two divergent low-carbon technology regimes. China has long been on the path toward becoming an “electrostate,” specializing in electrification hardware, while the US has begun its own specialization as it leans into carbon capture and storage innovation.

China the Electrostate

Recently, China has begun to be described as the world’s first electrostate, a country whose growth and geopolitical leverage increasingly stem from manufacturing and deploying the components of electrification – EVs, solar, batteries, power grid equipment – and from steadily raising electricity’s share of final energy use.^{21,22} The label captures both production dominance and domestic electrification momentum.

On production, the International Energy Agency (IEA) estimates that China accounted for more than 70% of global electric car production in 2024,²³ underlining its command of EV manufacturing value chains. Similarly with solar, its share exceeds 80% at every stage – polysilicon, ingots, wafers, cells and modules.²⁴ Batteries tell the same story, China holds ~85% of global battery cell production capacity and dominant positions in critical minerals.²⁵

Domestic deployment of these technologies has kept pace. In the first half of 2025, China installed 67% of all new solar capacity worldwide, more than twice the rest of the world combined.²⁶ Domestically, EVs are now a majority of new car sales (over 50% in mid 2025).²⁷ This trend has real geopolitical and market consequences, by dominating clean tech industries while rapidly electrifying at home, China is repositioning itself as a provider of energy security goods – cheap electrons and the hardware to make them.

America the Carbon Accountant

By contrast, as the world’s largest oil and gas producer,²⁸ the US has doubled down on carbon capture and storage (CCS) and carbon accounting innovations – seeking to abate hard to decarbonize assets and build market infrastructure that can value and account for verified carbon removals.²⁹

Three 2025 deals illustrate the breadth of US corporate CCS focus:

- **ADM and Super6 Carbon** (October 2025): ADM and Super6 signed a deal to produce carbon removal credits by storing captured CO₂ in ADM’s Decatur, Illinois CCS site – leveraging one of North America’s longest running commercial sequestration operations.³⁰
- **Google and Broadwing Energy** (October 2025): Separately Google signed a deal for natural gas-powered electricity with Broadwing Energy that will also make use of ADM’s carbon storage facility.³¹
- **Microsoft and CO280** (April 2025): Microsoft agreed to purchase permanent carbon removal from CO280’s US pulp and paper CCS projects, representing one of the largest engineered carbon dioxide removal offtake agreements to date. The deal highlights the role the technology sector has played in financing large-scale carbon removal projects.³² It should be noted that Microsoft, with its commitment to removing its historic emissions equivalent is far and away the largest purchaser of carbon removals.^{33,34}

Similarly, US corporates are pushing to further shape the carbon rulebook to facilitate this kind of carbon storage and accounting. In October 2025, BlackRock, Inc. and ExxonMobil Corp. launched Carbon Measures, a coalition to build a ledger based carbon accounting framework that attributes emissions to their true sources and avoids double counting across supply chains – explicitly targeted at CCS and low carbon products like hydrogen, steel and cement.³⁵ If adopted, this could align emissions tracking with financial accounting and support increased transactional viability for captured and stored CO₂.

Carney's Davos message, "If you're not at the table, you're on the menu," clearly translates to the applied technologies of the net zero transition. Investors need to be mindful of these trends – from China's dominance in electrification hardware to the carbon capture and accounting norms that will determine the validity of decarbonization claims. Recent engagement meetings have emphasized this with, for example, General Motors responding to questions on this topic by highlighting the importance of its Chinese joint venture for maintaining some competitiveness in low cost EVs in that market. On the other hand, meetings with CF Industries and ADM have discussed the growth of CCS in the US, with CF Industries pointing to its agreement with ExxonMobil for enterprise-scale CCS at its Louisiana ammonia facility, and ADM seeing growing interest – both regulatory and commercial – in its CCS expertise across various midwestern sites. This is clear evidence that the low-carbon transition's center of gravity is bifurcating: electrons in China; accounting enabled abatement in the US – thoughtful investors will understand both and prioritize engaging companies where they excel, and on resilience to the other side's comparative advantage.

AI as Enterprise Risk: Why Corporate Governance Must Catch Up

For many businesses, artificial intelligence (AI) has transformed from a niche operational tool into a foundational pillar of corporate strategy and enterprise risk. The rapid development, adoption and integration of AI in recent years, particularly generative AI and agentic AI, raises questions about boards' capacity to exercise effective oversight and points to an urgent need for substantive governance arrangements geared towards responsible AI (RAI) oversight.

To better understand the unique governance challenges, we undertook a detailed content analysis of companies' AI-related public corporate disclosures. Using natural language processing (NLP) techniques and LLM-augmented content analysis, we tracked five years of AI-related disclosures made by 199 S&P 500 companies in their annual SEC 10-K (annual report) filings. Given the speed with which AI-related opportunities and risks have evolved over the past five years we aimed to incorporate the most recent disclosures. The analysis covered a total of 996 10-K reports filed from 1 January 2022 to 18 February 2026.

These disclosures reveal rapidly expanding exposure to AI-related risks over the past five years; a growing volume of disclosure focused on AI-related risks and opportunities and increasing specificity in narrative disclosures. Companies' 2026 disclosures offer a detailed map of the AI risk landscape as well as how companies are responding to the strategic and operational opportunities.

AI-related risk narratives in S&P 500 10 Ks have evolved from passing mention to multiple, distinct risk factor disclosures by 2026.

Risk factor disclosures are mandatory in annual SEC 10-K filings, where companies disclose the most significant risks to the business which could impact investor value. These include operational, financial, legal, or industry-specific threats.

We find that the share of the surveyed companies discussing AI-related risk rose from 4% in 2022 to 83% in 2026.

Companies are providing substantially more disclosure. For companies disclosing any AI-related risks, the average volume of text in 2026 was five times that of 2022.

Disclosure is also more specific. Whereas in 2022 and 2023, AI was generally represented as an emerging technology to be addressed alongside other tech risks, in 2026 AI is more frequently represented as a discrete, enterprise level risk factor with immediate operational, legal and governance implications.

Deeper LLM-assisted content analysis of the set of 856 risk factor excerpts contained in 2026 disclosures reveals 11 categories of AI-related risks, outlined below, each with clear implications for governance oversight.

- **Regulatory and legal compliance risk.** Companies describe exposure to existing and emerging AI specific laws, such as the European Union's Artificial Intelligence Act passed in 2024, that impose concrete compliance obligations, costs, and potential penalties on users, developers and deployers of AI systems across jurisdictions.
- **Cybersecurity amplification risk.** AI is framed as a cyber threat multiplier, creating new attack surfaces or methods for threat actors and making cyberattacks more difficult to detect, contain or mitigate.
- **Data privacy and confidentiality risk.** Disclosures emphasize heightened risks of inadvertent disclosure or misuse of sensitive data arising from AI systems, employee behaviour and third-party tools.

- **Model accuracy, bias and explainability risk.** Firms acknowledge that AI systems may generate outputs that are inaccurate, biased or difficult to explain, with direct implications for decision-making, compliance and trust.
- **Intellectual property risk.** AI use is linked to uncertainty around ownership, infringement and protection of intellectual property, particularly where training data or third party models are involved.
- **Third party and vendor dependency risk.** Companies highlight reliance on external AI vendors and platforms as a source of operational, legal and governance risk beyond their direct control.
- **Operational and system integration risk.** Disclosures note that integrating AI into core business processes can introduce failures, disruptions or inefficiencies if systems do not perform as intended.
- **Workforce and talent risk.** AI adoption is associated with skills shortages, training demands and organizational change risks that may constrain effective deployment and oversight.
- **Reputational and social impact risk.** Firms recognize that controversial, harmful or misunderstood uses of AI may trigger negative public perception, stakeholder backlash or loss of trust.
- **Competitive pressure and strategic uncertainty risk.** More rapid adoption of AI by competitors may erode market share and margins, while uncertain technological trajectories may lead to misallocated capital.
- **Governance and oversight risk.** AI is treated as a systemic risk requiring ongoing governance frameworks, controls and senior level oversight rather than ad hoc or experimental management.

In 2026, companies discuss AI-related investments and business integration.

Besides AI-related risks discussed in risk factors disclosures (Item 1A), in the business overview (Item 1) and management discussion and analysis (Item 7) disclosures within 10-Ks, companies also discuss AI-related operational, financial and competitive impacts of AI and strategic opportunities. They may discuss the AI-related investments and actual or expected productivity gains and may mention AI in their intellectual property discussions or in relation to human capital.

Content analysis of excerpts taken from other sections of companies' 2026 disclosures reveals several ways in which AI is creating **business opportunities**.

- Embedding AI into business strategies and offerings can drive long-term growth, innovation, and value creation.
- Integrating AI into internal operations and functions can enhance operational efficiency, productivity and execution.
- When adopted within a framework of responsible or ethical principles, AI can augment human capabilities and creativity.
- In discussion of market opportunities and competitive landscape, companies may emphasize their competitive advantage in AI enabled products, platforms, or ecosystems.
- Many disclosures highlight AI not just as add-on functionality, but as part of a broader technology architecture and infrastructure investment plan, where AI is depicted as part of scalable platforms or ecosystems that underpin multiple products, services, and long term technology architectures
- Companies' disclosures frequently emphasize proactive investment in:
 - AI skills, workforce upskilling, and internal capability building to support sustained adoption.
 - R&D, infrastructure, partnerships, and acquisitions aligned with AI driven priorities.

The volume and placement of corporate AI disclosures signal a dramatic shift in competitive landscape, corporate strategy, and enterprise vulnerability across the 199 companies surveyed. However, there is growing investor and regulator concern that board oversight is not keeping pace.

AI-related risks and opportunities create new governance challenges.

Across the 2025 proxy season, 23 AI-related proposals were voted at the shareholder meetings of US and Canadian companies – more than double the resolutions voted in 2023 and 2024, combined. The uptick reflects growing concerns regarding oversight, transparency, and accountability. Figure 1 groups three years of AI-related resolutions into eight broad risk themes.

Figure 1 Thematic Breakdown of AI-Linked Shareholder Resolutions (2023-2025)

AI SHAREHOLDER RESOLUTION THEME	NUMBER OF RESOLUTIONS	AVERAGE ADJUSTED SUPPORT
AI-Driven Targeted Advertising	4	41%
AI-Generated Content Misinformation & Disinformation	5	32%
External Data Usage in Training AI	6	27%
AI Board Oversight & Accountability	9	22%
AI Human Rights Impact Assessment	2	21%
AI-Driven Data Center Energy/Water Usage	3	15%
AI Tools for Oil & Gas Development & Production	1	10%
Gen-AI Systems Voluntary Code of Conduct	8	10%
Discrimination & Bias Risks in Gen-AI	1	1%

Source: ESG Voting Policy Overlay and Morningstar Proxy Voting Data. Data as of 30 June 2025.

An emerging risk that boards should be monitoring is “AI Washing,” or the practice of overstating AI capabilities or integration to investors and other stakeholders. Agencies such as the US SEC, the US Federal Trade Commission (FTC) and the UK Advertising Standards Authority (ASA) have increased their scrutiny of companies’ public statements.^{36,37}

Furthermore, the specialist nature of AI oversight may raise independence concerns: as companies rush to establish structures to exercise independent AI Oversight, independence concerns may arise from the need to populate these committees with the very executives responsible for implementing the technology.³⁸

The rapid escalation of AI risks has exposed a technical competency gap within corporate boardrooms.

A 2024 survey to understand how businesses approach RAI was conducted by Stanford University’s Human Centered AI project and McKinsey & Company.³⁹ The survey defined RAI as a framework for ensuring that AI is developed and deployed in a safe, trustworthy, and ethical manner. The survey found that in every risk category, fewer organizations take active steps to mitigate risks than those that recognize them as relevant, with the gap being particularly pronounced for intellectual property infringement and organizational reputation.

As of 2024, only 20% of S&P 500 companies had at least one director with dedicated AI expertise, though this represents a near doubling from 11% in 2022.⁴⁰ A separate analysis of the Fortune 100 in 2025 indicates that 44% of companies mentioned AI in their director qualifications, up from 26% in 2024. This study showed that around 40% had formally charged at least one board-level committee with AI oversight. However, this responsibility is overwhelmingly defaulted to the audit committee, which already has responsibility for financial compliance and often lacks the specialized technology literacy required to govern more specialist risk topics like algorithmic bias and data protection.⁴¹

As a result, there is growing pressure on boards to identify company-specific AI oversight needs, strengthen board-level AI oversight capacity, possibly establishing dedicated board structures focused on technology and risk, and formalize AI-related management reporting and internal controls to support board-level oversight and management accountability.

Frameworks for Strengthening RAI Oversight

A growing body of regulatory, investor, and academic guidance highlights the need for more structured, transparent, and board level approaches to RAI oversight.

In the United States, the SEC's Investor Advisory Committee has recommended a more formalized AI disclosure framework, calling on companies to clearly define their use of AI, distinguish internal operational applications from consumer facing products, and explicitly disclose board oversight mechanisms.⁴²

Complementing this disclosure oriented approach, the OECD Due Diligence Guidance for Responsible AI provides an internationally agreed, government backed framework for managing AI related risks across the full AI value chain, aligned with the OECD AI Principles and Responsible Business Conduct standards. The OECD guidance emphasizes iterative, severity-based risk prioritization, board level accountability, cross-functional governance, incident monitoring, and meaningful stakeholder engagement, positioning responsible AI practices as a foundation for trust, risk mitigation, and sustainable value creation.⁴³

From an investor stewardship and governance practice perspective, the ICGN Investor Viewpoint on Artificial Intelligence frames AI oversight as a core board responsibility and a central topic for investor-company engagement. It provides structured questions for investors to support dialogue with companies on AI governance, transparency, risk management, and board capability, reinforcing the expectation that boards develop or access sufficient expertise to oversee AI effectively.⁴⁴

Recent academic research further supports this progression based view of AI governance. Responding to empirical evidence of a widening gap between rapid AI adoption and board-level oversight capability, the AI Governance Maturity Matrix was developed by scholars writing in California Management Review. It conceptualizes AI oversight as a developmental journey across strategy, expertise, processes, ethics, and organizational culture, providing boards with a research informed roadmap to benchmark current practices, identify governance gaps, and integrate AI oversight more deeply into strategic decision making and long-term value creation.⁴⁵

Conclusion

Over the past five years, AI has evolved from being a peripheral IT-concern to reshaping businesses and even industries. In their investor-facing annual reports, large companies' disclosures of AI-related risks and opportunities have skyrocketed and, by 2026, reveal a detailed landscape of challenges for oversight of RAI. AI-specific governance approaches and board-level technical capacity have not kept pace. Corporate boards are under pressure to aggressively mature their governance structures. This requires recruiting directors with substantive technological expertise, transitioning oversight from overburdened audit committees to specialized task forces, and, most importantly, establishing truly independent accountability mechanisms that can objectively challenge management's AI strategy.

Underpinning new frameworks for RAI governance is the view that effective oversight requires moving beyond ad hoc disclosure or compliance responses toward systematic, board embedded governance structures that evolve alongside the scale, complexity, and strategic importance of AI within the enterprise.

The Sustainability and Good Governance Stewardship Programme is designed to assess and strengthen how boards oversee material risks, integrate sustainability considerations into strategy, and ensure transparency and accountability. Recognizing AI as an enterprise-wide issue with growing strategic and societal significance requires that our engagements evaluate whether company-level governance arrangements are evolving in step. In the immediate term, we are building this evaluation into our existing assessment framework and will be addressing RAI oversight more regularly in our dialogues with companies with greater AI risk exposure.

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