DRIVING MEANINGFUL DATA

Financial materiality, sustainability performance and sustainability outcomes
WHY SUSTAINABILITY DATA MATTERS

‘Driving meaningful data throughout markets’ is a key PRI Blueprint target. It aims to enable the flow of reliable and comparable data from corporations through the investment chain to beneficiaries and clients. Investors state that ESG is a particular concern. They regularly report to the PRI that a lack of consistent and comparable ESG data is a substantial barrier to their responsible investment practice.¹

The PRI published the Investor Agenda for Corporate ESG Reporting in 2018 outlining the challenges that investors face with ESG data.² This includes the harmonisation of corporate reporting, fragmentation of data for investment decisions and the lack of end-to-end reporting that investors and beneficiaries need on ESG issues.

The PRI has since contributed to efforts aimed at harmonising corporate ESG reporting in the interests of investor decision making, both for risk and return and assessing the sustainability performance of corporate entities. This essential work continues but is only part of the overall pursuit of driving meaningful data for responsible investors.

Market developments are shifting to focus on the alignment or contribution, both positive and negative, of corporate and investor activity in meeting sustainability goals.³ This stems from the continuing divergence of economic development with ever approaching planetary thresholds and growing inequality resulting in less inclusive societies. The implications of this are both financial risk-based and related to purposeful contributions to sustainability goals or outcomes because of market demand and stakeholder concerns (see Investing with SDG Outcomes: A Five Part Framework).

The increased recognition of the role of responsible investors in shaping sustainability outcomes as concepts of relevance to financial markets is forcing a reconsideration of the types of decisions they need to make, and “decision-useful” data needed to support them. For many investors and PRI signatories, the effect of ESG risks on individual investees’ financial positions is still their greatest concern. However, rising awareness of the need to analyse and understand sustainability performance in the context of social and environmental outcomes, leads us to think more broadly about what data is needed, in what form and for what purposes.

At a time of renewed market and regulator ambition to resolve corporate reporting on ESG issues, which the PRI vigorously supports, we have decided to step back and examine the basis of an end-to-end sustainability reporting system. One which cohesively characterises how entities are managing sustainability risks and opportunities, and how their actions and activities shape or contribute toward sustainability outcomes.

To accommodate what we expect will be a multi-faceted need for meaningful ESG data in the future, we propose a framework that incorporates financial materiality and sustainability performance

¹ 2019 PRI Signatory survey
³ Market-led scenario related, goal setting and sustainability performance efforts include the UN Net Zero Asset Owner Alliance, the EU Taxonomy, the Transition Pathway Initiative, Science Based Targets and PACTA
calibrated to progress on sustainability outcomes. Further we consider sources of data needed to complete this picture across entities such as companies, governments and global institutions and activities primarily asset, economic activity, sector, and country.

To examine the basis of end-to-end sustainability reporting and to set out PRI’s data framework, we need to structure it in three parts:

1. Examine the evolving sustainability data landscape in which investors and companies are operating within.

2. Reflect on sustainability data and its use in investor decision-making.

3. Set out PRI’s thinking on the components of an end-to-end sustainability reporting system:
   a. Understanding and assessing an entity’s ESG risks and opportunities, environmental and social performance, and contribution to wider outcomes.
   b. Identifying the data sources and their characteristics needed to support such assessment.
   c. Bringing these elements together to demonstrate the data and metrics in each of the categories and how they support informed investment choices, management decisions and aggregation.

We are rapidly reaching the limit of what process-based reporting can achieve. Additional data measuring social and environmental performance is needed to inform investment choices and management decisions.

**Evolving Sustainability Data and Reporting Landscape**

There is a global consensus that consistent, reliable, and comparable sustainability data is a top priority for investors and corporations.

However, progress in this area has been frustrated by measurement challenges and the endogenous nature of ESG risks within companies. Other inhibiting factors include the mixed signals that many investors may be sending about their ESG preferences, limited understanding of investor interests among corporates, and a perception that investors are not paying sufficient attention to how companies manage ESG risks and performance. The consequence of this is that despite companies identifying investors as a key user of reporting information, they can often see current ESG reporting as inconsistent.

The investment industry can be characterised by its diversity, in terms of investment strategies used, and the specific ESG factors that are considered and the sustainability outcomes that are sought. However, this diversity does not appear to be universally recognised or understood by companies. Investors often cite concerns about a ‘one size fits all’ approach to sustainability reporting, which
either utilise indicators that are not directly applicable to a company’s operations or do not allow them to sufficiently differentiate their activities.

This leaves investors with data sets that may be of limited use for investment decision-making. They are presented with information that lacks the context of how it is produced; making it feel unreliable or limiting the conclusions that can be drawn. This can include selectively using positive indicators, processes for assessing materiality and exclusions that are rarely transparent. In addition, there are difficulties in assessing performance against policies or commitment. Similarly, companies often complain that sustainability information is often misused or misinterpreted by investors.

We have seen the proliferation of standards, sub-standards, issue or sector-specific guidelines and indicators for sustainability reporting, often based on complex technical language. There have also been debates about the key audiences for sustainability data despite many companies insisting that their reports are aimed at meeting the needs and interests of all stakeholders.

Investors have been encouraged by the steps taken towards alignment by voluntary standard setters such as the Corporate Reporting Dialogue process and the recently announced Statement of Intent to Work Together Towards Comprehensive Corporate Reporting. However, the organisations providing sustainability reporting standards have yet to coalesce on a common approach. A clearer articulation of issuer and user requirements is needed to support the efforts of the standard setters.

Adding to the need for harmonisation is the increased focus on sustainability goals, including those set through the SDGs, with key challenges in understanding and communicating investor and corporate contributions to sustainability outcomes. To date, relatively little attention has been paid to the sustainability outcomes of investors. In general, the investment industry’s approach has been that the strengthening of systems and processes should lead companies to better social and environmental performance, supported by some limited intentional impact funds. However, in practice this is only partially true. For example, while many companies have set targets for emissions reductions, these are intensity targets, meaning that while companies expect their emissions per unit of activity to decrease, their total emissions continue to increase due to growth.

To drive outcomes in line with global sustainability goals, there is a need for target setting and progress tracking in the context of global social goals and environmental thresholds. This includes those established through the Paris Agreement, SDGs, Universal Declaration on Human Rights, science-based targets, and planetary boundaries. The EU Taxonomy is a prime example. Its thresholds for specific economic activities are set in line with EU policy aiming to meet environmental goals, such as the goals of the Paris Agreement and Net Zero by 2050, while respecting fundamental conventions on human rights. This marks a shift away from tracking incremental performance improvements towards measuring alignment with sustainability goals.

4 https://corporatereportingdialogue.com/.
SUSTAINABILITY DATA IN THE INVESTMENT DECISION PROCESS

Incorporating ESG issues in investment strategy, policy decisions and active ownership is regarded by investors and policy makers as part of their fiduciary duty. Corporate sustainability reporting facilitates a range of investor decision making. This includes:

- identifying opportunities, such as through changes to business models, across supply chains and new and expanded products and services
- preparing for and responding to legal and regulatory developments, including those that may lead to asset stranding
- protecting their reputation and licence-to-operate, particularly in the event of negative outcomes from investments
- meeting institutional commitments to global goals (including those based on client or beneficiaries’ preferences), and communicating on progress towards meeting those objectives
- considering materiality over longer time horizons, to include transition risks, tail risk, financial system risks etc
- minimising negative and increasing positive investment outcomes

Investors use ESG information in the following ways:

- Risk management
- Integration in valuation models, alternative beta, quant, factor, and index investing
- Integration in credit research and assessments
- Screening (positive, negative and exclusions based)
- Producing ESG ‘best in class’ approaches (ESG ratings)
- Thematic investment (allocating capital to environmental or social outcomes)
- Creating and monitoring funds with specific environmental and/or social characteristics
- Measuring the impact of companies and/or funds (portfolio monitoring, carbon footprinting)
- Active ownership, stewardship, engagement
- Communicating with clients and beneficiaries

The range of investment strategies, variations in asset classes integration techniques, stewardship activities and communication with clients and beneficiaries is important because investors want to differentiate themselves in how they take account of ESG issues in investment decisions, on the quality of their research and resources, and the specific products they offer their clients and beneficiaries.

The consequence of the diversity in investors’ views, strategies, and interests mean that there is no single set of criteria for an investment decision. Indeed, investors have a range of uses for sustainability information:

- Binary yes/no questions
- Assessing performance on a relative basis
Identifying risks and opportunities that may not be in conventional financial reports and analysis
Assessing the quality of a company’s governance and risk management framework
Quantifying the financial implications of specific aspects of social or environmental performance
Assessing the sustainability performance of a specific company in the context of wider social or environmental outcomes (e.g. EU Taxonomy)

Investors need a variety of data points to make their assessments and evaluations. Several reporting frameworks have developed to support investors and corporates with sustainability information – e.g. CDP, GRI, SASB, TCFD, CDSB, IIRC – all with a striking degree of commonality in terms of the information requested on governance and related matters.

The major areas of variation are in the information required on performance data on environmental and social issues, and which KPIs should be reported. This relates not only to the headline performance measures (e.g. total greenhouse emissions), but also the supplementary information and data needed to put this information into context.

There are a range of reasons behind the variety of reporting approaches. First, companies are diverse, giving more or less importance to sustainability issues. Second, as noted above, investors are also diverse and require different information to inform investment decisions. This means that it is extremely difficult for companies to produce a sustainability performance report which meets the interests of all investors.

Third, reporting frameworks recommend similar but different sets of performance data and KPIs. Fourth, data quality, issues around sector correlation, target setting and inconsistencies in normalising data for relative performance measurement hinder standardisation.

Overcoming these challenges is a priority for PRI and emphasises the need for an “end-to-end” view on the sustainability reporting system. This should:

1. Provide current and forward-looking information to assess the range of sustainable risks and opportunities.
2. Enable investors and other stakeholders to consistently assess and interpret a company’s sustainability performance and alignment in the context of long-term sustainability goals and thresholds.
3. Recognise the limitations and boundaries of corporate reporting and identify other data sources needed to support investment and corporate decision making.
4. Enable the measurement, monitoring and reporting on changes in systems level outcomes
5. Recognise the relevance of country and global sustainability objectives in contextualising and tracking performance.
A SYSTEM OF GLOBALLY COMPARABLE SUSTAINABILITY DATA

MATERIALITY, PERFORMANCE AND OUTCOMES

In our vision of an end to end sustainability reporting system, there are three core components which provide the path to comprehensively understanding an entity’s ESG risks and opportunities, environmental and social performance, and contribution to wider outcomes.

1. **ESG risks and opportunities** - ESG factors likely to impact the financial condition or operating performance of an entity (financial materiality).

2. **Sustainability performance** – How an entity’s operations and products impact (positively and negatively) stakeholders and the environment.

3. **Social goals and planetary thresholds** – Nationally, regionally, or internationally recognised environmental and social targets, norms and responsibilities within which entities operate from a sustainability perspective.

These core elements help define how investors review and assess the value chain.

The first provides insight into the sustainability pressures facing a business and its organisational activities (how it operates, what it produces and where - regional, national, or global), and how management is responding to them. The second provides a comprehensive account to investors (and stakeholders) of how a company has delivered on its sustainability commitments. The third offers thresholds and goals that put sustainability performance into relative context and to help understand overall progress towards them. These global goals are set through international agreements and frameworks, national implementation, or societal expectations.

This framework is intended to enable an expanded assessment for investors and corporates – beyond the financial dimension of what is material today and on a limited basis - to translate social and environmental goals into day to day decisions. For investors statements of good intentions; plans to be more efficient in the future; and incremental improvements from today’s performance all signal that progress is being made, but it can be difficult to calibrate and judge in practice. No longer are we facing a question of ‘Are we doing better?’ than before – but “How good is good enough?”

We need the data to assess the significance of an issue in terms of its future impact and exposure to it, and where performance is below what should be relative to a goal then decisions can be made to efficiently allocate capital to it. Therefore, a key part of sustainability reporting must target, measure, track, and report on the progress of financing in environmental terms to maximise the benefits and to minimise the mistakes in meeting social and environmental goals.

---

6 Future of Europe Conference, “EU Taxonomy – the metrical system of the 21st century”. Nathan Fabian Chief Responsible Investment Officer, PRI Rapporteur, Sustainable Taxonomy, EU Technical Expert Group on Sustainable Finance, 2nd July 2020
It is important to note that these elements are not binary. Almost all ESG issues, to some extent, will sit across both risk and opportunity and sustainability performance. However, they require a parallel analysis by investors and companies to determine the materiality of an ESG issue relative to financial considerations and its substance relative to social goals or planetary threshold.

**ESG risks and opportunity**
This core element covers quantitative and qualitative data to understand the financial implications of sustainability across the various units. Financially material ESG issues that could have a significant impact on a company’s business model and value drivers, such as revenue and growth, margins, required capital and risk.

Sustainability factors are not only relevant in forward-looking “front-end” reporting where most of the sustainability reporting is captured but should be reflected in the “back end” audited financial statements. These define profitability and drive executive remuneration, so ensuring that they properly reflect ESG risks is crucial. Investment decisions, both by companies and investors, depend heavily on the numbers disclosed in the audited financial statements. There has been a reluctance for companies to provide forward looking data or accounts reflecting ESG issues and sustainability commitments such as the Paris Agreement. However, this is changing with TCFD increasingly being adopted into regulatory frameworks and opinions from the IASB.7

**Sustainability performance**
Sustainability performance covers the data and metrics needed to understand how entities contribute towards targets established through social goals and planetary thresholds. This includes both process indicators (management structures and identifying and managing sustainability issues appropriately) and performance indicators to assess whether the environmental or social performance is consistent relative to globally or nationally set targets and goals.8 To meet the challenge posed by the emergence of thresholds or performance standards that companies and investors are increasingly having to respond to, clear and common measurement metrics are required at the asset, economic activity, company, sector, or country level.

Furthermore, commonality is needed on measurement in relative and absolute terms. From an investor perspective both are important. Absolute numbers allow the overall progress or direction of travel to be assessed, and they also provide a starting point for the overall risk to the business. However, relative performance, for example in intensity terms, is becoming increasingly used in understanding how an activity and entity substantially contributes to sustainability outcomes (e.g. emission performance levels, resource efficiency or meeting a minimum safeguard UNGP HR).

**Social goals and planetary thresholds**
Social goals and planetary thresholds refer to social and environmental systems, the pressures society is placing on these, and the limits within which they should operate. These subsequently

---

8 Sustainability performance metrics can track progress on an organisation’s own internally set targets and goals but tracking to internal targets is a secondary element.
inform the objectives set by governments, international institutions and private actors to guide responses to these challenges globally. They provide the context within which entities operate from a sustainability perspective, including global, national, and regional targets and objectives, usually derived from science-based boundaries and internationally agreed social standards. For example, the SDGs, planetary boundaries, Universal Declaration on Human Rights, and the Paris Agreement.

Social goals and planetary thresholds are an important part of the reporting system currently absent in decision-making considerations. Existing concepts of value are based on the concept of unlimited resources with a disregard for social standards, and therefore are not able to be built into coherent price signals in markets. As a result, there is a lack of awareness, accountability, data and budgeting for sectors and companies based on the degree to which they are operating within or outside social foundations and planetary boundaries. For individual investors and corporates these goals and thresholds can be translated to assess sustainability performance at the asset, economic activity, sector, or national/regional level (see Table 1), to understand how far away we are from achieving those goals, and to identify actions that can be taken and levers that can be used to close the gap (i.e. capital allocation, stewardship of investees, policy engagement).

The goals and thresholds outlined here are generally the responsibility of regulators and policymakers and help inform which actions are most pressing, though not solely. Within governments, there is an urgency for policy makers and regulators to ensure such goals are translatable for companies/investors and inform the development of tools and frameworks needed to assess and track progress in terms of sustainability performance.

There is a need for mechanisms that make norms and thresholds visible, accountable and can support prioritisation across companies, sectors, and countries. These are not all universal and reporting relative to local goals, norms or targets is important. However, to aggregate performance, consistent indicators across geographies are required and where relevant should align with international agreements.

9 It should be noted here that data and goals outlined in this element are generally the responsibility of regulators and policymakers.
“PLANETARY THRESHOLDS” VS “PERFORMANCE THRESHOLDS”

PRI’s Driving Meaningful Data framework uses the term “planetary thresholds” to understand the significance of an issue at a global level and is based on the concept set out by the Stockholm Resilience Institute.\(^\text{10}\)

Planetary thresholds need to be translated before they can be used by companies or investors. This can be done through establishing “performance thresholds” at the level of the asset, activity or entity that are aligned to the goal. This clearly indicates the level of performance that is expected or required. One example of this approach is the EU Taxonomy which includes emissions intensity thresholds for certain activities.\(^\text{11}\)

ACTIVITIES AND ENTITIES

Within the value chain there are a range of organisational activities and units where data is required to understand how production, supply chains and company operations relate to the three elements above. We break these down into six units comprising both activities and agents:

<table>
<thead>
<tr>
<th>Asset-level</th>
<th>Economic activity</th>
<th>Company</th>
<th>Sector</th>
<th>Country/region</th>
<th>Global</th>
</tr>
</thead>
</table>

The distinction is made for two reasons

1. **Entities** (company, government, global bodies) – As agents within the economy they make sustainability decisions about production, risk management, target setting and policy objectives.

2. **Activities** (asset, economic activity, sector, country) – The process of economic production directly contributes to sustainability objectives and needs to be separated out to understand real world impact and aggregation at various levels.

Table 1 describes the various units of analysis and their characteristics.

---

\(^\text{10}\) https://www.stockholmresilience.org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html

<table>
<thead>
<tr>
<th><strong>Table 1: Entities and activities data sources</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
</tr>
<tr>
<td><strong>Asset-level</strong></td>
</tr>
<tr>
<td><strong>Economic activity</strong></td>
</tr>
<tr>
<td><strong>Company</strong></td>
</tr>
<tr>
<td><strong>Sector</strong></td>
</tr>
<tr>
<td><strong>Country</strong></td>
</tr>
<tr>
<td><strong>Global</strong></td>
</tr>
</tbody>
</table>

Investors are relying on different units of analysis and information to aggregate portfolio and financial product reporting, driven by increased investor disclosure rules.

Existing company reporting supports general approaches to portfolio selection and financial materiality assessments to a certain extent, for example through ESG ratings, analysis of company ESG plans and strategies, or aggregating portfolio company level emissions to understand its exposure to carbon-intensive companies. However, the emergence of taxonomies and disclosure standards for financial market participants, advisers and products based on meaningful sustainability performance parameters will necessitate new forms of data and metrics to support their reporting because each outcome varies and requires different performance thresholds and calibrations.

The EU regulation on sustainability-related disclosures in the financial services sector is one example. Under the regulation, European Supervisory Authorities will supervise entity-level disclosures on the
principal adverse impacts that investment decisions have on sustainability factors such as climate and the environment; social and employee matters, respect for human rights, anti-corruption and anti-bribery. In addition, products are expected to establish more clearly how they meet sustainability objectives and how they avoid significant harm.

Similarly, the EU Taxonomy regulation requires investors to assess the contribution of portfolios to the EU’s environmental objectives, through assessing the extent to which underlying economic activities are in line with performance thresholds.

The tables below bring together financial materiality, sustainability performance and outcomes together with data sources needed to complete this picture across entities (company, government, global institutions) and activities (asset, economic activity, sector, country). Table 2 provides conceptual descriptions across the data units and Table 3 sets out examples of existing metrics to illustrate these in practical terms. Please note in practice specific metrics may apply across multiple sections.
Table 2: Data units and descriptions summary table

<table>
<thead>
<tr>
<th>Asset</th>
<th>Economic Activity</th>
<th>Company</th>
<th>Sector</th>
<th>Country/Region</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ESG Risk and opportunity</strong></td>
<td>Data relating to physical and non-physical assets tied to company ownership. Particularly relevant for financial risk and opportunities associated with transitions.</td>
<td>Disclosure of ESG risk and opportunities associated production of specific goods and services.</td>
<td>Disclosure of ESG issues that are financially material to the organisation’s operating sector. Relevant in understanding unique exposures to sustainability issue in different sectors.</td>
<td>Aggregation of asset, economic activity, company, and sector level disclosures that provide regulators and investors with a better view of systemic risks.</td>
<td></td>
</tr>
<tr>
<td><strong>Sustainability Performance</strong></td>
<td>Specific performance information relating to asset use in an organisation’s economic activities, products, and services, including economic lifetime of those assets, how they factor into economic activities as inputs and whether they have a substantial impact on sustainability goals or targets.</td>
<td>Serves as the basis from which sustainability performance of activities and sectors can be consistently assessed against performance thresholds and their contribution to sustainability goals or targets.</td>
<td>Performance disclosures that describe an entities sustainability performance in line with national or global goals. These should be reported on a consistent basis to understand relative performance.</td>
<td>Aggregation of economic activity rather than company data, this provides a link between portfolios and the real economy. Sectors performance data shows the various contributions (and rates of) to sustainability goals. Supported intensity-based and distribution metrics allows sector tracking.</td>
<td>Sustainability intensity and distribution metrics used by national/regional authorities to track and monitor current progress towards goals and performance levels required to meet them.</td>
</tr>
<tr>
<td><strong>Social goals and planetary thresholds</strong></td>
<td>Entities set targets and policies demonstrating how their activities relate to sustainability objectives at the country and/or global level.</td>
<td>Sector sustainability allocations enables performance measurement - set and applied consistently across jurisdictions.</td>
<td>Policy commitments and goals (and date where relevant) set by national/regional authorities to guide their response to sustainability challenges.</td>
<td>Overarching international agreements or goals widely accepted as encapsulating social goals and planetary thresholds. Provides the frameworks through which these are articulated as targets and the thresholds investors use to assess and track performance.</td>
<td></td>
</tr>
</tbody>
</table>
### ESG Risk and opportunity

<table>
<thead>
<tr>
<th>Asset</th>
<th>Economic Activity</th>
<th>Company</th>
<th>Sector</th>
<th>Country/Region</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure - exposure of individual assets in different locations to different climate-related hazards or under different climate scenarios and profile relative to the country / region climate goal.</td>
<td>CO2 emissions per tonne of cement produced.</td>
<td>SASB - health and safety disclosures on incident rates, fatality rate, and near miss frequency rate</td>
<td>SASB – % of Scope 1 emissions covered under emissions-limiting regulations (SASB 110).</td>
<td>DNB – sector exposures (embedded emissions) to energy transition risk stress test for the financial system of the Netherlands.</td>
<td></td>
</tr>
</tbody>
</table>

### Sustainability Performance

<table>
<thead>
<tr>
<th>Asset</th>
<th>Economic Activity</th>
<th>Company</th>
<th>Sector</th>
<th>Country/Region</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU ETS - direct emissions from the assets of an organisation or under their control. E. g. emissions from waste incineration Metric tons (t) CO2 scope 1.</td>
<td>Climate Action 100+ - benchmark requires reporting scope 1 &amp; 2 long-term (2050) targets aligned with Paris NDCs:2DS/B2DS/1.5C (Intensity and absolute depending on sector/scenario)</td>
<td>IMO collects fuel oil consumption data for ships of 5,000 gross tonnage and tracks industry’s reduction of GHG emissions and consistency with the Paris Agreement Temperature Goals.</td>
<td>Nationally reporting actual (historic) CO2 emissions and projected future emissions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Social goals and planetary thresholds

<table>
<thead>
<tr>
<th>Asset</th>
<th>Economic Activity</th>
<th>Company</th>
<th>Sector</th>
<th>Country/Region</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Science Based Targets initiative (SBTi criteria 4.1) uses 1.5 degrees and well-below 2 degrees goal options to set for scope 1 and scope 2 emissions reduction targets at company-level.</td>
<td>UK Government commitment to the Paris Agreement goal is net-zero emissions by 2050.</td>
<td>SDGs - Goal 11. Make cities and human settlements inclusive, safe, resilient, and sustainable. Supported by target 11.1 and SDG indicator 11.1.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This paper is the first step in bringing together PRI’s view on Driving Meaningful Data. The challenge of developing consistent data across all the various units and entities, as well as addressing gaps identified through the framework, will require collaboration with others across the financial and corporate sectors. This includes standard setters, policy makers and regulators, and other key stakeholders. The PRI will have an important role in working with our signatories to provide a clear signal on their data needs, how they aid decision-making and understanding their contribution towards sustainability objectives. Specifically, this work will support:

- **Investing with SDGs Outcomes** – supporting the identification of data, metrics and disclosures that enable investors to track progress against outcomes.
- **Policy engagement** – providing a consistent view on the data, metric disclosure requirements and gaps for policymakers and regulators as they develop their disclosure and reporting frameworks.
- **Engagement with corporates, standard setters, and stakeholders** – providing a framework to understand the possible spectrum of data needs of investors and how these relate at the strategy, portfolio, and product level.

This paper does not represent the views of our signatories but is the first step in the process of collating a range of opinions to further develop PRI’s Driving Meaningful Data framework. We welcome feedback on ideas and concepts in this paper from signatories, policymakers, standard setters, and industry groups.

**Author:**
Morgan Slebos, Director of Sustainable Markets, PRI

**Contributors:**
Nathan Fabian, Chief Responsible Investment Office, PRI
Shelagh Whitley, Director of ESG and SDG Outcomes, PRI
Alyssa Heath, Head of UK and European Policy, PRI
Gail Boucher, Senior Specialist Driving Meaningful Data, PRI
APPENDIX

ESG RISK AND OPPORTUNITY

Asset level
Asset-level data is information about physical and non-physical assets tied to company ownership information. At present data on corporate assets may only be disclosed piecemeal, incomplete, or long after the fact. Asset-level data is particularly important in understanding financial risk and opportunities associated with environmental physical, transition, and liability risks.

Example: Infrastructure uses data on physical climate risks – i.e. assessing the exposure of individual assets in different locations to different climate-related hazards or under different climate scenarios and its profile relative to the country / region climate goal.

Economic activity
Economic activity data relates to the ESG risk and opportunities associated with the production of specific goods and services. This includes the inputs that lead to the manufacture of a good or the provision of a service. It provides the information to understand the specific ESG issues associated with the production and comparability of similar economic activities within and between companies and portfolios.

Example: CO2 emissions per tonne of cement produced. 50% of cement emissions are often considered difficult to cut since this CO2 is released by a chemical reaction - it cannot be eliminated by changing fuel or increasing efficiency. A further 40% of cement emissions come from burning fossil fuels to heat kilns to the high temperatures needed for the calcination process. The last 10% of emissions come from fuels needed to mine and transport the raw materials. Cement emissions depend largely on the proportion of CaCO3 used in each tonne of cement – releasing CO2. The type of fuel and efficiency of equipment used during production also have an impact.¹²

Company level
Disclosure of ESG metrics and management approach which are financially material to the organisation. This includes recent and past performance as well as forward looking statements. The purpose of the data is to understand the financial implications of sustainability to the entity. With this lens, organisations report on all the relevant and pressing ESG metrics that will impact its financial condition, how these risks and opportunities are managed, and targets by which progress in managing or adapting to issues can be tracked.

Example: Workforce health and safety disclosures on incident rates, fatality rate, and near miss frequency rate. Additional metrics would include discussion of the management of accident and safety risks and long-term health and safety risks.

Example: Under TCFD companies disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

**Sector level**
Disclosure of ESG issues that are financially material to the organisation’s operating sector. ESG issues tend to have different consequences depending on the context in which they arise, varying from one industry to another, meaning that each sector will have its own unique exposure to ESG risks. Specific disclosures by industries and sectors relating to sustainability are important in understanding financial risk and opportunities associated with large-scale environmental and social transitions. Metrics for sectors should be consistent to allow aggregation from the company-level and comparability across organizations and jurisdictions.

Example: In the services sector, a hotelier’s most financially relevant ESG factors may be energy, waste, and water management; ecological impacts, labour practices, and impact of climate change.

**Country level**
Aggregation of asset, economic activity, company, and sector level disclosures that provide the assessment of a wide range of ESG factors in a granular, comparable, and systematic way. It provides regulators and investors with a better view of systemic risks, where financial regulators are better able to maintain stability and address systemic risk in financial markets.

Example: The central banking Network for Greening the Financial System (NGFS) is examining the use of value-chain, activity, firm-level, and sector classification data to analyse transition and policy exposures in the financial system. This includes carbon intensity per sector, emissions data by firms and intensity of activities.\(^\text{13}\) Table 2 cites the De Nederlandsche Bank (DNB) energy transition risk stress test for the financial system of the Netherlands.\(^\text{14}\)

---

\(^\text{13}\) NGFS, Guide for supervisors integrating climate-related and environmental risks into prudential supervision; https://www.ngfs.net/sites/default/files/media/documents/ngfs_guide_for_supervisors.pdf

SUSTAINABILITY PERFORMANCE

Asset level
Asset level data provides asset specific performance information, particularly in carbon-intensive industries, relating to their use in an organisation’s economic activities, products, and services. This data is important in considering the economic lifetime of those assets, how they factor into economic activities as inputs and whether they have a substantial long-term positive or negative impact on sustainability goals.

Example: Direct emissions from the assets of an organisation or under their control. E.g. emissions from waste incineration Metric tons (t) CO2 scope 1.

Economic activity
Economic activity data serves as the basis from which investors can assess the performance of activities and sectors and understand their contribution to sustainability outcomes. Using standard classification systems (NACE, ISIC) as a framework to capture all economic sectors, and hence almost all economic activities, common performance metrics can be used to assess how activities undertaken by companies and funded by investors, are consistent with sustainability outcomes. Importantly, it enables performance thresholds\(^{15}\) to be set (either of a quantitative or qualitative nature) and activities can be differentiated between those which reduce harm (for example, incremental emissions reductions) and those which are consistent with the sustainability goals or targets.

Example: Passenger cars with tailpipe emissions intensity of less than 50g CO\(_2\)/km are considered to make a substantive contribution to climate change mitigation. This includes zero tailpipe emissions cars (hydrogen, fuel cell, electric vehicles). To avoid significant harm to other environmental objectives, the production facility should manage material physical risks on a best effort basis, avoid undermining others’ adaptation efforts, and ensure compliance with existing EU regulation on hazardous waste and end of life treatment of vehicles (circular economy) and pollution.

Company
Company-level performance disclosures should describe their sustainability performance (such as GHG emissions, water usage, energy usage) in line with national, regional, or global goals. Investors want to understand how company targets align with these goals and should be reported on a consistent basis to understand relative performance – i.e. absolute or intensity based, time frames

\(^{15}\) Threshold - magnitude or intensity that must not be exceeded for a specific global, national or sector specific targets and goals
over which the target applies, base year from which progress is measured, and key performance indicators used to assess progress against targets.

Example: CA100+ benchmark requires reporting on the following basis:
- [scope 1 & 2] Long-term (2050) targets aligned with Paris NDCs/2DS/B2DS/1.5C (intensity/absolute depending on sector/scenario)
- [scope 1 & 2] Medium-term (2030) targets aligned with Paris NDCs/2DS/B2DS/1.5C (intensity/absolute depending on sector/scenario)

**Sector level**
Sector-level performance data provides the important link between the underlying holdings in portfolios and the real economy – based on the data being an aggregation of economic activity rather than company reported performance. Sectors, given their various roles in the economy, contribute to sustainability goals in varying ways and rates (e.g. aviation and buildings have different sequencing in transition and thus varying rates of decarbonization per unit of production). Investors are coalescing around intensity-based and the need for distribution metrics, which will allow for the tracking of sector performance relative to goals.

Example: United Nations International Maritime Organization (IMO) collects fuel oil consumption data for ships of 5,000 gross tonnage and aggregated data is reported to the flag State and used to inform debate on the industry’s reduction of GHG emissions and consistency with the Paris Agreement Temperature Goals.

**Country-level**
Country-level sustainability performance data relates to the sustainability intensity and distribution metrics used by national/regional authorities to track and monitor current progress towards goals and performance levels required to meet them. Often this is an aggregation of asset, economic activity and sector level and enables national/regional authorities to track and monitor overall progress towards goals, calibrate performance levels based on progress and identify which sectors are contributing, either positively or negatively, toward sustainability outcomes (for example, major carbon emitting sectors).

Example: The UK Committee on Climate Change reports to Parliament on progress made in reducing greenhouse gas emission, revising carbon emission budgets and overall progress toward Net Zero by 2050.
SOCIAL GOALS AND PLANETARY THRESHOLDS

Company
Entities set targets and policies demonstrating how their activities relate to sustainability objectives at the country and/or global level, e.g. national climate objectives or the SDGs.

Example: The Science Based Targets initiative (SBTi criteria 4.1) sets a level of ambition for companies using two temperature goal options, 1.5 degrees and well-below 2 degrees for scope 1 and scope 2 emissions reductions.

Sector level
To enable the measurement of sector sustainability performance, sector-level allocations or budgets set and applied consistently across jurisdictions, recognising the non-linearity and policy dependent nature of sector transition pathways. The UN Net Zero Asset Owner Alliance’s recent call for comment on carbon neutrality and methodology highlights that in the absence of readily available targets, the Alliance needs to develop one which allows for the identification of sector-based intensity thresholds that would align with net-zero by 2050.16

Example: Sectoral decarbonisation approach (SBTi). The global carbon budget is divided by sector and then emission reductions are allocated to individual companies based on its sector’s budget. The Sectoral Decarbonization Approach is based on the Beyond 2°C scenario (B2DS) developed by the International Energy Agency (IEA) as part of its publication, Energy Technology Perspectives (ETP) 2017 (IEA, 2017).

Country
Policy commitments and goals (and date where relevant) set by national/regional authorities to guide their response to sustainability challenges. These allow investors and companies to set their sustainability objectives (e.g. net zero) and enable tools such as taxonomies to calibrate the sustainability performance of economic activities. Where relevant these should align with international agreements to provide clarity and consistency in the market.

Example: The EU has made a commitment to the Paris Agreement goal of well below 2 degrees and approaching 1.5 degrees and its contribution to net-zero emissions by 2050. The EU Taxonomy uses this to specify clear environmental goals and explain their alignment with international environmental agreements. GHG emissions and net-zero emissions by 2050 calibrate the likely environmental performance of covered economic activities and are reflected in the performance thresholds.

**Global**

Overarching international agreements or goals that cover multiple jurisdictions and are widely accepted as encapsulating social goals and planetary thresholds – e.g. the Paris Agreement, the SDGs, and the UN Guiding Principles on Human Rights. They provide the frameworks through which social norms and planetary boundaries are articulated as targets and provide thresholds by which investors can use metrics to track progress – at overall SDG goals level and at the individual goal and specific indicator level.

Example: SDGs

**Goal 11. Make cities and human settlements inclusive, safe, resilient, and sustainable**

SDG target 11.1 By 2030, ensure access for all to adequate, safe, and affordable housing and basic services and upgrade slums

SDG indicator 11.1.1 Proportion of urban population living in slums, informal settlements, or inadequate housing.