



CCGG

Canadian Coalition
for Good Governance

THE VOICE OF THE SHAREHOLDER

THE DIRECTORS' E&S GUIDEBOOK

Practical insights and recommendations for effective board oversight and company disclosure of environmental and social (“E&S”) matters

The report has two primary objectives



Dialogue

To bring a broader perspective and to drive deeper dialogue between companies and investors in the rapidly evolving E&S landscape.



Guidance

To support boards in developing a robust, principles-based approach to the governance and oversight of E&S factors; an approach that will adapt to changing conditions over time.

Compiled by:

The CCGG E&S Committee

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About CCGG:

CCGG's members are Canadian institutional investors that together manage approximately

\$4 trillion in assets on behalf of pension fund contributors, mutual fund unitholders and other institutional and individual investors. CCGG promotes good governance practices in Canadian public companies as well as the improvement of the regulatory environment to best align the interests of boards and management with those of their shareholders. In doing so, CCGG aims to promote the efficiency and effectiveness of the Canadian capital markets.

A Note to Issuers:

CCGG's guidance documents are by no means exhaustive, nor intended to represent any judgement or designation of individual company leadership in discussions of best practice. Rather, the documents are intended to highlight useful information and mechanisms for effective board governance and disclosure practices, based on current internal research and practitioner insights.

A Note on Terminology:

In this document, "we", "our", and "CCGG" refer to the Canadian Coalition for Good Governance. The terms "corporation", "company", "issuer", and "organization" are used throughout the document to refer to a Canadian reporting issuer, including publicly listed trusts and limited partnerships. The terms "shareholder" and "investor" refer to an equity investor of a public company. CCGG acknowledges that many stakeholders in a public company may have an interest in the guidance herein, but CCGG's focus is on the equity investors of public companies.

For the purposes of this guidebook, "E&S" refers to environmental and social factors that are, or may become, material to a company's long-term value.

All CCGG policies referred to throughout this document are available on our website (www.ccg.ca).

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FORWARD

Since inception, CCGG has focused on good governance, and has, over the years, become an authority on best practice governance guidance for boards of directors. In recent years, CCGG has observed growing shareholder emphasis on environmental and social (E&S) factors. Companies have come under greater pressure to demonstrate that the right frameworks, practices, and capabilities are in place to identify and address material E&S factors as they emerge and to provide relevant and sufficient disclosures to shareholders along the way. Investors are facing increased responsibility to include E&S factors in their investment decision-making.

In 2016 CCGG initiated a process both to strengthen its existing best practice guidance for boards by including oversight of E&S factors and to provide guidance for issuers in the preparation of E&S disclosures to investors. Benefiting from its unique access to the boards of public companies in Canada and abroad, CCGG interviewed directors who sat on the boards of companies considered to be leaders in the management of E&S factors.

This Guidebook summarizes their practical insights and combines them with information from CCGG's review of existing literature on E&S oversight and with the experience and expertise of the Committee members. The result is twenty-nine principle-based E&S governance recommendations under eight key governance topics that are relevant for boards and companies around the globe. The Guidebook is intended as a supplement to CCGG's Building High Performance Boards.

The report has two primary objectives:

- i. To bring a broader perspective and to drive deeper dialogue between companies and investors in the rapidly evolving E&S landscape; and
- ii. To support boards in developing a robust, principles-based approach to the governance and oversight of E&S factors; an approach that will adapt to changing conditions over time.

While CCGG acknowledges that companies have many stakeholders, with varying sustainability priorities, this Guidebook does not address corporate social responsibility. It speaks specifically to the oversight of E&S factors that are, or may become, material to a company's long-term value, and to the disclosure of those factors to investors.

It is our hope that the work herein is used by both directors of corporations and their investors globally, and that providing a clear path through corporate governance will help focus efforts on the oversight of material E&S issues.

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Environmental and social factors span a broad range of issues. Some E&S factors are near-universally material, impacting all companies. These include social factors, such as, employee health, safety, and well-being practices, and cyber security; and environmental factors, such as, compliance with environmental laws and regulations. There are also systemic factors, such as those relating to climate change: energy system risks, extreme and variable weather events, and changing consumer behaviour. The materiality of other E&S factors will largely depend on the specific circumstances of a company, including sector, geography, or corporate structure. Examples include relations with indigenous communities for extractive sector companies; the elimination of child labour in the supply chain of apparel retailers; or the use or contamination of water in agribusiness.

The Sustainability Accounting Standards Board has a Materiality Map (<https://materiality.sasb.org/>) that provides a good starting point for companies undertaking a holistic risk identification and prioritization process within a robust enterprise risk management system.

EXECUTIVE SUMMARY

Good governance practices underpin a company's ability to effectively address risks of all kinds and create long-term value for shareholders. What constitutes best practice evolves with experience, expectations, markets, and the regulatory environment.

CCGG has observed growing shareholder emphasis on environmental and social (E&S) factors in recent years, as investors become increasingly aware of their impact on returns. As a result, companies have come under greater pressure to demonstrate whether and how relevant E&S risks and opportunities are captured in corporate strategy and risk management practices. Investors want to see that the right framework, processes, and capabilities are in place to identify and address material factors, such as, through an enterprise risk management (ERM) system, and to provide sufficient transparency to shareholders along the way.

The board of directors is accountable for overseeing a company's long-term strategy, and for laying a strong foundation of accountability for management in the execution and achievement of corporate priorities. The board has a responsibility to ensure that all material risk factors, including E&S, are managed, and that there is ongoing organizational understanding and ownership of their business impact.

It is obvious that E&S concerns can create reputational risk for companies, but that risk is increasingly extending to shareholders. Integrating E&S into corporate governance considerations is a part of the fiduciary duty of investors. The expectation is that investors will use their leverage with companies to prevent and mitigate adverse impacts to their portfolios by seeking fuller E&S disclosures, engaging investee companies on areas of concern, and considering further steps where companies do not make desired changes.

This report and set of recommendations were developed with an acknowledgment that there is no "correct" approach to E&S governance and it very much is a journey. Each company's approach will be based on its unique situation and strategic course and will take time to develop.

Therefore, while CCGG encourages boards to consider how these principles and guidelines apply to their respective companies, there is no expectation for companies to satisfy every recommendation right away. The guidance is designed to help boards develop the structure and practices to effectively oversee management of relevant E&S factors.

KEY GOVERNANCE CATEGORIES

Recommendations are organized under eight key governance categories, as summarized below:

Corporate Culture: Most of the participating directors emphasized the importance of culture in enabling an E&S consciousness that pervades throughout the organization's activities. Culture fosters a constructive approach to health and safety, community relations, and environmental impacts. Tone from the top plays a vital role in driving desired behaviours and attitudes. Without an aligned culture, E&S management risks becoming a temporary box-ticking exercise.

Risk Management: The oversight of all significant risk factors, including those related to E&S, is a core function of the board. Organizations should have an enterprise risk management (ERM), or equivalent, system that enables an organization to identify and assess E&S risks as a fully integrated aspect of the management of material risks, and not treated discretely.

Corporate Strategy: E&S factors with significant impact on value or risk to the business (now or over time) should be represented in the corporate strategy and overseen by the board. This is a critical step in the holistic integration of E&S.

Board Composition: Effective boards look for the right mix of knowledge, experience, and character to enable constructive contribution to E&S discussion and oversight.

Board Structure: There is no right or wrong board structure for supporting effective oversight of E&S opportunities and risk. Rather, boards need to carefully consider the nature of the E&S issues when determining the most appropriate committee(s) to assign accountability.

Board Practices: There are a number of common board practices among companies with strong E&S management. The boards of these companies are highly aware of, and engaged in, E&S issues. They discuss E&S matters as a regular item on the board agenda, and use in-camera sessions with management, conduct site visits, and consult with stakeholders to gain first-hand perspective of the key issues.

Performance Evaluation and Incentives: A company's rewards system is pivotal in driving behaviours and performance. Companies need to think carefully about the metrics used to assess performance and achievement of objectives. Companies that have integrated E&S factors into corporate objectives should include appropriate E&S metrics and targets within their remuneration framework. Many boards see this alignment as a core reinforcer of both individual and company commitment to defined E&S priorities.

Disclosures to Shareholders: Companies should consider the perspectives and needs of investors in E&S-related disclosures, particularly in financial reporting. Reporting should convey key considerations related to governance, strategy, and risk management with the right level of detail, context, supporting information, and metrics, so that investors can make better informed decisions. Boards should have the necessary controls in place, whether internal or external, to provide reasonable verification and assurance of the disclosure.

BACKGROUND AND METHODOLOGY

In 2016, CCGG surveyed its members on how the organization could support efforts to advance E&S identification and management as a core aspect of good governance. An E&S Committee was created with the mandate to: i) develop high-level guidelines for boards on their oversight of E&S factors; ii) provide guidance to companies on E&S disclosures; and iii) further integrate E&S matters into CCGG's board engagement program.

The E&S Committee includes representatives of pension plans, and managers of pension plans and other assets, from CCGG's membership:

REPRESENTATIVE	CCGG MEMBER	TYPE OF MEMBER
Barbara Zvan, Chair	Ontario Teachers' Pension Plan	Pension plan
Dan Hanson, Vice-Chair (to Q1/18)	Jarislowksy Fraser	Asset manager
Maarten Bloemen	Franklin Templeton Investments	Asset manager
Michelle de Cordova	NEI Investments	Asset manager
Jennifer Coulson (to Q1/18)	British Columbia Investment Management Corp.	Pension plan manager
Chris Guthrie	Hillsdale Investment Management Inc.	Asset manager
Marie-Claude Provost	Caisse de dépôt et placement du Québec	Pension plan manager
Shilpa Tiwari	Ontario Municipal Employees Retirement System	Pension plan

In early 2017, the E&S Committee undertook a literature review¹ to understand what existing guidance was available to boards with respect to their accountability for E&S factors. While there are numerous initiatives supporting increased accountability and disclosure around E&S management, for both companies and investors, our research revealed minimal well-established best practice guidance on the board composition, structure, and practices that support effective E&S management.

With the gaps in mind, the E&S Committee began to gather practical insights on core enablers of effective E&S oversight as it relates to: i) board governance (composition, structure, and practices); ii) the integration of E&S in corporate strategy and risk management; and iii) E&S disclosures to shareholders. The Committee drew from expertise within CCGG's membership and conducted a series of external interviews with directors from the boards of companies that, per the criteria below, were considered industry leaders in the management of E&S factors.

¹ See Appendix A for a summary of selections from the literature review

Director Interview Profile

Total Companies Interviewed	15
Sectors Covered	10
# of Large-Cap (> \$10B)	10
# of Mid-Cap (\$2B-\$10B)	5
# of Companies based in Canada	12
# of Companies based outside Canada	3

How Interviewees were Chosen

The E&S Committee considered a number of factors in selecting which companies to approach. First, it reviewed rankings of corporate ESG practices from the UN Global Compact LEAD members list, the CDP's Climate A List, and the Governance Professionals of Canada. The Committee members also considered the opinions of their respective organizations' internal responsible investing staff. From there, a target list of companies was developed, which was diversified across sectors and geography, but with a bias toward Canadian companies.

Many of the participating directors are on the boards of organizations with large market caps. While these companies had the resources and bench strength to enact robust E&S practices, the Committee recognized that there are a number of mid-cap companies with exemplary practices as well. To identify how sound E&S governance practices are achieved with a smaller resource base, the Committee also met with directors from mid-cap companies and asked directors from the large-cap companies to reflect on their experiences at smaller, earlier stage companies.

All citations in this document are excerpts from the responses of participating directors.

KEY INSIGHTS FROM PARTICIPANTS

E&S factors are a fundamental component of governance, strategy, and risk management practices for the participating companies. While board governance over E&S factors has evolved, early adopters had little guidance or examples in developing their methods. As a result, approaches are largely tailored to company-specific drivers, circumstances, and goals.

While individual approaches vary, several key insights appear to resonate among these companies:

1. **The impetus to place high priority on various E&S factors will derive from a company's unique experiences and drivers**

From our many discussions with participating directors, CCGG found that the E&S issues that were prioritized were diverse and idiosyncratic. The common factor was that the trigger related to meaningful drivers of risk and return.

For some, the impetus was employee driven. For others, it came with a new CEO who understood the impact of E&S drivers on company performance. In some cases, E&S management was seen as a value creator. For a few, a past incident – experienced either themselves or by a peer – prompted a more proactive approach to addressing E&S and other issues in order to prevent a similar or repeat occurrence.

The resounding message from all was that there is no such thing as too early or too small for a company to begin thinking about what E&S factors are (or may become) consequential to business strategy and results and putting appropriate risk management practices in place.

2. **Developing a robust approach to overseeing and managing E&S in organizational practices is a journey, where change is iterative, and signals of progress evolve along the way**

Companies that manage E&S well view it as a fundamental aspect of their corporate culture, strategy, and operations. These companies took years to get to where they are and achieved it by continually refining their approaches and investing the necessary time and resources into integrating new thought patterns and habits into the organization.

The shared insight is that it takes time and a deliberate, consistent effort to build the capabilities and capacity for a well-integrated approach to managing E&S factors. Progress is incremental and begins with a first step.

3. **Culture and strategy go hand in hand, and rely on tone from the top**

There is a growing appreciation of the link between E&S factors and long-term company value, which is complicated by the wide (and variable) range of factors that, in some cases, are not yet easily measurable or fully understood. For a company to successfully integrate E&S management as a core imperative for long-term sustainability, its employees need to understand the importance and impact well enough to be willing, if necessary, to transform old habits, embrace new behaviours, and adapt to new circumstances.

For that to happen, organizational leaders - including board members - must model their commitment to the change they want to see. A change in the culture of an organization is necessary if the new behaviours are to be institutionalized. The board plays a crucial role in communicating its position on E&S issues to management, and elevating E&S management as a long-term corporate priority.

What is Corporate Culture?

Every organization has a set of de facto norms that shape employees' behaviours and perceptions of what matters to the organization, what it is trying to achieve, and how things are done. These norms are driven by leadership and represent an organization's corporate culture.

To effectively drive a culture, leaders need to define which critical behaviours support the company's vision and goals - and which do not. Importantly, culture does not manifest in a homogeneous manner. Individuals experience it through the lens of their own (or their team's) contributions and accountabilities. As such, behaviours will be very different between organizations, and even within a company. What matters in a productive culture is that every action and behaviour relate back to the unified vision.

A company's culture impacts every business facet, and the priorities and habits of those executing it. It is what drives (or inhibits) employees' willingness to take action.

Widespread cultural change takes time to build and relies on a committed focus from every person in an organization. It is not simply introducing a new system; it is establishing new mindsets and routines. It begins with a frank deconstruction of existing behaviours and beliefs, and how they align with what the company wants to achieve. What is working? What needs to shift? Is the current mindset open to change? While the answers will be influenced in part by strategy, no lasting organizational change can happen without a parallel shift in culture.

Integrating E&S factors into the corporate culture takes time and patience, but the payoff can be substantial and set a company apart from its peers. For example, many of the participants in our study spoke about the positive impact

adopting E&S into their culture has had on talent attraction and retention.

4. Transparency creates trust and goodwill with stakeholders

Management needs to think about the timeliness, accuracy, and relevance of the E&S-related information the board receives. It will impact strategy, risk management, and capital decisions. At the mature end of the spectrum, organizations are enhancing reporting infrastructure to enable timelier board reporting on important E&S issues, as they arise.

Companies also are beginning to articulate longer-term E&S goals to investors and broader stakeholders and linking them to corporate strategy. Some have taken the next step and are integrating opportunity-driven priorities. E&S issues can impact a corporation's assets and liabilities, tangibles and intangibles, and franchise value. It is important for companies to demonstrate how their actions bring about value to stakeholders over time, whether through lower risk and volatility, a more sustainable business model, or revenue growth.

Considering Company Size

General response from the participating directors is that there is no such thing as too early or too small for a company and its board to begin cultivating a long-term value driven culture, with a clear view of how E&S factors may impact strategy and risk. One company spoke of the far greater cost of learning the hard way that E&S management should have been prioritized. Smaller companies may have a tendency to focus their constrained resources on dealing with short-term risks, however, as one director noted:

"Smaller companies cannot just focus on immediate risks but need to focus on longer-term

issues if they want to be successful in the long term.”

There is no “one size fits all” solution for a company of any size. The key is to establish a principles-based approach that suits the business’ unique characteristics and adapts to change.

Where to Start

1. All companies have exposure to material E&S factors, for example, employee engagement, and health and safety. Accordingly, every company is accountable for taking E&S management seriously, and enacting measures that are reasonable and appropriate to the business. CCGG suggests that companies choose two or three areas of development to focus on each year (recognizing that some may be multi-year initiatives) and work with management to design explicit execution objectives and accountability measures around them (with timelines). Practices and measures can evolve with company maturity and scale. Alternatively, companies can begin by introducing E&S management on a project-basis and expand the scope over time.
2. Company management and operating employees need guidance from an effective and informed board with a sufficient grasp of issues that can impact the company over the long-term.
3. Boards need to ensure that there are effective monitoring and mitigation systems in place to address all of the risks the company is taking. An

ERM framework can provide a process for identifying and managing material risks that includes E&S and providing appropriate information to the board.

4. Executive ownership of E&S priorities is a critical enabler. Boards can reinforce leadership accountability and key cultural behaviours through existing tools, such as the compensation and incentive framework.

Framing the Conversation

There are questions a board can consider, along with the guidance and insights provided within this document, to develop a systematic and integrated approach to managing E&S factors.

1. Where are we now? To understand where to go, the board needs a starting baseline of the company’s current E&S exposures and how the company is currently responding to them.
2. Where do we want to be in the future? Clear goals and targets clarify what the company expects to achieve, and when.
3. How do we get there? How strategies and risk management activities are designed, integrated, controlled, and executed help an organization achieve its goals and targets.
4. How do we measure progress? Relevant and objective E&S indicators and metrics enable companies to assess progress toward goals and facilitate adjustments.

OBSERVATIONS, TAKEAWAYS, AND RECOMMENDATIONS

The remainder of this document provides specific observations and takeaways from CCGG's E&S study, organized under eight key governance categories. In each section, white boxes display existing guidance from CCGG's *Building High Performance Boards* (BHB) document. The 29 practices recommended under the eight governance categories are summarized in Appendix B for ease of reference.

I. CORPORATE CULTURE

The discussion begins with corporate culture. As discussed in the opening comments, culture is fundamental in defining employees' view of what matters to the company and what it is trying to achieve.

Reuben Mark, the former chief executive and presiding chairman of Colgate-Palmolive, is an outspoken advocate for the role of corporate culture in driving company performance. Mark suggests that business leaders look at their company's performance as a bell curve, with the left side representing poor results and the right, excellence. The bulk of the company's activities will fall in the middle. Management's job is to define and foster the incremental improvements (by every person in the organization) that will move the curve toward the right. As Mark states, "The job of the major leaders in the organization centres around culture. With everything you do as a leader, you've got to think not only, 'Is it the right thing for me to do?' but, 'Is it right for the organization?' If top management has fostered the right culture, everyone is aligned and voluntarily moving toward the same goals."

BHB Guideline #5 speaks to the role of the board in shaping organizational culture through its own actions and decisions, and the tone it and management set through policies and programs.

consciousness that pervades throughout the organization's activities. Culture fosters a constructive approach to health and safety, community relations, and environmental impacts. Tone from the top plays a vital role in driving desired behaviours and attitudes. Without an aligned culture, E&S management may become a temporary box-ticking exercise.

The insight from boards that have a strong culture for managing E&S factors is that it begins with strong signaling from the board that management needs to attend to material E&S risks and prepare for future impacts. From there, everyone on the leadership team should see themselves as a key contributor in reinforcing the E&S vision and addressing any resistance. The process requires constant, consistent messaging about why the change is important: framing the issues, positioning new assumptions, and describing the destination and outcomes in concrete terms to employees, contractors, and suppliers.

"A lot of companies have sold sustainability on the basis that it is good business. We decided that was the wrong approach for our company. We want people to feel good about the company and attract the type of management we want."

Observations and Takeaways

Most of the participating directors emphasized the importance of culture in enabling an E&S

Many companies elevate E&S in the minds of management and employees by assigning its ownership to a senior leader, who is responsible for making a significant impact on organizational buy-in and ensuring that effective practices and processes are in place. This risk ownership is generally assigned through an ERM framework (see Section II. Risk Management). Companies with more mature E&S practices have created dedicated executive-level roles, such as a Chief Sustainability Officer or Executive Vice President, Sustainability, to emphasize its importance. While this is not possible or appropriate for every organization, the takeaway is to ensure the right people are managing the right aspects of E&S, and that they are sufficiently senior in the organization to ensure influence at the CEO level.

“To differentiate between a checklist exercise and a truly embedded E&S culture, the program requires substance and a plan with tangible resource investment (financial and human capital); dedicated teams; clear communications; training; and a formalized process.”

It is also understood by directors that organizational E&S awareness and commitment begin with inclusion. Many companies emphasize each individual's unique role in defining E&S priorities, coupled with building what one company has coined the “tone of the entire organization”. The belief here is that vision and strategies become internalized when people feel they are a meaningful part of their creation and understand their role in achieving them. At these organizations, there is safe haven for employees to raise issues, and individuals are encouraged to identify new solutions, such as innovative and technological approaches for reducing resource use and wells-to-wheels emissions.

Many companies spoke about the positive impact adopting E&S into their culture has had on talent attraction and retention, which is often not appreciated at the onset of the journey. This is particularly important in the present context, as new generations in the workforce are shifting priorities, drivers, and behaviours. Millennials, who will compose 50% of the working population by 2020, are keenly aware of the cultural values of the companies with which they associate themselves. The generation is very receptive to (and in fact largely demands) a company's commitment to E&S priorities. Those that can demonstrate true integration of E&S into company culture may have a distinct talent advantage.

As E&S factors evolve, ongoing awareness is reinforced through training and programs that support changes in behaviour.

One company's safety-conscious culture began with driving awareness on the gravity of potential mishaps. The company devised a program that included phased training, a reward system for employees who speak up on safety issues, and a link to compensation.

From a governance perspective, cultural awareness requires a full understanding of the current state and how it got that way. Effective boards can speak to where they are in their journey toward the desired state, and where they aim to improve. This insight comes from regular check-ins with employees to assess how well culture is sticking. Employees are more likely to embrace E&S as a priority if they see signals of progress and leadership commitment. Acknowledging early, small steps toward E&S goals helps employees understand what leadership is trying to accomplish. It also gives them models to follow when making their own contributions.

Recommended Practices

1. A clear vision for E&S management, with established priorities, provides a leadership compass and pathway for the organization. The board should consider whether leadership is signaling the right tone from the top to foster the attitudes and behaviours that will support E&S goals.
2. The board should ensure that management has given employees a clear understanding of their unique contributions toward established E&S goals and ownership of E&S risks. Constructive behaviours are then reinforced through organizational structures, policies, processes, and training/awareness programs. Proactive check-ins between management and employees, and between the board and management, provide a necessary assessment of progress in behaviours and how well the desired culture is taking root.
3. The board should provide at least a high-level discussion of the company's E&S management approach and priorities in its corporate reporting (e.g., Management's Discussion and Analysis, annual report, and/or proxy circular).

II. RISK MANAGEMENT

The oversight of all significant risk factors, including those related to E&S, is a core function of the board. Every company should have a robust ERM, or equivalent, system that enables it to identify and assess E&S risks as a fully integrated aspect of the management of material risks, and not treated discretely.

What is ERM?

ERM (Enterprise Risk Management) is a framework that typically involves identifying particular events or circumstances that are relevant to organizational objectives and assessing them in terms of likelihood, magnitude and impact, in order to determine a response and monitoring strategy. The framework includes the methods and processes used to manage risks and seize opportunities related to the achievement of their objectives.

ERM has begun to evolve to address the needs of various stakeholders who want to understand the full spectrum of risks faced by complex organizations, and ensure they are appropriately managed now and over time. A well-designed ERM tool will capture emerging and evolving risk factors and enable organizations to respond accordingly. Critically, the effectiveness of any ERM tool or program depends on effective governance and accountability, with ultimate oversight and ownership by senior management and the board.

BHB Guideline #11 states, "Directors are responsible for risk oversight, including overseeing management's systems and processes for identifying, evaluating, prioritizing, mitigating, and monitoring risks. Directors are also responsible for approving the corporation's risk parameters including risk tolerance and appetite. Such parameters are designed to prevent the destruction of asset and shareholder value and to reduce the likelihood of underperformance over the long term."

Observations and Takeaways

Every participating director spoke to the importance of a robust ERM framework, in which E&S risks are fully integrated. This integration was considered a key enabler in ensuring E&S risks were prioritized and managed as thoroughly, and diligently, as other top risks.

“When striving for sustainable earnings, if you do not have safety and environmental aspects right, the rest does not matter.”

ERM is used by many companies to allocate ownership of E&S risk between management and the board, and to senior delegates within the organization. When risk ownership is clarified and elevated in this way, it highlights its importance within the organization and enables better coordination of resources and mitigation activities. Then, clear risk management and conduct policies reinforce risk priorities, and guide decisions and behaviours around them. For many organizations, these policies reflect the board’s articulated tolerance and appetite for enterprise risks.

Directors of companies that operate in sectors with high sensitivity to climate change risks, such as extractives, are often very active in understanding and managing risk impacts on the company’s strategy and operations over the long term.

Some E&S factors are challenging to assess under a traditional ERM framework, as it typically focuses on financial impact over a shorter time horizon. Certain aspects may not initially present as financially material, but have wider impacts on a company’s reputation, stakeholders, or employees. These impacts can have serious financial implications, and diminish credibility, in the long run.

Other E&S factors will evolve over time and can be missed in a short-term framework. One example is climate change, for which the implications and impacts are uncertain, complex to unravel, and expected to manifest differently over varying time horizons. Experienced organizations are mindful of their need to operate within the dynamic nature of public policy and social norms alike, which requires a flexible and forward-looking approach.

Many organizations have considered how to incorporate these nuances into their ERM frameworks, particularly the importance of monitoring E&S risks over various timeframes. One organization ranks their E&S risks over separate short-and long-term horizons.

The ERM framework is also used by many organizations to ensure alignment between the board and management in the assessment and prioritization of E&S risks. In some companies, boards and management conduct separate risk assessments/rankings and then compare results. Discrepancies are a signal of areas where they are not communicating effectively. Strong board practices, such as ongoing education initiatives and on-site visits, support the board in its ability to make an independent and informed risk assessment (see Section VI. Board Practices). As one director put it:

“Trust management completely, verify continuously.”

With respect to oversight, the ERM process is generally owned by the board or audit committee. Responsibility for more in-depth oversight of individual E&S risks is often assigned to a board sub-committee (see Section V. Board Structure for examples).

Recommended Practices

4. A robust ERM framework, in which E&S is fully integrated, ensures that all top organizational risks are equally identified, prioritized, mitigated, and monitored. The board and management should agree on the assessment of E&S risks within the ERM framework, including underlying assumptions.
5. In reviewing risk assumptions, the board should be comfortable that the methodology captures the long-term nature of E&S risks, including how

their inherent and residual risk factors may evolve and manifest over various time horizons.

6. The board should work with the CEO to assign clear accountability for E&S risks to senior officers. This should include executive ownership to reinforce appropriate behaviours and lead the integration of E&S priorities into long-term strategy and risk management activities.
7. The board should ensure that there are robust internal policies and codes of conduct in place to communicate its expectations for the management of E&S risks, and to guide key behaviours. Companies should consider how such policies extend to contractors, suppliers, and other external parties.
8. Board approval processes and practices should enable the board to assess whether material E&S risks are being appropriately considered alongside other top risks, including in capital allocation decisions. This requires sufficient time on the board agenda to review the integration of E&S in strategy and risk management practices.
9. The board should comprehensively disclose to investors its approach to E&S risk oversight, including the process it uses to review management's ERM assumptions, materiality assessment, and risk prioritization.

III. CORPORATE STRATEGY

The board should understand which E&S factors may present significant strategic opportunities or are of consequence to the company's business thesis, and whether and how such factors are prioritized in corporate strategy. This may provide the company a competitive edge against its peers.

BHB Guideline #10 states: "Directors are responsible for oversight of the corporation's

strategy and ultimately approving the overall vision, objectives, and long-term strategy of the corporation. Management, on the other hand, is responsible for developing and implementing an appropriate detailed strategy that is designed to realize the corporation's vision and achieve its objectives while managing the associated risk."

"The board reviews, discusses, challenges, and ultimately approves a strategic plan for the business and oversees management's implementation of the plan, ensuring it is consistent with the approved vision, long-term objectives, and strategy. The board also monitors the corporation's performance against the strategic plan. The board should have a heightened interest in its oversight role of strategy because of its importance and impact on shareholder value."

Observations and Takeaways

E&S factors with significant impact on value or risk to the business (now or over time) should be represented in the corporate strategy and overseen by the board. This is a critical step in the holistic integration of E&S factors.

"The board needs to consider whether and how E&S factors contribute to corporate strategy and vice versa. Shareholders need to know how E&S factors are linked to the creation of long-term shareholder value."

Business materiality is the key criteria for determining which issues merit focus. Once E&S priorities are identified in corporate strategy, it becomes much easier to integrate them into other business factors, such as risk management and compensation. They become part of the plan employees have to execute, and the activities they must carry out. As discussed, a key counterpart to this

is ensuring the company's culture is conducive to the necessary behaviours and attitudes.

The orientation of E&S in the business will change as information and circumstances evolve, requiring an agile framework and an active approach to monitoring the relationship from year to year – particularly in early stages.

The integration of E&S with strategy is particularly prevalent in the extractives sector, where companies recognize that their ability to succeed over the long-term depends on their ability to manage resources efficiently, minimize negative impacts, and maximize positive impacts on communities in which they operate. This includes having a highly engaged and productive workforce.

For one large energy company, a key strategy element is preparing for a low carbon future by being competitive to conventional oil on a cost, resources, and carbon basis. Another company has a triple-bottom-line principle based on its view that a prerequisite for a sustainable business and long-term value creation is to reduce risks related to business activities and enhance the positive societal contributions of its global operations.

Most of the participating directors communicated that they find value in dedicated strategy sessions between the board and management, focused specifically on how E&S factors impact and contribute to long-term objectives and scorecard goals. Most directors say their boards have in-depth conversations with management at least once a year about strategic direction, where and how E&S factored in, and what the long-term objectives were, i.e., “Why are we doing this?”

“A business needs to be sustainable and will not survive without respecting E&S issues and matters.”

Recommended Practices

10. E&S factors of material value or risk to the organization should be thoughtfully incorporated into long-term strategic objectives, with oversight by the board. In this role, the board should ensure it remains consistent with the approved vision and strategic plan.
11. The board should allocate sufficient time to reviewing E&S priorities as an evolving component of the strategic plan. Periodic focus sessions should be held (annually, at a minimum) to allow the board and management to jointly assess whether the strategy captures changes in drivers, experience, and knowledge.
12. The board should provide transparency to investors on how E&S considerations factor into long-term vision, strategies, and objectives.

IV. BOARD COMPOSITION

Effective boards look for the right mix of knowledge, experience, and character to enable constructive contribution to E&S discussion and oversight.

BHB Guideline #4 provides applicable guidance as it pertains to board director competence and knowledge.

Observations and Takeaways

Most companies have an extensive director selection process, with oversight by a board committee. Overall, companies look for a diverse range of skills, experience, and perspectives.

At this stage, few companies put specific emphasis on standalone institutional E&S specialization over a more well-rounded business background. Boards generally value extensive, hands-on, senior leadership experience in the industry or related industries, with

applied understanding and appreciation for sector-specific E&S issues.

When asked what the participating directors viewed as indicators of a constructive attitude toward E&S issues, many cited broader attributes like cultural fit, and personal qualities such as integrity, humility, and collegiality.

“Work hard to develop the board. Look for well-rounded executives that respect employees, communities, society, and the environment.”

When one board was looking to refresh directors, it started by assessing hard skills and experience, such as mining and financial. The lead director then conducted a second round of interviews with a focus on soft skills, such as openness, forward-thinking and humility. For that company, it was the softer skills that enabled their proactive approach to E&S issues.

Boards that are proactive about their E&S oversight include relevant experience and capabilities in their board matrices. This category of skills comes under different names, such as Corporate Social Responsibility, Sustainability, Health, Safety & Environment, or Supply Chain. More sophisticated companies will distinguish between CSR, which is based on a broader range of stakeholder considerations, and E&S, which focuses on financial relevance². Regardless of terminology, effective boards typically ensure that they have the requisite knowledge and information to oversee new and evolving concepts, such as E&S.

“Boards should ask themselves whether and how the nomination process ensures the company has the right mix of E&S experience, skills, and

perspectives. Boards need to be refreshed, with a balance struck between institutional knowledge and fresh perspectives.”

Recommended Practices

13. In recruiting new directors, the evaluation of career experience and expertise should include consideration of E&S capabilities as they relate to the company's industry, financial responsibilities, and risk profile. It should also consider the qualities that will enable open, constructive dialogue on new and evolving topics.
14. The board's combined E&S capabilities should align with the company's most material drivers. If a factor on the E&S spectrum has emerged as highly important for company strategy, investors would expect the board to have the requisite skills or expertise to address it. If the board does not have the requisite knowledge (existing or acquired) to provide oversight on a topic, it should be prioritized in director education and/or recruitment.
15. E&S-focused capabilities should be captured in the board skills matrix within the proxy circular. Investors require sufficient detail to be assured that material business drivers have the proper oversight. Where appropriate, director biographies should provide specific detail on relevant E&S experience and capabilities.

V. BOARD STRUCTURE

There is no right or wrong board structure for supporting effective oversight of E&S opportunities and risk. Rather, boards need to carefully consider the

² Note that over the long-term, these two concepts may converge.

nature of the E&S issues when determining the most appropriate committee to assign accountability.

BHB Guideline #8 provides guidance for boards as it pertains to setting board committee mandates and accountabilities, including requirements around the composition of the committees, responsibilities of the committees and procedures for committee meetings. Committee mandates should clearly outline responsibilities, scope of authority, escalation measures, and reporting expectations.

Observations and Takeaways

While acknowledging that all risks are ultimately the responsibility of the entire board, most boards delegate oversight of specific E&S aspects to board committees (and some boards have dedicated E&S committees). The committees then bring higher-level strategic risk discussions to the full board.

Committee structure generally reflects a company's unique E&S risk profile, and thus varies based on what is most appropriate to each company. For many boards, E&S risks are spread across multiple committees. For example, health and safety could be addressed by a standalone committee or included with environmental risks. Some companies distinguish between operational E&S factors (such as union relations, community impacts, and spills or leaks) and corporate social responsibility E&S issues (such as philanthropy). Details on how boards organize themselves to oversee E&S risk are typically detailed in annual reports and proxy circulars.

“Out of the ERM process, the board makes decisions on which committee has responsibility for the risk, so there may be various committees looking at different aspects of E&S risk.”

At one energy company, cyber risk is delegated to the Audit and Finance Committee; operational risks (spills, releases, incidents) are the purview of the Safety and Reliability Committee; and stakeholder engagements and climate strategy and reporting are under the CSR Committee. The Compensation Committee considers how compensation programs play into E&S management, while the Nominating Committee takes into account the skills needed for the board to oversee E&S risks.

Committee mandates provide necessary clarity around responsibilities and delegation of authority but are effective only if they collectively address the spectrum of material issues to the company. Particularly for E&S factors, which evolve rapidly, committee mandates should be reviewed regularly to ensure that the right committees are managing the right risks.

One company expanded the mandate of its Environmental, Health and Safety Committee to include sustainability, acknowledging the need to oversee more immediate operational risks, and the longer-term strategic risk posed by sustainability needs. At another company, the whistle-blowing policy was moved from under the Audit Committee to the Compensation and Human Resource Committee, when the board realized that most reported incidents were related to human resources.

Recommended Practices

16. The board should consider the most effective committee structure for its oversight of E&S management, which, for some companies, will involve dedicated board committee(s).
17. Charters for the committees tasked with overseeing E&S management must clearly delineate accountabilities and risk ownership and should be regularly reviewed with the perspective that E&S risks evolve.

18. The board's E&S oversight structure should be detailed in the company's regulatory filings, and the accompanying charters should be readily accessible to shareholders.

VI. BOARD PRACTICES

Ultimately, board effectiveness comes down to what you actually do – do you walk the talk? Board practices on E&S oversight bring life and credence to the governance structures surrounding them and are an essential measure of board effectiveness.

BHB Guideline #9 states:

“Board independence must be supported by the establishment of robust and well-defined board processes and procedures that will assist directors in meeting their oversight responsibilities. Board processes and procedures should ensure that directors are provided with sufficient information, time, and independent advice to be able to make meaningful decisions in an independent manner. Meeting materials provided to boards by management must be sufficiently detailed, comprehensive, and succinct to support meaningful decisions by directors. All board meetings should include in-camera sessions with independent directors only.”

Observations and Takeaways

There are a number of common board practices among companies with strong E&S management. The boards of these companies are highly aware of, and engaged in, E&S issues. They discuss E&S matters as a regular item on the board agenda and use in-camera sessions with management and site visits to enhance first-hand understanding.

In addition to regularly reviewing E&S risks, one board also conducts an annual “deep dive” into E&S factors, which is built into their strategy seminars. Another company shared that, during a recent in-camera session, several new emerging E&S risks were added to their ERM register.

Engagement Practices

Where applicable, directors often use on-site visits to directly interact with employees or communities affected by the activities of the organization. This provides first-hand perspectives and insights that the board generally cannot obtain through management reports. While site visits to operations are de rigueur in the extractives industry, companies in other industries also find value in taking time to visit suppliers or chat with employees at their various offices.

“Employees give us insights that we would not otherwise get like signals of stress points in the organization, and genuine concern for the welfare of employees and the company. It brings a valuable added dimension.”

Companies with significant exposure to third-party suppliers and contractors also engage those companies to promote changes in their own organizations. A company's E&S approach needs to consider its external operational and supply network, and what changes can be made to support internal priorities.

Board Education

The participating directors were asked specifically about board education practices. Nearly every company had engaged external speakers on E&S factors relevant to the company, particularly in areas that were new and emerging. While external speakers may not always provide new information, they will

bring outside perspective that is independent of management.

BHB Guideline #9 states:

“We believe that director education creates boards with ever-increasing professionalism and enhances the effectiveness of directors, boards, and board committees. At a minimum, a director education program should include an initial orientation along with ongoing educational programs and guidelines, such as formal education courses, in-house sessions, and conferences.” As well, procedures should be in place to ensure proper access to, and funding of, independent advisors to the board or its committees when the board or its committees deem it appropriate.

Companies also look to external incidences as learning opportunities, to reflect on how their company would have fared. Seeing how major environmental or social events have impacted other companies has led more effective boards to review their own practices to understand their vulnerability to similar issues and enact proactive risk management measures to protect the company and its assets.

There have been many examples of incidents over the years that have catalyzed significant changes in how companies manage E&S issues. For instance, a widely reported listeria outbreak in Canada by a recognized food manufacturer, which caused the death of 22 people, drove one company to increase focus on product safety.

Recommended Practices

19. The board should ensure that E&S priorities are a regular discussion item in meetings and in-camera sessions, and that there is an escalation mechanism to flow pertinent E&S-related information to the board in a timely fashion.
20. Boards need adequate exposure to, and openness toward, key stakeholder groups as part of an effective E&S oversight. On-site visits offer hands-on perspective and insights about the company's environmental and social hot spots.
21. Board orientation and continuing education should include building awareness and understanding of complex and emerging E&S issues, where relevant. Boards should consider the use of independent advisors and/or external speakers to provide exposure to additional viewpoints. Education topics should be disclosed, for example, as part of the committee updates in the proxy circular.

VII. PERFORMANCE EVALUATION AND INCENTIVES

A company's rewards system is pivotal in driving behaviours and performance. Companies need to think carefully about the metrics used to assess performance and achievement of objectives. Companies that have integrated E&S factors into corporate objectives should include appropriate E&S metrics and targets within their remuneration framework. Many boards see this alignment as a core reinforcer of both individual and company commitment to defined E&S priorities.

BHB Guideline #13 provides guidance in adopting effective management compensation arrangements aligned with risk and CCGG's *Executive Compensation Principles*.

Observations and Takeaways

Most companies are continuing to navigate the integration between E&S priorities and compensation. Because each company is exploring it uniquely, the scope and nature of each approach depends on the maturity of the organization, and the outcomes each respective board expects.

“What gets measured gets managed. Long-term E&S goals can be seen as unachievable and ambitious, so you break it down into annual goals for management via a balanced scorecard that looks at the overall performance of the company alongside its financial performance. For example, if we miss our target on CO2 emissions, it will hurt management's compensation.”

As of December 2017, only 26 of 251 Canadian companies surveyed by Sustainalytics maintained an explicit link between E&S targets and executive pay. An additional 22 companies said they used E&S targets to evaluate performance, but this was not formalized in their compensation policy.

(Sustainalytics Global Access and Hillsdale Research, December 2017)

Companies generally start with discretionary measures, and then experiment with harder quantitative E&S metrics and targets. Currently, targets for health and safety, and fatality rates are the most common social factors included in incentive programs in North America. They are significantly represented where issues and risks are material.

Many companies that institute quantitative E&S metrics and targets also include a discretionary mechanism by the compensation committee to allow provision for qualitative factors and extenuating circumstances or events. Where this is the case, the criteria are pre-defined, well specified, and transparent to investors.

One company noted that 60% of their corporate scorecard was represented by safety and environmental factors. Another company created an incentive that, if a plant went accident-free for one year, its employees (as a collective) would receive a defined allowance to invest in a local community, at their discretion. The allowance would increase for every accident-free year.

Conversely, one company cited an example of a significant reduction in annual incentive pay, on the basis of a single fatality. It was seen as a way to make everyone aware of his or her individual responsibility.

While corporate scorecards have largely focused on the mitigation of operational E&S risks, some boards are taking a long-term position on E&S and developing sustainability-focused strategies (such as emissions reductions) with aligned performance metrics. These organizations are experimenting with the right metrics and quantum and refining them based on outcomes.

One company included an assessment of community commitment and E&S performance relative to peers in its executive compensation program.

Another company included metrics relating to reputation, product safety, and people in its assessment of performance against corporate strategy, which fed into compensation.

From an oversight perspective, many boards ensure member overlap between its E&S oversight committee(s) and the compensation committee. This ensures that the appropriate inputs go into the development of E&S metrics and performance evaluation decisions. Recommendations then flow to the board.

Recommended Practices

22. The board is responsible for monitoring performance against the strategic plan, using appropriate metrics and milestones. The E&S priorities that are part of the strategic plan should be captured in performance evaluation and management compensation structures. The board should work with management to determine which behaviours and objectives to reinforce through metrics, including any existing behaviours that have unintentionally been reinforced and need redirection.
23. The board should ensure that qualitative impacts, such as reinforcing the desired culture, are captured in the compensation committee's discretionary mechanism. Where discretion and

qualitative assessment are applied, the criteria must be clearly defined, reasonable, and transparent.

24. There should be sufficient overlap and communication between the board's compensation committee and E&S oversight committee(s) to ensure that compensation targets and performance evaluations are appropriately aligned, informed, and mutually reinforce E&S priorities.
25. A company's linkage between E&S priorities and compensation should be integrated into pay disclosures. Investors require sufficient information to understand how E&S metrics and performance targets align to long-term strategy and shareholder value, and how the board assesses and rewards performance against E&S objectives, particularly when it comes to discretionary and qualitative measures. If material E&S factors are deliberately not captured in performance metrics, the board should explain why.

VIII. DISCLOSURES TO SHAREHOLDERS

In a backdrop of increasing E&S awareness, companies are expected to demonstrate how E&S risks and opportunities are being identified and managed, and how their E&S actions bring value to stakeholders. At companies that are more advanced in their sustainability journey, E&S reporting is part of a cohesive communication from management of the organization's performance and goals, integrated with financial and operational objectives.

BHB is not intended as a disclosure document, and thus provides limited guidance on sustainability disclosures other than recommending that a board should “ensure full and complete disclosure of how the board oversees risk”.

Observations and Takeaways

Investors are increasingly engaging companies on how E&S factors are addressed over the short, medium, and long run. They are demanding clear, reliable, consistent and relevant disclosures related to a company’s management of material E&S risks. Investors need this information to manage their own risk. They are also asking companies to articulate whether, and how, material E&S risks and opportunities are addressed in corporate strategy, and how boards and executive teams are respectively overseeing and managing those risks.

“Investor needs may differ from other stakeholders. Investors are focused on long-term, sustainable value, so it is important for a company to articulate how their E&S-related activities create value for the business and shareholders. Boards need to understand and articulate why they undertake sustainability initiatives as it relates to corporate value.”

Current State of E&S Reporting

Effective reporting of E&S measures alongside financial metrics paint a picture of business sustainability. Reported metrics require sufficient context to convey their relevance to investors and clarify board accountability.

In practice, E&S reporting is often part of a broader corporate social responsibility (CSR) report, which can result in metrics that do not link to strategy or are not relevant to operations or risk. A CSR report generally does not have C-suite ownership, board oversight, or assurance processes that support financial reporting.

Siloed, non-integrated, CSR/E&S reporting can be viewed as “greenwashing”. Integration of E&S matters in corporate reporting provides an effective framework of accountability, can drive internal and external credibility, and better ensures that it gets to the most relevant audience.

Some organizations have already invested significantly in E&S reporting in response to shareholders and are somewhat resistant to new or additional sets of requirements. These organizations do, however, acknowledge persistent reporting challenges and continued feedback from investors that they need to navigate dense, complex corporate disclosures in pursuit of the information they need.

While there is general consensus on the need for better investor transparency and engagement on E&S matters, a great variety of perspectives and practices exist around it. CCGG considers the FSB-TCFD’s³ disclosure framework a good model for companies to look to in contemplating their approach. The FSB-TCFD’s approach was developed with climate change risk in mind but has applicability across all material business risks and organizational types. Its framework is structured around four core drivers: *governance, strategy, risk management and metrics/ targets*, and is

³ The Financial Stability Board’s Task Force on Climate-related Financial Disclosures (FSB-TCFD)

specifically designed to be decision-useful and forward-looking. It can be helpful to many boards in linking strategy to metrics.

An example of this linkage is illustrated in Figure 1. Boards can use the FSB-TCFD framework to assess their companies' E&S approach under each of the four pillars. This boils down to how an organization: governs E&S factors; identifies consequential E&S risks or opportunities; assesses their actual and

potential impact on the business and strategies; and manages them.

These business pillars are fairly universal and consistent with CCGG's focus on formulating our recommendations to help boards define and focus their E&S approach. The overlaying guidance and lessons-learned insights from boards that have developed robust structures for E&S management can help identify missing pieces and put existing practices under a new lens.

Figure 1

	Governance	Strategy	Risk Management	Metrics And Targets																				
FSB-TCFD's model provides a framework of business imperatives, around which to structure E&S disclosures that would be of relevance to investors in assessing strategy and risk.	Disclose the organization's governance around climate related risks and opportunities.	Disclose the actual and potential impacts of E&S risks and opportunities on the organization's businesses, strategy, and financial planning, where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.																				
CCGG's E&S Guidebook provides practical recommendations for boards to consider in ensuring the appropriate E&S accountability structures, management framework, and capabilities are in place.	<p>E&S Recommendation #3 The board should provide at least a high-level discussion of Company E&S philosophy and approach in the proxy circular</p> <p>E&S Recommendation #14/15 The board's combined E&S skills should reflect the company's most material E&S factors. E&S skills should be captured in the board skills matrix within the proxy circular.</p> <p>E&S Recommendation #18 The board's E&S oversight structure should be detailed in the company's regulatory filings, and the accompanying charters should be readily accessible to shareholders.</p>	<p>E&S Recommendation #12 The board should provide transparency to investors on how E&S considerations factor into long-term vision, strategies, and objectives.</p> <p>E&S Recommendation #21 Board orientation and continuing education programming should include awareness and understanding of complex and emerging E or S issues, where relevant.</p>	<p>E&S Recommendation #9 The board should disclose to investors its approach to E&S risk oversight, including the process it uses to review management's ERM assumptions; materiality assessment; and risk prioritization.</p>	<p>E&S Recommendation #25 A board's approach for measuring and rewarding performance against E&S objectives must pre-defined, well specified, and transparent to investors.</p>																				
Thoughtfully-selected metrics provide a means for boards to communicate, and evaluate management's execution of, outlined E&S priorities.	<table border="1"> <tr> <td>GRI</td> <td>G4-34 to G4-36, G4-39 to G4-41, G4-56</td> </tr> <tr> <td>CDP</td> <td>CC1</td> </tr> </table>	GRI	G4-34 to G4-36, G4-39 to G4-41, G4-56	CDP	CC1	<table border="1"> <tr> <td>GRI</td> <td>G4-1, G4-2, G4-37, G4-42, G4-43</td> </tr> <tr> <td>CDP</td> <td>CC2, CC5, CC6</td> </tr> </table>	GRI	G4-1, G4-2, G4-37, G4-42, G4-43	CDP	CC2, CC5, CC6	<table border="1"> <tr> <td>GRI</td> <td>G4-2, G4-18, G4-19, G4-45 to G4-47, G4-49, G4-DMA</td> </tr> <tr> <td>CDP</td> <td>CC2</td> </tr> <tr> <td>SASB</td> <td>Risk aspects</td> </tr> </table>	GRI	G4-2, G4-18, G4-19, G4-45 to G4-47, G4-49, G4-DMA	CDP	CC2	SASB	Risk aspects	<table border="1"> <tr> <td>GRI</td> <td>G4-44, G4-46 G4 specific indicators</td> </tr> <tr> <td>CDP</td> <td>CC1, CC3, CC7-15</td> </tr> <tr> <td>SASB</td> <td>Sector-specific metrics</td> </tr> </table>	GRI	G4-44, G4-46 G4 specific indicators	CDP	CC1, CC3, CC7-15	SASB	Sector-specific metrics
GRI	G4-34 to G4-36, G4-39 to G4-41, G4-56																							
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CCGG's E&S recommendations are consistent with other E&S disclosure frameworks.	<table border="1"> <tr> <td>GRI</td> <td>G4-34 to G4-36, G4-39 to G4-41, G4-56</td> </tr> <tr> <td>CDP</td> <td>CC1</td> </tr> </table>	GRI	G4-34 to G4-36, G4-39 to G4-41, G4-56	CDP	CC1																			
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CDP	CC1																							

Once an E&S framework is in place, the board should define a set of metrics and key performance indicators to convey E&S priorities to shareholders, and establish management accountabilities around

them. Credible standard-setting organizations like SASB, and disclosure frameworks such as GRI and CDP (see callout on page 20) help inform clear, objective, relevant and comparable measures.

Key performance indicators and metrics used to convey E&S issues are most useful when they are well-defined, objective, and comparable. Various organizations such as the Sustainability Accounting Standards Board (SASB), Global Reporting Initiative (GRI), CDP (formerly, Carbon Disclosure Project), stock exchanges, and regulatory and governmental bodies play an important role in improving the quality of E&S disclosures by driving better standardization, uniformity, and comparability.

SASB looks to define standards for metrics that correspond to material risks and cross-cutting issues at the sector level that can be compared across companies over time. SASB's focus on financial materiality and tools – such as its sector-based materiality map – provide a framework to focus investor disclosures.

In terms of reporting oversight, E&S disclosure reporting is generally reviewed and approved by the board committee(s) mandated with the oversight of E&S risks. Third party verification (or auditing) of E&S reporting has become a growing topic. The discussions have prompted many companies to consider how to leverage existing internal audit functions to provide the board with appropriate independent assurance of the report's accuracy and consistency with other reported information, and to establish controls around the production of quantitative data.

While a company may want (or need) to communicate on a wider range of sustainability issues to other key stakeholders, these recommendations pertain specifically to investor-facing E&S disclosures that might be used in the investment process. Companies should ensure that the content in its broader distributions (e.g., corporate sustainability reporting) is consistent with the E&S reporting targeted at shareholders.

Fiduciary Accountability and Communicating with the Board

Boards are accountable as fiduciaries for an organization's effective management of material E&S business issues.

As such, communication of E&S matters should be held to the same standards of accountability as any other material operational or risk issues. General advice on effective communication, such as that offered in *Building a Better Board Book**, is readily applicable to E&S:

- a) Do not provide data without context;
- b) Focus on underlying business and economic performance rather than accounting reports; and
- c) Metrics presented to the board should be consistent with how management runs the business.

The role of the general counsel in furthering corporate responsibility and sustainability is an evolving area of increasing focus, as highlighted in the Guide for General Counsel on Corporate Sustainability**.

* <https://www.gsb.stanford.edu/sites/gsb/files/publication-pdf/cgri-closer-look-68-building-better-board-book.pdf>

** <https://www.unglobalcompact.org/library/1351>; <https://www.law.berkeley.edu/research/business/events/corporate-responsibility/>

Recommended Practices

26. Companies should consider the perspectives and needs of investors in E&S-related disclosures, particularly in financial reporting. Reporting should convey key considerations related to governance, strategy, and risk management with the right level of detail, context, supporting information, and metrics. Section VIII provides an illustrative view of the guidance and resources available to companies in considering their E&S disclosure approach.

27. E&S metrics should be clear, measurable, forward- looking, and comparable. There are several widely accepted rubrics that companies can use for guidance in establishing appropriate metrics.
28. The reporting framework a company chooses to follow, and its rationale, should be described in the company's corporate reporting (e.g., Management's Discussion and Analysis, annual report, or proxy circular).
29. If E&S reporting is separate from financial reporting, there should be some level of board accountability for the information to give it credence with investors. At a minimum, approval for E&S reporting should be under the mandate of the board committee charged with the E&S oversight. The board should have the necessary controls in place, whether internal or external, to provide reasonable verification and assurance of the facts and assumptions relied on by management in preparing the reports.

CLOSING THOUGHTS

In a backdrop of increasing E&S awareness, there is a call to companies and investors to bring greater focus, accountability, and transparency to E&S management as a critical driver of long-term shareholder value. While there is no “one size fits all” solution to E&S governance, the key is proactive and informed collaboration between management and their boards to ensure the appropriate framework, practices, and capabilities are in place to understand material E&S factors and manage their ongoing business impact.

Given the complex and enduring nature of most E&S factors, companies need to carefully consider their long-term management. The recommendations and insights in this guidebook are intended to support the thought process around a principles-based approach for integrating E&S into core business practices and priorities. The approach should set a clear cultural compass and pathway toward defined priorities, while remaining adaptable to change over time.

APPENDIX A:

SELECTED REFERENCES FOR FURTHER READING ABOUT E&S MATTERS

TITLE	AUTHOR	OVERVIEW
21st Century Engagement (May 2015)	Blackrock/Ceres	Focused on management-level engagement, and not questions you would generally ask the Board.
Board Adoption & Oversight of Corporate Sustainability (April 2011)	Business for Social Responsibility (BSR)	A good primer on board interactions on corporate sustainability. It discusses issues and options around roles and responsibilities, structure, composition, investor engagement, and the importance of board training on the subject.
View from the Top: How Corporate Boards Can Engage on Sustainability Performance (October 2015)	Ceres	Provides practical recommendations for boards to integrate sustainability into their governance systems and board actions. Recommendations centre on materiality assessment and incorporating sustainability into committee/board mandates; director recruitment and training; discussions with key staff; strategic planning and risk oversight; and linking sustainability goals with compensation.
Lead from the Top: Building Sustainability Competence on Corporate Boards (September 2017)	Ceres	The report largely overlaps with the earlier version (above), with further emphasis on stakeholder engagement and using sustainability advisory councils as a board resource.
Climate Change Briefing: Questions for Directors to Ask (August 2017)	Chartered Professional Accountants (CPA) of Canada	The second edition of an earlier report on how boards should be engaging on climate change topics. The questions centre on how the business is (or could be) impacted by climate change; strategic risks and opportunities; current and future financial impact; information, and reporting processes and consistency; and oversight and integration of climate risk.
Sustainability: Environmental and Social Issues Briefing (2011)	Chartered Professional Accountants (CPA) of Canada	Geared towards boards, with useful questions around strategy, external reporting, board structure, and risk/risk oversight.
Investor Expectations on Mining: Digging Deeper into Carbon Asset Risk (November 2015)	Institutional Investors Group on Climate Change (IIGCC)	The expectations are geared at companies. A couple of them relate more broadly to governance and transparency/ disclosure, which could be useful in board oversight of reporting.

TITLE	AUTHOR	OVERVIEW
The Critical Role of the Board in Addressing Climate Change (March 2017)	Institute of Corporate Directors (ICD)	A brief article from the ICD magazine, outlining the regulatory, financial, liability, physical, and reputational risks of climate change. It also outlines five key considerations for a board to ponder.
Board Oversight of ESG (March 2017)	National Association of Corporate Directors (NACD)	A collection of articles by strategic content partners, such as Marsh & McLennan and KPMG Board Leadership Center. Content is somewhat basic, but outlines: the increasing investor interest in ESG; implications of the FSB- TCFD recommendations; the role of compensation in incentivizing management on ESG; and board oversight, disclosure and investor engagement expectations.

APPENDIX B:

RECOMMENDATIONS FOR EFFECTIVE BOARD OVERSIGHT AND COMPANY DISCLOSURE OF E&S MATTERS

Recommendations are organized under eight key governance categories, as summarized below:

Corporate Culture: Most of the participating directors emphasized the importance of culture in enabling an E&S consciousness that pervades throughout the organization's activities. Culture fosters a constructive approach to health and safety, community relations, and environmental impacts. Tone from the top plays a vital role in driving desired behaviours and attitudes. Without an aligned culture, E&S management risks becoming a temporary box-ticking exercise.

Risk Management: The oversight of all significant risk factors, including those related to E&S, is a core function of the board. Organizations should have an enterprise risk management (ERM), or equivalent, system that enables an organization to identify and assess E&S risks as a fully-integrated aspect of the management of material risks, and not treated discretely.

Corporate Strategy: E&S factors with significant impact on value or risk to the business (now or over time) should be represented in the corporate strategy and overseen by the board. This is a critical step in the holistic integration of E&S.

Board Composition: Effective boards look for the right mix of knowledge, experience, and character to enable constructive contribution to E&S discussion and oversight.

Board Structure: There is no right or wrong board structure for supporting effective oversight of E&S opportunities and risk. Rather, boards need to carefully consider the nature of the E&S issues when

determining the most appropriate committee(s) to assign accountability.

Board Practices: There are a number of common board practices among companies with strong E&S management. The boards of these companies are highly aware of, and engaged in, E&S issues. They discuss E&S matters as a regular item on the board agenda, and use in-camera sessions with management, conduct site visits, and consult with stakeholders to gain first-hand perspective of the key issues.

Performance Evaluation and Incentives: A company's rewards system is pivotal in driving behaviours and performance. Companies need to think carefully about the metrics used to assess performance and achievement of objectives. Companies that have integrated E&S factors into corporate objectives should include appropriate E&S metrics and targets within their remuneration framework. Many boards see this alignment as a core reinforcer of both individual and company commitment to defined E&S priorities.

Disclosures to Shareholders: Companies should consider the perspectives and needs of investors in E&S-related disclosures, particularly in financial reporting. Reporting should convey key considerations related to governance, strategy, and risk management with the right level of detail, context, supporting information, and metrics, so that investors can make better informed decisions. Boards should have the necessary controls in place, whether internal or external, to provide reasonable verification and assurance of the disclosure.

The report has two primary objectives



Dialogue

To bring a broader perspective and to drive deeper dialogue between companies and investors in the rapidly evolving E&S landscape.



Guidance

To support boards in developing a robust, principles-based approach to the governance and oversight of E&S factors; an approach that will adapt to changing conditions over time.

I. CORPORATE CULTURE

1. A clear vision for E&S management, with established priorities, provides a leadership compass and pathway for the organization. The board should consider whether leadership is signaling the right tone from the top to foster the attitudes and behaviours that will support E&S goals.
2. The board should ensure that management has given employees a clear understanding of their unique contributions toward established E&S goals and ownership of E&S risks. Constructive behaviours are then reinforced through organizational structures, policies, processes, and training/awareness programs. Proactive check-ins between management and employees, and between the board and management, provide a necessary assessment of progress in behaviours and how well the desired culture is taking root.
3. The board should provide at least a high-level discussion of the company's E&S management approach and priorities in its corporate reporting (e.g., Management's Discussion and Analysis, annual report, or proxy circular).

II. RISK MANAGEMENT

4. A robust ERM framework, in which E&S is fully integrated, ensures that all top organizational risks are equally identified, prioritized, mitigated, and monitored. The board and management should agree on the assessment of E&S risks within the ERM framework, including underlying assumptions.
5. In reviewing risk assumptions, the board should be comfortable that the methodology captures the long-term nature of E&S risks, including how their inherent and residual risk factors may evolve and manifest over various time horizons.
6. The board should work with the CEO to assign clear accountability for E&S risks to senior officers. This should include executive ownership to reinforce appropriate behaviours and lead the integration of E&S priorities into long-term strategy and risk management activities.
7. The board should ensure that there are robust internal policies and codes of conduct in place to communicate its expectations for the management of E&S risks, and to guide key behaviours. Companies should consider how such policies extend to contractors, suppliers, and other external parties.

8. Board approval processes and practices should enable the board to assess whether material E&S risks are being appropriately considered alongside other top risks, including in capital allocation decisions. This requires sufficient time on the board agenda to review the integration of E&S in strategy and risk management practices.
9. The board should comprehensively disclose to investors its approach to E&S risk oversight, including the process it uses to review management's ERM assumptions, materiality assessment, and risk prioritization.

III. CORPORATE STRATEGY

10. E&S factors of material value or risk to the organization should be thoughtfully incorporated into long-term strategic objectives, with oversight by the board. In this role, the board should ensure it remains consistent with the approved vision and strategic plan.
11. The board should allocate sufficient time to reviewing E&S priorities as an evolving component of the strategic plan. Periodic focus sessions should be held (annually, at a minimum) to allow the board and management to jointly assess whether the strategy captures changes in drivers, experience, and knowledge.
12. The board should provide transparency to investors on how E&S considerations factor into long-term vision, strategies, and objectives.

IV. BOARD COMPOSITION

13. In recruiting new directors, the evaluation of career experience and expertise should include consideration of E&S capabilities as they relate to the company's industry, financial responsibilities, and risk profile. It should also consider the qualities that will enable open,

constructive dialogue on new and evolving topics.

14. The board's combined E&S capabilities should align with the company's most material drivers. If a factor on the E&S spectrum has emerged as highly important for company strategy, investors would expect the board to have the requisite skills or expertise to address it. If the board does not have the requisite knowledge (existing or acquired) to provide oversight on a topic, it should be prioritized in director education and/or recruitment.
15. E&S-focused capabilities should be captured in the board skills matrix within the proxy circular. Investors require sufficient detail to be assured that material business drivers have the proper oversight. Where appropriate, director biographies should provide specific detail on relevant E&S experience and capabilities.

V. BOARD STRUCTURE

16. The board should consider the most effective committee structure for its oversight of E&S management, which, for some companies, will involve dedicated board committee(s).
17. Charters for the committees tasked with overseeing E&S management must clearly delineate accountabilities and risk ownership and should be regularly reviewed with the perspective that E&S risks evolve.
18. The board's E&S oversight structure should be detailed in the company's regulatory filings, and the accompanying charters should be readily accessible to shareholders.

VI. BOARD PRACTICES

19. The board should ensure that E&S priorities are a regular discussion item in meetings and in-camera sessions, and that there is an escalation mechanism to flow pertinent E&S-related information to the board in a timely fashion.
20. Boards need adequate exposure to, and openness toward, key stakeholder groups as part of an effective E&S oversight. On-site visits offer hands-on perspective and insights about the company's environmental and social hot spots.
21. Board orientation and continuing education should include building awareness and understanding of complex and emerging E&S issues, where relevant. Boards should consider the use of independent advisors and/or external speakers to provide exposure to additional viewpoints. Education topics should be disclosed, for example, as part of the committee updates in the proxy circular.

VII. PERFORMANCE EVALUATION AND INCENTIVES

22. The board is responsible for monitoring performance against the strategic plan, using appropriate metrics and milestones. The E&S priorities that are part of the strategic plan should be captured in performance evaluation and management compensation structures. The board should work with management to determine which behaviours and objectives to reinforce through metrics, including any existing behaviours that have unintentionally been reinforced and need redirection.
23. The board should ensure that qualitative impacts, such as reinforcing the desired culture, are captured in the compensation committee's discretionary mechanism. Where discretion and

qualitative assessment are applied, the criteria must be clearly defined, reasonable, and transparent.

24. There should be sufficient overlap and communication between the board's compensation committee and E&S oversight committee(s) to ensure that compensation targets and performance evaluations are appropriately aligned, informed, and mutually reinforce E&S priorities.
25. A company's linkage between E&S priorities and compensation should be integrated into pay disclosures. Investors require sufficient information to understand how E&S metrics and performance targets align to long-term strategy and shareholder value, and how the board assesses and rewards performance against E&S objectives, particularly when it comes to discretionary and qualitative measures. If material E&S factors are deliberately not captured in performance metrics, the board should explain why.

VIII. DISCLOSURES TO SHAREHOLDERS

26. Companies should consider the perspectives and needs of investors in E&S-related disclosures, particularly in financial reporting. Reporting should convey key considerations related to governance, strategy, and risk management with the right level of detail, context, supporting information, and metrics. Section VIII provides an illustrative view of the guidance and resources available to companies in considering their E&S disclosure approach.
27. E&S metrics should be clear, measurable, forward-looking, and comparable. There are several widely accepted rubrics that companies can use for guidance in establishing appropriate metrics.

28. The reporting framework a company chooses to follow, and its rationale, should be described in the company's corporate reporting (e.g., Management's Discussion and Analysis, annual report, or proxy circular).
29. If E&S reporting is separate from financial reporting, there should be some level of board accountability for the information to give it credence with investors. At a minimum, approval for E&S reporting should be under the mandate of the board committee charged with the E&S oversight. The board should have the necessary controls in place, whether internal or external, to provide reasonable verification and assurance of the facts and assumptions relied on by management in preparing the reports.