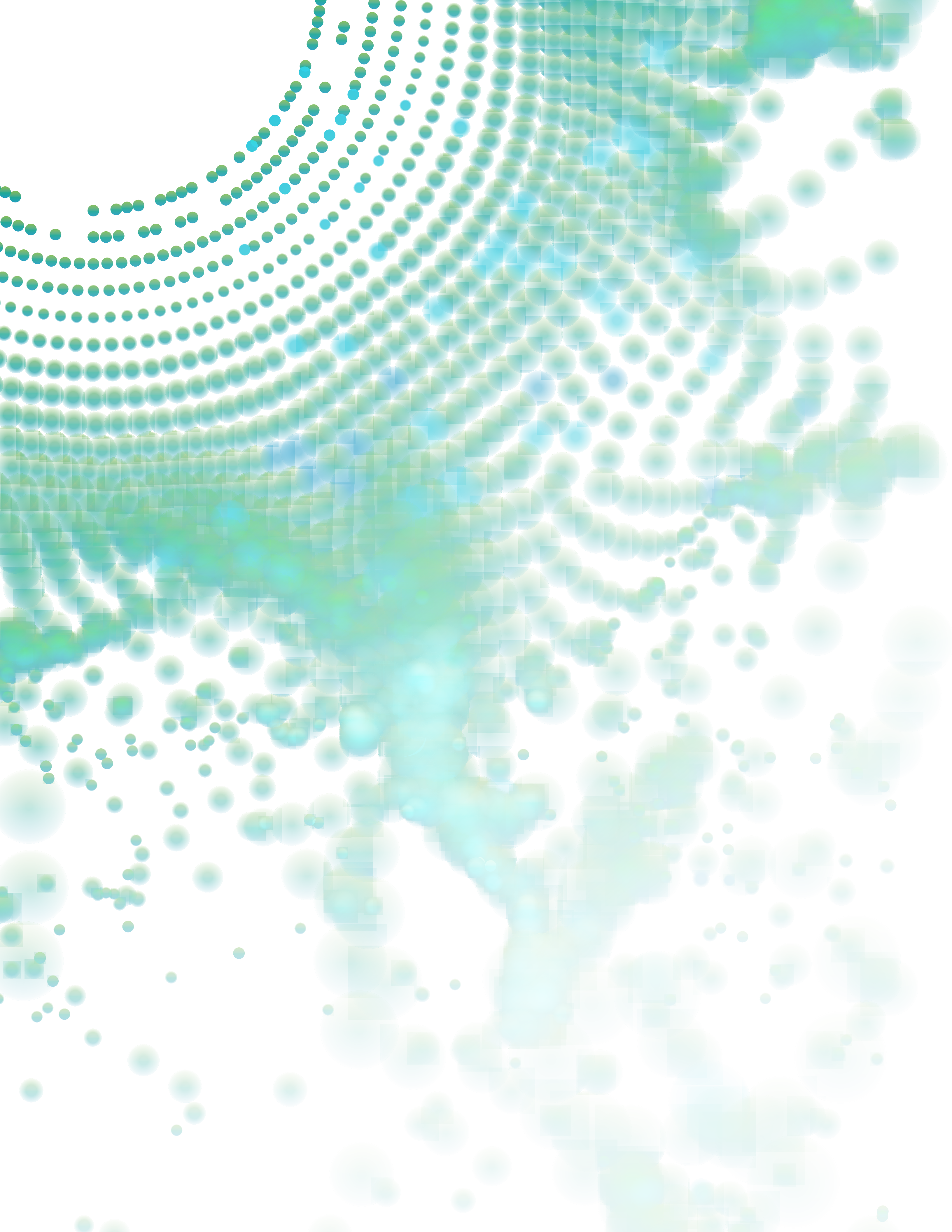
ESG Reporting Guide 2.0

A Support Resource for Companies

May 2019

Nasdaq



Foreword

We are constantly drawn to the promise of technological progress and how it can transform our lives. The companies on our markets are leaders in innovation, whether they are creating the next consumer technology, developing the latest medical therapy, or providing sources of energy. With these advances, investors and other external stakeholders rely on new types of analytics and information to understand the positive change companies are making in the communities they serve.

Expanded choice and opportunity in the new 'markets economy' requires more data to drive decision-making. Environmental, social, and governance (ESG) data points have become useful tools—not only for investors seeking performance indicators, but also for public companies trying to increase operational efficiency, decrease resource dependency, and attract a new generation of empowered workers. This ESG Reporting Guide is intended to serve as a resource for all of these ends.

We are currently at the forefront of building the infrastructure to support a new future, focusing on safety, transparency and fairness. Nasdaq is helping to create a world where all market participants are able to share in economic opportunities, and this guide is a vital part of that work.

Stock exchanges – at the intersection of investors, companies and regulators – have a critically important role in the global transition to more sustainable economies. We therefore commit ourselves to strengthening our cooperation with our clients around the world for a more successful tomorrow.

Sincerely,

Nelson Griggs
President
Nasdaq Stock Exchange

Expanded choice and control in the new markets economy requires more data to drive decision-making, and ESG data points have become vital tools.

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Introduction

Nasdaq has had a formal Corporate Sustainability program in place for six years. Through that program, we engage with listed companies, investors, standards-setters, regulators, and other stock exchanges on the market impact of sustainability issues—specifically Environmental, Social, and Corporate Governance data, otherwise known as ESG.

Effective management of sustainability issues helps Nasdaq (and our listed companies) better understand operational performance, address resource inefficiencies, and forecast enterprise risk. In addition, there is a growing body of academic and analytic evidence suggesting that ESG excellence correlates with other benefits, such as lower costs of capital, reduced shareholder turnover, and enhanced talent recruitment and retention. With a renewed market emphasis on long-term value creation, we also believe that ESG is an effective and mutually beneficial communication channel between public companies and the investment community.

To broaden understanding of these dynamics—and to solicit feedback from our stakeholders—Nasdaq hosts regular webinars, in-person events, and small-scale workshops. We have also discussed our findings in a previous ESG Reporting Guide, Sustainability Report, and other publications.

We are ourselves longstanding reporters to several sustainability frameworks, including the Global Reporting Initiative (GRI) and the United Nations Global Compact (UNGC). For the last three years, Nasdaq has been honored as one of the world's most sustainable companies in the Dow Jones Sustainability Index (DJSI).

Our brand and our advocacy on this topic allow us to collaborate with virtually all of the global sustainability efforts, among them the Sustainability Accounting Standards Board (SASB) and the recent Task Force on Non-Financial Climate Disclosures (TCFD). Through these connections and others, Nasdaq is able to stay apprised of developments in the space, represent the viewpoints of ourselves and our listed companies, and help to drive smart, practical ways forward.

Because ESG is an emerging field, thus far exempt from the discipline (and faith) that we apply to traditional financial reporting, listed company reactions to this work are likely to be varied. Nasdaq is home to more than 4,000 public companies on various markets, and it would be foolish to assume that they all share the same perspective on any single issue. That is why the materiality process (described in more detail below) is an essential part of this work, a way to customize ESG to best fit company purpose. But this guide may also provoke other reactions, including some or all of the following:

- Internal documentation and management of ESG performance data
- Inclusion of material ESG indicators in enterprise risk management (ERM) systems
- Peer and competitor benchmarking and analysis
- Undertaking a materiality assessment; publishing the results of that assessment
- Greater engagement with current and prospective employees on sustainability issues
- Productive meetings with investors and analysts
- Integration of ESG metrics into management performance (and remuneration) indicators
- Formal inclusion of ESG data in board practice and oversight
- Inclusion in indexes and other lists related to ESG outperformance
- Disclosure of ESG data in stand-alone sustainability reports
- Disclosure of ESG data to established sustainability reporting frameworks
- Disclosure of ESG data in financial filing and investor documents
- Creation of products and services that address sustainability concerns (such as the SDGs)

Companies that compete and survive in a resource-constrained world will become the new baseline, and market forces will reward some and punish others. Nasdaq must itself navigate this transition (to new energy sourcing, better human capital management, more inclusive economics, and so on) and assist our listed companies in doing likewise. That is why we pursue this work, and why we offer this guide as a resource.

Evan Harvey
Global Head of Sustainability, Nasdaq

Nasdaq is home to more than 4,000 public companies on various markets, and it would be foolish to assume that they all share the same perspective on any single issue.

Using This Guide

Nasdaq launched its first ESG data reporting guide in March 2017 as an experiment, both in business intent and regional focus. It was designed to promote meaningful engagement between listed companies and investors, a dialogue based on the emergence of ESG data as a significant performance signal. Could the exchange, in tandem with key multi-stakeholder working groups, provide a compelling business case for the voluntary reporting of so-called "non-financial" data? Based on the participation and feedback from a number of pilot reporting companies, and its reception in the global marketplace, the answer seems to be yes.

The first version of this guide was specifically addressed to our Nordic and Baltic companies—operating in markets where investor expectations are clearer and regulatory actions more present, at least when it comes to ESG. But this is certainly a global issue, and the utility of this guide is not limited to a handful of markets or a few dozen outperforming companies. Firms of all sizes, in virtually all sectors, are wrestling with the both the reporting burdens and bottom-line opportunities that ESG can provide.

This new version of the ESG Reporting Guide is intended to meet several goals:

- Eliminate and revise uncommon or impractical metrics
- Incorporate new developments in the marketplace (such as TCFD, SDGs, GRI Standards, EU NFR Directive, and others)
- Simplify and standardize guidance, labels, and calculations
- Improve ESG engagement for small- and medium-sized business enterprises
- Cover all Nasdaq markets – including the U.S. equities market – in a single document

This document considers the long-term value of strategic and transparent ESG practices, specifically as a vital connection point between individual companies and prospective investors. In this work we have focused on economic principles and specific data, rather than moral or ethical arguments, because bottom-line impacts are more immediate and actionable. This guide also suggests that a focus on ESG can lead to more efficient, harmonious, and sustainable management practices.

Nasdaq encourages its listed companies to consider this information as they evaluate costs and benefits, to use the guide only as a reference point in determining the best way forward for that business. We do not require, by rule or by practice, the disclosure of ESG data. If companies view ESG as a way to improve operations, enhance strategy, broaden risk oversight, or engage with new investors, then this guide may prove useful.

This guide was created primarily for companies, but investors, exchanges, regulators, and other capital market stakeholders have contributed much to it. As a primer on the current practice and enduring value of ESG management and data reporting, we hope this guide brings clarity and synthesis to a crowded marketplace, not additional confusion. **It is certainly not a new sustainability reporting framework, nor should it provide any substitute or shortcut when evaluating the potential value (or risk) associated with investing.**

The Nasdaq ESG Reporting Guide is also, by design, a living document. The version you have before you is significantly revised, and we expect to do so on a regular basis as new issues emerge, existing standards shift, and calculation methodologies improve. If you have any comments, critiques, or suggestions for the improvement of this document, please email us (sustainability@nasdaq.com).

What Is ESG?

ESG generally means a broad set of environmental, social and corporate governance considerations that may impact a company's ability to execute its business strategy and create value over the long term. While ESG factors are at times called non-financial, how a company manages them undoubtedly has measurably financial consequences.

Over the course of this project, we managed to create a short list of the most pervasive and persuasive ESG metrics—the Key Performance Indicators (KPIs) that we believe provide the greatest insight into the sustainability performance of the greatest number of companies. Our evaluation of these metrics was based on five key factors: precedent, prevalence, potential, perspective, and practicality.

Through our trade association the World Federation of Exchanges, or WFE, exchanges have worked together for many years to create a short list of the most pervasive and persuasive ESG metrics. These are the KPIs that we believe provide the greatest insight into the sustainability performance of the greatest number of companies.

But the dynamics surrounding ESG are still in motion. We have seen a transition from vague, philosophical, and aspirational language ("sustainability") to more specific, operational, and tactical terms ("ESG"). ESG means Environmental, Social, and Corporate Governance information, but it also means something else; not text but data, focusing on performance that is measurable, manageable, actionable, and reportable.

- Microsoft ((Nasdaq: MSFT) doesn't just publish the text of their vendor responsibility code, but lists its top 100 suppliers by spend annually
- Cisco (Nasdaq: CSCO) doesn't simply publish photographs of the many food drives that it organizes, but also the total amount of food (by weight) donated

Does ESG include anything and everything that's not traditionally reported? In the U.S., that means SEC filings such as the 10Q & 10K, annual reports, and proxy statements. Some argue this is the case, and therefore prefer the "non-financial" data label. This is an interesting word choice, given that the data drives investor dollars today and measurable financial consequences tomorrow.

There are also a number of emerging issues that may belong in the traditional reporting channels. The Sustainability Accounting Standards Board (SASB) advocates the inclusion of certain sector-based ESG disclosures in U.S. SEC filings. The TCFD recommends much more robust environmental reporting in financial filings. And institutional investors—perhaps most notably BlackRock, via CEO Larry Fink's letter on corporate governance—advocate for KPIs that provide real insight into long-term value creation.

"ESG is no longer purely ethical, but rather a financially-motivated search for enlightened management, best practices, and long-term returns."

–Thomson Reuters, Jan 2018

Reporting ESG

Because ESG reports tend to be part of the "total mix" of information that potential investors evaluate, Nasdaq does not require the participation of its listed companies in this process. The rewards for managing and reporting ESG are made clear elsewhere in this document, but should not imply a benefit from Nasdaq itself for doing so, nor an implied punishment for not doing so. This is a completely voluntary initiative.

Nasdaq may, however, track the participation of listed companies in this program in order to better support their efforts. If and when a public company does choose to disclose its ESG data, it should be able to articulate the value proposition for all relevant stakeholders. To that end, we have provided a summary of certain value drivers below. Taken together, they demonstrate a few of the potentially positive impacts of better reporting.

Our thinking in this area has been driven by a foundational document, The Model Guidance on Reporting ESG Information to Investors, originally published in 2015 by the UN Sustainable Stock Exchanges Initiative. The assertions therein about the inherent value of ESG reporting have proven more prescient with time, and still form the foundation of any meaningful "business case" for the practice. There are supporting studies for virtually all of the points below, located in the Appendix.

Access to Capital

- Demonstrate transparency and effective management and enhance the company's ability to attract long-term capital and favorable financing conditions.
- Enhance the company's ability to attract long-term investors, including major institutional investors such as pension funds (in fact, some funds actually have mandatory requirements in this regard).

Profitability and Growth

- Generate financial value for the company by identifying opportunities for cost savings, revenue generation, and risk mitigation.
- Drive continuous improvement by creating accountability and fostering collaboration with stakeholders.
- Create a deeper understanding of stakeholder needs, which could drive innovation and enhance market differentiation and competitiveness.
- Enable management and board scrutiny of ESG opportunities and risks, and promote company-wide alignment on goals.

Compliance and Risk Management

- Address mandatory reporting requirements on financially material factors and mitigate compliance risks related to financial reporting regulations.
- Establish measurement and reporting processes for ESG information.
- Help the company stay ahead of emerging ESG and reporting regulations.
- Secure the company's license to operate by demonstrating corporate transparency and responsiveness to stakeholder needs.

Corporate Reputation and Branding

- Demonstrate corporate commitments to responsibly managing environmental, social, and economic impacts.
- Exhibit corporate adherence to industry ethical standards and national and international frameworks on corporate sustainability and sustainable development, particularly in light of the UN Sustainable Development Goals.
- Enhance corporate reputation by improving stakeholders' perception of a company through reporting-related stakeholder engagement.
- Improve employee perception of the company, helping to attract, retain, motivate, and align new and existing employees.

Information Measurement & Flow

- Ensure that key stakeholders have the relevant information that is needed to make informed decisions about the company's ability to create value in the short, medium and longer term.
- Measure the realization of strategy and the extent of ESG impacts.
- Reporting ESG enables the measurement of success or progress in key corporate strategies as well as impacts of corporate practices.

Enhanced Stakeholder Relationships

- Improve relationships with key stakeholders by engaging them throughout the reporting process.

Stakeholders

When determining the parties that directly influence (or are directly influenced by) company operation, we often use two parallel and yet wholly distinct terms: "stakeholder" and "shareholder." It is factually and thematically incorrect to use these terms interchangeably in the business environment.

Because any substantive ESG practice requires a hard look at these parties, it's vital to define terms.

According to the Corporate Finance Institute (CFI), the "shareholder is a stakeholder of the company while a stakeholder is not necessarily a shareholder. A shareholder is a person who owns an equity stock in the company and therefore holds an ownership stake in the company. On the other hand, a stakeholder is an interested party in the company's performance for reasons other than capital appreciation."

There are two spheres of influence to consider – those who directly benefit (or suffer) economically based on the performance of the company, and those who benefit (or suffer) in any other ways based on the performance of the company. Profitability is of extreme interest to the shareholder; responsibility may be more directly tied to the stakeholder's interests.

Because Nasdaq itself is a hybrid organization—publicly traded company, exchange operator, self-regulated organization, financial product creator, data steward—defining our circle of stakeholders is difficult. During our own materiality assessment, it was revealed that all of the institutions and entities below (and others) bear upon our business in some meaningful way:

- Listed Companies
- Listed Company Investors
- Nasdaq (NDAQ) Investors
- Investor Advocacy Groups
- Exchange Regulators
- Other Stock Exchanges
- Market Analysts and Researchers
- Public Policymakers
- NGOs and Reporting Frameworks
- Pre-IPO Companies
- Our Customers and Suppliers
- Our Current (and Future) Employees
- Public Communities

Stakeholders must be taken into account. They may be integrated into a risk assessment, an examination of new market opportunities, or a cost-benefit analysis in talent acquisition, but their interests do intersect with those of the company. How much they intersect, and how meaningfully, is the stuff of a materiality assessment.

The list below offers a brief glimpse into the diversity, impact, and evolution of many stakeholder types. Companies are advised to consider some or all of these stakeholders as they come to terms with their ESG reporting practices.

- **Investors.** ESG specialist firms like PAX, Parnassus, Aviva, and Boston Common Asset Management have been focused on ESG performance for more than a generation—and even bigger firms are following suit. State Street, Blackrock, and Vanguard have all unveiled new and more aggressive ESG strategies since 2018.
- **Indexers & Innovators.** This category includes well-known ESG indexers, such as MSCI and RobecoSAM, but many product innovators that have found entirely new ways leverage new data. The green bond and climate bond revolution, for example, would not have caught fire without the underlying data—and we have the Climate Bond Initiative actively setting best practices. Datamaran, an AI-driven "non-financial risk management" tool, uses sophisticated analytics to search and benchmark ESG data signals, among other things.
- **Exchanges.** Stock exchanges first started getting into the ESG reporting space decades ago, in South Africa and Brazil most prominently. But what was once exceptional has now become commonplace. Thanks to the work of the UN Sustainable Stock Exchanges (SSE) and the WFE Sustainability Working Group (SWG), almost half of the stock exchanges on the planet have provided (or have committed to provide) ESG reporting guidance to their issuers. Nasdaq Helsinki was recently rated the most sustainable stock exchange in the world by Corporate Knights; more than half of its large listings disclose significant environmental metrics.
- **Governments.** The regulatory push for complete and comprehensive ESG data is truly worldwide. In most cases, government regulators are seeking better reporting from public companies. The Nonfinancial Reporting Directive in Europe (2014/95/EU) does just this, requiring certain companies to file an ESG-focused declaration with their annual reports. Local country governance codes have been commonplace in the Nordics, but now we are seeing them tied to emerging markets in Asia, South America, and sub-Saharan Africa.
- **Non-Governmental Organizations (NGOs).** First, there are many United Nations projects and agencies with a direct tie to sustainable development: the UN Environment Programme, UN Women, the Economic and Social Council (ECOSOC), and the 2030 Agenda for Sustainable Development (the impetus for the Sustainable Development Goals, or SDGs), to name just a few. But other, more highly specialized groups have become influential. Shift, for example, translates UN principles into actionable plans for business, creating partnerships between economic stakeholders to report on—and hopefully remediate—human rights issues. And in the environmental space, the Natural Resources Defense Council (NRDC) and the World Wildlife Fund (WWF) come quickly to mind.

- **Suppliers & Supply Chains.** Small suppliers tend to be part of large corporate supply chains, and those large corporations are increasingly being asked to expand the scope of their ESG oversight and control. Competition for contracts now commonly requires an ESG performance disclosure, especially when doing business with government agencies. Consider the rise of the supply chain consultancies and standards-setters, such as EcoVadis, Enablon and the Sustainable Purchasing Leadership Council (SPLC). These firms tend to evaluate the sustainable pedigree of suppliers, so that corporate purchasers can be sure they engage with ESG-compliant vendors. Various industry associations have been focused on ESG—most notably, the Responsible Business Alliance (formerly the Electronics Industry Citizenship Coalition), which has been driving supply chain responsibility for member companies (Apple, IBM, Samsung, Sony) since 2004.
- **Human Capital.** There are significant performance pressures coming from within organizations as well. The concept of human capital management (HCM), the cultivation of collective economic value for an employee population, is inevitably tied to ESG concerns, as workers increasingly gravitate towards socially responsible and transparent companies (see studies by Nielsen, 2015, and Horizon Media, 2017). The prospect of recruiting and retaining top talent, especially in a tight market, seems to inevitably touch upon ESG metrics.
- **Academics & Analytics.** In addition to the environmental and social pressures that drive individual companies to consider ESG, there is a body of academic research (Eccles and Serafeim, Harvard; Todd Cort, Yale) that points to macroeconomic benefits as well. Recent metastudies have been able to convincingly integrate a great deal of underlying academic research in order to make a grand case—"ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies" (2015) and "From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance" (2015). A number of firms (ISS,

PIMCO, JP Morgan, among many others) now fund a team of analysts devoted exclusively to ESG research.

- **Media.** Popular media outlets (Newsweek, Forbes, Fortune) have been driving ESG awareness for years, and companies frequently make changes to their ESG strategy and reporting in order to qualify for "best of" lists. The benefit of inclusion goes beyond brand value and good PR. FTSE Russell analyzed the Fortune 100 Best Companies and made a startling discovery: selected companies outperform the market, beating other relevant benchmarks by nearly 5% ("The Best Companies to Work for Are Beating the Market," Fortune, 2/28/18).
- **Rankers, Raters, and Reporters.** Twenty years ago, there were only a few firms that focused on developing ESG reporting standards—such as the Carbon Disclosure Project (now CDP) and the Global Reporting Initiative (GRI), which still stands tallest in the field. But now there are technical reporting structures (COSO, ISO), financial disclosure protocols (SASB), and framework aggregators (CDSB) that integrate ESG considerations.

–adapted from "What's Driving ESG? A Top-Ten List" by Evan Harvey (Capital Finance, April 2018)

Materiality

While the concepts of "materiality" and "material business impact" are essential to a proper evaluation of ESG cause and effect, it is not the intention of this document to define the process whereby materiality is evaluated. That work must be undertaken by the corporate reporters—possibly in concert with more detailed guidance from third parties—and with the interests of their stakeholders at heart. Nasdaq assists companies in the evaluation of materiality through direct intervention, passive education, expert consultation, case studies and original research.

When evaluating materiality, companies are encouraged to consider impacts to external stakeholders and ecosystems in addition to those directly affecting the company. This process (and the subsequent reporting of it) allows investors to better assess the systemic and longer-term risks that inevitably arise through these impacts. Direct reporting of ESG performance data provides just one part—however vital and necessary— of the overall company picture; understanding external impacts illuminates a company's overall value proposition and long-term risk profile.

For a better understanding of the concept of materiality, we refer you to the sources and definitions below. Bear in mind that assessing materiality is a continuous process, producing a highly individualized result. Companies are encouraged to focus on the needs of their own business, rather than adhering blindly to a standard definition.

- The International Integrated Reporting Council (IIRC) suggests an issue is material if it is relevant (is likely to have an impact on value creation) and is sufficiently important in terms of its known or potential effect on value creation with reference to magnitude of the matter's effect and, likelihood of occurrence.
- For purposes of reporting, the Global Reporting Initiative (GRI) suggests the report should cover aspects that reflect the organization's significant economic, environmental and social impacts; or substantively influence the assessments and decisions of stakeholders.
- The Sustainability Accounting Standards Board (SASB) uses the US Supreme Court definition of materiality: Information is material if there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."
- Datamaran, a firm that specializes in analyzing non-financial risk management, has recently published an overview of the variant interpretations of materiality and its impact on public disclosure. "Materiality Definition: The Ultimate Guide" is freely available on their website and provides a useful primer on the topic to date.

Last but not least, we would draw your attention to vital work done by the Corporate Reporting Dialogue. Their Statement of Common Principles of Materiality of the Corporate Reporting Dialogue (2016) not only summarizes the variant definitions of materiality used by the organizations above (and others), it also posits a harmonized "common core" amongst and between the variations.

"Nasdaq believes that principles-based disclosure grounded in materiality allows reporting companies the degree of flexibility needed to provide investors with the proper amount and mix of information."

–Ed Knight, Nasdaq EVP & General Counsel, Comment Letter to SEC (16 Sep 2016)

Management

Data reporting is but one of the parts inherent in good EG management. How a company gathers the data, disseminates it internally, structures a team to better understand it, and incents others to improve performance are equally important parts. There is a new management discipline associated with the increased understanding and valuation of ESG, one that brings to bear these factors below:

- Data-driven decision-making
- Distributed (shared) responsibility for difficult or ambitious projects
- A willingness to break with the status quo

The "right" management approach to ESG is still somewhat undetermined, but there is a process taking root. An influential Thomson Reuters blogpost (2018) argued for a four-step procedure:

1. Align ESG with the core strategy, products/services, and operations of the company
2. Assign resources to address material ESG issues to assist with the task above
3. Manage and measure ESG performance according to well-defined KPIs.
4. Engage investors, customers, and employees in the effort

–Using ESG as a Driver of Performance, 13 Sep 2018

This process may be complicated by the sheer scope of the work. Many different organizational verticals—often with their own budget, resources, and goals—may be called upon. Some of these likely include internal operations, legal, finance, compliance, HR functions, health and safety, product managers, investor relations, corporate secretary, executives and the board of directors. Even if the company has a functional and efficient ESG team in place, integrating the competing perspectives and interest levels of such a disparate group of participants often proves difficult. For this reason and others, the enterprise must be single-minded and vocal (at least internally) about the importance of ESG to its business.

"From a management perspective, integration of ESG dimensions of performance makes a company more resilient in an increasingly more complex, interconnected and dynamic business environment."

–Susanne Stormer, VP Corporate Sustainability, NovoNordisk

Markets

Market reaction to—and engagement with, and valuation of—ESG has been evolving for more than two decades. This is due to many complex and evolving factors, including the emergence of very large multinational organizations, an abundance of performance data, and the essentially shared nature of global issues such as climate risk, diversity and inclusion, and access to economic opportunity.

Some experts and analysts argue that an increased focus on longer-term measurements (such as ESG) could remedy dysfunctional market dynamics. They believe that short-term investment distorts real valuation, leads to short-term thinking and thus artificially inhibits growth and innovation. Could ESG facilitate a transition from stock trading to share ownership, from selling short to holding long?

There are a number of new trends in the global capital markets that are driven by—and drivers of—greater ESG integration into the value chain, including:

- Expansion of fiduciary responsibility beyond delivering investor returns
- Frustration with counterproductive or contentious investor engagements
- Lack of long-term strategic discussion during analyst and earnings calls
- Passive investment strategies that seem to limit ESG intervention
- Adoption of ESG data signals as shared value creation tools
- Global focus on the idea of sustainable capital formation
- The high costs of investor turnover
- Mainstream expectations of more robust governance insight

Finally, we would draw your attention to a recent statement (2019) on ESG by the International Organization of Securities Commissions (IOSCO). This membership organization, made up of securities regulators from all parts of the globe, sets certain standards for proper and efficient market operations. The statement reads, in part: "ESG matters, though sometimes characterized as non-financial, may have a material short-term and long-term impact on the business operations of the issuers as well as on risks and returns for investors and their investment and voting decisions."

"Our goal is to take an increasing role in facilitating ESG practices, disclosures, and dialogue between investors and public companies. This not only creates liquidity for new investible products, such as ESG index futures, green bonds, and exchange-traded products that focus on ESG principles—but it will also likely create a better, more sustainable economy over the long-term."

–Adena Friedman, Nasdaq CEO, LinkedIn Post, 20 Jan 2019]

Stock Exchanges

From the perspective of Nasdaq as a listings venue, we always start with the primary underlying purpose of listing standards and rules around trading stocks on exchanges, which are to protect investors (the lifeblood of any exchange) and to maintain the integrity of the market. This all goes to being sure that companies have the confidence to list and investors have the confidence to trade.

To maintain this confidence and trust, we have various financial and governance requirements for listed companies and we monitor those on an ongoing real-time basis. Many of these requirements are based on financial and other information as reported in mandatory financial disclosures, proxies and other public filings by listed companies.

Governments and regulators around the world have started to adopt "non-financial" disclosure requirements for public companies. Even the SEC has moved towards more non-financial disclosure requirements, including conflict minerals and compensation-related disclosures.

The Range of Exchange Intervention on ESG

Low (35 exchanges)	Medium (40 exchanges)	High (12 exchanges)
• No action • Promote ESG "best practices"* • Participate in exchange/investor dialogues* • Join working groups* • Publicly support ESG frameworks* • Offer awards	• Create stakeholder & company dialogue* • Create indexes, financial products (green bonds)* • Create voluntary ESG guidance* • Tiered disclosure recommendations • Report or explain	• ESG-related listing rules • ESG-tiered listing fees • Delisting for ESG noncompliance • Publication of ESG reporting data • Audit enforcement • Requiring more sophisticated reporting standards (IIRC)

*Nasdaq actions to date

Some non-financial listing requirements are already in place, mostly governance related. For instance, listed companies must have an annual meeting and a majority independent board and comply with committee composition requirements.

The Dodd-Frank [U.S.] regulation, for example, required us to adopt disclosure standards around a company's executive compensation and clawback policies.

Nasdaq has a listing requirement that specifies prompt public disclosure of material news. That's any information that would reasonably be expected to affect the value of its securities or influence investor decisions. Thus far, that has been limited to significant transactions, such as acquisitions, new products, senior management changes, defaults and other developments related to securities, and important legal or regulatory developments.

To date, Nasdaq has not taken any regulatory action over failure to make full disclosure of sustainability-related matters. But we have acted when companies fail to disclose material news in a timely manner (a court order that closed a company's principal production facility; overstating the value of acquisitions; misstating the status of negotiations related to acquisition; and so on).

As listing venues, we must always serve the needs of our companies. Overregulation may curtail entrepreneurialism; make companies less willing or able to capitalize on opportunities. The constant churn of filings, disclosures, statements, applications, and surveys tends to steal focus from long-term goals, and a fear of expensive litigation paralyzes growth.

At the same time, a lack of regulatory control may embolden impropriety and corrupt the better angels of corporate nature. If the exchange can help businesses better plan and execute long-term strategy, markets will naturally disseminate and incentivize the right tools.

Exchanges & ESG

Why are stock exchanges involved in ESG?

The scale of exchange influence

- WFE: 45,000 listed public companies, >$80T in market cap (basically = global GDP)
- Small, iterative changes in reporting practices create profound macroeconomic impacts

Quest for greater insight into corporate performance signals

- The "returns-at-any-cost" mindset creates more risk than reward
- Capital, when deployed efficiency, can generate market return and social impact
- Exchanges are incented to create longer-term listings, longer-term market value

Exchange intervention on ESG has been impactful:

UN SSE progress, 2015-2019

- 77/80 exchanges have now committed "to support sustainable and transparent markets"
- 38/80 exchanges have issued ESG guidance to their companies
- Nine (9) more exchanges may do so this year (2019)

Standards

The sheer number of investor advocacy groups, analysts, experts, academics, and non-governmental organizations (NGOs) in the space can be daunting. Companies often ask: Which one is the most reputable? Which one gets the attention of investors? Do we have to report the same data in several different places? Do we have to fill out the entire questionnaire?

For a company just beginning their sustainability journey, I would focus on the five organizations listed below. They have the longest experience in the space, the most direct and substantive engagement with stakeholders, or the kind of reputation and reach that makes them unavoidable.

- The Global Reporting Initiative (GRI) offers perhaps the broadest and most deeply researched sustainability reporting framework in the world. Launched in Boston in 1997, the GRI is now headquartered in Amsterdam, which gives some indication of its global reach and history of engagement with investors. The current version of its framework, G4, came out two years ago.
- The Sustainability Accounting Standards Board (SASB) was born out of responsible investment research at Harvard University, but is an independent 501(c)3 non-profit. Not a framework per se, SASB focuses on developing and distributing a small number of sustainability indicators that are industry- and sector-specific. SASB believes that this kind of sustainability reporting is not optional, but fundamentally material (as defined by the U.S. SEC) and thus part of a company's existing regulatory burden.
- The International Integrated Reporting Council (IIRC) has created a framework that seeks to integrate sustainability performance metrics and "traditional" financial metrics in a single corporate disclosure. The Integrated Report specifies a unified corporate narrative without segregation of "non-financial" metrics like ESG.

- The Climate Disclosure Project (CDP) focuses almost exclusively on climate reporting, energy strategy, and climate change.
- The United Nations Global Compact (UNGC) asks companies to publicly endorse and operationally integrate a 10-point policy, covering human rights, labor standards, environmental actions, and anti-corruption.

More and more groups are getting involved in the corporate sustainability conversation, stimulating a debate that impacts individual investors and global markets. Regulators in Europe and Asia have issued requirements for more detailed sustainability reporting from public companies. One recent EU rule, for example, requires large companies to include environmental, governance, and diversity disclosures in its annual report (NFR Directive, 2014). France just issued guidance for sustainability reporting by investors, meaning: institutions and fund managers would be required to disclose any investment holdings in fossil fuels or other carbon-based assets.

Stock exchanges are increasingly involved as well. There are mandatory listing requirements related to sustainability already in place in Brazil, South Africa, India, and Singapore, and more seem to be on the way in emerging Asian markets. Large exchanges are cooperating in working groups to create smart and practical sustainability disclosure guidance for listed companies. Nasdaq leads the two most prominent efforts: the sustainability working group at the World Federation of Exchanges and the Sustainable Stock Exchanges Initiative at the United Nations.

Investor advocacy groups are also heavily involved. The UN-backed Principles for Responsible Investment, for example, is an advocacy group that has grown to include 1,400 signatories representing more than $59T AUM. PRI signatories are committed to engaging with their investment targets to improve a wide range of ESG issues.

Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) are an ambitious set of 17 goals (and 169 underlying targets) designed to alleviate many pervasive social, economic, and environmental problems by the year 2030 – especially those that may form an existential threat to this planet and our ability to live peacefully upon it. The SDGs are meant to attract the awareness and support of companies in alleviating issues that are closely related to business (Gender Equality, Decent Work Conditions) and those that may not seem so closely related (Life Below Water, Zero Hunger).

The SDG project follows in the wake of the Millennium Development Goals (MDGs) from 2000-2015, which sought similar ends but focused more on government intervention than business participation. The goals themselves are non-binding, and there are few definitive guidelines for company management and/or reporting of efforts that contribute to the success of the SDGs.

Despite that limitation, Nasdaq supports the work of the SDGs. Our advocacy and support is mainly channeled through membership in (and leadership of) the UN Global Compact, a business membership organization that helps to broaden awareness of UN issues within economic circles. We have also integrated the work of the SDGs into the sustainability tools and support that we provide to listed companies, leveraging events, white papers, and webinars to demonstrate the value and impact of the SDGs.

As of this writing (2019), a relatively small number of Nasdaq-listed companies are publicly reporting progress against the SDG goals (notable exceptions include Intel, Microsoft, Symantec, and Starbucks), but we expect that number to go up.

The UN and stock exchange leaders previously identified the SDGs that most pertain to our industry and the various ways that capital markets can help meet related goals. Per this guidance, the SDGs that receive special emphasis from Nasdaq include:

- **Gender Equality (SDG 5).** Ensuring women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life.
- **Responsible Consumption and Production (SDG 12).** Encouraging companies, especially large and trans-national companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.
- **Climate Action (SDG 13).** Improving education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.

- **Partnerships for the Goals (SDG 17).** Enhancing the global partnership for sustainable development complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technologies and financial resources to support the achievement of sustainable development goals in all countries, particularly developing countries.

The ESG data set is growing more robust, definitive, and mainstream every day, and we are finding better ways to measure performance.

ESG Metrics

There are many reasons for this revision of the first ESG Reporting Guide, published in 2017, but the most important has to do with the evolving nature of the data itself. Not only is the ESG data set growing more robust, definitive, and "mainstream" every day, but we are finding better ways to measure performance through the trial and error process. Also, as more companies wrestle with the process, we are fixing some of the practical and legitimate boundaries of reporting.

In some ways, the ESG data universe is still expanding at an astounding rate. New topics are still emerging, and the connections between company operation and downstream impact are being made clear. The big data era in investing has, finally, made ESG data itself more investment-grade. Since the previous version of this guide, we have seen new KPIs focus on human rights, anti-slavery, data privacy, tax and payments to governments, water stewardship, and so on – all under the collective label of ESG.

But the data universe is also contracting, too. Divergent metrics have been streamlined, as have divergent ESG reporting frameworks. The markets created convenient and insightful shortcuts (such as CEO Pay Ratio) in order to understand complex organizational dynamics. Nasdaq even narrowed the list of 33 ESG metrics in the previous version to just 30 in this one, not because some of the metrics were superfluous, but rather to focus more effort on (and drive more market valuation to) the most meaningful, practical, and achievable ones.

The list below, divided into Social, Environmental, and Corporate Governance subsections, is meant to give our public companies some clarity and direction when considering ESG reporting. In each instance, we provide not just the ESG metric, but a number of related insights:

- Why is it measured?
- How is it measured?
- Why is it disclosed?
- How is it disclosed?

In addition, we have included information that may assist in your evaluation of the relative merits of each data point: existing connections to prominent ESG reporting frameworks, the relative percentage of Nasdaq-listed companies reporting this data (when known), and links to underlying calculation methodologies. If the metric has experienced a distinct or lengthy historical evolution, we have also tried to cite primary sources for your further research.

Environmental (E)	Social (S)	Corporate Governance (G)
E1. GHG Emissions	S1. CEO Pay Ratio	G1. Board Diversity
E2. Emissions Intensity	S2. Gender Pay Ratio	G2. Board Independence
E3. Energy Usage	S3. Employee Turnover	G3. Incentivized Pay
E4. Energy Intensity	S4. Gender Diversity	G4. Collective Bargaining
E5. Energy Mix	S5. Temporary Worker Ratio	G5. Supplier Code of Conduct
E6. Water Usage	S6. Non-Discrimination	G6. Ethics & Anti-Corruption
E7. Environmental Operations	S7. Injury Rate	G7. Data Privacy
E8. Climate Oversight / Board	S8. Global Health & Safety	G8. ESG Reporting
E9. Climate Oversight / Management	S9. Child & Forced Labor	G9. Disclosure Practices
E10. Climate Risk Mitigation	S10. Human Rights	G10. External Assurance

Environmental Data

Companies may elect to report any or all of the Environmental metrics below, per stakeholder guidance, industry or sector standards, or materiality assessment implications. Please use a "respond or explain" rationale when following this recommendation. If a certain response is omitted, use the comment area to explain the reasons why (i.e., “immaterial”). All responses are intended to be reported annually, unless otherwise indicated, and the time scope should be noted.

E1. GhG Emissions

E1.1 Total amount, in CO2 equivalents, for Scope 1 (if applicable)
E1.2 Total amount, in CO2 equivalents, for Scope 2 (if applicable)
E1.3 Total amount, in CO2 equivalents, for Scope 3 (if applicable)

Why is it measured?	Greenhouse Gas (GhG) emissions are significant determinants of climate change and global environmental health
How is it measured?	By tracking the actual or estimated atmospheric emissions produced as a direct (or indirect) result of the company's consumption of energy
Why is it disclosed?	Understanding every company’s emissions profile is an essential precursor to meaningful and shared climate intervention
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 305-1, 305-2, 305-3 • UNGC: Principle 7 • SASB: General Issue / GHG Emissions (See also: SASB Industry Standards) • TCFD: Metrics & Targets (Disclosure B)
Percentage of Companies Reporting?	80% (report at least one metric)
Notes & Sources	Please defer to the WRI/WBCSD GhG protocol; companies may elect to disclose performance targets for E1

E2. Emissions Intensity

E2.1 Total GhG emissions per output scaling factor
E2.2 Total non-GhG emissions per output scaling factor

Why is it measured?	Contextualizes an organization’s resource efficiency relative to economic value generation
How is it measured?	By dividing annual emissions (numerator) by various measures of economic output (denominator)
Why is it disclosed?	Serves as a competitive benchmark, risk management indicator, and economic efficiency KPI
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 305-4 • SDG: 13 • UNGC: Principle 7, Principle 8 • SASB: General Issue / GHG Emissions, Energy Management (See also: SASB Industry Standards)
Percentage of Companies Reporting?	46% (report at least one metric)
Notes & Sources	Scaling factors set by reporting company; examples include: revenues, sales, production units

E3. Energy Usage

E3.1 Total amount of energy directly consumed
E3.2 Total amount of energy indirectly consumed

Why is it measured?	Energy cost, source, availability, and resilience directly impact a company's ability to operate
How is it measured?	Typically measured in megawatt-hours (MWh) or gigajoules (GJ)
Why is it disclosed?	Serves as a competitive benchmark, risk management indicator, and economic efficiency KPI
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 302-1, 302-2 • SDG: 12 • UNGC: Principle 7, Principle 8 • SASB: General Issue / Energy Management (See also: SASB Industry Standards)
Percentage of Companies Reporting?	8% (report at least one metric)
Notes & Sources	Direct energy is produced & consumed on company-owned or -operated property; Indirect energy is produced elsewhere (i.e., utilities); companies may elect to disclose performance targets for E3

E4. Energy Intensity

Total direct energy usage per output scaling factor

Why is it measured?	Contextualizes an organization's resource consumption relative to physical footprint
How is it measured?	By dividing annual consumption (numerator) by various measures of physical scale (denominator)
Why is it disclosed?	Serves as a competitive benchmark, risk management indicator, and economic efficiency KPI
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 302-3 • SDG: 12 • UNGC: Principle 7, Principle 8 • SASB: General Issue / Energy Management (See also: SASB Industry Standards)
Percentage of Companies Reporting?	N/A
Notes & Sources	Scaling factors set by reporting company; examples include: physical floor space, employee headcount

E5. Energy Mix

Percentage: Energy usage by generation type

Why is it measured?	Energy cost, source, availability, and resilience directly impact the company's ability to operate
How is it measured?	By quantifying the specific energy sources most directly used by the company
Why is it disclosed?	The replacement of nonrenewable sources with renewables signals a company's responsible consumption & longterm strategic focus
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 302-1 • SDG: 7 • SASB: General Issue / Energy Management (See also: SASB Industry Standards)
Percentage of Companies Reporting?	7%
Notes & Sources	"Generation type" set by reporting company; examples include: renewables, hydro, coal, oil, natural gas

E6. Water Usage

E6.1) Total amount of water consumed
E6.2) Total amount of water reclaimed

Why is it measured?	Water cost, source, availability, and resilience directly impact the company's ability to operate
How is it measured?	Water consumed, recycled, and reclaimed annually, in cubic meters (m3)
Why is it disclosed?	Illuminates risks posed by disruptions to water supplies or cost increases as clean, fresh water becomes increasingly scarce
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 303-5 • SDG: 6 • SASB: General Issue / Water & Wastewater Management (See also: SASB Industry Standards)
Percentage of Companies Reporting?	3% (report at least one metric)
Notes & Sources	Companies may elect to disclose performance targets for E6 See also: Investor Water Toolkit (Ceres, 2018); The CEO Water Mandate (UN Global Compact)

E7. Environmental Operations

E7.1) Does your company follow a formal Environmental Policy? Yes, No
E7.2) Does your company follow specific waste, water, energy, and/or recycling polices? Yes/No
E7.3) Does your company use a recognized energy management system? Yes/No

Why is it measured?	Emerging standards of environmental responsibility demand policy formation and formal execution
How is it measured?	Companies that create, publish, and periodically update a policy document that covers this subject may affirmatively respond
Why is it disclosed?	Comparing expectations against performance is an indicator of the company's ability to execute operational tactics
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• GRI: 103-2 (See also: GRI 301-308 for relevant topic-specific standards) • SASB: General Issue / Waste & Hazardous Materials Management (See also: SASB Industry Standards)
Percentage of Companies Reporting?	76% (report at least one metric)
Notes & Sources	Examples related to E7.3 might include ISO 50001, for example

E8. Climate Oversight / Board

Does your Board of Directors oversee and/or manage climate-related risks? Yes/No

Why is it measured?	Increased awareness and understanding of climate-related risks and opportunities within the company resulting in better risk management and more informed strategic planning [TCFD]
How is it measured?	Companies that cover climate risk in board meetings (as part of the official agenda) or have a board committee dedicated to climate-related issues may affirmatively respond
Why is it disclosed?	Stakeholders use this metric to evaluate the efficacy and scope of enterprise risk management (ERM)
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• GRI: 102-19, 102-20, 102-29, 102-30, 102-31 • SASB: General Issue / Business Model Resilience, Systemic Risk Management (See also: SASB Industry Standards) • TCFD: Governance (Disclosure A)
Percentage of Companies Reporting?	N/A
Notes & Sources	See also: ESG, Strategy, and the Long View: A Framework for Board Oversight (KPMG, 2017)

E9. Climate Oversight / Management

Does your Senior Management Team oversee and/or manage climate-related risks? Yes/No

Why is it measured?	Increased awareness and understanding of climate-related risks and opportunities within the company resulting in better risk management and more informed strategic planning [TCFD]
How is it measured?	Companies that cover climate risk in senior management meetings (as part of the official agenda) or have a management committee dedicated to climate-related issues may affirmatively respond
Why is it disclosed?	Stakeholders use this metric to evaluate the efficacy and scope of enterprise risk management (ERM)
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• GRI: 102-19, 102-20, 102-29, 102-30, 102-31 • SASB: General Issue / Business Model Resilience, Systemic Risk Management (See also: SASB Industry Standards) • TCFD: Governance (Disclosure B)
Percentage of Companies Reporting?	N/A
Notes & Sources	See also: Climate-Related Disclosures and TCFD Recommendations (Harvard Law School Forum, 2018)

E10. Climate Oversight / Management

Total amount invested, annually, in climate-related infrastructure, resilience, and product development.

Why is it measured?	Climate-related investment (on the risk or opportunity side) demonstrates an understanding of how the physical and transition risks and opportunities of climate change might plausibly impact the business over time [TCFD]
How is it measured?	Companies measure the total dollar amount (USD) invested in climate-related issues, including R&D spend
Why is it disclosed?	Easier or better access to capital by increasing investors' and lenders' confidence that the company's climate-related risks are appropriately assessed and managed [TCFD]
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• UNGC: Principle 9 • SASB: General Issue / Physical Impacts of Climate Change, Business Model Resilience (See also: SASB Industry Standards) • TCFD: Strategy (Disclosure A)
Percentage of Companies Reporting?	N/A
Notes & Sources	See also: Technical Supplement: The Use of Scenario Analysis in Disclosure of Climate-Related Risks & Opportunities (TCFD, 2017)

Social Data

Companies may elect to report any or all of the Social metrics below, per stakeholder guidance, industry or sector standards, or materiality assessment implications. Please use a "respond or explain" rationale when following this recommendation. If a certain response is omitted, use the comment area to explain the reasons why (i.e., “immaterial”). All responses are intended to be reported annually, unless otherwise indicated, and the time scope should be noted.

S1. CEO Pay Ratio

S1.1) Ratio: CEO total compensation to median FTE total compensation
S1.2) Does your company report this metric in regulatory filings? Yes/No

Why is it measured?	It illuminates the company’s costs (and, by implication, its valuation) for the Chief Executive role as compared against other employees.
How is it measured?	As a ratio: the CEO Salary & Bonus (X) to Median FTE Salary, usually expressed as “X:1”
Why is it disclosed?	Some stakeholders (primarily investors) assert that this metric allows them to evaluate the potential impacts of executive compensation; a significant gap in pay between the CEO and the rest of a company’s employees might lower productivity and increase turnover, with inevitable ties to profit and return
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible) (S1.1); As text, with appropriate links to public content (S1.2)
Connections to Frameworks	• GRI: 102-38 • UNGC: Principle 6
Percentage of Companies Reporting?	UNGC: Principle 6
Notes & Sources	Use total compensation, including all bonus payments and incentives; defer to Dodd-Frank regulatory guidance (US)

S2. Gender Pay Ratio

Ratio: Median male compensation to median female compensation

Why is it measured?	This measures the remunerative scope and impact of any “gender gaps” within the company
How is it measured?	As a ratio: the median total compensation for men compared to the median total compensation for women
Why is it disclosed?	Many countries have introduced legislation to enforce the principle of equal pay for work of equal value. This issue is supported by the ILO Convention. Equality of remuneration is a factor in retaining qualified employees in the workforce. Where imbalances exist, an organization runs a risk to its reputation and legal challenges on the basis of discrimination. [GRI]
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 405-2 • UNGC: Principle 6 • SASB: General Issue / Employee Engagement, Diversity & Inclusion (See also: SASB Industry Standards)
Percentage of Companies Reporting?	N/A
Notes & Sources	Reported for FTEs only; Use total compensation, including all bonus payments and incentives.

S3. Employee Turnover

S3.1) Percentage: Year-over-year change for full-time employees
S3.2) Percentage: Year-over-year change for part-time employees
S3.3) Percentage: Year-over-year change for contractors and/or consultants

Why is it measured?	The relative percentage of employees who leave the organization may directly impact resource allocation, budgets, planning, and productivity
How is it measured?	Percentage of total annual turnover, broken down by various employment types
Why is it disclosed?	A high rate of employee turnover can indicate levels of uncertainty and dissatisfaction among employees, or may signal a fundamental change in the structure of the organization's core operations. Turnover has direct cost and value implications either in terms of reduced payroll or greater expenses for recruitment of workers. [GRI]
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 401-1b • UNGC: Principle 6 • SASB: General Issue / Labor Practices (See also: SASB Industry Standards)
Percentage of Companies Reporting?	82% (report at least one metric)
Notes & Sources	Turnover includes all job changes, whether due to dismissal, retirement, job transition, or death

S4. Gender Diversity

S4.1) Percentage: Total enterprise headcount held by men and women
S4.2) Percentage: Entry- and mid-level positions held by men and women
S4.3) Percentage: Senior- and executive-level positions held by men and women

Why is it measured?	Increasing the diversity of thought (as embodied in men and women) may lead to enhanced creativity, greater team productivity, and the alleviation of systemic inequities.
How is it measured?	Percentage of male-to-female metrics, broken down by various organizational levels
Why is it disclosed?	This information can signify the organization's efforts to implement inclusive recruitment practices and the optimal use of available labor and talent. An uneven pattern of promotion and seniority by gender can indicate risks related to workplace inequity. Some investors specifically target more diverse (or gender-balanced) companies. [GRI]
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 102-8, 405-1 • UNGC: Principle 6 • SASB: General Issue / Employee Engagement, Diversity & Inclusion (See also: SASB Industry Standards)
Percentage of Companies Reporting?	85% (report at least one metric)
Notes & Sources	See also: Declaration on Fundamental Principles and Rights at Work (ILO, 1998)

S5. Temporary Worker Ratio

S5.1) Percentage: Total enterprise headcount held by part-time employees
S5.2) Percentage: Total enterprise headcount held by contractors and/or consultants

Why is it measured?	This ratio provides valuable insight into human capital strategy and management regarding certain employment structures
How is it measured?	Percentage of Full-Time (or FTE-equivalent) positions held by non-traditional workers in the value chain
Why is it disclosed?	Breaking down the workforce by employment type demonstrates how the organization structures its human resources to implement its overall strategy. It also provides insight into the organization's business model, and offers an indication of job stability and the level of benefits the organization offers. [GRI]
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 102-8 • UNGC: Principle 6
Percentage of Companies Reporting?	N/A
Notes & Sources	See also: Guidelines for Multinational Enterprises [OECD, 2011]

S6. Non-Discrimination

Does your company follow a sexual harassment and/or non-discrimination policy? Yes/No

Why is it measured?	This ratio provides valuable insight into human capital strategy and management regarding certain protected employment classes
How is it measured?	Companies that create, publish, and periodically update a policy document that covers this subject may affirmatively respond
Why is it disclosed?	Stakeholders use this metric to evaluate the efficacy and scope of enterprise risk management (ERM)
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• GRI: 103-2 (See also: GRI 406: Non-Discrimination 2016) • UNGC: Principle 6 • SASB: General Issue / Employee Engagement, Diversity & Inclusion (See also: SASB Industry Standards)
Percentage of Companies Reporting?	84%
Notes & Sources	See also: Guidelines for Multinational Enterprises [OECD, 2011]

S7. Injury Rate

Percentage: Frequency of injury events relative to total workforce time

Why is it measured?	Low injury and absentee rates are generally linked to positive trends in staff morale and productivity. [GRI]
How is it measured?	Total number of injuries and fatalities, relative to the total workforce
Why is it disclosed?	Health and safety performance is a key measurement of organizational responsibility, and negative performance may impact investment, valuation, and the company's continuing social license to operate.
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 403-9 • SDG: 3 • SASB: General Issue / Employee Health & Safety (See also: SASB Industry Standards)
Percentage of Companies Reporting?	2%
Notes & Sources	Reference ILO & UNDHR standards, if possible. See also: Corporate Disclosure of Human Capital Metrics (Harvard Law School, 2017)

S8. Global Health & Safety

Does your company follow an occupational health and/or global health & safety policy? Yes/No

Why is it measured?	Formal policies may promote the acceptance of responsibilities by multiple parties and the development of a positive health and safety culture. This Indicator reveals the extent to which the workforce is actively aware of policies that determine health and safety management principles. [GRI]
How is it measured?	Companies that create, publish, and periodically update a policy document that covers this subject may affirmatively respond
Why is it disclosed?	Stakeholders use this metric to evaluate the efficacy and scope of enterprise risk management (ERM)
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• GRI: 103-2 (See also: GRI 403: Occupational Heath & Safety 2018) • SDG: 3 • SASB: General Issue / Employee Health & Safety (See also: SASB Industry Standards)
Percentage of Companies Reporting?	84%
Notes & Sources	See also: Guidelines on Occupational Safety and Health Management Systems (ILO, 2001)

S9. Child & Forced Labor

S9.1) **Does your company follow a child and/or forced labor policy? Yes/No**
S9.2) **If yes, does your child and/or forced labor policy See also: cover suppliers and vendors? Yes/No**

Why is it measured?	The presence and effective implementation of policies on this issue are a basic expectation of socially responsible conduct. Working conditions that run counter to prevailing laws expose the company to significant risk. [GRI]
How is it measured?	Companies that create, publish, and periodically update a policy document that covers this subject may affirmatively respond
Why is it disclosed?	Stakeholders use this metric to evaluate the efficacy and scope of enterprise risk management (ERM)
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• GRI: 103-2 (See also: GRI 408: Child Labor 2016, GRI 409: Forced or Compulsory Labor, and GRI 414: Supplier Social Assessment 2016) • SDG: 8 • UNGC: Principle 4,5 • SASB: General Issue / Labor Practices (See also: SASB Industry Standards)
Percentage of Companies Reporting?	67% (report at least one metric)
Notes & Sources	Cite public content, if available; Reference ILO & UNDHR standards, if possible.

S10. Human Rights

S10.1) **Does your company follow a human rights policy? Yes/No**
S10.2) **If yes, does your human rights policy See also: cover suppliers and vendors? Yes/No**

Why is it measured?	Adherence to a strong human rights policy often leads to enhanced productivity, better human capital dynamics, and lower risk
How is it measured?	Companies that create, publish, and periodically update a policy document that covers this subject may affirmatively respond
Why is it disclosed?	Stakeholders use this metric to evaluate the efficacy and scope of enterprise risk management (ERM)
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• GRI: 103-2 (See also: GRI 412: Human Rights Assessment 2016 & GRI 414: Supplier Social Assessment 2016) • SDG: 4, 10, 16 • UNGC: Principle 1, 2 • SASB: General Issue / Human Rights & Community Relations (See also: SASB Industry Standards)
Percentage of Companies Reporting?	83% (report at least one metric)
Notes & Sources	Reference ILO & UNDHR standards, if possible. See also: Universal Declaration of Human Rights (UN, 1948)

Governance Metrics

Companies may elect to report any or all of the Governance metrics below, per stakeholder guidance, industry or sector standards, or materiality assessment implications. Please use a "respond or explain" rationale when following this recommendation. If a certain response is omitted, use the comment area to explain the reasons why (i.e., “immaterial”). All responses are intended to be reported annually, unless otherwise indicated, and the time scope should be noted.

G1. Board Diversity

G1.1) Percentage: Total board seats occupied by women (as compared to men)
G1.2) Percentage: Committee chairs occupied by women (as compared to men)

Why is it measured?	Research tends to indicate an increased number of women in the boardroom is linked to better business results, including: strong financial performance, ability to attract and retain top talent, heightened innovation, enhanced client insight, strong performance on non-financial indicators, and improved board effectiveness.
How is it measured?	The percentage of female directors and committee chairs, relative to male colleagues in the same groups
Why is it disclosed?	This information can signify the organization’s efforts to implement inclusive practices and the optimal use of available labor and talent. An uneven pattern of promotion and seniority by gender can indicate risks related to workplace inequity. Some investors specifically target more diverse (or gender-balanced) company boards. [GRI]
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 405-1 • SDG: 10 • SASB: General Issue / Employee Engagement, Diversity & Inclusion (See also: SASB Industry Standards)
Percentage of Companies Reporting?	34% (report at least one metric)
Notes & Sources	Companies may elect to disclose performance targets for G1

G2. Board Independence

G2.1) Does company prohibit CEO from serving as board chair? Yes/No
G2.2) Percentage: Total board seats occupied by independents

Why is it measured?	The presence of a high-functioning, semi-independent board is often a good indicator of other effective practices
How is it measured?	Companies with such a rule on the record may respond affirmatively; the number of "Independent Directors" (as defined in the board rules or corp[orate charter) as compared with other board members is also calculated
Why is it disclosed?	Stakeholders use this metric to evaluate the efficacy and modernity of the company's governance structure
How is it disclosed?	As text, with appropriate links to public content (S2.1); As a number, trended over time (and compared against historical and industry averages, if possible) (S2.2)
Connections to Frameworks	• GRI: 102-23, 102-22
Percentage of Companies Reporting?	41% (report at least one metric)
Notes & Sources	See also: Independent & Outside Directors: Research Spotlight (Stanford Graduate School of Business, 2015)

G3. Incentivized Pay

Are executives formally incentivized to perform on sustainability? Yes/No

Why is it measured?	The relative seriousness of a company's organizational emphasis upon ESG – and its willingness to invest in same – is easily indicated
How is it measured?	If executives are financially incentivized to perform on ESG metrics, the company may affirmatively respond
Why is it disclosed?	To usefully illustrate a key talent and labor issue within companies
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• GRI: 102-35
Percentage of Companies Reporting?	42%
Notes & Sources	See also: A New Agenda for the Board of Directors: Adoption and Oversight of Corporate Sustainability (UNGC Lead, 2012)

G4. Collective Bargaining

Percentage: Total enterprise headcount covered by collective bargaining agreement(s)

Why is it measured?	This facilitates local responses to a globalized economy, and serves as a basis for sustainable growth and secure investment returns. The results help bridge the widening representational gap in global work arrangements, and facilitate the input of those people, regions and economic sectors – especially women and informal sector workers – who otherwise may be excluded from participating in processes that build decent work environments. [UNGC]
How is it measured?	By measuring the number of employees governed by collective bargaining protocols against the total employee population
Why is it disclosed?	To usefully illustrate a key talent and labor issue within companies
How is it disclosed?	As a number, trended over time (and compared against historical and industry averages, if possible)
Connections to Frameworks	• GRI: 102-41 • SDG: 8 • UNGC: Principle 3 • SASB: General Issue / Labor Practices (See also: SASB Industry Standards)
Percentage of Companies Reporting?	39%
Notes & Sources	See also: Conventions, Recommendations, and Principles of the International Labour Organization (ILO)

G5. Supplier Code of Conduct

G5.1) Are your vendors or suppliers required to follow a Code of Conduct? Yes/ N
G5.2) If yes, what percentage of your suppliers have formally certified their compliance with the code?

Why is it measured?	By actively managing ESG performance and governance throughout the supply chain, companies act in their own interests, the interests of their stakeholders and the interests of society at large. [UNGC]
How is it measured?	Companies that create, publish, and periodically update a policy document that covers this subject may affirmatively respond
Why is it disclosed?	Stakeholders use this metric to evaluate the efficacy and scope of enterprise risk management (ERM)
How is it disclosed?	As text, with appropriate links to public content (G5.1); As a number, trended over time (and compared against historical and industry averages, if possible) (G5.2)
Connections to Frameworks	• GRI: 102-16, 103-2 (See also: GRI 308: Supplier Environmental Assessment 2016 & GRI 414: Supplier Social Assessment 2016) • SDG: 12 • UNGC: Principle 2, 3, 4, 8 • SASB: General Issue / Supply Chain Management (See also: SASB Industry Standards)
Percentage of Companies Reporting?	40% (report at least one metric)
Notes & Sources	"Percentage" can be defined by number or expenditure.

G6. Ethics & Anti-Corruption

G6.1) Does your company follow an Ethics and/or Anti-Corruption policy? Yes/No
G6.2) If yes, what percentage of your workforce has formally certified its compliance with the policy?

Why is it measured?	This code illuminates company values and a commitment to high standards of ethical conduct. Demonstrating a "good faith effort" to prevent illegal acts may reduce the financial risks associated with government fines for ethical misconduct.
How is it measured?	Companies that create, publish, and periodically update a policy document that covers this subject may affirmatively respond
Why is it disclosed?	Stakeholders use this metric to evaluate the efficacy and scope of enterprise risk management (ERM)
How is it disclosed?	As text, with appropriate links to public content (G6.1); As a number, trended over time (and compared against historical and industry averages, if possible) (G6.2)
Connections to Frameworks	• GRI: 102-16, 103-2 (See also: GRI 205: Anti-Corruption 2016) • SDG: 16 • UNGC: Principle 10
Percentage of Companies Reporting?	11% (report at least one metric)
Notes & Sources	"Percentage" is defined by total FTE headcount

G7. Data Privacy

G7.1) Does your company follow a Data Privacy policy? Yes/No
G7.2) Has your company taken steps to comply with GDPR rules? Yes/No

Why is it measured?	Data privacy, protection, and stewardship has become a prevalent issue, specifically in the context of a digital economy; many stakeholders assert that virtualized identity and property should be vigorously protected, and they use this metric to measure the sophistication of a company's risk and security protocols.
How is it measured?	Companies that create, publish, and periodically update a policy document that covers this subject may affirmatively respond
Why is it disclosed?	Stakeholders use this metric to evaluate the efficacy and scope of enterprise risk management (ERM)
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• GRI: 418 Customer Privacy 2016 • SASB: General Issue / Customer Privacy, Data Security (See also: SASB Industry Standards)
Percentage of Companies Reporting?	N/A
Notes & Sources	GDPR: General Data Protection Regulation See also: Privacy & Data Protection Principles (UN Global Pulse)

G8. ESG Reporting

G8.1) Does your company publish a sustainability report? Yes/No
G8.2) Is sustainability data included in your regulatory filings? Yes/No

Why is it measured?	This indicates the presence or absence of public communications regarding company ESG performance, and the embedding of such data in regulatory filings
How is it measured?	Does your company publish a sustainability report: Yes, No? If yes, the location of relevant public information should be declared. And does your company include ESG data in its regulator filings: Yes, No?
Why is it disclosed?	Increasing data availability and access. In addition, many investors draw a distinction between ESG data that is incorporated into a financial disclosure or annual report, or only available via stand-alone sustainability report. Many investors have expressed their preference for embedding ESG data in more traditional financial disclosures.
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• UNGC: Principle 8
Percentage of Companies Reporting?	13% (report at least one metric)
Notes & Sources	See also: Revealing the Full Picture: Your Guide to ESG Reporting (London Stock Exchange, 2018)

G9. Disclosure Practices

G9.1) Does your company provide sustainability data to sustainability reporting frameworks? Yes/No
G9.2) Does your company focus on specific UN Sustainable Development Goals (SDGs)? Yes/No
G9.3) Does your company set targets and report progress on the UN SDGs? Yes/No

Why is it measured?	This illustrates the company's history of engagement with sustainability reporting frameworks that most investors value.
How is it measured?	Does your company publish a GRI, CDP, SASB, IIRC, or UNGC report? If yes, the location of relevant public information should be declared for each framework
Why is it disclosed?	Corporate disclosure enhances data availability and access, specifically for investors
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• UNGC: Principle 8
Percentage of Companies Reporting?	2% (report at least one metric)
Notes & Sources	Cite specific frameworks used See also: Disclose What Matters: Bridging the Gap Between Investor Needs and Company Disclosures on Sustainability (Ceres, 2018)

G10. External Assurance

Are your sustainability disclosures assured or validated by a third party? Yes/No

Why is it measured?	This indicates the relative trustworthiness of the sustainability data published by the company through various reporting channels
How is it measured?	Are your company's ESG disclosures assured or validated by a third party: Yes/No? If yes, please identify the audit/validation entity and the location of any relevant public information.
Why is it disclosed?	Investors often use this metric to determine the "investment-worthiness" of self-reported ESG data
How is it disclosed?	As text, with appropriate links to public content
Connections to Frameworks	• GRI: 102-56 • UNGC: Principle 8
Percentage of Companies Reporting?	38%
Notes & Sources	Cite third party assurance partner. See also: Sustainability Assurance Services: From a Niche to Mainstream (The CPA Journal, 2018)

Explanation of Revisions (2019)

The notes below briefly explain the ESG data changes between the initial publication of this guide (2017) and the current version (2019). Changes to the 2017 version are noted under their original labels; entirely new metrics are explained at the end. As mentioned in the prefatory content, these changes were primarily driven by three factors: WFE revisions to the ESG data set, new developments in the ESG reporting space, and feedback received from Nasdaq stakeholders—in particular, the participants in an 2018 ESG Reporting Pilot Program. We are grateful for their assistance.

Environmental Metrics

E1. Direct & Indirect GhG Emissions

Renamed as "GHG Emissions" because not all companies have direct and indirect reporting, thus the label was inaccurate

E2. Carbon Intensity

Renamed as "Emissions Intensity" per example set by the TCFD, and added TCFD qualifying language (Emissions per output scaling factor: revenues, sales, units produced, etc.)

E3. Direct & Indirect Energy Consumption

Renamed as "Energy Usage" in an effort to simplify language

E4. Energy Intensity

No substantial change

E7. Water Management

Renamed as "Water Usage" in an effort to simplify language

E8. Waste Management

We found this metric to be virtually unreported, so it was eliminated in favor of a broader policy disclosure in E9 (e.g., “a company's EP should include a WM strategy”)

E9. Environmental Policy

No change, other than increase in scope described above

E10. Environmental Impacts

User feedback indicated confusion over the meaning and value of this metric, and it was virtually unreported, so it was eliminated

E5. Primary Energy Source

Eliminated metric in favor of combining with E6 ("Energy Mix")

E6. Renewable Energy Intensity

Renamed as "Energy Mix" per TCFD and others (Percent of energy by source type: renewable, hydro, coal, oil, natural gas)

Social Metrics

S1. CEO Pay Ratio

Realigned this metric with a more specific Dodd-Frank (US) regulatory requirement (“median vs. mean”)

S2. Gender Pay Ratio

No substantial change

S3. Employee Turnover Ratio

Renamed as "Employee Turnover" in an effort to simplify language

S4. Gender Diversity

Revised metric to focus on more meaningful "headcount" rather than FTEs

S5. Temporary Worker Ratio

Revised metric to focus on more meaningful "headcount" rather than FTEs

S6. Non-Discrimination Policy

No substantial change

S7. Injury Rate

Revised the previous calculation (2015) to better align with GRI Standards

S8. Global Health Policy

Revised metric to emphasize publication of policy

S9. Child & Forced Labor Policy

Revised metric to emphasize publication of policy

S10. Human Rights Policy

Revised metric to emphasize publication of policy

S11. Human Rights Violations

This metric was regretfully removed from the list; though important, this data is rarely reported in ESG disclosures, and does not easily

12. Board - Diversity

Recategorized as a "Governance" issue; also realigned some of the Board issues related to “independence” and “separation of powers”

Governance

G1. Separation of Powers

Added "independents" as a subcategory in the new metric

G2. Board - Transparent Practices

User feedback indicated confusion over the meaning and value of this metric, and it was virtually unreported, so it was eliminated

G3. Incentivized Pay

No substantial change

G4. Fair Labor Practices

Revised and renamed in order to better align with GRI Standards 407 & 102: "Percentage of headcount covered by collective bargaining agreements"

G5. Supplier Code of Conduct

No substantial change

G6. Ethics/Code of Conduct

Metrics G6 and G7 were combined into a single metric, because so many companies have embedded BACs in their Ethics code

G7. Bribery/Anti-Corruption Code

Metrics G6 and G7 were combined into a single metric, because so many companies have embedded BACs in their Ethics code

G8. Tax Transparency

This metric was regretfully removed from the list; though important, this data is rarely reported in ESG disclosures, and does not easily

G9. Sustainability Report

Recategorized as a true Governance issue; renamed as "Sustainability Reporting" for clarity; scope of reported metric expanded (10k, etc.)

G10. Other Framework Disclosures

Recategorized as a true Governance issue; renamed as "Framework Disclosures" for clarity

G11. External Validation/Assurance

Recategorized as a true Governance issue; renamed as "External Assurance" for clarity

New Metrics

E8. Climate Oversight / Board

This metric was created to better align with TCFD recommendations; beyond a yes/no answer, companies could delve into frequency, scope, and goal-setting

E9. Climate Oversight / Management

This metric was created to better align with TCFD recommendations; beyond a yes/no answer, companies could delve into frequency, scope, and goal-setting

E10. Climate Risk Mitigation

This metric was created to better align with TCFD recommendations; tracks the amount invested in development or deployment of low-carbon products, energy resilience, services and/or technologies

G7. Data Management

Emerging consensus on data privacy stewardship and management as key sustainability issues—and related regulatory requirements, such as GDPR—demanded the creation of this new metric

Our changes were primarily driven by three factors: WFE revisions to the ESG data set, new developments in the ESG reporting space, and feedback received from Nasdaq stakeholders.

Appendix 1: Local Rules & Regulations

European businesses are now aware of an emerging regulatory effort from the European Commission (EC). This "Directive" (technically, Directive 2014/95/EU) requires large companies to disclose non-financial and diversity information on an annual basis. The directive was first launched in December 2014, and it itself an amendment to a previous effort (Directive 2013/34/EU) targeting better financial statements in general. EU nations must begin to implement the Directive in 2018, so that companies may report for the 2017 financial year.

This is an expansion of the existing reporting rules, requiring broader disclosure of "non-financial" performance measures. The Directive requires companies to append a management report to their financial statement that covers many environmental, social, and corporate governance (ESG) matters, including:

- Environmental matters
- Social and employee matters
- Respect for human rights
- Anti-corruption and bribery matters
- Diversity in the Board of Directors

The format of this disclosure, however, is not clearly understood. "There is significant flexibility for companies to disclose relevant information," the guidelines state, and they "may rely on international, European or national guidelines." There is an underlying "comply or explain" rationale included; companies not willing or able to report on these issues must provide valid reasons for their refusal.

The new disclosure requirements apply to large public interest entities with more than 500 employees. "Public-interest entities" include all companies listed in EU markets and even some unlisted companies (credit institutions, insurance firms, etc.) that Member States designate for inclusion due to business type, activity, or size. At first glance, there seems to be about 6,000 companies covered by the Directive—including some based outside the EU.

European businesses are now aware of an emerging regulatory effort from the European Commission (EC). This "Directive" (technically, Directive 2014/95/EU) requires large companies to disclose non-financial and diversity information on an annual basis.

The EC actively advocates for greater corporate social responsibility (CSR). "The Commission promotes CSR in the EU and encourages enterprises to adhere to international guidelines and principles," the Commission has said. "The EU's policy is built on an agenda for action to support this approach." The reasons for this outreach are made clear: CSR offers real benefits for companies (better risk oversight, lower costs), markets (investor trust, sustainable capital flow), and society (reduced inequalities, economic transformation).

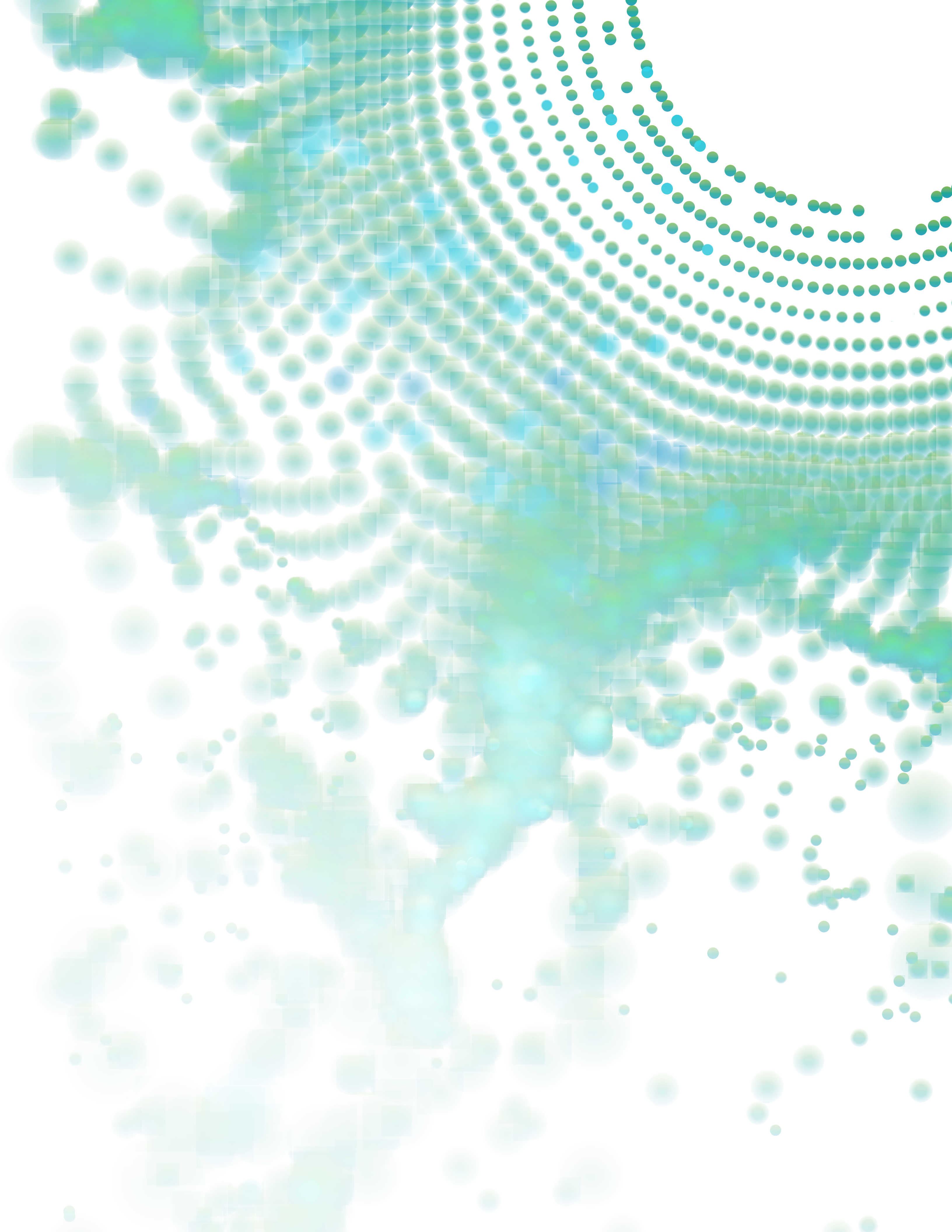
This kind of regulatory effort is not limited to Europe. When it comes to governments requiring corporate disclosure of ESG factors, at least 14 members of the G20 and 32 of the 50 largest country economies have at least one regulation covering an aspect of environmental, social, and governance disclosure. As these global regulatory actions continue to emerge, both in Europe and beyond, there are institutions tracking their progress and potential impact. The UN PRI, for example, maintains a current database of this information.

Local country governance codes have been commonplace in the Nordics, but now we are seeing new ones emerge in Japan. New legislation in China (February 2018) focuses on mandatory environmental disclosures; UK rules mandate human rights and anti-slavery disclosures. France raised the stakes by requiring investors to more transparently report climate and social risks in their portfolios.

In the U.S. there are ESG-related efforts underway—the Dodd Frank reform bill, Department of Labor guidance for retirement plans, SEC taking a fresh look at decades of stale reporting protocols (Regulation SK)—but that regulatory momentum has slowed. Yet American companies are still voluntarily disclosing ESG data in record numbers, and find themselves subject to a growing web of ESG reporting requirements abroad.

Appendix 2: Research Sources

- MSCI research from 2007 to 2017 shows that companies in the bottom quintile of the their World Index experienced large drawdowns (above 95%) three times higher than those in the top quintile, supporting the assertion that ESG provides market insight into risk valuation.
- BlackRock researched traditional equity indexes alongside ESG-focused versions and found that annualized returns since 2012 matched or exceeded the standard index in both developed and emerging markets.
- According to State Street research (2018), more than two-thirds (68%) of institutional asset managers report that integration of ESG has significantly improved their returns.
- "[Our results] show significant outperformance of the top ESG momentum quintile over the bottom quintile, corresponding with the findings from our transmission channel analysis: An improvement in ESG characteristics has led to increasing valuations over time." [Foundations of ESG Investing, MSCI 2017]
- From 2001 to 2014, the revenue of "long-term-minded" firms cumulatively grew on average 47% more than the revenue of other firms, and with less volatility. Cumulatively the earnings of these firms grew 36% more on average over this period than those of other firms, and their economic profit grew 81% more on average. [McKinsey Global Institute, 2017]
- "Integrating ESG criteria into passive strategies generally improved risk-adjusted performance over the period 2007 to 2016 and tilted the portfolio towards higher quality and lower volatility securities." [Factor Investing and ESG Integration, MSCI 2016]
- Since the U.S. presidential election (2016), as much as $8.1 billion has flowed into U.S. equity sustainable funds, marking a 13.1% surge in the assets under management. This inflow has been the largest percentage inflow into any class or style of fund. [Ethical Investing Thrives When There's 'Bad' News, Wall Street Journal]
- More than 70% of all investors are interested in socially responsible investing, according to Morningstar research, while more than 80% of millennials seek to go socially responsible on their investment decisions.
- Over the past five years, 70% of U.S. investors have increased their allocation to ESG investments. [Shroders, 2017]
- In 2018, 43% of U.S. institutional investors—endowments, foundations and pension plans—incorporated ESG factors into their decision-making process, nearly twice the percentage in 2013. [Kiplingers, 2018]
- A 2014 metastudy from the University of Oxford found that 86% of the reviewed papers showed positive correlation between company operational performance and ESG dynamics.
- The Journal of Sustainable Finance & Investment published a metastudy in 2015 that demonstrated a 90% non-negative relationship between ESG and financial performance, among other findings. [ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies]
- According to a 2017 State Street Global Advisors survey of a large and diverse array of institutional investors, 92% of the respondents want companies to report on ESG issues and 80% want better ESG reporting standards.
- A similar finding was reported by EY in 2017 [Is your nonfinancial performance revealing the true value of your business to investors?]



Nasdaq