

Commentary

BlackRock Investment Stewardship's approach to engagement on the TCFD and the SASB aligned reporting

Investors' need for more fulsome information on how companies are managing climate-related risks and opportunities and adapting their corporate strategy in line with the transition to a lower carbon economy is increasing. While more companies are disclosing information related to climate risks and opportunities, without industry alignment around a comprehensive framework to guide such disclosures, lack of consistency and comparability will persist. There are numerous reporting frameworks that companies can consult to guide their disclosures.¹ Disclosures intended for investors need to focus on financially material and business relevant metrics and include supporting narratives.

As set forth in [BlackRock Investment Stewardship's approach to engagement on climate risk](#), BIS looks to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the standards put forward by the Sustainability Accounting Standards Board (SASB) as the benchmark frameworks for a company to disclose its approach to climate-related risks and the transition to a lower carbon economy. These frameworks consider the physical, liability, and transition risks associated with climate change and provide guidance to companies for disclosing material, decision-useful information that is comparable within each industry. While these frameworks are currently voluntary, they are gaining momentum and we encourage companies to be proactive in understanding and adopting them. In the absence of robust disclosures, investors often, and reasonably, conclude that companies are not adequately managing risk. We consider the incorporation of the TCFD recommendations into policy guidelines by policy makers in several markets, including the European Union and the United Kingdom,² to be an indication of growing support for mandatory reporting on climate risk.

The SASB released their complete and final standards for 77 industries in November 2018, which identify a baseline of financially material sustainability topics

Why disclosure matters

A company's disclosure should reflect its financially-material business practices. How management articulates a company's approach to an issue can signal leading or lagging practices and performance on that issue.

Better disclosures across industries and markets allow **investors** to:

- Make assessments based on the same universe of information
- Assess board and management performance and provide more targeted feedback
- Monitor change over time at both the company, industry, and market levels

And **companies** to:

- Compare their own approach to those of their peers
- Speak effectively to different stakeholders
- Contribute to large scale data sets

and their associated disclosure metrics for a typical company in each industry. As noted below, the SASB's analysis shows that most industries are impacted by climate risk but in varying ways. This strengthens the value proposition of the industry-specific approach to metrics within the TCFD-aligned reporting. We view the SASB and TCFD frameworks as complementary in achieving the goal of more financially material information in the hands of investors, particularly as it relates to industry-specific metrics and target setting. We discuss the interplay of the two frameworks in detail in the Appendix to this document at pages 10-12 infra.

The TCFD recommendations are organized into four categories and encourage corporate disclosures related to a company's:

- **Governance** – The organization's governance around climate-related risks and opportunities
- **Strategy** – The actual and potential impacts of climate-related risks and opportunities for an organization's businesses, strategy, and financial planning
- **Risk Management** – The processes used by the organization to identify, assess, and manage climate-related risks; and
- **Metrics and Targets** – The metrics and targets used to assess and manage relevant climate-related risks and opportunities

Within each category there are more detailed recommendations. In time we expect companies will report on each component, which is what we encourage in our direct dialogue with company management and boards.³ Such disclosure will help investors understand the governance and business practices relevant to climate and the energy transition at each company, as applicable.

Recommendations and Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
<p>Disclose the organization's governance around climate-related risks and opportunities.</p>	<p>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.</p>	<p>Disclose how the organization identifies, assesses, and manages climate-related risks.</p>	<p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</p>
<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>
<p>a) Describe the board's oversight of climate-related risks and opportunities.</p>	<p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</p>	<p>a) Describe the organization's processes for identifying and assessing climate-related risks.</p>	<p>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</p>
<p>b) Describe management's role in assessing and managing climate-related risks and opportunities.</p>	<p>b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.</p>	<p>b) Describe the organization's processes for managing climate-related risks.</p>	<p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p>
	<p>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</p>	<p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</p>	<p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</p>

Source: TCFD

In our engagements with companies on managing climate-related risks and opportunities and adapting to the energy transition, we are mindful of both the need for an acceleration of the market’s approach to disclosure, and the challenges inherent to that task. We recognize that producing comprehensive disclosures requires a significant investment in resources and time on the part of a company. We also recognize that each company is unique, starting from its own baseline, with its own capacities and limitations. We seek to achieve a balance between recognizing a company’s current position, while encouraging the appropriate urgency in advancing reporting and the practices underlying it. Through our engagements we can assess whether the company is on the right track – whether it is continuing to evolve its approach in keeping with the material risks and opportunities it has identified. We do not seek to micromanage companies, but rather to assess a company’s resilience, i.e. its prospects for future growth and sustainable financial performance under a variety of potential future climate scenarios.

Below, please find a more detailed review of the four pillars of the TCFD recommendations and examples of the questions and topics that we may raise in our engagements with companies. The topics and questions below are intended to provide context and relevant details on the disclosure recommendations of the TCFD. The resulting discussion helps BIS assess the robustness of a company’s practices and plans underlying its disclosures. The company’s disclosures and responses during engagement inform our voting decisions related to board effectiveness and management quality as well as to material business issues raised in any shareholder proposals (where applicable).

Governance

The Governance Pillar of the TCFD framework asks companies to describe the board’s oversight, and management’s role in assessing and managing climate-related risks and opportunities.⁴ As an investor, this pillar provides information helpful in assessing whether material climate-related risks and opportunities receive adequate board and management attention.

In addition to defining appropriate disclosures, when preparing for engagement with BIS on the governance of climate factors, companies should consider the following topics, among others:⁵

Board	Management
<ul style="list-style-type: none"> • Whether a specific board committee has oversight over climate risk • The processes and frequency by which the board and/or board committees (e.g., audit, risk, or other committees) are informed about climate-related issues • How often the committee and the full board addresses the issue (including topics covered and actions arising therefrom) • The board’s level of oversight of its executives’ approach, and how that insight informs the board’s agenda and processes • Whether the board and/or board committees consider climate-related issues when reviewing and guiding strategy, e.g. regarding: business plans; setting performance objectives; overseeing major capital expenditures/allocation decisions, acquisitions, and divestitures • How the board monitors and oversees progress against goals and targets for addressing climate-related topics • Whether the board seeks insight from outside experts and/or particular members of the board 	<ul style="list-style-type: none"> • The processes by which management is informed about climate-related risks and opportunities • How management (through specific positions and/or management committees) monitors climate-related risks and opportunities • Whether such management positions or committees report to the board or a committee of the board • Whether management is partnering with other institutions or organizations to assist the company in its approach to managing climate-related issues

When assessing a board's oversight of climate risks, BIS does not expect to see a specific climate expert on the board.⁶ Rather, we expect all board members to be able to speak to the subject of business relevant climate risk (among other enterprise-level risks) and to have considered the potential financial impacts of climate change on the company. This includes a sound understanding of the company's need to adapt its business model to transition to a lower carbon economy, as appropriate.

Strategy

Under the TCFD framework, the Strategy Pillar is aimed at eliciting information on how climate-related factors may affect an organization's businesses, strategy, and financial planning over the short-, medium-, and long-term. The TCFD notes that disclosures should be sufficiently detailed and relevant to inform market assessments of the potential future performance of the company.

Under the Strategy Pillar, the TCFD recommends the following categories of information:

- A description of the climate-related risks and opportunities the organization has identified over the short-, medium-, and long-term.⁷ This should include a discussion of the process used to determine which risks could have a material financial impact on the company and the relevant timeframes associated with the impacts identified.
- A discussion of how identified climate-related issues have affected (or are expected to affect) the company's businesses, strategy, and financial planning.
- A description of the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.⁸

The Strategy Pillar dovetails with BIS' general approach to engagement on [Corporate Strategy and Capital Allocation](#). From company disclosures and through engagement, BIS seeks to understand each company's purpose-driven long-term strategy and the milestones to achieving it. As part of that goal, we encourage all companies to consider the impacts of climate change on their respective strategies over time, understanding that strategy may shift or alter in pace as circumstances change.

Some points BIS may cover during engagement on corporate strategy in relation to climate risk, particularly if disclosure falls short, include:⁹

- The process by which the company has identified particular risks and opportunities;
- How the company is adjusting or altering its business or capital allocation plans (if appropriate) to address the issues identified;
- How the company is assessing the potential for changes in demand of goods or services due to climate change (including consumer preferences);
- How the company may be thinking of harnessing its unique role in the market to take advantage of new investment opportunities or business lines or products;
- Whether the company is stress-testing its assets and the resilience of its strategy under different low-carbon scenarios;¹⁰
- How the company is monitoring and modeling the potential physical risks of climate change to the business (both present and future), and its responses thereto;
- Whether the company has identified, invested in, or deployed adaptation efforts;
- How the company is monitoring the regulatory landscape and participating in relevant policy discussions including: international, national and local requirements and trends (including the potential for a price on carbon);

- How management ensures that the company's political lobbying and spending activities are aligned with the company's stated position on climate change (including the board's independent oversight of political activities);
- How the company is considering future investments, mergers and acquisitions (M&A) opportunities, access to capital, asset sales, or other strategic options;
- If the company has allocated funds or research and design (R&D) spend towards any potential opportunities in clean technology/products and how this percentage compares to the company's overall R&D spend; and,
- Any organizational changes the company has made, or anticipates making to ensure adequate oversight of climate-related risks and opportunities.

How management articulates the company's strategy, and how the board explains its oversight of it, can be a sign of leading or lagging practice by a company. BIS will seek to understand the company's perspectives on, and the board's oversight of, the impact of climate considerations on long-term strategy. Through our assessment of corporate disclosures and engagement, BIS can better assess the resilience of the company's strategy and business model, taking into consideration different climate-related scenarios, including a low carbon scenario.¹¹

Risk-Management

Investors and other stakeholders need to understand how an organization's climate-related risks are identified, assessed, and managed, and whether those processes are integrated into existing enterprise-level risk management. This information assists investors in evaluating the organization's overall risk profile as well as the robustness of its risk management activities. Under the Risk-Management Pillar, the TCFD recommends disclosures on the following:

- The organization's processes for identifying and assessing climate-related risks. An important aspect of this description is how organizations determine the relative significance of climate-related risks in relation to other risks, and what informs those assumptions.

Climate-related risks and opportunities that we may discuss in our engagements include, but are not limited to, the following transition and physical risks:

- Magnitude and management of greenhouse gas (GHG) emissions (both absolute and relative carbon dioxide equivalent [CO₂e¹²]), including methane emissions
- Natural resource management (energy, water, waste)
- Physical risks (e.g. exposure to hurricanes, fires, sea-level rise, deforestation) and how they are monitored and managed (including through resilience strategies)
- Stranded assets and total reserves, e.g.: construction costs that may not be recouped; capital that has to be retired before being amortized; loss of premiums or loss of insurance coverage; unanticipated or premature write-downs; and, oil and gas resources that are owned but are no longer profitable to extract
- Technological disruption, e.g.: electric vehicle penetration rates; the need for evolving skillsets amongst employees (including retraining)
- Legal and reputational risks (both domestic and international)
- Managing a shifting policy and regulatory landscape (both domestic and international)
- Composition of a company's asset mix, including investments in high risk assets such as oil sands, lack of diversification, or high number of physically exposed assets
- The impact of a more rapid shift into clean energy by the market on the company's specific business
- Technological innovation impacting the opportunity set/ability to generate increased revenue

- How processes for identifying, assessing, and managing climate-related risks are integrated into the organization’s overall risk management framework.¹³

BIS expects that companies with robust management and board oversight of risks and opportunities will be able to speak to how these risks and opportunities are identified and managed. Companies should be mindful that many climate risks are not currently priced adequately by the market.¹⁴ This is due to the fact that the pace of future change is unlikely to align with the pace of change that has informed the models of the past. Companies should consider, and be prepared to speak to, whether they have adequately assessed the universe of going-forward risks under more aggressive time horizons.

Metrics and Targets

The TCFD recognizes that investors and other stakeholders need to understand how an organization measures and monitors its climate-related risks and opportunities.¹⁵ Access to the metrics and targets used by an organization allows investors and other stakeholders “to better assess the organization’s potential risk-adjusted returns, ability to meet financial obligations, general exposure to climate-related issues, and progress in managing or adapting to those issues.”¹⁶

Additionally, the SASB standards provide detailed climate-related metrics for specific industries, focusing on the topics reasonably likely to have a material effect on financial performance of companies in each industry. The SASB research demonstrates that 72 out of 79 industries are exposed in some way to climate-related risk.¹⁷ BIS recommends companies consult the SASB metrics when assessing the relevant disclosures under the Metrics and Targets Pillar of the TCFD. We note that the SASB standards are among the most frequently cited tools in the TCFD’s Implementation Annex.

Under the Metrics and Targets Pillar, the TCFD recommends the following disclosures:

- The metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process. The TCFD recommends that organizations consider including metrics on climate-related risks associated with water, energy, land use, and waste management where relevant and applicable.
- Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and related risks. Importantly, GHG emissions should be calculated in line with the GHG Protocol methodology to allow for aggregation and comparability across organizations and jurisdictions.
- The targets used by the organization to manage climate-related risks and opportunities and performance against targets. In describing their targets, organizations should consider:
 - whether the target is absolute or intensity based
 - time frames over which the target applies
 - base year from which progress is measured, and why, and
 - key performance indicators used to assess progress against targets.¹⁸

An important component of BIS’ assessment of management’s effectiveness in managing climate risk, and thus, a company’s prospects for future financial performance, includes our ability to assess and monitor targets the company has set. **When BIS speaks with companies across sectors about target setting, we seek to understand, among other things:**

- Any metrics or targets the company has set with regard to:
 - Reduction in GHG emissions (both absolute and intensity)
 - Reduction in methane emissions or other criteria pollutants, if applicable

- Water usage or water recycling targets
- Energy efficiency and energy reduction targets
- Waste management efforts
- Land-use practices and /deforestation prevention
- The company’s process for setting performance objectives towards targets and monitoring achievement over the short, medium, and longer terms
- Any targets around investment in renewable energy

For **carbon intensive companies**, BIS seeks the following disclosure on GHG:

- A company’s Scope 1, 2 and ideally, Scope 3 emissions
- Whether the company has applied an internal price on carbon
- Whether the company has performed scenario analysis; which scenarios it has chosen, and why?; and whether it includes a Sustainable Development Scenario as set for by the International Energy Administration (IEA) (targeted toward ~1.5 degrees)¹⁹ in its analysis
- Whether the targets are set based on assets operated OR owned by the company
- Whether the company has committed to a certain amount of clean energy investment (including research for new technologies)
- Whether any component of executive compensation is tied to GHG targets

With regard to methane,²⁰ BIS seeks disclosure on the following:

- Absolute emissions
- An emissions rate (methane emissions as a percentage of gas produced or throughput)
- Whether the company has set a quantitative methane reduction target
- Frequency, scope, and methodology for Leak Detection and Repair (LDAR)²¹
- Advances in technology deployed to monitor and detect methane leakage
- Employee training on methane mitigation along the pipeline
- Whether the company has tied reduction targets to executive compensation

In our dialogue, BIS would like to understand any challenges a company has encountered in analyzing, reporting, or setting targets.²² Setting metrics and targets involves a continued evolution in all aspects of corporate behavior around climate change, including but not limited to data gathering, operations, employee training, and strategy. This evolution does not take place overnight but should keep pace with industry and market capabilities and best practices.

Continuing to advance climate-related disclosures

Market acceptance for the TCFD’s framework continues to grow and as of January 2020, its list of supporting organizations was up 87 percent from the One Planet Summit in September 2018.²³ According to the TCFD, 85 percent of investors surveyed say that there has been a noticeable increase in the availability of climate-related financial disclosures since the TCFD published its June 2017 Final Report.²⁴ However, challenges to adoption remain, necessitating continued advocacy for the TCFD and the SASB aligned reporting.

While it is true that more companies are reporting some climate-related information, the actual number of companies producing full TCFD reports remains low. According to the [TCFD Good Practice Handbook](#), just one

in four companies out of the 1,126 reviewed by the TCFD disclose information aligned with more than five of the eleven recommended TCFD disclosures. Only four percent of companies globally make disclosures aligned with at least ten of eleven recommended disclosures.²⁵ In 2018, the average number of disclosures was just under four, demonstrating that companies are choosing to partially disclose information rather than publish fully aligned TCFD disclosure.

The TCFD recognizes that several impediments to broader adoption exist. One is the sense of burden and duplication of effort on the part of reporting companies. This would be resolved by market convergence around a single framework or set of frameworks. Second is a lack of practical guidance for putting the recommendations to use. In response, the TCFD published its [Implementation Guide](#) in May 2019, which seeks to clarify its expectations of reporting companies and includes sample disclosures. We have observed improved disclosure by companies where we have engaged on the topic, and we are encouraging companies to continue to work through the four pillars in pace with their industries and the inherent carbon exposure in their business.

BIS also contributes to the SASB and the TCFD's standards and framework development through corporate working group participation.²⁶ BIS draws on the insights gained through this participation as well as through engagement with companies, other shareholders, and climate scientists. In these ways, BIS is working to broaden acceptance of the SASB and the TCFD, and to encourage the market to coalesce around them. By supporting these frameworks, we hope to reduce confusion in the market, and to help improve the consistency and comparability of the data disclosed.

Appendix A

Uniform disclosure standards: understanding the SASB and the TCFD

The SASB's stated purpose is to help businesses identify, manage, and report on the sustainability topics that matter most to their investors.²⁷ The SASB standards are developed based on direct feedback from companies, investors, and other market participants as part of a publicly-documented and transparent process. The SASB standards are industry-specific, enabling investors and companies to compare performance from company to company within an industry. The SASB codified a complete set of final standards for 77 industries in 2018, which identify a baseline set of financially material sustainability topics and their associated disclosure metrics.²⁸ BIS considers the SASB an appropriate starting point for any company assessing its environmental and social risks and opportunities, including climate risk.

The TCFD's recommendations were finalized in June of 2017. The goal of the recommendations is to "promote more informed investment, credit, and insurance underwriting decisions" and, to "enable stakeholders to better understand the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risks."²⁹ The TCFD disclosures are aimed at issuers, who generally have an obligation under existing law to disclose material information, but need a coherent framework to do so for climate-related information. The disclosures are also designed for investors, lenders, and insurers who need comparable climate-related information to make informed capital allocation and financial decisions.³⁰

The TCFD recommendations are organized into four specific categories, and encourage corporate disclosures related to a company's:

- **Governance** – The organization's governance around climate-related risks and opportunities
- **Strategy** – The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning
- **Risk Management** – The processes used by the organization to identify, assess, and manage climate-related risks
- **Metrics and Targets** – The metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material

What is the difference between the SASB and the TCFD?

- The SASB provides industry-specific standards for disclosing performance on material sustainability topics (including, but not limited to climate) to investors in a comparable manner. Climate risk manifests itself differently across industries. The SASB Standards are focused on disclosure topics and metrics that illustrate how climate risk is most likely to impact financial performance of companies in a specific industry.
- The TCFD provides an overarching four-part framework applicable regardless of sector, (with limited additional guidance for select sectors) to report to investors about their governance, strategy, risk management, metrics and targets related to the specific topic of climate risk.
- While the TCFD was crafted with climate change in mind, BIS considers it a relevant framework for reporting on all material environmental and social (E&S) factors.
- In May 2019, the SASB and the Climate Disclosure Standards Board (CDSB) issued their joint TCFD Implementation Guide to provide practical guidance for companies in attempting to fulfill the principles-based recommendations and make the recommended disclosures in their mainstream reports.³¹

How do the frameworks interact?

Core Elements of Recommended Climate-related Disclosures, and their Alignment with the SASB Standards



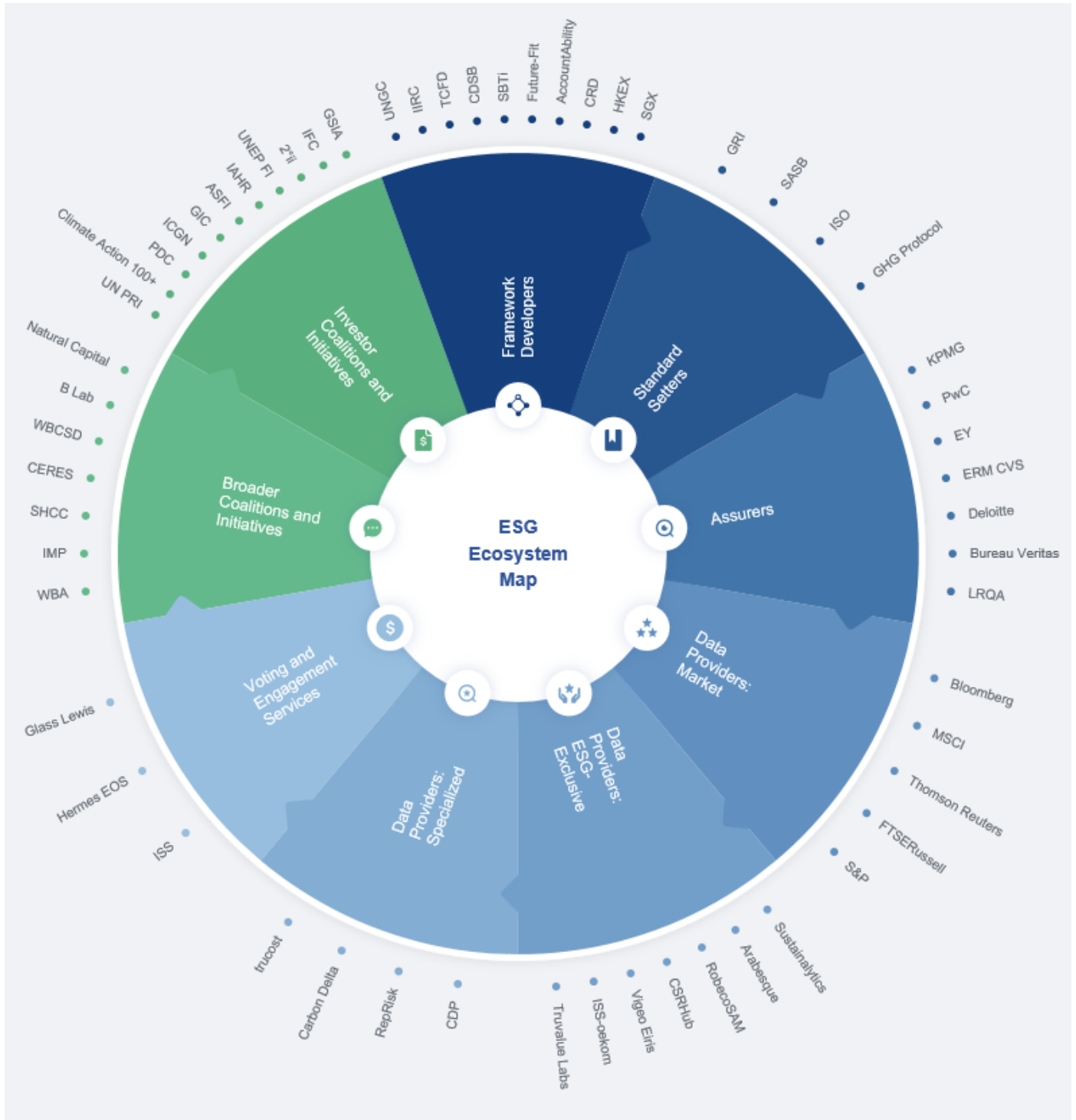
Source: "Recommendations of the TCFD", June 2017

- Companies should determine which sustainability performance measures are material and appropriate for it to disclose based on its business model and asset mix. Companies can initially look to the SASB standards in order to understand the specific material risks related to both sustainability and climate that have been identified for their sector(s).³²
- Companies should use the TCFD four-part framework to disclose all material climate risks. Specifically, for pillar four of the TCFD: Risk Metrics and Targets, companies should use the SASB for industry-specific, detailed disclosure topics and metrics to report in a standard way.
- When following disclosure standards, companies should be able to explain any omissions or deviations from the guidance for completeness.

BIS continues to engage directly with companies to seek greater understanding around their management and oversight of climate-related business risks and opportunities and to encourage more meaningful and material disclosures in line with the TCFD and the SASB.

Appendix B

ESG Ecosystem



See World Economic Forum ESG Ecosystem Map available at <https://widgets.weforum.org/esgecosystemmap/#/>.

Endnotes

1. See examples at Appendix B.
2. The new EU guidelines in the directive on non-financial reporting are structured around the TCFD recommendations. In addition, the UK's Green Finance Strategy set out the Government's expectation for all listed companies and large asset owners to disclose in line with the TCFD recommendations by 2022. In addition, the UK Government will chair a taskforce with its regulators to examine the most effective approach to disclosure, including exploring the potential for mandatory disclosures. See <https://www.cdsb.net/mandatory-reporting/947/are-we-headed-towards-mandatory-climate-disclosure>.
3. For reporting examples under each pillar see Task Force on Climate-related Financial Disclosures: Status Report (2019), available at <https://www.fsb-tcf.org/wp-content/uploads/2019/06/2019-TCFD-Status-Report-FINAL-053119.pdf>.
4. Annex: Implementing the Recommendations of the TCFD (June 2017) at pg. 12, available at <https://www.fsb-tcf.org/wp-content/uploads/2017/12/FINAL-TCFD-Annex-Amended-121517.pdf>. This approach is also adopted with specific examples in the TCFD Implementation Guide issued by the SASB and the CDSB, (May 2019) at pgs. 8, 17 et seq., available at <https://www.sasb.org/knowledge-hub/tcfid-implementation-guide/>.
5. These represent the 11 recommended disclosures under the TCFD. See Final Recommendations of the Task Force on Climate-related Financial Disclosures (June 2017), Chart 4 at pg. 14, available at <https://www.fsb-tcf.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf>.
6. If a given board determines that a climate expert is necessary, the board should explain this rationale and the director's ability to contribute to the broader boardroom dialogue. Every board should be equipped to effectively oversee the long-term risks and opportunities facing the company, including those caused by climate change.
7. Annex: Implementing the Recommendations of the TCFD (June 2017) at pg. 15, available at <https://www.fsb-tcf.org/wp-content/uploads/2017/12/FINAL-TCFD-Annex-Amended-121517.pdf>; TCFD Implementation Guide issued by the SASB and the CDSB, (May 2019) at pg. 23 et seq., available at <https://www.sasb.org/knowledge-hub/tcfid-implementation-guide/>.
8. Id. As noted in the TCFD Implementation Guide, "scenario analysis is a process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty. These scenarios enable businesses to explore how climate change may affect them . . ." The TCFD recommends that organizations use, at a minimum, a 2°C or lower scenario and should further consider using "an additional two or three scenarios that are most relevant to their circumstances. These additional scenarios could be related to Nationally Determined Contributions (NDC), business-as-usual cases, or increased climate-related physical risks, for example." See Annex: Implementing the Recommendations of the TCFD (June 2017) at pg. 9, available at <https://www.fsb-tcf.org/wp-content/uploads/2017/12/FINAL-TCFD-Annex-Amended-121517.pdf>.
9. These issues have been identified by the TCFD in its Implementation Guide and the SASB and the CDSB in their TCFD Implementation Guide, and expanded upon by BIS.
10. Including any carbon price considerations employed.
11. BIS encourages companies to have at least one scenario in line with the International Energy Agency's Sustainable Development Scenario which targets a rise in global temperatures to "well below 2° and pursuing efforts to limit [it] to 1.5°C," consistent with the Paris Agreement. See IEA World Energy Outlook 2019, available at <https://www.iea.org/reports/world-energy-outlook-2019>.
12. Carbon dioxide (CO₂) has been the proxy by which people measure GHG emissions but CO₂ is only one of many GHGs like methane, nitrous oxide and ozone (all of which have global warming potential). To take into account the emission of other GHGs when calculating the level of GHG emissions, scientists developed an equivalent measure – CO₂e. CO₂e allows other GHG emissions to be expressed in terms of CO₂ based on their relative global warming potential and is commonly used when calculating a carbon footprint.
13. Annex: Implementing the Recommendations of the TCFD (June 2017) at 16-17, available at <https://www.fsb-tcf.org/wp-content/uploads/2017/12/FINAL-TCFD-Annex-Amended-121517.pdf>.
14. See e.g. Getting Physical: Assessing Climate Risks, BlackRock Sustainable Investing, April 4, 2019, available at <https://www.blackrock.com/us/individual/insights/blackrock-investment-institute/physical-climate-risks>.
15. Annex: Implementing the Recommendations of the TCFD (June 2017) at pgs. 17-18, available at <https://www.fsb-tcf.org/wp-content/uploads/2017/12/FINAL-TCFD-Annex-Amended-121517.pdf>.
16. <https://www.fsb-tcf.org/wp-content/uploads/2017/06/FINAL-TCFD-Annex-062817.pdf>.
17. See Frequently Asked Questions Understanding How SASB Standards and TCFD Recommendations Are Complementary, available at <https://www.fsb-tcf.org/wp-content/uploads/2017/12/SASB-SASB-Standards-TCFD-Recommendations-FAQ-14-Dec-2017.pdf>.
18. Annex: Implementing the Recommendations of the TCFD (June 2017) at pgs. 16-17, available at <https://www.fsb-tcf.org/wp-content/uploads/2017/12/FINAL-TCFD-Annex-Amended-121517.pdf>.
19. See World Energy Outlook 2019, available at <https://www.iea.org/reports/world-energy-outlook-2019>.
20. In a capital and carbon-constrained world, the long-term viability of natural gas depends, in part, on its ability to be marketed as a "cleaner fossil fuel." But methane is a potent climate pollutant estimated to be at least 84 times more powerful than CO₂ over a 20-year period. Therefore, methane leakage and flaring can eliminate the "climate advantage" of this fuel source and can therefore also impact financial investment in companies looking to natural gas as a "bridge fuel."

Endnotes (continued)

21. Lost methane is lost product. There is a quantifiable financial value to product that is leaked into the atmosphere, directly affecting a company's bottom line. Worldwide, oil and gas companies leak and vent an estimated \$30 billion of methane each year into the atmosphere during their operations. See EDF, The Disclosure Divide, February 2018, Sean Wright and Kate Gaumont, available at https://www.edf.org/sites/default/files/documents/the_disclosure_divide.pdf.
22. Relatedly, BIS is also interested in the company's position on independent third-party assurances regarding underlying data and target setting.
23. The TCFD reported that the list of supporting organizations had expanded to roughly 960 organizations from the 513 supporters in January 2020. Available at <https://www.fsb-tcf.org/tcf-supporters/>. Note that the TCFD supporters list, while cataloging companies that have endorsed the framework, is not inclusive of every company that is reporting in line with the TCFD standards, or components thereof. However, the number of signatories provides a frame of reference to benchmark the broader adoption of this framework, which is in fact more extensive than the supporter list indicates.
24. Task Force on Climate-related Financial Disclosures: Status Report (2019) at pg. 51, available at <https://www.fsb-tcf.org/wp-content/uploads/2019/06/2019-TCFD-Status-Report-FINAL-053119.pdf>.
25. For examples of good practices in TCFD reporting under each pillar see TCFD Good Practice Handbook, available at https://www.sasb.org/wp-content/uploads/2019/09/TCFD-GoodPracticeHandbooksm.pdf?_hstc=105637852.0d01ae86825eae8d0db6300b73a2.1575409173734.1576619104842.1578326535618.4&_hssc=105637852.2.1578326535618.
26. Michelle Edkins, Global Head of Investment Stewardship, and Ray Cameron, Head of the America's for Investment Stewardship are members of the SASB Investor Advisory Group. Verity Chegar, ESG Integration Team Lead on the BlackRock Sustainable Investment team, is Vice Chair of SASB's Standards Board. Samantha Tortora, Global Head of Investor Relations for BlackRock is a member of the SASB Standards Advisory Group. Brian Deese, Global Head of Sustainable Investing at BlackRock, is a member of the TCFD.
27. See <https://www.sasb.org/>.
28. The SASB references metrics already in use by industry, from more than 200 entities, such as WHO, CDP, EPA, OSHA and industry organizations such as ICAO, IPIECA, EPRI and GRESB. Aligning the SASB standards with existing reporting standards avoids additional costs for companies and aligns the SASB's work with global corporate transparency efforts. See <https://www.sasb.org/standards-overview/sasb-and-others/>.
29. See Recommendations of the Task Force on Climate-related Financial Disclosures (Final 2017) at pg. 2, available at <https://www.fsb-tcf.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf>.
30. Id.
31. The TCFD developed 11 recommendations on climate-related financial disclosures (see Graphic at 2 supra) that are applicable to organizations across sectors and jurisdictions. The recommendations are structured around the four thematic topics of governance, strategy, risk management and metrics and targets. See Task Force on Climate-related Financial Disclosures:(2019) Status Report available at <https://www.fsb.org/wp-content/uploads/P050619.pdf>. See also TCFD Implementation Guide issued by the SASB and the CDSB, (May 2019), available at <https://www.sasb.org/knowledge-hub/tcf-implementation-guide/>. See also SASB Implementation Guide for Companies, available at https://www.sasb.org/wp-content/uploads/2018/02/SASB_ImplementationGuide-Web-061217.pdf.
32. To align the SASB Standards more directly with the TCFD Recommendations in the areas of governance, strategy, and risk management, SASB has proposed revisions to the introduction to all SASB Standards. The SASB recommends that issuers disclose their governance, strategy, and risk management processes, as well as metrics and targets, associated with the industry-specific sustainability topics in the SASB Standards. Thus, the SASB has applied the TCFD's approach to governance, strategy, and risk management disclosure to all sustainability topics in the SASB Standards, not only climate-related topics. The SASB recommends that issuers provide these disclosures for the sustainability topics the issuer determines to be material to their business.