Data ‘Gaps’ are defined as instances where reporting frameworks exist, and datasets are requested and collected – but they are not always adequately populated.

Data ‘Holes’ go beyond Gaps, and represent instances where there are limited robust frameworks, guidance, or best practices, and where at times there is uncertainty about what exact data would be needed or most useful.

Identifying and mitigating ESG Data Gaps and Holes would not only allow market actors to fulfill their upcoming ESG reporting obligations more accurately but would also facilitate their wider efforts in financing the transition to a sustainable economy.

The following represents the first step in FoSDA’s Data Council work, setting out the findings of its initial ESG data mapping.
01 Principle ESG Data Gaps & Holes – initial findings

While the Data Council members acknowledged the continuous improvement of data reporting and availability, they also found general consensus that some critical ESG data points are missing. The results of FoSDA’s initial data mapping indicated that the missing data comes in the form of both Gaps and Holes. This points to a general alignment of industry perceptions across different data providers when considering the challenges of collecting ESG data. The review included data that contributed to all components of ESG: environmental, social and governance.

Regarding **Data Gaps** the most critical missing data points apparent to the Data Council included:

- **Energy consumption and production by source**
  These data points are key components of new emerging reporting frameworks, such as the EU Sustainable Finance Taxonomy and Sustainable FinanceDisclosure Regulation (SFDR), and therefore constitute an important Data Gap.

- **Emissions of GHG and other ozone depleting substances**
  While the industry has gained maturity on GHG emissions reporting, data remains inconsistent and/or missing and therefore still represents a significant Data Gap today.

- **Executive pay and board composition**
  While progress has been achieved in governance data, executive pay and board composition remain important Gaps.

- **Employee Health, Safety, Wellbeing and Benefits**
  While critical for Data Council members and despite the emergence of reporting frameworks on social indicators, data availability and accuracy on this issue presents an enduring challenge and an important Data Gap to call out.

- **Economic disclosure**
  There is inadequate reporting on key economic or financial information, such as revenue breakdown per activity, although it was noted that such information is set to become a critical component under frameworks such as the EU Taxonomy.

Regarding emerging topics that society is attempting to tackle and for which members of the Data Council are keen to improve data accessibility, key elements flagged as **Data Holes** include:

- **Biodiversity and Nature**
  An emerging theme not yet properly captured in existing reporting frameworks, meant to either identify company activities that would negatively affect nature or a company’s policy on biodiversity protection.

- **Supply chain reporting**
  Despite seeing an uptake in interest, this issue presents challenges when formulating indicators and achieving standardized reporting, particularly across a company’s extended supply chain.

Beyond these key Data Gaps and Holes, Data Council members also identified challenges related to clear-cut methodologies and approaches for calculating **forward-looking metrics**, for example GHG emission targets.
02 More Gaps than Holes

Reflecting constant improvement, as well as difficulty in defining Holes

While contemporary analysis of the Data Council found more examples of ESG Data Gaps than Holes, this imbalance can partially be put down to the difficulty in identifying Data Holes – they are less mature in their development as points of reporting, as well as their use in regulatory work on guidance, metrics and standards. As the field of ESG investing and reporting develops, and focus shifts to include new risk areas (e.g. biodiversity), more ESG Data Holes are expected to become clearer.

In parallel, the volume of Data Gaps compared to Holes also demonstrates the continuous improvement of data reporting, supported both by the development of recognized frameworks and the significant increase in corporate disclosure. The Data Council members acknowledge that the same analysis conducted a decade ago would have led to a much more balanced distribution between Data Gaps and Holes, and that sustained improvement should be expected and strived for in the future.
## 03 Domain Discrepancies

ESG includes information relating to environmental, social and governance domains. Data volumes and categories are rapidly increasing in all of these fields, and the FoS Data Council combined knowledge from all of its members to identify subtopics of ESG that exhibited Gaps and Holes across the industry.

<table>
<thead>
<tr>
<th>E/S/G</th>
<th>Subcategory</th>
<th>Underlying datapoints</th>
<th>Presence of Gaps</th>
<th>Presence of Holes</th>
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<td>Biodiversity</td>
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<td>Waste &amp; Circular Economy</td>
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*Source: FoS Data Council*
FoSDA’s Data Council analysis highlights the difference in the maturity of the environmental (E) and governance (G) domains compared to social (S) data. There is a significantly larger presence of Data Gaps compared to Holes in the E and G domains and the analysis showed far more Data Holes in the social domain, both numerically and as a percentage of other social-related data points mapped. This is further illustrated in the table below.

This discrepancy reflects in part a larger presence of recognized frameworks covering the necessary environmental and governance data, while in the social domain multiple Data Holes remain.
Further analysis of the Data Gaps revealed two additional trends:

**Regional and sectoral differences should be addressed**

- The Data Council noted that regional and sectoral divergences in ESG data availability and accuracy exist, driven by differences in regulatory regimes for ESG disclosure and the relative maturity of company reporting practices across jurisdictions.
- The disparate nature of outcomes and challenges relating to different rules and guidance along these dimensions reinforces the need to harmonize reporting with existing well-recognized reporting frameworks (e.g., Value Reporting Foundation, TCFD, GRI).

**Standardized data and disclosure practices to be enforced by regulators and supported by technology**

- Investors need granular, standardized ESG data and insights, while the ESG data available today is vast and takes various forms. Standardized data and disclosure practices are needed, and technology will likely play a key role in capturing this data and mitigating issues currently seen by data providers when collecting, aggregating, and assessing ESG data. Further regulatory guidance setting out standardized data and disclosure practices would be welcome in this respect.
Data Holes often mirror emerging sustainability challenges that society is placing greater emphasis on.

A key example of a domain within which Data Holes abound is biodiversity and nature, where market participants are increasingly concerned with measuring and managing natural capital, biodiversity loss and associated risks. However, clear metrics that allow data to be accurately captured and then compared are needed.

As a follow up to FoSDA’s publication in December 2020 identifying biodiversity as an example of a Data Hole. It is important to note that a comprehensive set of metrics for biodiversity has not yet been agreed or widely used across the industry. The development of these metrics may give rise to further Data Gaps the industry will need to focus on. The advent of the Taskforce for Nature-related Financial Disclosure (TNFD) earlier this year could help to shape the metrics, requirements and therefore data needs going forward.

Other examples of data points suffering from this challenge include:

- **Asset location**, a key variable when measuring the impact of sustainability challenges, such as physical climate risk or biodiversity, on a specific facility.
- **CapEx and OpEx per activity** for firms.
- **Supply chain assessments** in light of regulatory activity expanding the scope of firms’ responsibility across borders.

Holes were also identified in specific industry verticals, which will require deeper analysis. As an example, scope 1, 2 and 3 emissions generated by real estate assets are a specific Data Hole agreed by the Data Council as an output of initial mapping.

Data Holes become particularly relevant when required to comply with regulatory requirements. This is the case with some elements of the EU’s Taxonomy. Activity-level datapoints, including GHG emissions, are examples of Data Holes that would be used by the industry to show compliance with the taxonomy. Early identification of where the Data Holes exist will help to smoothly onboard other taxonomies under development across the globe and identify where challenges exist for financial institutions.

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**A look at FoSDA’s Forward Looking Data Workstream**

Forward looking data is a unique data set needed to make sustainable finance decisions. This data differs from historical data – which is the dominant form of issuer and corporate disclosures – in that it cannot be independently verified through audit. By its nature, forward looking data has risks embedded through using extrapolation, estimation and predictions in generating the datapoints.

Data Gaps and Data Holes also exist in Forward Looking Data. This is most evident in Environmental data as compared to Social and Governance data sets.

For more detail and recommendations and definitions regarding Forward Looking Data, please see the FoSDA website.
Initial Takeaways

From these initial findings, three key takeaways for market actors and policymakers include:

Adoption of a globally consistent reporting standard would provide a clearer starting point for ESG data providers to base their analysis and research.

Inconsistent reporting standards across jurisdictions and market players have significantly stifled the credibility and comparability of data. Because of this, stakeholders should work towards the creation of a globally agreed upon reporting framework, based on existing frameworks and best practice to ensure international comparability and applicability. Existing framework should also address identified Data Holes as standards around these emerging topics are urgently needed. Examples of regulatory developments underway from the International Financial Reporting Standards (IFRS) Foundation or EU-led initiatives – although not covering the same scope of data – will likely result in more consistent disclosure requirements. However, these initiatives must be supported on a broader international scale.

Data Gaps exist but they are not all of the same importance.

Market participants should agree and focus on the most critical Data Gaps (depending on the location of their activity, their industry, for example). Such an approach would support the development of a virtuous cycle that reinforce market confidence in ESG analytics. The Data Council members will share their identification of the most critical current Data Gaps from a data aggregator point of view to support such efforts.

Progress monitoring of the evolution of Data Gaps and Holes would be valuable.

To ensure a clear view of how issues relating to ESG data develop over time, as well as to inform stakeholders where urgent action is required (in cases where improvement is not seen). FoSDA’s Data Council will consider the usefulness of conducting this exercise on a regular basis, possibly annually, so as to provide frequent updates to the market on the relative improvements in ESG Data Gaps and Holes.

Next steps

Based on this first step in FoSDA’s Data Council work and its initial ESG data mapping that has been shared in this document, we have identified three key short-term actions to pursue our work:

**STEP 01**
Share our initial ESG data mapping with market participants.

**STEP 02**
Propose non-exhaustive list of metrics that could address identified Data Holes.

**STEP 03**
Detail existing framework taxonomy in the light of identified Data Gaps.
About FoSDA

The Future of Sustainable Data Alliance is looking to answer the question “What data do investors and governments need to deploy capital sustainably and in line with the requirements of regulators, citizens and the market now and in the future?”

Investors need reliable, decision-ready data to confidently invest more in sustainable economic activities – and FoSDA looks to act as a thought leader with the view to ensure the availability of the data needed to accurately inform and increase capital raising needed to tackle global environmental and social challenges.

About the Data Council

FoSDA’s Data Council was established in February 2021 and brings together ESG data providers in order to gather market expertise from the ESG/sustainability data space. We believe that financial markets have a critical role to play to enable and catalyze the investment needed mass decarbonization of the global economy and to support the optimization of capital towards companies, countries and projects that drive sustainable growth.

The Data Council members believe that there are areas that we can solve together, given our expertise as data providers. In undertaking our work, we can also point to areas that are difficult to address without regulatory intervention. In this way we can bring a unique contribution to the climate agenda.