MORNINGSTAR | SUSTAINALYTICS

Material Risk Engagement

2022 Annual Report

Material Risk Engagement promotes and protects long-term value by engaging with high-risk companies on financially-material ESG issues.

Contents

This report summarizes the shareholder engagement activities that Morningstar Sustainalytics performed between January to December 2022. Data was collected on 2 January 2023.

Executive Summary

Keiyau Sin
Associate Director and Product Manager for Material Risk Engagement

2022 marked the third year of Morningstar Sustainalytics' Material Risk Engagement (MRE) in action. With diligence and hard work, we have reached new heights in terms of our work with high-risk companies and the positive impact we have on their ESG risk management.

During the year, we reached an important milestone having engaged with more than 500 companies since the beginning of the service. We closed 2022 with the highest number of active engagements (363), virtual and in-person meetings (285 – including four engagement trips to India, the US, the UK, and Brazil), as well as the lowest level of non-responsive cases (12%) since launch.

By benchmarking the ESG Risk Rating scores of 167 companies with whom we have conducted at least two engagement meetings, we find that their improvement over a 12-month period is more than three times as fast compared to companies we have not engaged. Additionally, engaged companies leveraged the expertise of Sustainalytics' Engagement Managers to focus on their most material ESG issues and strategically implement relevant changes.

Improvements in each company's unmanaged ESG risks are driven by gradual enhancements in ESG risk management practices and disclosures. In 2022, we recorded 308 positive developments (defined as new initiatives that companies implement related to our recommendations) – a substantial increase of 36% compared to 2021. Most of these positive developments are related to climate change risk mitigation and ESG governance, which is well-aligned with the focus of our engagements.

Sustainalytics resolved seven engagements in 2022. For context, an engagement dialogue is considered resolved when a company's ESG Risk Rating score improves to below 28, indicating a move into the Medium ESG Risk Rating category, and lower unmanaged ESG risk.

An enhanced client experience

In 2022, we introduced numerous service enhancements with a better client experience in mind. Of note is the introduction of Milestones in alignment with other engagement services. The set of five Milestones rates and tracks where a company is in its "ESG journey". Based on our current assessment, for example, high-risk companies in developed markets demonstrate slightly more mature ESG risk management than their emerging market counterparts. Nonetheless, only 12% of all companies are considered to have advanced ESG risk management practices and enhanced ESG disclosures. There is still much work to do to encourage companies to evolve their ESG risk management practices.

Reputational risks of climate change

In this report, our Canada-based Engagement Manager, Shane Tiley, discusses the urgency of addressing reputational risks related to climate change, an area often overlooked by companies. As stakeholder preferences and perceptions quickly evolve in response to this systemic risk, more companies are recognizing the need to proactively manage their reputation as part of their climate risk mitigation programme.

The Ukraine war and European companies

From our Sweden-based Engagement Manager, Marta Mancheva, her article summarizes the direct and indirect impacts of Russia's invasion of Ukraine on a number of sectors across Europe. While the ramifications of the war have created a variety of risks to businesses, these may also present unexpected opportunities to accelerate progress on wider ESG trends.

Looking ahead

Building on the strong MRE programme foundations from the past three years, we will continue to expand our reach to companies while elevating the robustness of our engagements. Our team will strive towards objectives in support of investor success while creating pathways for meaningful real-world impact.

Clients are welcome and encouraged to actively participate in Sustainalytics' engagement activities. You can follow our scheduled meetings in the calendar found in Global Access, or via the weekly engagement brief. For general questions or feedback regarding MRE, please email mre@sustainalytics.com or your regional client team.

2022 Statistics

363
Active Engagements as of December 31, 2022, up from 314 at the beginning of the year

525
companies engaged since March 2020

1803
Emails and Phone Calls

285
Meetings (including 39 in-person meetings and field trips)

308
Positive Developments

COMPANY RESPONSE

Excellent	7%
Good	48%
Standard	19%
Poor	14%
None	12%

COMPANY PROGRESS

Excellent	4%
Good	29%
Standard	55%
Poor	5%
None	8%

7
Engagements Resolved

Material Risk Engagement 2022

Status of Engagement by Research Universe

Ratings	RATINGS (GLOBAL)	GLOBAL DEVELOPED	GLOBAL EMERGING
Total Engagements	406	227	194
Resolved	7	6	1
Archived	36	25	11
Active engagements by end of 2022	363	196	182

Active Engagements by ESG Risk Ratings Categories

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)
		11% (28-30)	69%	19%

Industry Distribution

UTILITIES	37
FOOD PRODUCTS	35
CHEMICALS	31
OIL & GAS PRODUCERS	26
BANKS	24
INDUSTRIAL CONGLOMERATES	23
PHARMACEUTICALS	21
MACHINERY	20
DIVERSIFIED METALS	18
REFINERS & PIPELINES	16
STEEL	15
CONSTRUCTION & ENGINEERING	13
PRECIOUS METALS	11
AEROSPACE & DEFENSE	11
HEALTHCARE	9
TRANSPORTATION	9
AUTOMOBILES	8
CONSTRUCTION MATERIALS	6
SEMICONDUCTORS	5
HOUSEHOLD PRODUCTS	5
DIVERSIFIED FINANCIALS	3
INSURANCE	3
SOFTWARE & SERVICES	3
TELECOMMUNICATION SERVICES	2
CONSUMER SERVICES	1
ELECTRICAL EQUIPMENT	1
REAL ESTATE	1
CONSUMER DURABLES	1
TRADERS & DISTRIBUTION	1
RETAILING	1

Regional Distribution

EUROPE, THE MIDDLE EAST AND AFRICA
24%

AMERICAS
28%

APAC
48%

Engagement Topics

Engagement with companies in the programme focus on the Material ESG Issues with the largest management gaps as measured by Sustainalytics' ESG Risk Ratings. Engagement typically covers multiple Material ESG Issues as most companies have several ESG management gaps. The table below outlines the main topic(s) of each engagement.

ENGAGEMENT TOPICS	ENGAGEMENTS
Risk Assessment and ESG Disclosure	94
Carbon Risk Management	76
Product Governance	48
Corporate Governance	23
Emissions, Effluents, and Waste	20
Occupational Health and Safety	10
Community Relations	10
E&S Impact of Products and Services	9
ESG Integration in Financials	7
Business Ethics	7
Land Use and Biodiversity	5
Human Capital	4
Resource Use	3
Data Privacy and Security	1
Access to Basic Services	1

About 25% of engagements focus on ESG risk assessment and disclosure practices. A sound and efficient ESG risk assessment process is fundamental for effective ESG risk management. A good risk assessment process should inspire constructive dialogue with internal and external stakeholders while helping companies establish accountability and focus on relevant material issues. Once a company is clear on its risks, it can move on to risk mitigation. This is also the thinking behind the structure of the Milestones, our recently introduced five-stage rating system, where risk assessment is evaluated in the first milestone (see Introducing Milestones for MRE on page 9 for details). As seen in practice, robust ESG disclosure is an important driver for commitment to and consistency in ESG practices. What gets measured gets done.

The most common focus area in MRE beyond risk assessment and ESG disclosure is carbon-related issues. Carbon- and climate-related issues are often highlighted among the most suggested actions for companies to address. We see that carbon risk management or other climate-related risks are material in approximately three out of four engagements in MRE. This means that clients subscribed to the full MRE programme are associated with approximately 270 engagements that include climate change.

MRE is driving climate action in a structured way with a focus on real-world change. We often engage to encourage companies to:

- Commit to TCFD reporting
- Track scope 1-3 carbon emissions
- Set (science-based) targets for carbon reductions in the short-, medium- and long-term
- Dedicate proper resources to achieve targets
- Implement specific initiatives to achieve real carbon emission reductions as opposed to carbon offsetting and future potential for carbon capture

MRE is well-positioned to address the complexities of climate change risk mitigation across companies and industries. Our engagement strategy is designed to create maximum impact for each individual company by providing tailor-made recommendations.

Product governance is another prevalent engagement focus as inadequate management can result in significant liabilities for companies and investors.

Carbon-Related Risks

- Carbon Own Operations
- Carbon Products & Services

Other Climate-Related Risks

- Emissions Effluents & Waste
- E&S Impacts of Products and Services
- ESG Integration - Financials
- Land Use & Biodiversity (+ Supply Chain)

Sustainable Development Goals - Mapping Engagement

All engagement dialogues are mapped to the 17 UN Sustainable Development Goals (SDGs). For each engagement, Sustainalytics highlights the three SDGs most relevant to the specific engagement objective(s). In 2022, engagements in the programme mapped proportionately higher to SDGs 12, 13 and 16, indicating a strong focus on corporate governance, climate action, and product governance. Below are the most common SDGs mapped to our engagements.

16
PEACE, JUSTICE & STRONG INSTITUTIONS
76%

13
CLIMATE ACTION
65%

12
RESPONSIBLE CONSUMPTION & PRODUCTION
49%

8
EMPLOYMENT & ECONOMIC GROWTH
26%

11
CITIES & COMMUNITIES
19%

3
HEALTH & WELL-BEING
17%

7
CLEAN & AFFORDABLE ENERGY
15%

9
INDUSTRY & INFRASTRUCTURE
12%

Introducing Milestones for MRE

In November 2022, we introduced a number of enhancements to improve client experience with Material Risk Engagement.[1] As a client, you can explore these new features in Global Access, which are also included in the data feeds.

The most significant enhancement is the Milestones, which is a five-stage tracking of how sophisticated the corporate ESG risk management structure and practices are. In other words, it is reflecting in which stage of "the ESG journey" that a company is.

The first milestone relates to identifying the right material ESG issues and making a commitment to addressing these issues. In the second milestone, the company is expected to have a robust ESG governance structure reaching the top management and the board, and there is at least an overall strategy on ESG/sustainability. Milestone three requires a well-designed strategy to address the most material ESG issues and implementation has begun. In milestone four, the company has advanced ESG risk management and good ESG disclosure.

Finally, milestone five is where we can resolve the engagement as the ESG Risk Rating score has improved to less than 28. This milestone structure is replicated in the other engagement services for Global Standards Engagement and Thematic Engagement, so clients leveraging multiple engagement services can benchmark progress across all engagements.

Milestones

Achieved on September 01, 2020
1. Issuer acknowledges the material ESG issues and commits to mitigation and management.
The 2020 Sustainability Report shows good awareness of the material ESG issues and firm commitment to ESG risk management.

Achieved on September 01, 2020
2. Issuer establishes an ESG risk management structure and a strategy to address the material ESG issues.
China Mengniu has built up an ESG governance system including a new Substainability Committee on the board level. There are also a substainability strategy on an overall level with detail and initiatives for several ESG issues.

Achieved on July 01, 2021
3. Strategy is well formed and has moved into early stages of implementation.
The sustainability report and the dialogue with the company shows progress in various ESG areas, including product governance and supply chain management.

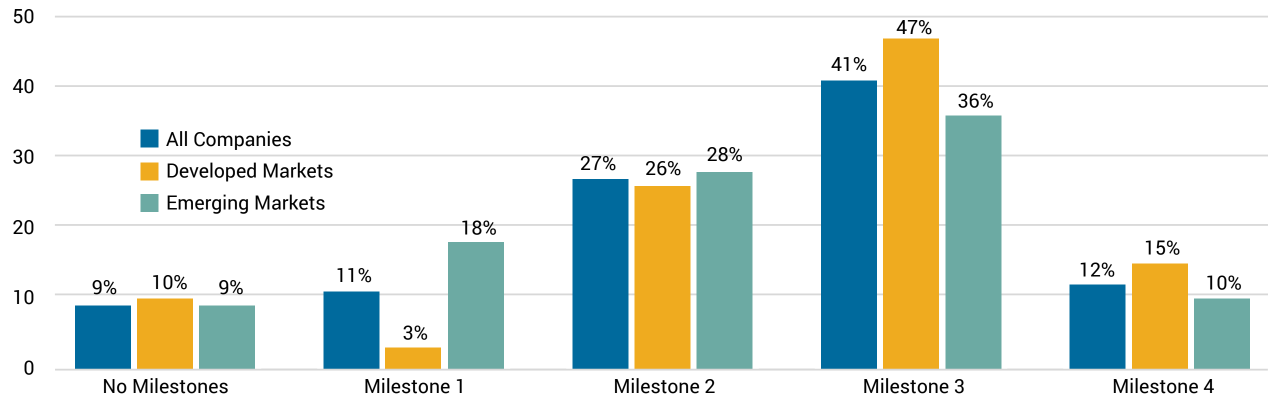
4. Implementation of strategy has advanced meaningfully, and related issuer disclosures are maturing.

5. Issuer has implemented an ESG risk management structure and disclosure that reduce the ESG Risk Rating score to less than 28.

By the end of 2022, we have assessed 300 MRE companies to provide an overview of which stage the companies are in their "ESG journey". The overview shows that about 10% of the companies are relatively new to ESG and lack a clear understanding of the material ESG issues facing them. They have not achieved any milestones yet. Another 10% have an understanding of the material ESG issues, but there is no clear ESG governance structure to drive accountability and top-level commitment to ESG.

Four out of ten engaged companies have reached Milestone 3, where an ESG strategy is moving into early stages of implementation. This is the point where we see significant differences in the developed markets versus emerging markets, where more developed market companies have formulated strategy and work with practical ESG risk management – initiatives to address ESG issues.

Chart 1: MRE Companies in Different Stages
Milestones Showing Level of ESG Risk Management



Only 12% of the companies are considered to have advanced ESG risk management practices and mature ESG disclosure. This tells us that there is still a lot of work to do to push companies up to good ESG risk management practices.

1. See 2022 MRE Q4 Report for details of such enhancements.

Engagement Results

Since launch in March 2020, MRE has engaged with more than 500 companies. While some have been successfully resolved or archived following the normal course of quarterly rebalancing and the methodology enhancement implemented in 2021, active engagements reached another high in 2022, an 88% increase compared to the 2020 baseline. This also translates into a constant increase in engagement activities, notably in in-person interactions with companies.

	2020[2]	2021	2022
Total companies engaged since launch	N/A	436	525
Total active engagements	193	314	363
Email and phone calls	675	1963	1803
Conference calls	112	246	246
In-person meetings and field trips	1	1	39

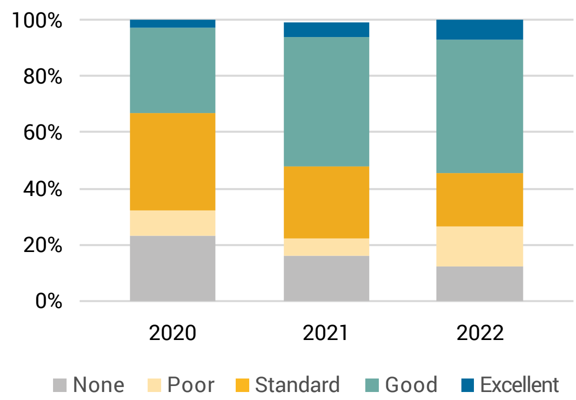
During 2022, our global team of engagement managers held 39 in-person meetings and field trips in India, the US, the UK, and Brazil. This is in addition to the 246 conference calls during the year. Outside of our normal corporate meetings, we also met with various key stakeholders to better understand wider policy and societal contexts that companies operate in to better inform our engagements.

Engagement activity level aside, MRE also systematically tracks the target companies' performance throughout the engagement process via the four dimensions described below.

1. Response rating: Assessing a company's awareness of ESG and willingness to engage with Sustainalytics and investors

More than half of engaged companies (55%) achieved a good or excellent response in 2022, a slight increase from 51% in the previous year. The share of poor responses somewhat grew in 2022, indicating that it might take time to further build trust with these companies to establish a constructive dialogue on their ESG risk management. As for the non-responsive companies, we saw the lowest level (12%) in 2022 since the 2020 launch. This is due to our persistent outreach and the use of alternative strategies, such as connecting with senior management or board members, joining investor calls, and engaging investor clients with a specific interest in the non-responding companies. In addition, we have an escalation process in place to identify opportunities to leverage proxy voting at companies' annual general meetings in collaboration with our ESG Voting Policy Overlay team. The objective is to bring an ESG concern to the attention of management and the board of directors as well as solicit corporate commitment to enter into engagement dialogues. In 2022, we escalated three engagement cases to the AGM through proxy voting.

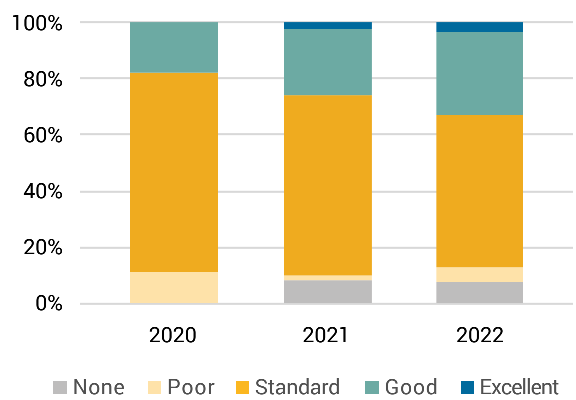
Chart 2: Response Rating



2. Progress rating: Assessing the extent to which engaged companies adopt our suggested actions

With three years of engagements under our belt, we began seeing more companies showing good or excellent progress (33%) in 2022, a definite improvement from 26% in 2021 and 18% in 2020. This development coincides with fewer companies with a neutral rating of standard progress (2022: 55%, 2021: 64% and 2020: 71%), where engagement has just started. The share of companies with poor or no progress remained relatively low between 11% and 13%, over the past three years.

Chart 3: Progress Rating



2. All 2020 figures included in this annual report only cover 10 months of data

3. Positive Developments: Tracking corporate initiatives related to suggested actions

After each engagement meeting, we provide companies with a set of customized actionable suggestions based on the maturity of their ESG risk management and highlighting the key ESG areas that would need their attention. Throughout the course of engagement, we verify whether companies have adopted new initiatives related to such suggestions and track these as positive developments.

In 2022, the total number of positive developments continued to increase considerably to 308, representing a 36% increase from 2021.

Similar to the previous year, the positive developments recorded in 2022 cover a wide range of ESG issues but are predominantly linked to climate change/carbon. Indeed, climate-related positive developments increased 53% between 2021 and 2022, a much higher increment compared to the other top ESG issues.

Chart 4: Total Positive Developments

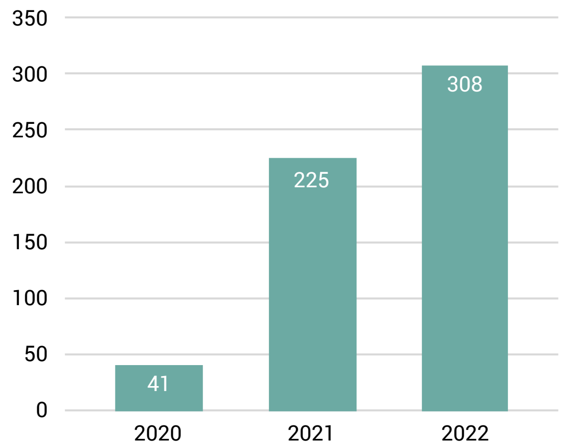
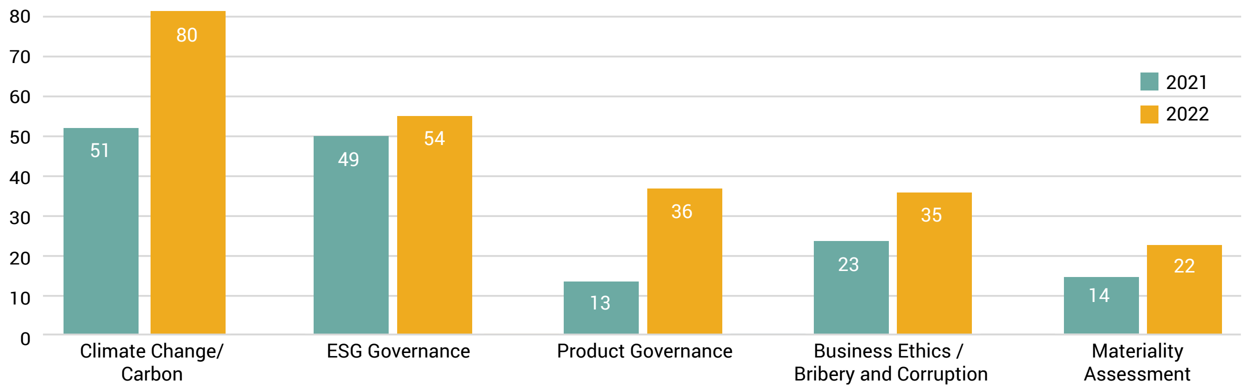


Chart 5: Positive Developments by Top Five ESG Issues



If we zoom into the climate-related corporate achievements, the development of specific climate targets continues to lead the way. Interestingly, Task Force on Climate-Related Financial Disclosures (TCFD) disclosure as well as carbon and CapEx data disclosure demonstrate the largest increases between 2021 and 2022. This aligns well with the ever-growing investor and stakeholder demand for enhanced transparency on risk assessment and climate-related data, and the increasing regulatory pressure for similar disclosures in jurisdictions such as the EU and the US.

Chart 6: Climate-Related Positive Developments by Type

For example, a positive development in carbon risk management can be seen at the Norwegian-based oil and gas company Equinor. Equinor launched the Energy Transition Plan (ETP) in March 2022, including new as well as enhanced interim targets towards net zero in 2050. The ETP is a comprehensive document that showcases Equinor's approach to decarbonization of upstream activities, investment criteria for sanctioning new Oil & Gas projects, stress testing of portfolio resilience and business rationale for net and intensity-based targets.

Among the top five ESG issues addressed by positive developments as shown in the chart "Positive Developments by Top Five ESG Issues", two of them are fundamentally important to any sound and robust ESG risk management. They are, namely, ESG governance and the materiality assessment of ESG. These developments are typically related to companies strengthening board-level ESG governance structures and management accountability, as well as establishing a strong assessment process for ESG risks. These are also a key focus of the early stages of our MRE engagement process, where we prioritize to encourage companies to ensure top-level commitment to risk mitigation and consistent risk assessment.

For example, the US-based packaged food company Pilgrim's Pride Corp. formed an ESG Committee at the Board of Directors in 2022 to provide governance oversight of ESG policies, strategies, and programmes. Following our suggested action, Korea Electric Power Corp., the largest electric utility in South Korea, has also updated its materiality assessment to highlight more corporate governance aspects including Integrated Risk Management, enhancing financial soundness, and improving management efficiency.

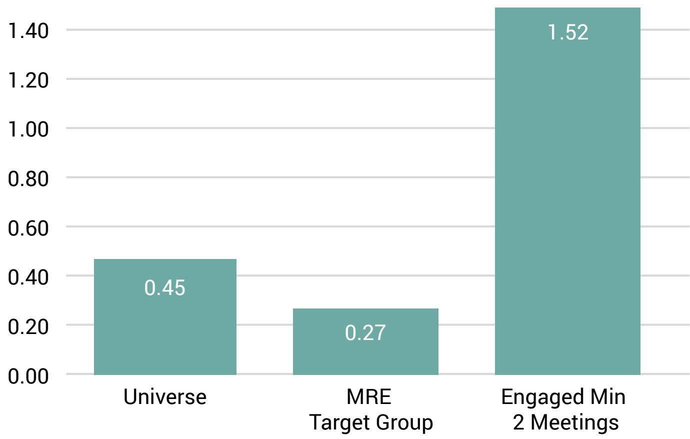
4. ESG Risk Ratings Assessment

Finally, company performance is evaluated as part of its ESG Risk Ratings assessment, which is updated annually by Sustainalytics Research. Now that the MRE programme has been running for three years, we are getting more data on the influence engagement has on a company's ESG Risk Rating. We can now benchmark a company's ESG Risk Rating score across the 167 companies we have had an active engagement with (at least two meetings) compared with those we have not engaged. This benchmarking exercise shows that the ESG Risk Rating scores for companies we actively engage with improve more than three times as fast. This is even more than we identified last year, where the companies we engaged with improved twice as fast.

The graph to the right shows ESG Risk Rating score improvements over the past 12 months (as of the end of 2022). While the full universe of about 4,500 companies has reduced unmanaged ESG risk by 0.45 points on average, the MRE Target Group consisting of High- and Severe-Risk companies reduced unmanaged ESG risk more slowly (by 0.27 points). But the companies where we have had an active engagement dialogue (at least two meetings) reduced unmanaged ESG risk by 1.52 points on an annual basis. This is a strong indication of our ability to help companies focus on the right ESG issues and implement change quickly.

An engagement is considered resolved once the company improves its performance to bring its ESG Risk Ratings score below 28. This success has occurred in seven engagements during 2022.

Chart 7: "Momentum Score" in ESG Risk Rating Score
Shows the improvements in the past 12 months in the overall ESG Risk Rating score



Source: Sustainalytics ESG Risk Rating. The Momentum Score shows the change in the ESG Risk Rating score in the past 12 months. As the ESG Risk Rating score reflects the level of unmanaged risk, the actual scores are negative because the unmanaged risks are getting smaller.
Note: Sustainalytics has had a minimum of two engagement meetings with 167 companies. Data is as of the end of 2022 and does not include the Russian companies highly impacted by the Ukraine conflict.

*In 2022, Sustainalytics recorded **308 positive developments** in engagements where companies implemented our suggested actions. Seven engagements were **resolved**.*

Company: Howmet Aerospace Inc.

ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

25.9

INDUSTRY
Aerospace and Defense

BASE LOCATION
United States of America

ENGAGEMENT FOCUS
Product Governance
Carbon – Own Operations
Human Capital

RATIONALE FOR RESOLVED STATUS
Howmet Aerospace Inc. has improved its ESG Risk Rating score to below 28.

Positive Development Highlights:

- Howmet has provided documentation to Sustainalytics that all of its locations are certified to ISO 9001 or the Aerospace equivalent of AS 9100.
- In 2021, Howmet has set a target to reduce Scope 1 and Scope 2 GHG emissions by 21.5% by 2024 from a 2019 baseline. The goal will be driven by 100 energy-saving projects, representing an investment of USD 28.3 million. Further, the company has laid out plans to drive the development of medium- and long-term climate ambitions.
- Howmet has enhanced the disclosure on ethics-related training that is offered to all employees. In 2021, the company achieved a 99.5% completion.

In the latest update of the ESG Risk Rating, Howmet's management score improved by 11 points, bringing the company into the medium risk category and below the 28-point threshold for engagement.

Company: Alcon AG
ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)
		25.8		

INDUSTRY
Healthcare

BASE LOCATION
Switzerland

ENGAGEMENT FOCUS
Product Governance
Corporate Governance
Business Ethics
Human Capital

RATIONALE FOR RESOLVED STATUS
Alcon AG improved its ESG Risk Rating score to below 28.

Positive Development Highlights:

- Alcon has expanded disclosure on risk management in the product quality and safety area, including transparency on multiple performance metrics for product quality and safety. This is framed in the new Alcon's Global Employment Value Proposition.
- Alcon expanded disclosure on business ethics to include number of incoming reports year-on-year in the grievance mechanism as well as the monetary costs associated with bribery/corruption and other business ethics issues.
- Alcon provides investors with enhanced insight to training and development in the talent programmes that it is scaling up to retain talent. Voluntary employee turnover shows a positive trend.

In our latest ESG Risk Rating assessment, Alcon AG improved its ESG risk management score by more than 24 points, bringing it into the medium risk category and below our 28-point threshold for engagement.

Company: ATCO Ltd.

ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

27.7

INDUSTRY
Utilities

BASE LOCATION
Canada

ENGAGEMENT FOCUS
Emissions, Effluents and Waste
Community Relations
Carbon - Own Operations
Corporate Governance

RATIONALE FOR RESOLVED STATUS
ATCO Ltd. has improved its ESG Risk Rating score to below 28.

Positive Development Highlights:

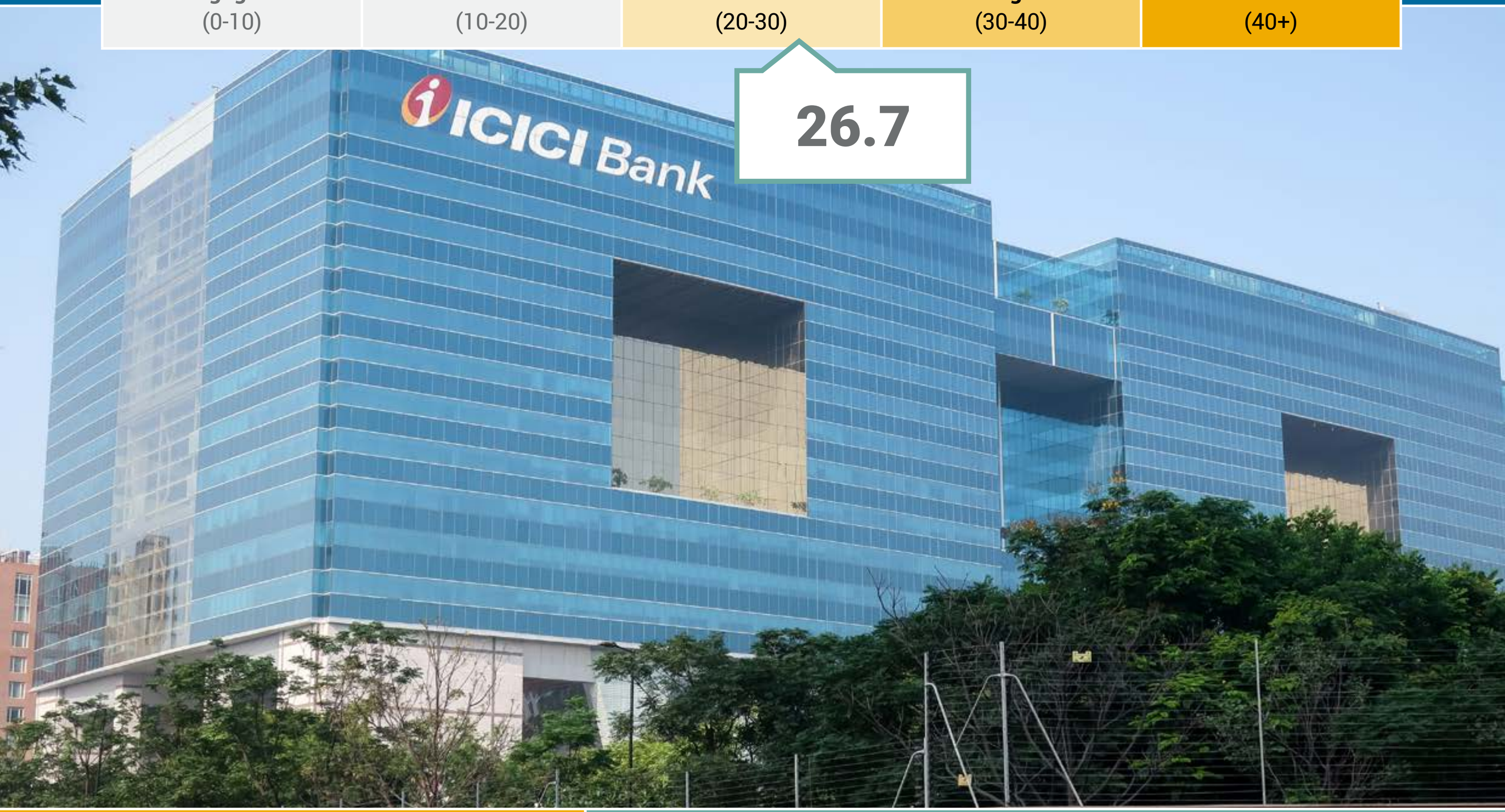
- ATCO established technology and risk management initiatives to reduce hydrocarbon spills.
- ATCO disclosed community development initiatives with associated socioeconomic development benefits and the number of stakeholder groups that participated.
- ATCO published a commitment and roadmap to reach net zero GHG emissions by 2050.
- ATCO developed an ESG target to reduce its customers' (scope 3) GHG emissions by 2 million tonnes by 2030.

In our latest ESG Risk Rating assessment, ATCO Ltd. has improved its Risk Rating score by 11.2 points, bringing it into the medium risk category and below our 28-point threshold for engagement.

Company: ICICI Bank Ltd.
ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

26.7



INDUSTRY
Banks

BASE LOCATION
India

ENGAGEMENT FOCUS
Human Capital
ESG Integration
Business Ethics
Corporate Governance
Effluents, Water and Waste

RATIONALE FOR RESOLVED STATUS
ICICI Bank has improved its ESG Risk Rating score to below 28.

Positive Development Highlights:

- ICICI has scaled up ESG integration at all levels of the company; ranging from introductory trainings for all staff, to Executive Committee and Managerial functions where ESG has become an integral part of their biweekly coordination meeting.
- ESG Disclosures, specifically annual reporting and quarterly investor reports, have become streamlined, robust, quantitative, and prevalent.
- Waste Management has been a key area of focus in ICICI's environmental impact activities, having made strong improvements in reporting, actions, and capacity building. In addition, ICICI has made notable improvements with financial investments on technical developments and changes.
- ICICI has completed Scope 1 and Scope 2 reporting and assurances and has initiated a Scope 3 Road Map and planning (including a pilot) which will now be included as part of the procurement team, evolving beyond just the legal department.

In our latest ESG Risk Rating assessment, ICICI Bank has improved its ESG risk management score by 15.2 points, bringing it into the medium risk category and below our 28-point threshold for engagement.

Company: Leggett & Platt, Inc.

ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

14.4

INDUSTRY
Home Improvement

BASE LOCATION
United States of America

ENGAGEMENT FOCUS
Product Governance
Corporate Governance
Business Ethics
Emissions, Effluents and Waste

RATIONALE FOR RESOLVED STATUS
Leggett & Platt has improved its ESG Risk Rating score to below 28.

Positive Development Highlights:

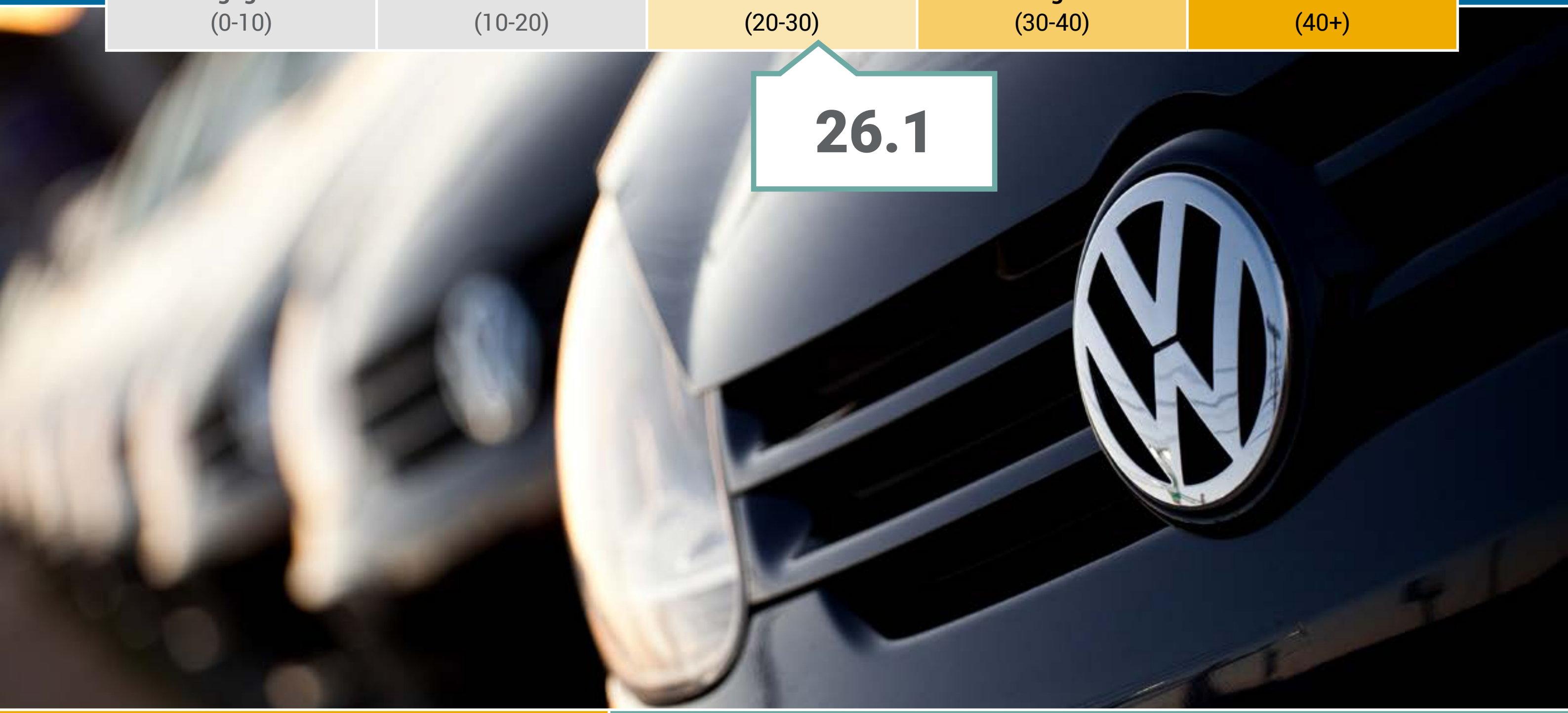
- Leggett & Platt has published its first sustainability report with reference to the SASB standard in 2021, improving transparency of ESG management.
- Leggett & Platt has established managerial responsibility for ESG issues, including business ethics governance.
- Leggett & Platt has disclosed its environmental management system, the scope of the ISO 14001 environmental management certifications, as well as ISO 9001 and LP 9000 (an internal standard) quality management standards. There is also transparency on the list of raw materials and their responsible use.
- Leggett & Platt has started to report on safety performance metrics for the most recent 3 years, broken out by employees and contractors. Overall performance shows a positive trend.

In our latest ESG Risk Rating assessment, Leggett & Platt has improved its ESG risk management score by more than 19 points, bringing it into the medium risk category and below our 28-point threshold for engagement. The level of unmanaged ESG risks was further reduced due to an industry reclassification, reducing the company's overall risk exposure.

Company: Volkswagen AG
ESG Risk Ratings Score

Negligible	Low	Medium	High	Severe
(0-10)	(10-20)	(20-30)	(30-40)	(40+)

26.1



INDUSTRY
Automobiles

BASE LOCATION
Germany

ENGAGEMENT FOCUS
Materiality and ESG Governance
Carbon – Products and Services
Business Ethics
Product Governance
Human Capital

RATIONALE FOR RESOLVED STATUS
Volkswagen AG has improved its ESG Risk Rating score to below 28.

Positive Development Highlights:

- Volkswagen AG has established a robust ESG governance structure with oversight, responsibility, and reporting lines at the Management Board level with ultimate responsibility sitting with the Chairman of the Board of Management. ESG performance is prominently and explicitly tied to variable pay for members of Board of Management.
- The company has placed Transformation in Human Resources at the core of its new Group strategy “Transform to Tech”, which was rolled out in the fall of 2021. Human capital management metrics are measured and reported on. The company is assessed to have a robust infrastructure for meeting the shifting needs of its workforce.
- Volkswagen is investing around €52 billion in electric mobility across the Group by 2026 with the aim to grow EV’s share in sales in the core markets of the EU, the US, and China to more than 50% by 2030.
- Volkswagen’s whistleblowing mechanism is now aligned with best practice, and investors are provided with a detailed overview of the compliance organization. Furthermore, there is comprehensive reporting on statistics, including number of reports received, types of misconduct and measures taken.
- Volkswagen’s Product Safety Committee, with direct oversight by the CEO and COO, is responsible for ensuring product quality and safety. The company reports statistics on product quality and safety including product recalls.

In our latest ESG Risk Rating assessment, Volkswagen AG has improved its ESG risk management score by 7.3 points, bringing it into the medium risk category and below our 28-point threshold for engagement.

Company: Zimmer Biomet Holdings, Inc.

ESG Risk Ratings Score

Negligible (0-10)	Low (10-20)	Medium (20-30)	High (30-40)	Severe (40+)

INDUSTRY
Healthcare

BASE LOCATION
United States of America

ENGAGEMENT FOCUS
Product Governance
Business Ethics
Corporate Governance
Human Capital

RATIONALE FOR RESOLVED STATUS
Zimmer Biomet has improved its ESG Risk Rating score to below 28.

Positive Development Highlights:

- Zimmer Biomet has enhanced disclosure on the ESG management structure, where a cross-functional ESG Working Group meets monthly to lead ESG and disclosure initiatives. The CEO and CFO also receive monthly updates on ESG progress, while the Corporate Governance Committee receives quarterly reports.
- Zimmer Biomet has disclosed that whistleblower reports are tracked and overseen by the Compliance team, and a Hotline Investigations Steering Committee is in place to ensure consistent decision-making of disciplinary actions. The Audit Committee at the board also receives frequent reports on the outcomes of the whistleblower mechanism. The total number of reported concerns was disclosed for the first time.

In our latest ESG Risk Rating assessment, Zimmer Biomet has improved its Risk Rating score by almost 7 points since engagement, bringing it into the medium risk category and below our 28-point threshold for engagement.

Shane Tiley
Manager, Engagement Services

Addressing the Reputational Risks and Impacts of Climate Change as Stakeholder Perceptions Evolve Through Generations

This article will bring attention to the urgency needed in assessing and managing low-carbon transition risks to reputation. The impacts of these risks are growing in materiality because of quickly evolving stakeholder preferences and perceptions. As such, companies could face significant consequences when not addressing their own reputational risks of climate change.

The Financial Stability Board created the Task Force on Climate-Related Financial Disclosures (TCFD) to develop recommendations on the types of information that companies should disclose to support investors, lenders, and insurance underwriters in appropriately assessing and pricing a specific set of risks—particularly risks related to climate change.[1] The TCFD recommendations separate climate change related risks into two distinct areas: those related to the global transition to a low-carbon economy, and those related to the physical impacts of the climate crisis.

As the climate crisis continues accelerating, the physical risks and impacts of climate change (such as extreme weather, floods, and droughts) are becoming more visible and therefore prompting mitigation actions now. However, from a business perspective, to successfully navigate the transition to a low-carbon economy companies must adapt not only to the physical risks of climate change, but also the climate risks created by the global transition. The TCFD breaks down climate transition risks into four main categories:

- policy and legal
- technology
- market; and
- reputation

While these categories are equally important to managing low-carbon transition risks, this article focuses specifically on materiality of reputational transition risks - and related opportunities.

Identifying material risks and financial impacts

Climate change has been identified as a potential source of reputational risk tied to changing customer or community perceptions of an organization's contribution to, or detraction from, the transition to a low-carbon economy. Climate-related risks to reputation include shifts in consumer preferences, stigmatization of sectors, as well as increased stakeholder concern or negative feedback.[2] The TCFD recommends that issuers describe the climate-related risks and opportunities an organization has identified over the short-, medium-, and long-term, taking into consideration that climate-related issues often manifest themselves over the medium and longer terms.[3] However, climate change transition risks to reputation are manifesting impacts today.

1. About | Task Force on Climate-Related Financial Disclosures (TCFD) (fsb-tcfd.org) https://www.fsb-tcfd.org/about/
2. FINAL-2017-TCFD-Report.pdf (bbhub.io) https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf
3. Strategy - TCFD Knowledge Hub (tcfdhub.org) https://www.tcfdhub.org/strategy/

Potential financial impacts of climate-related transition risks to reputation include: reduced revenue from decreased demand for goods or services, decreased production capacity, and negative impacts of workforce management and planning, as well as a reduction in capital availability.[3] Today, companies with poor reputations are increasingly challenged to secure the talent needed to navigate the low-carbon transition. What's more, demand for goods and services is rapidly changing as consumers become more educated and mindful of climate change issues.[4] Finally, project development is being delayed by protests, blockades and litigation from stakeholders opposing a company's actions in relation to climate change issues.[5]

Sector stigmatization can result from fewer investors favoring higher-emission industries and can demonstrate financial impacts to carbon-intensive sectors through portfolio screening. It is possible for companies in carbon intensive sectors (such as oil and gas, mining, and chemicals) to be enablers of the low-carbon transition. However, a reduction in capital availability or a higher cost of capital[6] - resulting from sector stigmatization - makes it more difficult for the highest emitting sectors to fund the clean energy and technology development needed to support their low-carbon transition plans.

A new generation of opportunity

Changing perceptions of an issuer's reputation should be analyzed across various stakeholder groups. Climate change is a top issue across generations, and younger people are forming opinions today that will have a lasting impact on the market. This group, relatively new to the world of investing compared to the generations before them, are in many cases finding their way to investing through an interest in sustainability. Additionally, they become engaged by learning about ESG and thinking about what their money can do for them.[7] In fact, interest in impact-focused investing (an investment strategy that aims to deliver positive returns for both portfolios and society as a whole) is on the rise, with millennials driving the trend. Just over 60 percent of millennial investors say they currently have such investments, with roughly as many saying impact investing has more potential to make long-term change than traditional philanthropy.[8]

According to an industry analysis, $84 trillion worth of assets will be transferred through estates over the next two dozen years.[9] There is increasing opportunity to appeal to younger clients and retain generational assets when considering (and adapting to) what younger generations are thinking and feeling about climate change issues today.

Social media, the communication channel of choice for Millennials and Gen Z, could provide insight into the perceptions of these younger generations. Citizen journalists take to social media to report information (or misinformation) and opinions, often sharing their employment experiences, product reviews, activist positions, and even investment advice. TikTok is a quickly growing social media platform dominated by Millennial and Gen Z stakeholders with over 1 billion global active users.[10] According to user statistics for the platform, as of April 2022, it was found that 24 percent of TikTok's global audience were women between the ages of 18 and 24 years, while male users of the same age made up approximately 18 percent. The online audience is further comprised of 17 percent female users aged between 25 and 34 years, and 14 percent of male users in the same age group.[11] Therefore, nearly 75 percent of TikTok audiences are currently Millennial or Gen Z stakeholders. Follow hashtags like #impactinvesting, #climateaction, #greenwashing on social media to identify candid viewpoints found in posts, yes, even in the comments section. You can leverage this wealth of information to connect with these generations of investors today and help them achieve their vision of the future.

ESG engagement reduces risk exposure

CFA Institute asserts that investors should engage with issuers to ensure that climate data, scenario analysis, and related disclosures are sufficiently thorough to support robust climate risk analysis in the investment process.[12] Investors should understand how both the physical and transition risks of climate change will affect the companies in which they invest. With the focus on the physical risks of climate change seemingly taking precedence in organizational climate strategy development, transition risks are often overlooked or delayed to later stages in scenario analysis activities. Investor engagement can meaningfully address reputational risk and help influence companies to address the growing materiality of transition risks more urgently.

4. 2021 ESG Consumer Intelligence Series: PwC
https://www.pwc.com/us/en/services/consulting/library/consumer-intelligence-series/consumer-and-employee-esg-expectations.html
5. Climate activists gather to defend western Germany village from coal mine expansion - National | Globalnews.ca
https://globalnews.ca/news/9395254/climate-activists-western-germany-village-coal-mine-expansion/
6. Implementing the TCFD recommendations for oil and gas methane disclosure: introduction | Technical guide | PRI (unpri.org)
https://www.unpri.org/climate-change/implementing-the-tcfd-recommendations-for-oil-and-gas-methane-disclosure-introduction/3778.article
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8. Impact investing growing, thanks to millennials: survey (investmentnews.com)
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9. With $84 trillion wealth transfer coming, advisers should be licking their chops - InvestmentNews
https://www.investmentnews.com/with-84-trillion-wealth-transfer-coming-advisers-should-be-licking-their-chops-216148
10. TikTok for Business | Marketing & Advertising on TikTok https://www.tiktok.com/business/en
11. Global TikTok user age and gender distribution 2022 | Statista https://www.statista.com/statistics/1299771/tiktok-global-user-age-distribution/#statisticContainer
12. CFA Institute Makes Key Recommendations for Integrating Climate Change Analysis into Investment Decisions
https://www.cfainstitute.org/en/about/press-releases/2020/cfa-institute-makes-key-recommendations-for-integrating-climate-analysis-into-investment-decisions
13. Generation Y less satisfied than other generations (consultancy.uk) https://www.consultancy.uk/news/2061/generation-y-less-satisfied-than-other-generations

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Understanding ESG Implications of the Ukraine War on European Companies

Russia's invasion of Ukraine has disrupted global markets and threatened the secure access of raw materials critical for industrial production and the transition to renewable energy. As a result, the European economy has been greatly affected due to the collective region's historical energy ties to Russia[1], dependency on Ukraine exports, and the far-reaching economic consequences of sanctions. While most sectors have experienced knock-on effects, some industries have shown to be especially vulnerable, including power and utilities, metals and mining, manufacturing, and food producers. This article will explore a number of the financially material ESG risks that European companies across sectors face, and what we have learned about corporate preparedness through our own collaborative investor engagement on material ESG issues in 2022.

Exposure to material ESG risks exacerbated by the war

The war in Ukraine has increased exposure to material ESG risks for a number of sectors; some disruptions such as reduced export volumes of key raw materials from Ukraine, Russia, and Belarus are highly visible and already impacting manufacturers globally. Other less evident disruptions, such as airspace closures and maritime traffic delays may also contribute to supply chain issues across industries in the European region.[2]

Corporate response to mitigate risks

As part of its ESG Risk Rating framework, Sustainalytics has assessed exposure to material ESG risks at the industry level, either as a direct consequence of the Russian invasion in Ukraine or as a cumulative effect. The research has also identified examples of issuer preparedness to mitigate and manage such risks.

Additionally, through its Material Risk Engagement service, Sustainalytics has had broad discussions with European issuers on business continuity, effective risk mitigation, and supply chain management practices addressing the ESG implications of the war in Ukraine in 2022. Irrespective of industry, companies that are effectively addressing the risks have diversified their critical supplier base and have gained investor trust by increasing transparency around their business continuity plans.

Table 1 provides further insight into selected industries.

1. https://www.weforum.org/agenda/2022/11/europe-gas-shortage-russia/https://www.consilium.europa.eu/en/infographics/eu-gas-supply/
2. Systemic Events in ESG Risk Ratings: Incorporating the Russia-Ukraine Conflict into our Ratings, Morningstar Sustainalytics, 16 March 2022. Access report here: https://connect.sustainalytics.com/inv-esg-spotlight-systemic-events-in-esg-risk-ratings

Table 1

Industry	Exposure to risk	Company preparedness[3]	Opportunity capture
Aviation[4]	Rising jet fuel prices as an immediate repercussion of the conflict in Ukraine. Older, less efficient fleets likely to be more impacted. Some airlines are required to circumnavigate Russian airspace for intercontinental flights – longer routes require more jet fuel.	Airlines with net-zero commitments are better prepared to address rising jet fuel prices as transition to and investment into low-carbon and zero-carbon technologies are already under way.	Fuel efficiency gains build business resilience and reduce costs. Investment in SAF, low-carbon and zero-carbon technologies creates a competitive advantage as carbon tax in the EU is increasing.
Aerospace and defense[5]	Increased exposure to sanctions. Defense lobbyists fear that if Europe were to exclude defense-related activities from the EU taxonomy, this could lead to investment exclusions.	Aerospace and defense companies with robust due diligence systems are better prepared to effectively identify risk and navigate sanctions.	Opportunities linked to increased government spending on military equipment in the aftermath of the invasion.
Automotive[6]	The war in Ukraine has exposed scarcity in minerals supply chains, which may further exacerbate an already existing semiconductor shortage. Automakers in Europe have been faced with a shortage of cable wire harnesses, a critical component in the manufacturing of cars.	An effective strategy employed by some automakers has been to prioritize microchip allocation to the production of high-end models with higher margins and to identify semiconductor redundancies during product development.	Existing momentum to accelerate the transition to electric vehicles (EVs) due to a shifting customer demand, partially influenced by the surge in fuel prices.
Banks[7]	Total unmanaged risk has increased for both Russian and international banks with exposure to Russian clients. International banks affected by the sanctions. In March 2022, FinCEN has alerted international banks to be vigilant against efforts to evade sanctions imposed on Russia. Heightened exposure to business risks, even after exiting Russia.	International banks with strong due diligence systems are better prepared to navigate sanctions and mitigate KYC and AML-related risks.	International banks exiting Russia removes uncertainty for investors and greatly reduces the banks' exposure to business ethics issues.
Diversified metals and mining[8]	As a highly energy-intensive industry, aluminum producers are facing increasing challenges due to growing pressure on profits and high energy prices. An unprecedented number of Russian metal and mining companies were sanctioned by foreign countries following the invasion of Ukraine.	Some metals and mining companies discontinued all business activities in Russia in anticipation of potential sanctions and to mitigate reputational risks, while diversifying critical supply chains.	The increased urgency of the clean energy transition away from fossil fuels[9] has created greater demand for metals such as copper, which is one of the critical minerals needed for the decarbonization of the global economy.[10]

3. Insight based on Sustainalytics research and observations from 2022 engagement activities with issuers
4. https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/esg-ukraine-aviation-defense
5. https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/esg-ukraine-aviation-defense
6. https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/esg-russia-ukraine-automotive
7. https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/banks-esg-risks-russia-ukraine
8. Sustainalytics Industry Report: Diversified Metals, October 2022
9. https://www.consilium.europa.eu/en/policies/green-deal/fit-for-55-the-eu-plan-for-a-green-transition/
https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6657
10. https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/mineral-requirements-for-clean-energy-transitions

Table 1 (con't)

Industry	Exposure to risk	Company preparedness[3]	Opportunity capture
Global packaged foods producers[11]	Greatly decreased export volumes of essential agricultural commodities and fertilizers have triggered price spikes surpassing a 30-year high. Surging fuel and fertilizer prices present a risk to farmers and growers around the world.	Several multinational corporations have joined the regenerative agriculture movement, which has diversified their value chains. Food producers with effective nature-based mechanisms for climate risk mitigation and adaptation are better prepared to address supply chain issues.	Regenerative agriculture provides an attractive solution to the application of synthetic fertilizer and other agricultural chemicals.
Steel[12]	The Russian invasion of Ukraine has impacted energy prices for European producers, prompting some companies to idle or halt operations. A number of Russian steelmakers have been sanctioned.	Steel companies with net-zero commitments are better prepared to address rising energy prices as transition to and investment into low-carbon and zero-carbon technologies is already under way.	Investment in low-carbon and zero-carbon technologies creates a competitive advantage as the decarbonization of the European steel sector is gaining momentum.[13]

Implications on the Sustainalytics ESG Risk Rating framework and Material Risk Engagement

In March 2022, Sustainalytics introduced the “Fallout/Repercussions of Ukraine Conflict” and the “Business Resilience Risk due to the Ukraine Conflict” systemic risk indicators in its ESG Risk Rating framework. Companies were categorized in two groups based on their exposure to risk: those facing systemic ESG risks due to sanctions following Russia’s invasion, and those with significant assets in Ukraine.[14] The majority of affected issuers fall into the first group and include, for example, Russian oil & gas companies hit by sanctions or companies located outside of Russia with Russian operations affected by customer concern (i.e. exposure to potential sanctions and heightened reputational risk). A smaller group of European companies from the Steel and IT Consulting industries fall into the second group due to increased business continuity risks associated with significant operations in Ukraine. Other examples of Material ESG Issues (MEIs) in the Sustainalytics’ ESG Risk Ratings impacted by war in Ukraine include Resource Use and Human Rights. In 2022 the ESG Risk Rating scores of 25 issuers have been negatively impacted by the war in Ukraine.

In the wake of the war, Sustainalytics paused engagement with Russian issuers who are subjected to new or renewed sanctions. As a result, several existing Material Risk Engagement cases received a “Disengage” status. We will continue to follow developments in 2023 and to reassess the disengaged status of Russian corporates. For reference, see Table 2.

11. https://www.sustainalytics.com/esg-research/resource/investors-esg-blog/russia-ukraine-global-food-supply
12. Sustainalytics Industry Report: Steel, October 2022
13. https://www.consilium.europa.eu/en/infographics/fit-for-55-eu-emissions-trading-system/
14. Systemic Events in ESG Risk Ratings: Incorporating the Russia-Ukraine Conflict into our Ratings, Morningstar Sustainalytics, 16 March 2022. Access report here: https://connect.sustainalytics.com/inv-esg-spotlight-systemic-events-in-esg-risk-ratings

Table 2

Systemic Risk Indicator	Total # of companies	Risk Category	Domicile	Industry
Companies with "Fallout/ Repercussions of Ukraine Conflict" systemic risk indicator	**23**	Medium risk: 5 High risk: 9 Severe risk: 9	Russian Federation Luxembourg Netherlands Ireland Cyprus	Precious Metals Mining Electric Utilities Steel Integrated Oil & Gas Diversified Metals and Mining Telecommunication Services Agricultural Chemicals Gold Internet Software and Services Diversified Banks
Companies with "Business Resilience Risk due to the Ukraine Conflict" systemic risk indicator	**2**	Medium risk: 1 High risk: 0 Severe risk:	USA	IT Consulting Steel
Companies currently "Disengaged" on Material Risk Engagement due to sanctions	**5**	High risk: 1 Severe risk: 4	Switzerland	Oil & Gas Producers Diversified Metals Steels Diversified banks

In conclusion, the far-reaching economic consequences of Russia's invasion of Ukraine have exposed many European sectors to material ESG risks, as identified by Sustainalytics' research. Through dialogue with issuers in 2022, we have also spotted some cross-cutting commonalities of corporate preparedness to manage these risks, including:

- Ability to diversify critical suppliers reduces disruptions
- Transparent disclosure of business continuity plans maintains investor trust
- Systems in place to effectively navigate sanctions reduce reputational and business ethics risks
- Advanced decarbonization strategies keep energy costs down amidst an energy crisis

As the devastating impacts of the war unfold, we will continue to monitor risks and evolve our understanding of how companies and entire industries can build resilience in the face of ongoing conflict.

Plans for 2023

In 2023, we will continue furthering our reach to companies, while keeping a focus on improving the quality of engagements to drive for more engagement success and thus real-world impact. A key part of our work will be continually advancing our current engagements through the relationships we have built with companies over the years. At the same time, we will seek to drive down the number of non-responding companies using various outreach strategies and escalation through collaboration with our ESG Voting Policy Overlay team as necessary. All of these will be powered by a growing team of engagement managers covering markets across the globe.

With the service enhancements implemented in 2022, we will be able to gather more data points on our engagements over time. This includes, for example, whether companies adopt the TCFD reporting framework. This will further support our engagement on climate- and carbon-related risks, which are addressed in about three out of four engagements.

Finally, we expect to continue meeting companies in person and will actively identify opportunities for engagement trips. Our experience shows that these are excellent opportunities to build trust and gain insights into a company and its operating contexts.

Material Risk Engagement Approach

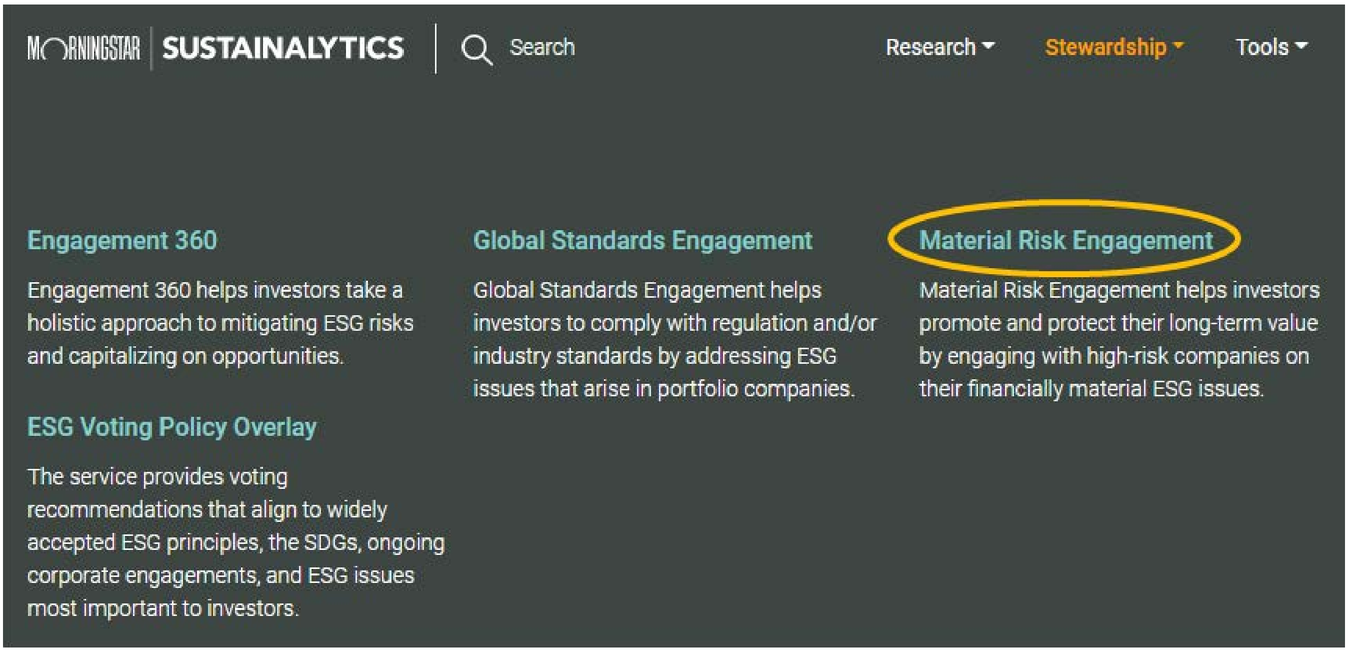
Sustainalytics' Material Risk Engagement (MRE) engages with high-risk companies on the material ESG issues with the greatest levels of unmanaged risks. The purpose is to protect and develop long-term value in our clients' portfolio companies. MRE is an engagement overlay of Sustainalytics' flagship product, ESG Risk Ratings.

The Stewardship team will engage with companies in Sustainalytics' Ratings universe, consisting of more than 4,500 companies, that have an ESG Risk Ratings Score of 30 or more. The ESG Risk Ratings score reflects the unmanaged ESG risk, so the higher the score, the more risk the company is exposed to.

The engagement is driven by constructive dialogue. The research from the ESG Risk Ratings and the Controversies research are leveraged to encourage companies to cover gaps in Material ESG Issues risk management. Engagement response, progress and positive developments are consistently tracked to measure commitment and capability to change in addition to the engagement outcome. When a company improves by bringing the ESG Risk Ratings score to below 28, the MRE case will be considered resolved.

How to Generate Reports from Global Access

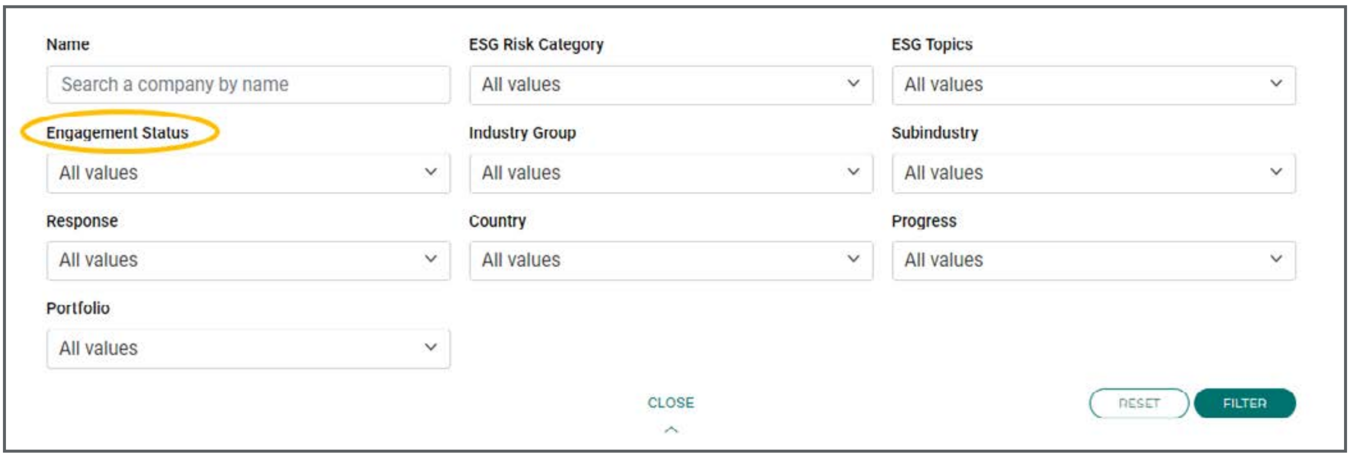
MRE clients can generate individual reports from Global Access, allowing visibility to the status of engagement activities and progress. From the landing page of **Global Access**, find **Material Risk Engagement** under the **Stewardship** tab.



On the **Material Risk Engagement** landing page, scroll down to the search section, to search for a specific company or filter by various criteria including ESG topics, industry group, country, response, and progress.

Reports can be generated for an individual portfolio if a portfolio has been uploaded to the user's account in the **Portfolios** section under the **Tools** tab. Once a portfolio is uploaded, it is available under the **Portfolio** filter in the search section, in addition to other standard research universes.

To see the number of engagements in a portfolio, select **Engage** under the **Engagement Status** and the portfolio under **Portfolio**. This will produce a report that includes multiple data points for the companies selected.



Do you have any questions regarding our Stewardship Services?

Contact us today to connect with our team of experts.

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