PLATFORM ON SUSTAINABLE FINANCE

Estimation and data modelling techniques that can be used under the EU Sustainable Finance Framework

January 2025

This final report summarizes the discussions within the Estimates Working Group of the Platform on Sustainable Finance (the Platform, or PSF) and possible recommendations to improve usability. It does not constitute a Platform position on any of the issues identified or solution proposed. Not all participants agreed with stated positions and when possible, all solutions are presented in this report.

DISCLAIMER:

This background report is not an official European Commission document, nor does it reflect an official European Commission position. Nothing in this document commits the European Commission nor does it preclude any policy outcomes.

This report represents the discussions held in the Estimates Working Group. However, consensus may not have necessarily been reached on all details, nor does it represent the individual views of member institutions. The views reflected in this report are a summary of the views presented by the experts only. This report does not reflect the views of the European Commission or its services.

The acknowledgements, recommendations, and options below are compiled under the aegis of the Platform on Sustainable Finance and cannot be construed as official guidance by the European Supervisory Authorities (ESAs). As a result, the views and recommendations do not purport to represent or anticipate any future official guidance and views issued by the European Commission and the ESAs, which may differ from the contents of this report.

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Executive Summary

This Working Group paper examines data estimation and modelling techniques that could be applied to the Sustainable Finance regulatory framework in the EU. This paper draws on the data requirements within the Taxonomy Regulation, Benchmark Regulation and Sustainable Finance Disclosures Regulation (SFDR). The objective of this paper is to support the Platform on Sustainable Finance Sub-group 1 in making recommendations to the European Commission on the use of estimated data within the scope of the Taxonomy Regulation's 2024 review period.

- This paper explores options to determine if a company, a company's activity or a use of proceeds financial product can be estimated to be Taxonomy-aligned.
- This paper explores the pros and cons of estimation techniques that can be used to derive alignment to the Taxonomy or compliance with SFDR Principle Adverse Impact (PAI) indicators.
- This paper makes no recommendations on the preferred approach.
- This paper does not cover the use of estimation models for sovereign investment or for derivative products.
- This paper bases its research on publicly available information, disclosed by companies or by financial products.

The working group recommends that any guidance on appropriate estimation methods should also be **targeted towards auditors**, to ensure an equal treatment and acceptance of certain practices to enable taxonomy and SFDR adoption across stakeholders (financial institutions, data vendors, non-EU and EU companies).

In providing research related to the Taxonomy, this paper follows the Taxonomy design principles of eligibility, substantial contribution, do no significant harm and minimum safeguards; treating each step in the assessment process separately with regards to estimation approaches.

This paper embeds two principles:

- reported data from companies should be prioritised, following the previous recommendations from the Platform;
- estimation approaches for technical screening criteria should be consistently applied to both substantial contribution (SC) and to do no significant harm (DNSH), given the homogeneity between the two.

This paper explores the balance between setting standards that ensure taxonomy or PAI estimation is made to the same environmental integrity of the test and where advantage is not given to companies who have no disclosure obligation under the EU regimes. However, this paper also explores the treatment of no data or the inability to adequately proxy to the technical screening criteria. Whilst a conservative approach would be to assume the activity fails when there is no proxy, this will result in low EU Taxonomy alignment for companies and a small investible universe for financial market participants, which is not helpful in directing capital flows towards climate and environmental outcomes. A more aggressive approach may assume the activity passes when there is no proxy, which is at risk of overstating EU Taxonomy alignment. A trade-off will be needed between these two goals in the final set of recommendations.

Across the Taxonomy Regulation technical screening criteria are predominantly qualitative (88% of DNSH); for the 12% that are quantitative, 72% of those do not reference any standards. That means only 3% of criteria are quantitative and linked to a standard. In other words, only 3% of the criteria can have data that can be consistently collected and transformed to build an accurate assessment. Everything else will require assumptions, proxies, or a mix of the two.

Sometimes, despite implementing all appropriate procedures, an undertaking cannot address certain risks or eliminate certain negative impacts. This does not necessarily mean that the undertaking does not comply with the testing requirements, provided that the undertaking has clearly disclosed these potential impacts and explained what it did to identify, prevent, mitigate or remediate them and why it could not eliminate certain impacts. In fact, it is recognised that there can be instances where, despite reasonable due diligence measures, undertakings may still not be able to prevent, cease or mitigate adverse impacts when it comes to the adverse impacts in the undertaking's value chain. Recommendations on estimation or proxy approaches need to be mindful of binary pass/fail outcomes that do not consider the value of due diligence based processes.

Practices whereby 'auto-aligned' activities (e.g. renewable energy activities such as power generation from wind energy that have no substantial contribution criteria) are considered aligned without assessing DNSH and minimum safeguards (MSS), are deemed insufficient under current regulatory guidance. This paper asserts the need for all three Taxonomy tests (SC, DNSH and MSS) to be performed in order to produce sufficient alignment conclusions.

From observed market practices, it is clear in financial product and financial market participant reporting that a conservative approach to both the Taxonomy and to SFDR disclosures is being taken. The Platform should be mindful that creating recommendations on estimation models, where very few international companies are deemed to have met the EU standards (under the Taxonomy and SFDR) could result in low adoption. For any estimation models to be deemed adequate by the Platform or by the Commission, some refinement of Technical Screening Criteria and advice related to making EU Directives comparable to international standards is needed.

<table>
<tr><th></th><th>Recommendations</th></tr>
<tr><td>Taxonomy eligibility</td><td>Is scoped to activities contained in the Climate and Environmental Delegated Acts only.
Uses financial statements made by the company as the basis for estimating eligibility.
Provides a clear, publicly disclosed mapping table of the Taxonomy activity to the classification system used.
Applies the precautionary principle.</td></tr>
<tr><td>Taxonomy substantial contribution (SC) and "do no significant harm" (DNSH) criteria</td><td>Is scoped to activities contained in the Climate and Environmental Delegated Acts only.
Uses financial and non-financial Statements and Reports made by the company as the basis for estimating Turnover or CapEx KPIs.
For lending activities, the prospectus and/or impact and allocation report of the Use of Proceeds instruments.
Provides a clear, publicly disclosed mapping table of the Taxonomy testing criteria to the pass/fail determination in the estimation model.
Applies the precautionary principle.
If a company does not disclose the underlying data needed for testing, it cannot be deemed to pass, unless the Commission is willing to accept a due diligence-based approach to testing.</td></tr>
<tr><td>Minimum safeguards (MS)</td><td>Criteria are applied to a legal entity and not to a specific activity or project.
Estimation models should seek to determine social violations, without a suitable plan to remediate the issues identified.
Uses financial and non-financial statements and reports made by the company as the basis for estimating compliance.
Can use third party sources for controversy and adverse media to screen for violations, consisting of final convictions/judgments, or listing in either the OECD database of specific instances or the Business and Human Rights Resource Centre, but compliance ought to be based on due diligence.
Provides a clear, publicly disclosed mapping table of the minimum safeguard testing criteria to the pass/fail determination in the estimation model.
Applies the precautionary principle.
Should form part of a due diligence-based process: identify risks, take action, monitor and improve, transparency and remediation.</td></tr>
</table>

PART 1: Introduction

1.0 Scope of this paper

This working group paper will support the Platform on Sustainable Finance (PSF) in their efforts to develop consistent and usable advice related to the use of estimates and proxies for the Taxonomy and SFDR PAI reporting requirements. This report will be provided to the Platform's sub-group 1, for consideration related to the use of Taxonomy estimates in financial disclosures under article 8 and financial product disclosures under articles 5 & 6 of the Taxonomy Regulation.

This paper draws upon pre-existing work from the first Platform on Sustainable Finance, the European Commission and the ESAs. It is intended to feed into the development of advice the Platform will provide in its usability paper during the 2024 mandate.

Estimation techniques laid out in the paper apply both to EU and non-EU activities. The paper provides some considerations related to activities where Technical Screening Criteria (TSC) are not applicable outside the EU but most of the pros/cons do not make that distinction.

The output of this working group is a set of pros and cons when considering estimation techniques across the Taxonomy and SFDR, with respect to data modelling. The output of this report could be subject to adjustment as its recommendations are tested, implemented, improved or rejected. The considerations below are compiled under the aegis of the Platform on Sustainable Finance and cannot be construed as official guidance by the European Commission or by the ESAs. As a result, the views and recommendations do not purport to represent or anticipate any future official guidance and views issued by the ESAs which may differ from the contents of this report.

The advice in this paper follows the guiding principles under the Platform's mandate:

Table 1: Platform Principles

Principle	Description/Key points
Principle of Relevance	Indicators ought to be meaningful and well capture the positive (SC) or adverse (DNSH) impact. The proposed method to calculate the indicator ought to be accurate & science based.
Principle of Consistency	Each company subject to Taxonomy reporting, each auditor or assessor of Taxonomy-alignment, should arrive at the same conclusion for the same activity without subjective judgement.
Principle of Proportionality	The reporting burden ought to be evenly distributed among the different players taking into consideration their different capabilities and responsibilities.
Principle of Applicability	Technical screening criteria ought to be easy to estimate, or part of an international reporting standard (or a proxy should be available), and they should allow for comparability. This should include non-EU and/or non-/not-yet CSRD investments (e.g. SMEs).
Principle of Precaution	Every disclosure should be designed in such a way that it shall not overestimate positive nor underestimate negative information. This principle is considered overarching to protect the environmental integrity of the test.

1.1 Pre-Existing Advice provided on the use of estimates in the Taxonomy

This working paper was designed within the context of pre-existing Platform, European Commission and ESAs advice. This paper discusses the points raised and a range of proxy or estimation modelling approaches that could support wider Taxonomy adoption and reporting for non-EU firms or those not subject to mandatory reporting obligations under the EU Taxonomy Regulation.

1.1.1 Article 8 of the Taxonomy Regulation[1]

- Subject to the 2024 review period in the Disclosure Delegated Act – Taxonomy estimates may be used for DNSH
- Applicable for international companies not subject to NFRD/CSRD reporting, starting in 2025
- A company otherwise should demonstrate compliance with SC and minimum safeguards (i.e. cannot use underlying estimates to determine this)

Article 7 (7)

Financial undertakings may use estimates for assessing the Taxonomy-alignment of their exposures to undertakings referred to in paragraph (6), points (e) and (f) (third country), where those financial undertakings are able to demonstrate compliance with all criteria of Article 3 of Regulation (EU) 2020/852, except with the criteria laid down in Article 3, point (b) (DNSH) of that Regulation. Financial undertakings shall formalise, document and make public the methodology upon which such estimations are based, including the approach and research methodology, the main assumptions and precautionary principles used. Financial undertakings shall disclose:

a) *the proportion of Taxonomy-aligned exposures based on estimates separately from their key performance indicators disclosed pursuant to this Regulation;*
b) *the measures taken and the period of time necessary to demonstrate compliance with the criteria laid down in Article 3, point (b) of Regulation (EU) 2020/852 (DNSH)*

1.1.2 Articles 5 & 6 of the Taxonomy Regulation

- Report "how and to what extent" a financial product aligns to the Taxonomy
- Product disclosures are permitted to use non-NFRD and non-CSRD companies (those who won't self-report under the Taxonomy) in Taxonomy-alignment metrics

DIRECT REGULATORY REFERENCES

- Concept of estimates across the EU Sustainable Finance framework covered in ESMA's latest guidance[2]
- **COMMISSION DELEGATED REGULATION** - supplementing Regulation (EU) 2019/2088 (SFDR)[3]

Article 15 (3) (b)

"where information about the degree to which the investments are in environmentally sustainable economic activities is not readily available from public disclosures by investee companies, details of whether the financial market participant obtained equivalent information directly from investee companies or from third party providers;"

Article 17 (2) (b)

for other investee companies, equivalent information obtained by the financial market participant directly from investee companies or from third party providers.

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021R2178
[2] https://www.esma.europa.eu/sites/default/files/2023-11/ESMA30-1668416927-2548_Note_Use_of_estimates_and_equivalent_information.pdf
[3] https://eur-lex.europa.eu/eli/reg_del/2022/1288/oj

- **Commission Staff Working Document**

Measure 4 > Clarification on the use of estimates to assess the taxonomy alignment of companies out of the scope or not yet reporting under the Taxonomy Regulation for disclosures under the SFDR.[4]

- **Commission Advice (June 2023)**

The Commission has clarified that the use of complementary (i.e. additional) assessments and estimates for companies not in scope or not yet reporting under the CSRD/Taxonomy Regulation is permitted. The use of estimates is only permitted in cases where FMPs cannot reasonably access information about economic activities carried out by undertakings that are not reporting (or not reporting yet) under the Taxonomy Disclosures Delegated Act, such as unlisted SMEs. This clarification was provided in the SFDR Q&A published in April 2023.[5] The aim is to simplify the disclosure obligations and alleviate burdens on both companies and FMPs when facing difficulties in accessing sustainability data.

The use of estimates can help market participants in using taxonomy-alignment metrics during the initial years of phased-in application of the Taxonomy Disclosures Delegated Act when such information is not available. In addition, the Commission will assess the feasibility of issuing guidance to stakeholders on how to construct robust and reliable taxonomy estimates.

- **Consolidated Q&A on SFDR[6]**

To address potential data gaps for companies which either are not in scope or do not yet report under the CSRD/TR the Commission clarified that the use of complementary assessments and estimates for such companies is permitted at product level. The use of estimates is only permitted where FMPs cannot reasonably access information about economic activities carried out by those undertakings. The Commission explains that in exceptional cases and only for economic activities for which complete, reliable and timely information could not be obtained, FMPs are allowed to make complementary assessments and estimates on the basis of information from other sources. The reasons for these assessments and estimates and the basis for their conclusions should be clearly explained. These estimates should relate to limited and specific parts of the data and produce a prudent outcome.[7]

2.4 Overview of the concepts of estimates and equivalent information

17. The following table aims at providing a comparative overview of the concepts of equivalent information and estimates under the SF framework.

	Taxonomy Regulation (TR)	**Sustainable Finance Disclosures Regulation (SFDR)**	**Benchmarks Regulation (BMR)**
Which stakeholders may apply the concept of estimates / equivalent information?	The concept of 'estimates' is applied by financial undertakings which are required to publish a non-financial statement.	FMPs that fall within scope of the SFDR[27] may apply the concepts of 'equivalent information' and estimates in specific situations. Equivalent information is data received directly from investee companies or third parties in relation to investments in economic activities that are environmentally sustainable[28]. Estimates relate to data on PAI indicators that were obtained by carrying out additional research, cooperating	The concept of estimates is relevant for benchmark administrators, including administrators of EU Climate Transition Benchmarks ('CTBs') and EU Paris-aligned Benchmarks ('PABs').

[4] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023SC0209
[5] https://www.esma.europa.eu/sites/default/files/2023-05/JC_2023_18_-_Consolidated_JC_SFDR_QAs.pdf
[6] Idem.
[7] Idem Q&A VII.11. It is also worth noting that the ESAs have asked stakeholders for views regarding some criteria for estimates in the JC Consultation Paper on the review of the SFDR Delegated Regulation regarding PAI and financial product disclosures (Ref.: JC 2023 09 | 12 April 2023) see Questions 36 - 37 on page 33.

Figure 1: Extract from the ESMA Consolidated Q&A Guidance[8]

- **Benchmark Regulation – Guidance on Paris Aligned Benchmark exclusions**[9]

Guidance provided on the use of the Taxonomy's definition of harm was included in legislation before the Do No Significant Harm (DNSH) screening criteria were finalised in the Taxonomy Delegated Acts. The benchmark regulation makes reference to applying an assessment of harm at company and not activity level. There is no guidance to the market on how to convert activity level assessments into a company level proxy. The assumption, therefore, would be that if any Taxonomy-eligible activity does not yet meet the DNSH criteria then the company should be excluded from the benchmark. There is no assessment requirement on the Taxonomy non-eligible activities of the company beyond those laid out in article 12(1).[10]

Article 12 (2)

Article 12(2) of the Paris-aligned Benchmark Regulation Administrators of EU Paris-aligned Benchmarks shall exclude from those benchmarks any companies that are found or estimated by them or by external data providers to significantly harm one or more of the environmental objectives referred to in Article 9 of Regulation (EU) 2020/852 of the European Parliament and of the Council [EU Taxonomy]

Article 13 (2)

For the purposes of Article 12(2), administrators of EU Paris-aligned Benchmarks shall comply with the following requirements:

a) administrators of EU Paris-aligned Benchmarks that use estimations that are not based on data provided by an external data provider shall formalise, document and make public the methodology upon which such estimations are based, including:
   - *(i) the approach and research methodology that they have used, and the main assumptions and precautionary principles underlying those estimations;*
   - *(ii) the external data sets used in the estimation;*

b) administrators of EU Paris-aligned Benchmarks that use estimations that are based on data provided by an external data provider shall formalise, document and make public all of the following information:

(i) the name and contact details of the data provider;
(ii) the methodology used and the main assumptions and precautionary principles, where available;
(iii) a hyperlink to the website of the data provider, and to the relevant methodology used, where available.

1.1.3 Reporting under a non-EU domestic Taxonomy

By September 2024, over 50 sustainable taxonomies are in development worldwide, each reflecting local priorities, like Australia's focus on transitional sectors or India's emphasis on social justice.

Diverging taxonomies risk market fragmentation, increased transaction costs, and leading to potential "greenwashing" claims. To address this, the International Platform for Sustainable Finance (IPSF) promotes principles for cross-border compatibility and has worked the Multi-Jurisdiction Common Ground Taxonomy (M-CGT), a comparison of the sustainable finance taxonomies of China, the EU and Singapore. Yet, the M-CGT only

[8] Idem.
[9] eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R1818
[10] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R1818&rid=1

analysed substantial contribution criteria related to the climate change mitigation objective. It is important to extend this work to cover the other environmental objectives, DNSH and Minimum Safeguards.

The Platform encourages the European Commission, in its role as co-chair of the IPSF, to advance efforts on a Multi-Jurisdiction Common Ground Taxonomy to enhance compatibility between taxonomies. This initiative could provide a foundation for developing reliable proxies.

Lastly, given that the Platform recommends eliminating OpEx taxonomy alignment at the financial product level, limiting OpEx to a very narrow set of activities, and that reporting on OpEx is already not required by financial institutions as part of their KPIs, the Platform considers estimating OpEx unnecessary, as it will not be used by Financial Institutions (Fis) and Financial Market Participants (FMPs) in their own reporting.

1.1.4 What is an Estimate?

Estimates are often used to refer to data that has been proxied or derived from a third-party source.

For a non-financial company, the need for estimate or proxy models is recognised for some of the environmental data they report, notably for metrics like Scope 3 emissions, which look at the emissions profile of the value chain where not all companies in the value chain may themselves report Scope 1 or 2 emissions. For the purpose of Taxonomy reporting, the financial metrics (Turnover, Capex) should mirror the figures reported in the financial statement of the firm for the same fiscal period. In order to determine alignment, a non-financial company will be required to test its activities and assets against the Technical Screening Criteria (TSC) within the Taxonomy Delegated Acts. In order to do so, some key environmental metrics – like emissions, water use, and waste managed – will need to be used in order to ascertain alignment. Supplementary information like life-cycle emissions may draw on estimates or proxy data. Similarly EU companies with operations outside the EU will also need to draw on estimation techniques as they relate to compliance with EU directives for which the activity is out of scope.

Estimates can also relate to reviewing a company with no obligation to report under the Taxonomy, but where information provided by the company in their Corporate Sustainability Report could be leveraged to determine if that company has passed any of the technical screening criteria.

This working group recommend that, at a minimum, any estimates used should be at least as good as a simple baseline model. By simple baseline model we refer to, for instance, calculating intensities based on industry means.

Beyond that, estimation models should maintain proper levels of:

- Governance
- Traceability
- Transparency / Explainability
- Input coverage
- Input quality

2.0 Data Availability and Treatment

Under SFDR[11], financial market participants have to provide transparency for products (under Article 8, promoting social or environmental characteristics, or under Article 9, having sustainable investments as objectives), including reporting the Taxonomy alignment of the product. Fund reporting started in 2023, with funds classified as article 8 or 9 reporting the following minimum Taxonomy alignment values, as shown in

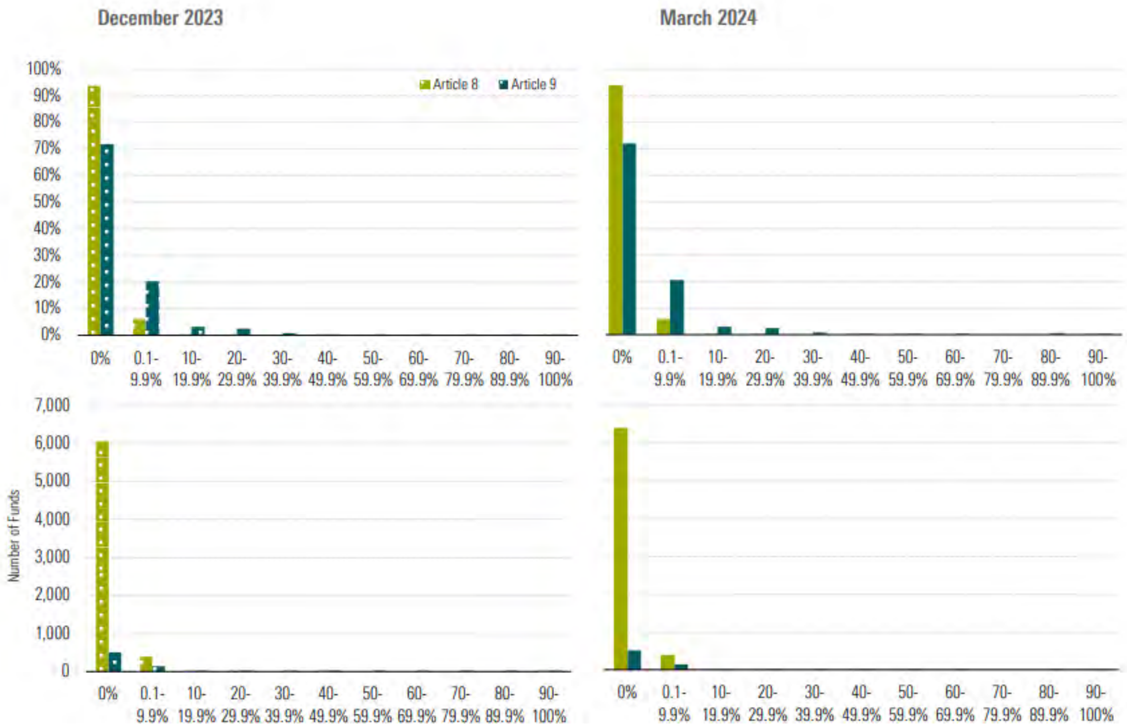

Figure 2. The first reporting occurred prior to having a full year of Taxonomy disclosed information from the underlying investee companies. The low percentage below indicates that the fund offering documents preferred a conservative, to an estimated, approach in their Taxonomy aligned disclosure.

[11] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R2088

Figure 2: Trends in Taxonomy Alignment of Funds (EET Disclosures). Source: Morningstar Direct, March 2024

Figure 2 provides the portion the minimum or planned percentage of the assets of the Sustainable Finance Disclosure Regulation (SFDR) financial instrument invested in activities that pursue an environmental objective that is invested in securities aligned with EU Taxonomy, as reported in pre-contractual documents. Referring to the Regulatory Technical Standards (RTS) under the EU SFDR, Annex II and IV.[12] March 2024 data is based on 6,807 Article 8 funds and 718 Article 9 funds that report the field. March 2024 data is based on 6,161 Article 8 funds and 635 Article 9 funds that report the field.

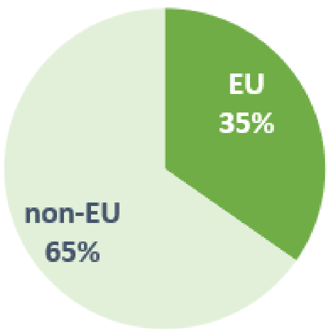

Figure 3: Average proportion of non-EU holdings in article 8 and 9 SFDR Funds. Source: Clarity AI data

2.1 Non-Financial Reporting of Taxonomy-Eligibility and Alignment

Since January 2024, non-financial companies subject to the NFRD[13] need to report eligibility to all six environmental objectives as well as alignment to the adaptation and mitigation objectives. From January 2025,

[12] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R1288&qid=1705323159538
[13] EUR-Lex - 32014L0095 - EN - EUR-Lex (europa.eu)

non-financial and financial companies both need to report eligibility and alignment to all environmental objectives and the scope expands to CSRD.[14]

Non-financial companies should disclose their values using an XHTML version of the Annex II template found in the Article 8 Delegated Act, the proportion of companies using this reporting template is shown in Figure 4. In 2023, c.1,900 non-financial companies are in scope of NFRD for reporting against the EU Taxonomy from financial year 2022.[15] Whilst there has been a gradual increase in adoption of the Annex II template, not all are delivered in XHTML format or with consistency to the requirements provided in the Delegated Act. The process of data delivery via Annex II is not robust enough yet to rely on machine readable technologies to extract the data.

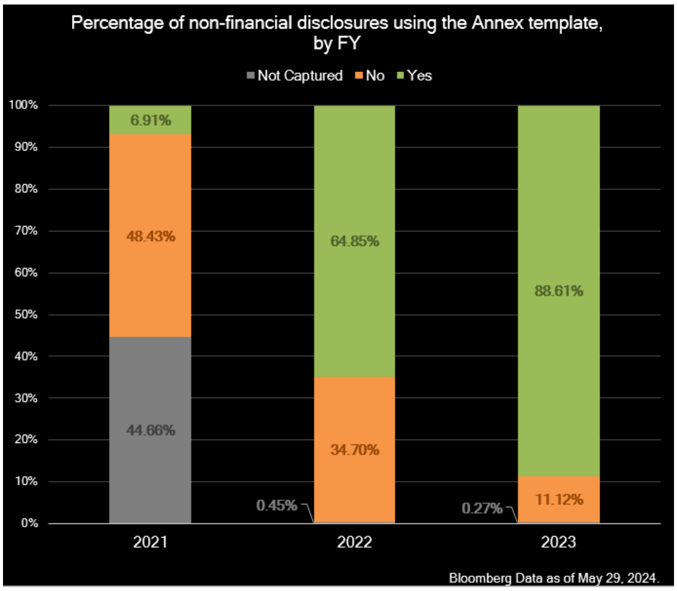

Figure 4: NFRD scoped non-financial companies reporting using the Annex II Reporting Template. Source: Bloomberg

2.1.1 Observations in Non-Financial Taxonomy Reporting from Non-EU companies

Most companies providing Taxonomy reports are domiciled in the EU, but certain international companies not subject to mandatory reporting have produced a proxy report to the Taxonomy as of 29 May 2024. The majority of disclosures come from the European region including Norway, Switzerland and Britain. However, companies in Asia, South, Central and North America and Africa have voluntarily disclosed against the EU Taxonomy, as shown in Figure 5.

[14] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0189
[15] If considering companies being added through national transposition of the Accounting Directive and NFRD, the total number of companies in scope would be about 11500. European Commission (2020). Study on the Non-Financial Reporting Directive Final Report. Page 8. Study on the non-financial reporting directive - Publications Office of the EU (europa.eu)

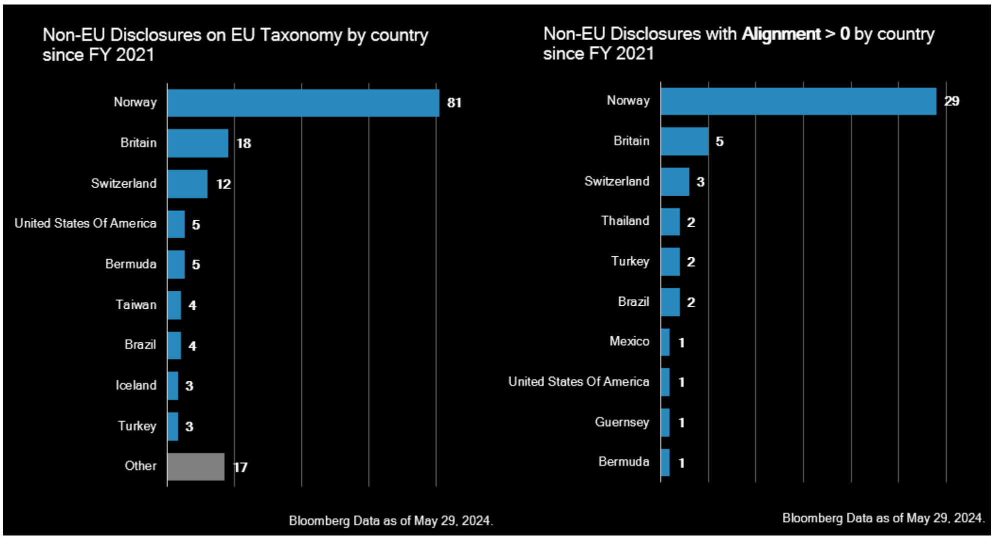

Figure 5: Taxonomy reporting by non-EU companies per Country of Domicile, Source: Bloomberg

2.1.2 Use of Estimates in Non-Financial Company reporting

2.1.2.1 General observations

The analysis of 2023 disclosures can provide empirical evidence related to which TSC are most challenging to assess, including for reasons related to the international operability of the EU Taxonomy as large EU companies often have activities outside of the EU. Figure 6 below provides an illustration of a sample of ~2000 activities that have been reported as aligned and eligible but not aligned[16], failing the DNSH criteria and in most cases the Substantial Contribution (SC) criteria as well.

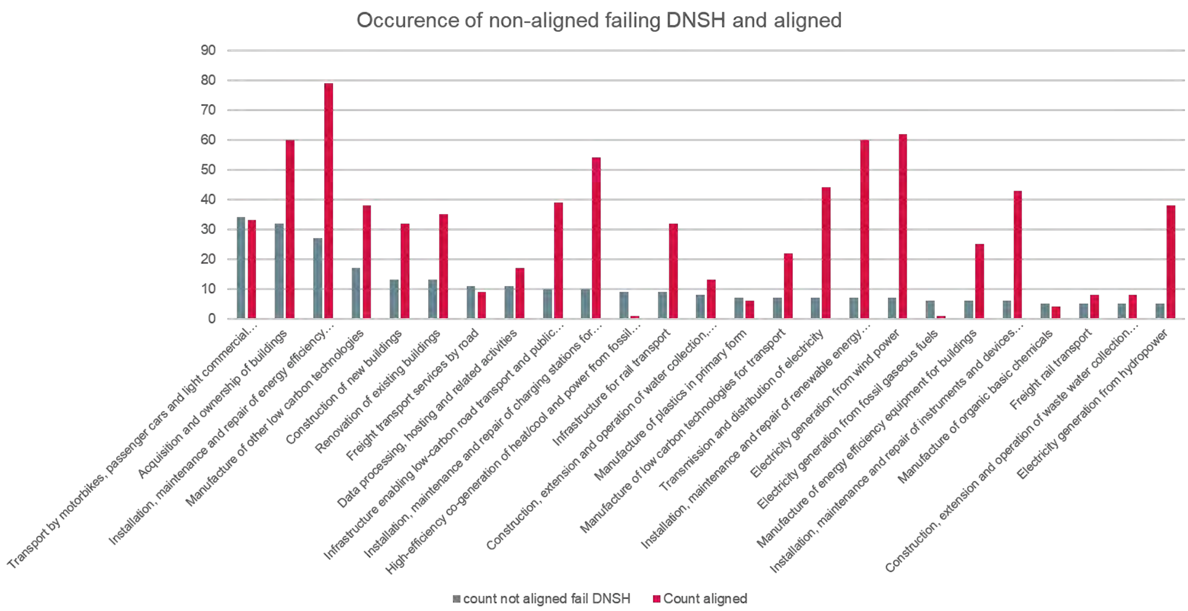

Figure 6. Occurrence of eligible activities reported as failing DNSH vs. aligned. Source: CDP

Qualitative information collected from companies suggest that an eligible activity reported as non-aligned can come from the lack of ability to assess compliance with the TSC. As mentioned before (PSF 1.0 report on data and usability)[17], challenges to assess compliance to TSC can be due to several factors that can be cumulative.

[16] Sample of ~800 companies reporting to CDP on the details of their taxonomy assessment

[17] https://finance.ec.europa.eu/system/files/2022-10/221011-sustainable-finance-platform-finance-report-usability_en_1.pdf

The following activities are identified by EU companies as being challenging **specifically for assessment outside of the EU**:

- Construction of new buildings
- Acquisition and ownership of buildings
- Transports by motorbikes, passenger cars and light commercial vehicles
- Freight transport services by road
- Installation, maintenance and repair of energy efficiency equipment
- Manufacture of other low carbon technologies

While this is not an exhaustive list, it provides a starting point for considerations around creating estimates for those activities **when outside of the EU**.

2.1.2.2 Issues specific to EU Taxonomy assessment of those activities outside of the EU

The following reasons are identified by companies as explanations for the lack of international operability:

- Compliance with and reference to EU norms, labels, regulations, directives: as an example, the EPC for buildings/NZEB is not available or defined outside of the EU.
- Auditors' precautionary approach can prove challenging to assess alignment of activities outside of the EU: for example, the verification of life cycle emissions for manufacturing of other low carbon technologies outside of the EU could be very costly if performed by European auditors onsite, and on a yearly basis.

2.1.2.3 Current market practices

Understanding how EU companies with activities outside of the EU calculate their taxonomy alignment, specifically for those activities that have been identified as challenging in terms of international operability, can provide insights into the use of estimates for such activities.

The following market practices are observed:

1. Most often, EU companies having to assess alignment of those activities outside of the EU count them as non-aligned.
2. Use public databases and other source of information to proxy alignment. As an example, the alignment of light duty vehicles used for transport with the requirements of Euro 6 can be difficult to assess given that the registries/data published for vehicles outside the EU might not provide the necessary information, but companies can look for the model of vehicle specific website/registry and compare information with the requirements (i.e., for tyres).
3. Use compliance with local regulations as a proxy for criteria that refer to compliance with EU directives.

2.1.2.4 Key considerations for activities outside of the EU

The different estimation methodologies for taxonomy alignment (SC and DNSH) laid out in this paper, and their pros/cons, should apply equally to EU and non-EU activities, for those activities that **are not** posing specific challenges for international application.

For those activities that are identified as specifically challenging for international application, recommendations on the use of estimates should apply as much to the assessment of non-EU companies as to **EU companies when assessing their non-EU operations**.

It could be envisaged that the recommendations to estimate those activities when outside the EU **depend on the type of issue identified**: when driven by the lack of publicly available data in a given country of operation, it is possible that other less accessible sources of information are available to data vendors (or that they have more capabilities to collect and analyse data), which enable estimates to be built. On the other hand, it could be considered as the precautionary approach to avoid estimations of criteria related to specific EU norms, directive and regulations that cannot be translated into quantitative criteria for proxying and/or use the terminology 'comply' (as opposed to 'in accordance'), when applied to activities outside the EU (in the absence of equivalence tables).

Finally, recommendations on appropriate estimation methods should also be **targeted towards auditors**, to ensure an equal treatment and acceptance of certain practices to enable taxonomy adoption across stakeholders (financial institutions, data vendors, non-EU and EU companies).

2.2 Observations on Taxonomy Reporting by Asset Managers, Credit Institutions, and Insurers

Asset managers and insurers have two main sets of Taxonomy reporting to comply with, one at entity-level (covered under Article 8 of the Taxonomy Regulation) and another one at product-level (covered under Articles 5 and 6 of the Taxonomy Regulation). Asset managers and insurers in scope for reporting under the Article 8 Delegated Act must report their 'Green Investment Ratio' (GIR) covering eligibility and alignment to activities in the Climate Delegated Acts, with alignment from January 2024.

Credit Institutions in scope for reporting under the Article 8 Delegated Act must report their 'Green Asset Ratio' (GAR) covering eligibility and alignment to activities in the Climate Delegated Acts, with alignment from January 2024. For the Environmental Delegated Acts, all financial market participants will report eligibility and alignment to the remaining four environmental objectives from January 2025.

Our review of the latest reporting data for FY 2023 reveals the progress made by financial institutions in disclosing their GAR and GIR metrics. On the GAR front, 101 institutions reported any GAR, with 101 reporting eligible GAR and 95 reporting aligned GAR. The average eligible GAR revenue stood at 32.9%, while average eligible GAR capex was 29.9%. Meanwhile, average aligned GAR revenue and capex were 2.0% and 2.2%, respectively. In contrast, GIR reporting was less prevalent, with 7 institutions reporting any GIR, 6 reporting eligible GIR, and 7 reporting aligned GIR. Average eligible GIR revenue was 5.6%, while average eligible GIR capex was 7.6%. Average aligned GIR revenue and capex were 6.3% and 3.2%, respectively.[18]

From a usability perspective, the introduction of new templates for GAR reporting has improved readability and standardization, but GIR reporting still lacks standardization, making some disclosures challenging to interpret. Furthermore, there is a lack of transparency around GAR/GIR calculations, hindering meaningful comparisons between institutions. Financial institutions face difficulties in accessing necessary data from portfolio companies, which may result in incomplete disclosures. Notably, we've seen a limited use of estimates in GAR/GIR reporting, with some institutions providing voluntary disclosures that have actually reduced in FY23 compared to FY22.

For the purpose of this paper, the working group has divided out the Taxonomy into each step, to determine suitable estimation models. The following chapters highlight the pros and cons of various estimation approaches that can be used against non-NFRD/CSRD companies.

[18] Data sampled in May 2024

PART 3: EU Taxonomy - Estimation Models

This paper reviews estimation techniques that could be applied at each step in determining Taxonomy alignment of a company. This section of the report is broken into Eligibility, Substantial Contribution (SC), Do No Significant Harm (DNSH), Minimum Safeguards (MSS) and approximation techniques for Use of Proceeds (UoP) instruments.

3.0 Step One: Determine Eligibility

The Platform provided detailed guidance on how to estimate eligibility, when not self-reported by the investee firm or issuer, within the voluntary guidance of December 2021. Such guidance would only be relevant to reporting under the Article 8 Delegated Act (entity-level): Platform on Sustainable Finance: Considerations on voluntary information as part of Taxonomy-eligibility reporting | European Commission (europa.eu)

The following sections present observations on disclosure practices regarding EU Taxonomy eligibility, common challenges for interpreting and using eligibility disclosures, and proposals on the use of estimates in the absence of adequate eligibility disclosures.

3.0.1 Observations on EU Taxonomy Eligibility Disclosures

Figure 7 presents the proportion of EU Taxonomy data disclosing and non-disclosing companies among the 1,512 Non-Financial Corporates (NFC) and 560 Financial Market Participants (FMP) entities researched by S&P Global Sustainable1 for the reporting year 2023, based on NFRD scoped companies. 31% of NFCs and 25% of FMPs reported eligibility at a minimum for the 2023 reporting year. This incomplete disclosure of eligibility by public companies highlights the need for estimation approaches to support FMPs and other stakeholders in evaluating the eligibility of portfolios, loan books or other universes of entities of interest.

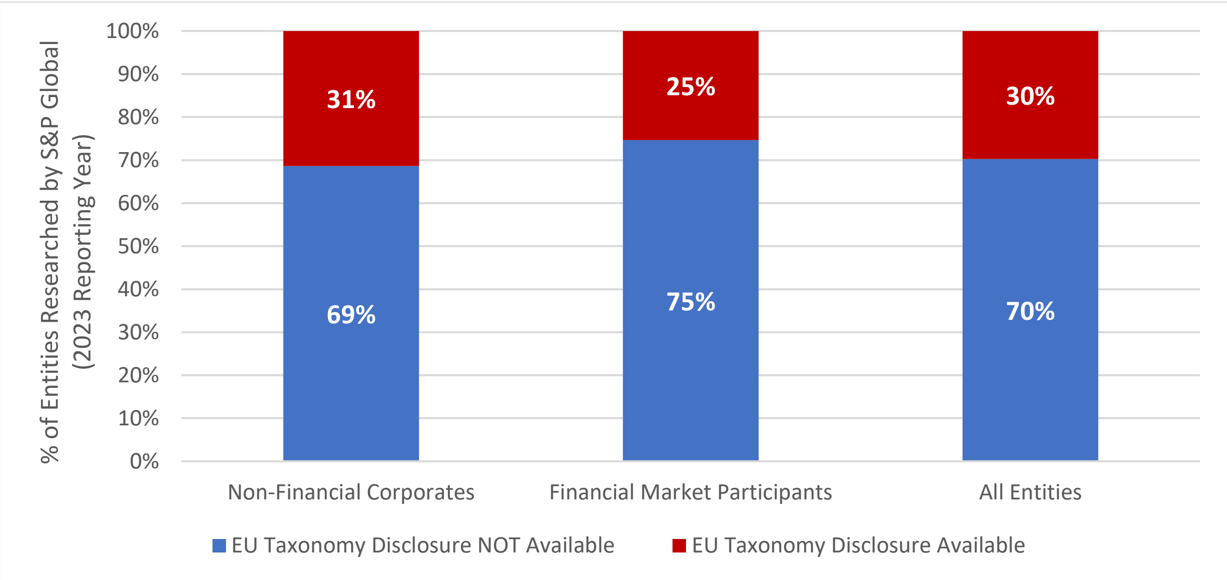

Figure 7: EU Taxonomy Disclosure by Entities Researched by S&P Global for the 2023 Reporting Year[19]

[19] S&P Global researched a total of 2,072 entities for the 2023 reporting year including 1,512 non-financial corporates and 560 financial market participants.

3.0.2 Common Challenges in Interpreting Eligibility Disclosures for Disclosing Companies

In the 2023 reporting year, based on information reviewed for this study a significant proportion of reporting entities reviewed appear to have disclosed in a format which was not aligned to the templates provided for in the EU Taxonomy Regulation. This can present challenges for market participants seeking to utilise disclosures such as:

- Reporting entities disclosure of incomplete eligibility and alignment data;
- Interpretation of the EU Taxonomy Regulation by reporting entities may vary resulting in inconsistencies in the calculation of eligibility and alignment metrics;
- Internal or external activity classification systems (e.g. GICS, NAICS) may be used which are not fully compatible with the EU Taxonomy activity classification system used in the EU Taxonomy disclosure templates.

Disclosure inconsistencies of this type create challenges in comparing eligibility (and alignment) between reporting entities and in aggregating across portfolios and loan books. Given the variation in formats used, additional steps are required by users of the reported information or third parties (such as data providers) to standardise, normalise, or adjust the as reported disclosures to overcome these challenges. Such downstream attempts to standardise or normalise the reporting to reduce its variation in order to compare data may be considered the use of an estimate since the as reported disclosure is modified.

3.0.3 Estimating Eligibility for Non-Disclosing Entities

Subject to the 2024 review period, FMPs could be permitted to use estimates in their own reporting, for companies not yet eligible to report under NFRD/CSRD. A potential approach for the estimation of eligibility for non-reporting entities may include the following key steps:

- **Identification of the Taxonomy-eligible activities of relevance to the entity's business activities**

  A range of public and private sector classification systems are available and are commonly used to classify the business activities of an entity. These classification systems can be mapped to the Taxonomy to infer the eligibility (or non-eligibility) of activity data for non-reporting entities. Mapping between the EU Taxonomy activities and alternative classification systems is not always straightforward and may require subjective judgment and estimates on the part of the data user.

  In some in instances the public or private sector classification systems can be mapped to a corresponding EU Taxonomy activity. For example, the Global Industry Classification Standard (GICS) sector for 'Electric Power by Solar Energy' can be mapped to the EU Taxonomy activities ' Electricity generation using solar photovoltaic technology' and 'Electricity generation using concentrated solar power (CSP) technology'.

  In other instances, the granularity or specificity of the EU Taxonomy activity system is greater than that of the public or private classification system. Cases may arise where both EU Taxonomy eligible and non-eligible NACE activities fall within the same sector or classification. For example, it may be challenging to differentiate low carbon and non-low carbon (internal combustion engine) forms of automobile manufacturing for mapping to the EU Taxonomy activity 'Manufacture of low carbon technologies for transport'. As the term 'low carbon' is not defined with reference to eligibility (and is rather defined under Substantial Contribution), under the precautionary principle it may be justified to consider all forms of automobile manufacturing as eligible, whether information on involvement in low carbon vehicle manufacturing is available or not. This finding aligns with previous Platform guidance and recommendations made by the European Commission in their FAQ[20]. Where possible, activity descriptions should refrain from containing testing criteria and define the nature of the activity, as aligned to NACE.

[20] https://finance.ec.europa.eu/system/files/2023-06/sustainable-finance-taxonomy-nace-alternate-classification-mapping_en.xlsx

Other cases may exist where a public or private classification system may map to multiple Taxonomy (and NACE) activities, each with different substantial contribution and do no significant harm assessment requirements. In such cases, additional data and a subjective judgement would be required to correctly assign the relevant EU Taxonomy activity. For example, the GICS classification 'Electric Power Generation by Nuclear Fuels' could potentially be mapped to three EU Taxonomy activities, depending on the activity of the entity in the nuclear power value chain:

- 4.26 Pre-commercial stages of advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle.
- 4.27 Construction and safe operation of new nuclear power plants, for the generation of electricity or heat, including for hydrogen production, using best-available technologies.
- 4.28 Electricity generation from nuclear energy in existing installations.

This working group have provided a mapping tool,[21] to support the use of existing classification systems that map revenue or capital expenditure of a company.

- **Determining the percentage of revenue and capex associated with each activity**

Once the Taxonomy activities of relevance to an entity's operations have been identified, the next step is to estimate the proportion of that entity's revenue or capital expenditure associated with each activity. Where eligible revenue capex share (KPI) is not reported at the activity level the following estimation approaches could be considered:

1. Reconstruction of eligible KPI share based on non-EU Taxonomy related data published by the issuer. For example, estimation of the percentage of capex associated with 'Electricity generation using solar photovoltaic technology' activities based on entity reported capex plans and total reported capex information. This approach may be useful in instances where there is a readily established link between the company's financial disclosures and an EU Taxonomy eligible activity.

2. Reconstruction of eligible KPI share based on physical activity data published by the issuer in annual reporting or in disclosure to regulators or voluntary disclosure schemes (e.g. CDP). For example, estimating the percentage of revenue generated from 'Electricity generation using solar photovoltaic technology' activities based on reported activity information – electricity generation by generation type as a percentage of total electricity generation. This approach may be most useful in cases where the physical activity is directly tied to the revenue generation of the entity. However, some assumptions are required, such as the assumption that the share of activity is directly proportionate to the scale of revenue derived from that activity.

3. Assume equivalent eligible activity share for all KPIs where reporting is available for one KPI. For example, taking the assumption that the unknown eligible percentage of capex is equivalent to the reported eligible percentage of revenue. This approach may be more appropriate for revenue although this requires an assumption that margins are equivalent for all activities in which the entity is engaged. This approach may be less suitable for capex in some instances, where planned capex does not proportionately align to the company's revenue-based activities. For example, an entity may be actively investing in capital works and equipment to support entry into a new market segment that is EU Taxonomy eligible. However, revenues may not yet been generated through these activities. For example, an oil and gas producer investing in expansion of solar and wind electric power generation capacity.

4. Utilize sector averages derived from reporting entity disclosures to estimate eligible KPI share for non-reporting entities. While this approach may be readily implemented to efficiently cover a broad universe of non-disclosing companies, this approach risks overstating (or understating) the eligible KPI share for

[21] https://ec.europa.eu/sustainable-finance-taxonomy/

non-reporting companies, particularly if non-reporters are expected to perform more poorly that reporting peers.

3.0.4 Use of non-EU Taxonomy Disclosures from companies (business segment reporting & physical activity data)

ISS ESG conducted an analysis of the Taxonomy data reported by non-financial companies for fiscal year 2022[22] and 2021[23] compared with the data generated through ISS ESG's EU Taxonomy Alignment model for the same companies to test how the eligibility outcomes for the turnover KPI compare. ISS ESG's model estimates eligible turnover shares leveraging a combination of various revenue-based datasets which draw on business segment reporting as well as physical activity data (points 1 & 2 in the previous section). The average taxonomy-eligibility data from the model and average reported data for the sectors show a very high correlation. Significant divergence is observed particularly for companies deriving significant turnover from niche activities (e.g., 'data-driven solutions for GHG emissions,' 'pre-commercial stages of advanced technologies to produce energy from nuclear processes,' etc.) as well as where companies report meaningful turnover related to taxonomy eligible activities with very general descriptions (e.g. for Manufacture of other low carbon technologies: "Manufacture of technologies aimed at substantial GHG emissions reductions in other sectors of the economy, where those technologies are not covered in Sections 3.1 to 3.5 of this Annex."), leading to challenges in setting the boundary when modelling eligibility.

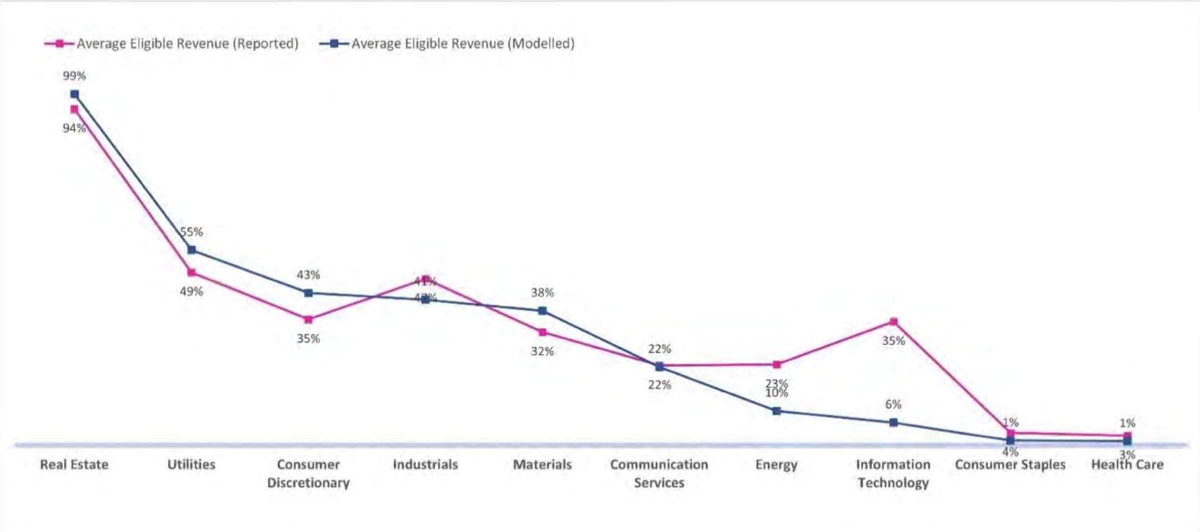

Figure 8: 2022 Average Taxonomy-Eligible Revenue Shares across GICS Sectors: Company-Reported Data and ISS ESG Modelled Data. Source: ISS ESG

3.0.5 Use of Taxonomy Eligible Revenue as a Proxy to Estimate Eligible Capex and Eligible OpEx

To test the feasibility of the hypothesis that 'Eligible Revenue can be used to estimate eligible Capex and Opex', ISS conducted an analysis on taxonomy reported data of ~1350 non-financial companies published in 2023.

Both "*correlation*" and "*coefficient of determination* (R^2 for linear regression)" were used as parameters of this test. The analysis yielded a 74% and 77% correlation between "eligible revenue and capex" and "eligible revenue and opex" respectively. An R^2 value of 0.54 and 0.59 for the pairs do not show statistical significance on eligible revenue while trying to explain variation in eligible capex and eligible opex using a linear regression model. This

[22] https://insights.issgovernance.com/posts/generating-reliable-data-comparing-company-reported-data-with-iss-esg-eu-taxonomy-modelled-data/

[23] https://insights.issgovernance.com/posts/bridging-the-gap-how-iss-esg-eu-taxonomy-modelled-data-compares-with-reported-data/

analysis suggests that the share of eligible turnover is only of limited use in estimating eligible capex and opex. Using eligible revenue as a proxy for eligible capex and opex may be a viable approach in certain scenarios, but would not yield accurate outcomes for entities engaged in a transition from non-eligible to eligible activities over time. There may also be limitations with the application of Taxonomy capex and opex type C, where a non-eligible revenue company can make eligible investments such as renovation of properties or upgrading transport fleets to ZEVs.

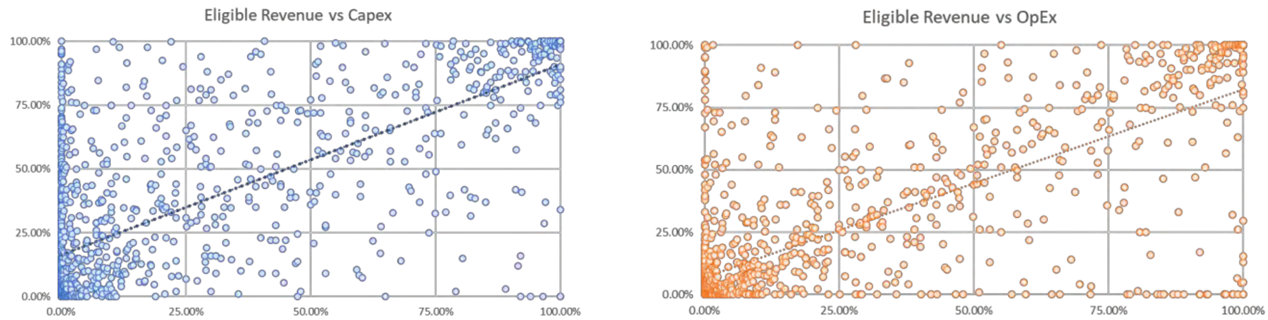

Figure 9: EU Taxonomy Eligibility by Revenue correlated to Eligibility by Opex and Capex. Source: ISS

3.1 Step Two: Determine Substantial Contribution

This section discusses how to estimate substantial contribution (SC) Technical Screening Criteria (TSC) for non-financial corporates, including the current corporate disclosure practices, challenges on applying TSC, and options to estimate TSC.

3.1.1 Corporate disclosure practices

There is a large gap in corporate disclosure on the EU Taxonomy. As discussed in Section 2, in 2023, companies are still adopting the Annex II template style of reporting and there are many usability errors in the way that data is delivered in that template.

In addition, disclosure on how companies and their eligible activities pass TSC – including companies' own estimation methodology, if any - is limited. This is probably because companies are only required to disclose whether they pass or fail TSC, i.e., a binary 'Yes' or 'No' following the regulation template. We also observe that companies may have different practices in applying the EU Taxonomy. For example, some report zero alignment pending further guidance from regulators, while some disclose partial validation on DNSH criteria and thus partial alignment. A potential solution to this could be the requirement in CSRD-activity based reporting, for the company to provide the additional information related to their performance level relative to the Taxonomy TSC e.g. a cement company to provide their carbon intensity values in accordance with the EU ETS calculation methodology.

3.1.2 Challenges from SC TSC

The EU Taxonomy contains over 300 unique SC TSC[24] , which are structured in a similar way to DNSH TSC. Most of them are qualitative with descriptive text rather than quantitative thresholds. SC TSC are facing similar usability challenges to DNSH TSC. Some TSC are ambiguous or difficult to measure, which requires significant interpretation, such as 'it contributes significantly to the achievement of good status and potential of the affected water bodies.' [25] Some TSC are related to specific EU legislations that may not be apply to all companies, especially when applied internationally. These usability issues,

[24] Based on LSEG analysis.
[25] One of the SC TSC for urban wastewater treatment contributing substantially to the sustainable use and protection of water and marine resources.

along with the lack of disclosure from companies against TSC, create challenges and inconsistencies in assessing or estimating the EU Taxonomy alignment.

3.1.3 Options to estimate SC TSC

Previous recommendations from the Platform on Sustainable Finance (PSF)

The PSF suggested that the assessment of SC TSC should only be based on company reported data. Entity level metrics disclosed by companies can approximate activity level metrics; FMP and data vendors can derive the value using company reported data and should not estimate these values without reported data.[26]

For DNSH TSC, the PSF reviewed a few estimation strategies[27]:

1. **Environmental controversies:** controversies screening can help identify companies' involvement in controversial conduct, which can be linked to environmental objectives under the EU Taxonomy. The PSF is not in favour of using controversies screening alone given it is not comprehensive or granular enough to cover TSC.

2. **ESG scores:** An ESG scoring technique can be used as a proxy to TSC with clear evidence on how the score is in line with both quantitative and qualitative TSC, as well as the compliance with applicable EU legislations. This differs from products currently marketed as ESG scores/ratings that are based on financially material E, S and G data points for a relevant sector. In this context a score would be based on the number or proportion of TSC that the company passes, relative to the total TSC the company is eligible to, across all activities. When applying a technique like this, it is important that the underlying data is transparent to the end user. Further discussion on this technique is covered under DNSH.

3. **Reported ESG data**: company reported ESG data can be used to assess process based TSC, and corporate engagement is encouraged to fill the gap when there is insufficient disclosure or ESG data to assess TSC.

Regarding the second strategy using ESG scores, in practice it is quite difficult to develop a scoring methodology that are applicable to all eligible activities. Each activity is subject to various TSC, which makes it challenging to establish a comparable score representing different TSC systemically across activities and environmental objectives. Further, scoring in this way does not satisfy the issues related to lack of equivalent standards to EU legislation referenced within the TSC. Similarly, any score with a value < 100% would not pass all applicable tests within the Delegated Acts, and thus in accordance with the regulation would not be considered to have substantially contributed to the environmental objective.

We propose to use different estimation methodologies according to the type of SC TSC, embedding two principles that:

- reported data from companies should be prioritised following the previous recommendations from the PSF;
- estimation on SC TSC should be consistent with the approach to DNSH TSC given the homogeneity between the two.

Like DNSH TSC, SC TSC can be separated into four categories: quantitative thresholds, qualitative process-based metrics, international standards, and the EU legislations.

Table 2: Quantitative thresholds – Example 1

[26] EU Platform on Sustainable Finance (2022). Platform Recommendations on Data and Usability of the EU Taxonomy. Page 49-50.
[27] Ibid. Page 55-58.

Example 1: 'grey cement clinker where the specific GHG emissions are lower than 0.722 tCO2e per tonne of grey cement clinker.'		
	Option 1: Reported data	Option 2: Sector estimates
Description	Using company reported data (e.g., environmental and operating metrics, in this case carbon emissions and production of cement) to derive the value against the metric.	Selecting sample companies who reported the metric and derive relevant values (e.g., average value) to represent companies who do not report.
Pros	• Specific to companies with higher accuracy. • Applies the precautionary principle in that the whole entity needs to pass the test, as data is rarely provided at plant or asset level.	• Easier to implement with a large universe of companies.
Cons	• Difficult to implement if there is no reported data, which may result in data gap in assessing companies in a large universe.	• Less accurate as companies are likely to have different values given the difference in operations and jurisdictions for example. • An averaging model is unlikely to demonstrate 'substantial contribution', which is typically top 10% of environmental performance in the sector.

Table 3: Process based metrics and international standards – Example 2

Example 2: 'An assessment of the actual potential for abstraction has been performed, to ensure that the available groundwater resource is not exceeded by the long-term annual average rate of abstraction.'	
Option: Reported data as proxy	
Description	Using company reported data as proxy to TSC. In this case, companies' disclosure on water use, management and policies can be used. If the company discloses such information and demonstrate sufficient process in place, then the company and the relevant eligible activity can pass this TSC.
Pros	• Specific to companies with higher accuracy.
Cons	• Proxy data are not exactly the same as TSC, which may over- or underestimate alignment. • In certain cases, e.g. company disclosing facility-level data, the proxy may be less insightful and a sector specific proxy would allow for a more consistent application of TSC.

EU legislation

There are two types of TSC related to the EU legislations. Some TSC are very specific about the clauses and requirements an activity must meet (Example 3), which can be mirrored to quantitative thresholds or process-based metrics. Some TSC are more generic about the compliance with legislations, which makes it challenging to find a proxy metric (Example 4).

Table 4: EU legislation – Example 3 & 4

Example 3: 'The wastewater treatment system does not result in a deterioration of the good status and good ecological potential of any of the affected water bodies and it contributes significantly to the achievement of good status and potential of the affected water bodies, in accordance with Directive 2000/60/EC.'	
Option: Reported data as proxy	
Description	Using company reported data as proxy to TSC based on specific clauses or requirements. In this case, companies' disclosure on water use, protection, management plan, and impact on water bodies can be used as proxy.
Pros	• Specific to companies with higher accuracy.
Cons	• Proxy data are not exactly the same as TSC or the legislation, which may over- or underestimate alignment.

	• Proxy data would have to fulfil certain requirements to be e.g. sufficiently covering the company's operations (scope). • Not all legislation has a clear proxy – some require the provision of licences not granted in non-EU countries • Would require supporting resources, like FAQ material, to help explain the adequacy of a proxy to EU legislation referenced in the Delegated Acts
Example 4: 'the water supply system complies with Directive (EU) 2020/2184, including the requirements set out in Article 13(8) of that Directive, in Implementing Decision (EU) 2022/679, and in delegated and implementing acts adopted under that Directive.'	
Option: Reported data	
Description	Looking for disclosed information from companies on the compliance with the legislation.
Pros	• Specific to companies with higher accuracy.
Cons	• Not always applicable outside of Europe • Likely to have large data gap as usually companies do not report on compliance with regulations. • Would require supporting resources, like FAQ material, to help explain the equivalent local legislation on which the non-EU company or non-EU activities from EU companies can demonstrate compliance.

3.1.4 Additional considerations

There remain data availability issues in estimating SC TSC. Companies are not required by the EU Taxonomy Regulation to disclose underlying data or assessment against TSC, or any estimation methodology. The usability challenges of SC TSC make it difficult to establish proxy metrics in a consistent manner.

Assumptions might be needed when there is no proxy metric to TSC. For example, a conservative approach would assume the activity fails a TSC when there is no proxy, in particular when the TSC is related to compliance with a specific EU legislation. This will result in low EU Taxonomy alignment for companies and small investible universe for FMPs, which is not helpful in directing capital flows towards climate and environmental solutions. A more aggressive approach may assume the activity passes a TSC when there is no proxy, which is at risk of overstating EU Taxonomy alignment and bringing in greenwashing. A trade-off will be needed between these two goals.

Instead of a binary 'pass' or 'fail' approach, we could promote more transparency by enabling companies to report to what extent they meet TSC and why they fail, as the UK Green Technical Advisory Group (GTAG) has suggested on DNSH TSC.[28] This additional information can support corporate engagement or due diligence process and allows investors to build further understanding of companies and track the progress of companies' efforts in aligning their businesses with the EU Taxonomy.

3.2 Step Three: Determine Compliance with 'Do No Significant Harm'

DNSH covers qualitative, quantitative, and process-based criteria as mapped out in Figure 10 below. The substantial contribution criteria combined with the DNSH criteria seeks to ensure a baseline environmental performance in that progress towards one objective is not made at the expense of another.

[28] https://www.greenfinanceinstitute.com/wp-content/uploads/2023/08/GTAG-Final-Report-on-DNSH.pdf

Type	Name		Example	Assessment
A	Second Threshold		*Climate Change Mitigation:* "The direct GHG emissions of the activity are lower than 270g CO2e/kWh."	Quantitative
B	Process Measure		*Ecosystems:* "Where relevant, maintenance of vegetation along road transport infrastructure ensures that invasive species do not spread. Mitigation measures have been implemented to avoid wildlife collisions."	Quantitative & Qualitative
C	International Standards & EU Legislation		*Pollution:* "Measures in place to minimise toxicity of anti-fouling paint and biocides as regulated in the Biocidal Products Regulation: (EU) 528/2012, which implements (in the EU) the International Convention on the Control of Harmful Anti-fouling Systems on Ships, which was adopted on 5 October 2001."	Quantitative & Qualitative
D	EU Only Legislation	D1.1 EU Regulation	*Pollution:* "The activity complies with Regulation (EU) 2019/1009 or national rules on fertilisers or soil improvers for agricultural use."	Quantitative & Qualitative
		D1.2 EU Directive	*Ecosystems:* "An Environmental Impact Assessment (EIA) or screening has been completed in accordance with Directive 2011/92/EU."	
E	Non-assessable Ambition		*Circular Economy:* "Peat extraction is minimised."	Not possible

Figure 10: Classifying EU Green Taxonomy Do No Significant Harm (DNSH) Criteria. Source: PSF 1.0 Usability Report

3.2.1 Previous Guidance on DNSH

- The EC's **DDA** does not specify how to do DNSH estimation, while the **Paris-aligned Benchmark Regulation** in article 13(2) establishes that estimates can be used to assess environmental DNSH, as long as the methodology and underlying data are well explained and documented.
- **The ESAs** set out the following recommendations for DNSH estimation by FMPs:
  - Media-based controversies should not be used
  - Assessment should be done at the activity, rather than the undertaking, level
- **The PSF** is in favour of strictly testing quantitative criteria while allowing for partial compliance with qualitative criteria and a due diligence based approach (e.g. "60% of qualitative DNSH criteria are met").

Considerations on Technical Screening Criteria in the Climate Delegated Acts for Harm

In its current form, some of the DNSH testing criteria create substantial interpretation and usability challenges. If left unaddressed, this could impact the goal of generating complete, comparable, and reliable disclosure.

Some companies subject to reporting under the Taxonomy Regulation Article 8 Delegated Act, note that references to the EU legislation within the DNSH annexes can be complex, particularly for their non-EU operations.

The European Commission does not specify how to do estimates for DNSH in the DDA

Article 7(7) of the Disclosures Delegated Act Financial undertakings may use estimates for assessing the Taxonomy-alignment of their exposures to undertakings referred to in paragraph (6), points (e) and (f) [non-EU, non-NFRD counterparties], where those financial undertakings are able to demonstrate compliance with all criteria of Article 3 of Regulation (EU) 2020/852, except with the criteria laid down in Article 3, point (b) of that Regulation. [DNSH]"[29]

[29] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R2178&from=EN

Platform on Sustainable Finance

The PSF Usability[30] report has made recommendations to the European Commission (EC) on how to review the DNSH criteria so that these can be determined more objectively. In particular, the EC should:

- Minimise subjective language in technical screening criteria.
- Ensure guidance is given on what a suitable Yes/No outcome is for process-based tests, in the form of supplementary guidance.
- Allow for international application of EU legislation referenced in the Climate Delegated Act.[31]
- Maintain Environmental Integrity and Performance level of the tests.

The report also analysed the different estimation approaches in the market and their merits:

1. **Use of Environmental Controversies**: If a company is not in violation of a common, global environmental standard then they 'pass' DNSH.

PSF not in favour of using controversies alone to estimate compliance with DNSH due to low alignment with the technical screening tests and entity versus activity level differences in approach.

2. **Compliance with Local Environmental Laws or Official Standards for Operations Outside the EU**

PSF not in favour of only using compliance with environmental laws to estimate compliance with DNSH. However, compliance with local environmental laws is a key input to a DNSH assessment. A company not meeting local laws (i.e., by final conviction) should be flagged as not meeting DNSH unless they can demonstrate remedial measures have been implemented.

3. **Use of ESG Scores Models**

Environmental scores can be used where they can demonstrate alignment with DNSH quantitative and qualitative tests and that they consider compliance with local environmental laws. Supplementary due diligence is encouraged

4. **Grading a Company's Compliance with the DNSH Tests in the Taxonomy**

Company-reported environmental metrics as well as the existence of adequate due diligence processes that map to the technical screening requirements in the Delegated Acts (reviewing company's policies, managements systems, monitoring, reporting, etc.) should be used to determine compliance with the qualitative process-based tests of DNSH. A grading-based approach to accepting companies adequately meet do no significant harm is permitted so long as it is backed by a due diligence approach by the data provider or within the investment management firm.

Green Technical Advisory Group's (GTAG)[32]

GTAG's advice for the UK's Sustainable Taxonomy includes some relevant comments on the EU Taxonomy's DNSH experience. The Final Report on DNSH highlights the challenges of an "all or nothing" approach to DNSH, proposing to allow for flexibility in the form of:

- partial compliance
- proportionate risk-based due diligence
- a "comply or explain" clause
- flexibility regarding certain disclosure requirements

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[30] https://finance.ec.europa.eu/system/files/2022-10/221011-sustainable-finance-platform-finance-report-usability_en_1.pdf

[31] https://www.mas.gov.sg/-/media/mas-media-library/development/sustainable-finance/singaporeasia-taxonomy-dec-2023.pdf have built a Taxonomy that only references international laws, norms and standards, proxied to the EU approach in some cases.

[32] https://www.greenfinanceinstitute.com/wp-content/uploads/2023/08/GTAG-Final-Report-on-DNSH.pdf

3.2.2 The current approach by financial undertakings

Public voluntary disclosures based on DNSH estimates are scarce. A sample of 20 credit institutions that reported their EU Taxonomy disclosures for FY2023 did not contain any BTAR disclosures that contained DNSH estimations.

That said, the United Nations Environment Programme Finance Initiative (UNEP FI) and the European Banking Federation (EBF) published in January 2021[33] a study of the challenges banks were facing in estimating, among other metrics, the DNSH compliance of their counterparties.

The study found that, out of a sample of 26 banks, 7 were using "aligned with assumptions", and 8 were using "partially aligned" in their DNSH assessment:

- **Aligned with Assumption** meant that the significant contribution "could be ascertained through available data, [while] compliance with MSS and DNSH could not be ascertained through available data but was assumed, in alignment with relevant regulatory obligations".
- **Partially aligned** meant that "only some of the TSC for SC and/or DNSH and/or MSS could be ascertained, and the use of assumption was not possible, for a variety of reasons"

3.2.3 Conceptualising Technical Screening Criteria [DNSH]

The Climate Delegated Act and Environmental Delegated Act define the technical screening criteria (TSC) that an activity must comply with to be considered Taxonomy-aligned. While the framework differentiates between technical screening criteria for substantial contribution and those to establish the activity does not cause significant harm, requirements across the two sections can be very similar and most considerations regarding approaches to estimating alignment are thus applicable across both steps.

For instance, for electricity generation, the TSC under substantial contribution to climate change mitigation require lifecycle emissions to be lower than 100gCO2e/kWh while the requirement under DNSH for the same objective is for direct GHG emissions to be lower than 270gCO2e/kWh. Both represent quantitative emission thresholds and hence the same estimation approaches can be applied. Similarly, qualitative process requirements can be found across both SC and DNSH.

Going beyond an 'all or nothing' approach: Two different types of partial alignment

For an activity – and its associated turnover, capital expenditure or operating expenditure – to be considered Taxonomy-aligned, it must comply with all relevant DNSH criteria. In that sense, the Taxonomy framework is binary and follows an 'all or nothing' logic. However, an activity may also be partially aligned with the taxonomy. Two different types of partial alignment can be distinguished.

Firstly, within one activity, some assets/facilities may meet the TSC while others do not. This type of partial alignment is foreseen within the taxonomy framework and the reporting templates for non-financial companies cater to this situation in allowing an activity to be reported under sections A1 (Taxonomy aligned) and A2 (Taxonomy eligible but not aligned) simultaneously while indicating the share of turnover/capital expenditure/operating expenditure associated with each category.

Scenario 1	Facility A (20% of turnover)	Facility B (80% of turnover)
Requirement 1	Pass	Fail
Requirement 2	Pass	Fail
Turnover KPI: 20% Aligned; 80% Eligible but not aligned		

[33] https://www.ebf.eu/sustainable-finance/ebf-unep-fi-report-outlines-path-for-application-of-eu-taxonomy-to-core-banking-services-event-highlights/ and https://www.unepfi.org/industries/banking/eu-taxonomy-testing-core-banking-products/

Secondly, the Climate and Environmental Delegated Acts define several TSC for each activity. An activity may be carried out in compliance with some but not all these TSC. Where a reporting company finds itself to be meeting some but not all requirements it is obliged to report the entire activity as eligible but not aligned.

Scenario 2	**Facility A (20% of turnover)**	**Facility B (80% of turnover)**
Requirement 1	Pass	
Requirement 2	Fail	
Turnover KPI: 100% Eligible but not aligned		

As discussed below, most of the data available to data vendors and investors relate to the company level and hence estimations often follow a top-down approach. Such approaches are appropriate for identifying partial alignment in the second sense (scenario 2). To determine the level of alignment based on the share of facilities meeting each TSC (scenario 1) requires disaggregated information which is only available to a lesser extent.

In response to this challenge, some vendors have developed estimation approaches that indicate partial alignment also where the estimated outcomes fall within scenario 2 (i.e. some DNSH tests are estimated to be met while others are either estimated not to be met or information to come up with an estimate is lacking). While such approaches diverge from the logic applied by reporting entities and thus need to be explained carefully to avoid misinterpretation, they provide additional value by showing the level of estimated alignment also where not all requirements are found to be met.

3.2.4 Available Data to Estimate Alignment with TSC for DNSH

Data vendors can and do estimate the level of alignment of non-reporting companies with the EU Taxonomy, including an assessment of compliance with DNSH criteria. Moreover, data vendors can offer ESG data that investors can use to come up with their own estimations.

Note: Companies estimating their own alignment will have other information available to them. This section focuses on the perspective of data vendors & investors.

Table 5: Information available for estimating DNSH

Type of information	**Example**	**Level of applicability**
Media screening / News screening	Search of media and other sources to identify (allegations of) violations of established international environmental standards.	company/activity
Controversies	Controversies research starts with the identification of incidents, this step is performed by qualified researchers and ensures that only verifiable, actual and relevant news items are included and assessed. For the controversies research, the focus is not only one news item but rather the combined incidents on a specific topic over time. The assessment includes a detailed review of the action(s) of the company and impact of the incidents, the response by the company involved and tracking of the handling of these types of issues over time.	company/activity
Thematic Scores	Scores measuring performance related to themes such as Climate, Biodiversity, Human Rights, etc. by assessing and aggregating a variety of qualitative and/or quantitative metrics related to such themes	company
Qualitative ESG metrics	Does the company have a water management policy?	company
	Does the company carry out EIA for its offshore wind parks?	activity
	Total water consumption in m3	company

Quantitative ESG metrics	GHG emission intensity of aluminium production in tCO2e/t of production	activity
Geographic information	Revenue / employees / PP&E per country or region	company
Sectoral information	Average GHG emission intensity of gas-fired electricity production	sector

While the TSC defined in the EU Taxonomy apply at the activity level, the above table shows that most available data relate to the company level. Therefore, in most instances, estimation approaches applied by data vendors and investors will have to take a top-down approach.

3.2.5 Different approaches to estimating.

Building on the approaches towards estimation outlined by the PSF in the Usability Report, the group has identified several approaches towards estimating DNSH alignment. The approaches are listed and explained below. Table 6 also provides an overview on which estimation approaches may be applied for each type of TSC. It should be noted that, in estimating alignment with DNSH requirements, several of the described approaches may be used in conjunction.

1) Use of media or news screening: If a search of media and other sources does not reveal (allegations of) a company violating a common, global environmental standard then they ‘pass’ DNSH. Controversies are typically not used as a proxy for a specific DNSH test but as a general test for significant harm at the objective level. Where environmental controversies are linked to specific activities, estimations can be based exclusively on (alleged) violations of environmental standards that have occurred within the activity in question. The more robust research-led approach of deriving controversies would be favoured over news or media screening alone.

Example:

A media search reveals that a utilities company has failed to adequately assess the environmental impacts of a hydropower dam which according to reputable sources causes significant adverse impact on a sensitive ecosystem. The company is thus considered to ‘fail’ the DNSH tests related to biodiversity and ecosystems for the activity ‘electricity generation from hydropower’.

For another company, no (alleged) failures related to biodiversity and ecosystems are found. If DNSH is assessed solely on the basis of controversies, the company would then be considered to ‘pass’ the DNSH tests related to biodiversity and ecosystems.

2) Compliance with Local Environmental Laws or Official Standards: Under this approach, it is assumed that companies comply with local laws and standards unless there is evidence to the contrary. Violation of local environmental laws or standards evidenced with fines or sanctions would result in a ‘fail’ while companies for which no such evidence is found would ‘pass’.

Example:

DNSH TSC: “Discharges to receiving waters meet the requirements laid down in Directive 91/271/EEC or as required by national provisions stating maximum permissible pollutant levels from discharges to receiving waters.”

For a water utilities company engaged in wastewater treatment, no evidence of sanctions or fines related to water pollution is found. The company is thus considered to meet the TSC.

3) Use of thematic environmental scores: If a company achieves a score above a threshold, it is considered to ‘pass’ DNSH while poorly scoring companies below the threshold would ‘fail’ DNSH. Environmental scores may be built by the FMP themselves (e.g. in the case of private market investments where FMPs often use specific due diligence questionnaires prior to investing in a certain project) but can also be bought from a third-party provider. Environmental scores are typically not used as a proxy for a specific DNSH test but as a general test for significant harm at the objective level. Note that in this report we only consider the use of thematic scores related to a specific DNSH objective while the use of generic environmental scores which assess corporate performance across a range of environmental topics are disregarded as these are too generic to serve as a proxy and therefore not commonly used.

Example:

A data vendor provides a score which assesses the extent to which companies manage their water risks and impacts. The score builds on several qualitative and quantitative metrics, including presence of a water management policy, water use reduction targets, water use intensity and exposure to areas of high water risk.

A company with a high score (absolute or relative; depending on the chosen approach) would be considered to 'pass' the DNSH test related to the objective protection of water and marine resources.

4) Use of qualitative & quantitative ESG metrics: Specific ESG metrics can be mapped to the individual requirements contained within the TSC for DNSH. Such metrics may be extracted from corporate sustainability reporting by the FMP themselves or be captured by a third-party provider. Where these ESG metrics indicate that the company meets all relevant criteria, it will 'pass' DNSH. Under the existing legislation, only a pass at 100% would be deemed sufficient. Should legislation permit a due diligence based approach, lower compliance levels could be a trigger for corporate engagement.

Example:

DNSH TSC: "A waste management plan is in place and ensures maximal recycling at end of life of electrical and electronic equipment, including through contractual agreements with recycling partners, reflection in financial projections or official project documentation."

A data vendor may collect information on the presence of disclosed waste management policies which can be used as a proxy for this requirement. A company with a waste management policy would be considered to 'pass' the DNSH test while a company which does not disclose such a policy would 'fail'.

5) Use of sectoral and/or geographical averages: Sector-based and/or location-based averages may be used to determine if a company is likely to meet TSC or not given its activities and country/region of operation.

Example:

DNSH TSC: "The direct GHG emissions of the activity are lower than 270 g CO2e/kWh."

Emission factor for electricity generation from natural gas used by the IEA in its 2019 report on CO2 emissions from fuel combustion is 400g CO2/kWh (based on OECD country data for 2011-2015). Under this estimation approach, it could thus be estimated that any company involved in the activity of electricity generation from fossil gaseous fuels would 'fail' the DNSH test for climate change mitigation.

Depending on the activity, the Climate and Environmental Delegated Acts may define no, one or several DNSH TSC per objective. The estimation approaches described in this section can serve to either estimate compliance with a single TSC or to estimate compliance at the objective level.

Table 6: Estimation Approaches and where they can be applied

Estimation Approach	Applied at TSC level	Applied at the objective level
Use of environmental controversies		X
Compliance with local environmental laws or official standards	X (Type C; Type D)	
Use of thematic environmental scores		X
Use of qualitative & quantitative ESG metrics	X (Type A; Type B; Type D for non-EU)	

Use of sectoral and/or geographical averages	X (Type A)	

3.2.6 Assessment of different estimation approaches

1) Use of Environmental Controversies

As was already pointed out by the PSF, environmental controversies are not a comprehensive source to assess compliance with the Taxonomy DNSH tests. They may serve as an input to DNSH estimations as they can help identify breaches of established environmental standards, estimations solely relying on controversies would ignore many TSCs. For instance, compliance with metric-based thresholds, such as energy generation-related emissions within 270g CO_2e/kWh, or relevant processes cannot be derived from (the absence of) controversies.

As discussed in the Previous Work section, a purely controversy-based approach is also explicitly discouraged by the ESAs.

PRO:

- Assessment can be conducted even in the absence of comprehensive corporate reporting, which has been identified as one of the key challenges
- Environmental controversy research based on tested methodologies is readily available
- Allows for identification of worst offenders and most severe impacts which can serve as valuable input to DNSH estimations

CON:

- Controversy-only approaches would set a lower bar for environmental due diligence than what is prescribed within the Climate and Environmental Delegated Acts
- Controversy-only approaches are explicitly discouraged in existing guidance

2) Compliance with Local Environmental Laws or Official Standards

For type C criteria (International Standards & EU Legislation)

To the extent that international standards are implemented in all locations where the company operates, financial undertakings and/or data vendors can effectively check if breaches of law have been found and issues subsequently remediated. It should be noted, though, that the presence/absence of fines or sanctions is not necessarily a good indication of current compliance with laws and standards. On the one hand, fines and sanctions are usually imposed long after a law or standard has been breached and remedial measures are likely to have been implemented by the time of a fine or sanction. On the other hand, a company currently in breach of a law or standard may not yet have been subjected to a fine or sanction and some cases may never lead to a fine or sanction due to other forms of settlement.

For type D criteria (EU Only Legislation)

For operations in the EU, financial undertakings and/or data vendors can effectively check if breaches of law have been found and issues subsequently remediated. For operations outside the EU, however, assuming that type D DNSH criteria are met unless breaches of laws are identified is questionable. As the PSF noted, taking such an estimation approach means that if a company operates in a jurisdiction with lower standards or no environmental laws, then the company would automatically pass DNSH without needing to apply the same due diligence and rigour as their European counterparts. A resource comparing EU environmental standards and laws referenced in the Climate and Environmental Delegated Act to other international, regional and local standards would prove a valuable source to enable financial undertakings and data providers in effectively assessing DNSH compliance also outside the EU.

PRO:

- Assessment can be conducted even in the absence of comprehensive corporate reporting, which has been identified as one of the key challenges

CON:

- Not a good indication of harm caused at the current point in time due to an often significant time lag; controversy research is a more timely indicator
- Application to non-EU jurisdictions is problematic

3) Use of environmental scores

As the PSF already noted, environmental scores vary in their composition, data use and output. As such, the extent to which the assessments underlying such scores replicate the DNSH quantitative and qualitative or process-based tests and compliance with local environmental laws varies. In computing an aggregate score, various elements are considered and weighed against each other. In most instances, such aggregation deviates from the Taxonomy's 'all or nothing' approach by allowing lack of compliance with certain requirements to be counterbalanced by positive assessments in other areas. To be able to evaluate to what extent the environmental score aligns with the Taxonomy DNSH tests, a detailed methodology document will be required.

<u>Absolute vs relative scores</u>

It is also worth differentiating between absolute and relative scores. While absolute scores indicate a company's performance in relation to predefined assessment criteria, relative scores indicate how well the company performs against those criteria compared to a peer group. As such, relative scores do not allow users to determine the extent to which the assessed company meets the assessment criteria but only if it meets these to a greater or lesser extent than its peers. Since the taxonomy defines DNSH tests which are absolute requirements (e.g. for electricity production the DNSH emission threshold for direct GHG emissions is 270gCO2e/kWh rather than 'x% lower than average peer emissions'), absolute scores are more suitable inputs for taxonomy alignment estimations than relative scores.

PRO:

- Environmental scores are readily available
- Tested methodologies to score companies' performance based on commonly reported metrics allow for differentiation between leaders and laggards

CON:

- Composition of environmental scores may not align very well with TSC defined under DNSH
- Relative scores which assess companies against their peers bear the risk of assigning a 'pass' to companies with insufficient environmental due diligence if performance of their peers is poor while companies with a sufficient level of environmental due diligence may 'fail' if compared to high-performing peers

4) Use of qualitative & quantitative ESG metrics

Matching each DNSH test with a qualitative or quantitative ESG metric to determine compliance represents the most granular estimation approach. Under this approach, every TSC is mapped to a suitable proxy metric. Where the DNSH requirements coincide with common reporting practices, these proxy metrics may closely match the TSC. In other instances, rather loose proxies may be leveraged and for some DNSH tests, no reasonable proxies exist.

As the Climate and Environmental Delegated Act defines a large number of DNSH tests, some estimation approaches group thematically related TSC and apply the same proxy to all such TSC. Moreover, as this approach sets a comparatively high bar for corporate disclosures in line with taxonomy DNSH tests, some estimation approaches do not replicate the 'all or nothing' logic of the taxonomy but consider an activity – and related turnover, capital expenditures and operating expenditures – as partially aligned where some but not all DNSH tests yield a 'pass' outcome. It should be noted that, as outlined earlier (Going beyond an 'all or nothing' approach: Two different types of partial alignment), there are different types of partial alignment, and such outcomes thus need to be explained carefully to avoid misinterpretation.

PRO:

- Most accurate representation of the taxonomy framework and the TSC defined in the Climate and Environmental Delegated Act
- Allows for visibility on which TSC are met/not met, thus providing greater transparency than other approaches
- Allows for differentiation between leaders and laggards in terms of environmental due diligence as the estimation is driven by an assessment of corporate disclosure

CON:

- Lack of disclosure on relevant items will lead to an estimated non-alignment, which is not always accurate
- Given the granularity of the TSC under DNSH, not all DNSH tests can be mapped to reasonable and readily available proxies

5) Use of sectoral and/or geographical information

Rather than searching for evidence of alignment with TSC within corporate disclosures, some estimation approaches leverage sectoral and/or geographical information. Such approaches use average performance across an industry as a proxy. For instance, the Taxonomy Alignment Coefficients developed by the JRC,would use the share of electric battery vehicles produced in a given country as a proxy to determine the share of taxonomy alignment within the NACE sector Manufacture of motor vehicles in that country.[34] While the authors suggest this approach for the estimation of SC, one could also use it to estimate the degree of compliance with DNSH TSC in a given country/sector. However, as this estimation approach is based on quantitative information, it can only be applied for DNSH tests which are qualitative in nature.

PRO:

- Helps close the gap in corporate disclosures which is one of the main challenges for determining taxonomy alignment
- Likely to yield a reasonably accurate overall outcome for large and diversified portfolios that can be expected to mirror average performance levels in line with wider economy

CON:

- Not an accurate representation of the level of alignment of any given company
- Cannot be applied to all types of DNSH criteria as reliable sectoral information is only available for a limited set of TSC (mainly quantitative thresholds)
- Not sensitive to the level of environmental due diligence and related disclosure of companies; leaders and laggards are assigned the same estimated alignment share
- Limits the incentive for investor and investee to strive towards robust environmental due diligence and disclosure as improved performance only results in higher estimated alignment when it is above average

6. Data gaps

[34] Alessi, L. and Battiston, S., "Taxonomy alignment and transition risk: a country-level approach", European Commission, 2023, JRC135889.

The characteristics of the DNSH criteria make accurate estimation particularly challenging:

The Taxonomy Regulation includes 254 criteria for DNSH , of which:

- 88% are qualitative.
- 12% are quantitative, but 72% of those do not reference any standards.

That means only 3% of criteria are quantitative and linked to a standard. In other words, only 3% of the criteria can have data that can be consistently collected and transformed to build an accurate DNSH assessment, assuming the data are available. Everything else will require assumptions, proxies, or a mix of the two.

Template issues: lack of disclosure for DNSH

To add to the challenge, the EU Taxonomy reporting templates[35] do not require reporting companies to disclose the reason why an activity did not pass the technical criteria. So it is not possible to assess whether the lack of alignment is due to not meeting the contribution criteria, the DNSH criteria, or both:

Financial year N	Year			Substantial contribution criteria						DNSH criteria ("Does Not Significantly Harm") (*)									
Economic Activities (1)	Code (*) (2)	CapEx (3)	Proportion of CapEx, year N (4)	Climate Change Mitigation (5)	Climate Change Adaptation (6)	Water (7)	Pollution (8)	Circular Economy(9)	Biodiversity(10)	Climate Change Mitigation (11)	Climate Change Adaptation (12)	Water (13)	Pollution (14)	Circular Economy (15)	Biodiversity (16)	Minimum Safeguards (17)	Proportion of Taxonomy-aligned (A.1.) or eligible (A.2.) CapEx, year N-1 (18)	Category enabling activity (19)	Category transi-tional activity (20)
Text		*Currency*	%	Y; N; N/EL (*) (*)	Y; N; N/EL (*) (*)	Y; N; N/EL (*) (*)	Y; N; N/EL (*) (*)	Y; N; N/EL (*) (*)	Y; N; N/EL (*) (*)	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	*E*	*T*
A. **TAXONOMY-ELIGIBLE ACTIVITIES**																			
A.1. **Environmentally sustainable activities (Taxonomy-aligned)**																			
Activity 1			%							Y	Y	Y	Y	Y	Y	Y	%		
Activity 1 (*)			%							Y	Y	Y	Y	Y	Y	Y	%	E	
Activity 2			%							Y	Y	Y	Y	Y	Y	Y	%		T
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)			**%**	**%**	**%**	**%**	**%**	**%**	**%**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**%**		
Of which enabling			%	%	%	%	%	%	%	Y	Y	Y	Y	Y	Y	Y	%	E	
Of which transitional			%	%						Y	Y	Y	Y	Y	Y	Y	%		T
A.2. **Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)** (*)																			
				EL; N/EL (*)	EL; N/EL (*)	EL; N/EL (*)	EL; N/EL (*)	EL; N/EL (*)	EL; N/EL (*)										
Activity 1 (*)			%														%		

Figure 11: Annex II extract from the Article 8 Delegated Act

This poses a challenge for any type of assessment that relies on evaluating existing disclosures for estimation purposes (supervised learning).

Treatment of unavailable data:

[35] Streamlining and increasing the usability of the Do No Significant Harm (DNSH) criteria within the UK Green Taxonomy (p.39)

Given the challenges of building accurate methodologies, an important consideration is how to treat the lack of data. Should lack of data mean that:

I. there is no evidence of significant harm and thus the activity meets the DNSH criteria, or that
II. the criteria could not be tested, so the activity does not meet the DNSH requirements?

The regulation states that the DNSH criteria must be met for an activity to be aligned. That said, the Climate Benchmark Regulation allows for estimations, and the ESAs have given recommendations for estimations by FMPs.

A strict application of "lack of data = no compliance" risks making the Taxonomy Regulation less useful to users, who will see nearly all non-CSRD exposures deemed non-compliant given the difficulties in assessing DNSH criteria. This is due to the challenges described in this report of estimating qualitative data or data for which the required information is not available or not feasible to collect.

An analysis conducted by ISS ESG[36] of the Taxonomy data reported by non-financial companies for fiscal year 2022 compared with the data generated through ISS ESG's EU Taxonomy Alignment model for the same companies shows lower levels of modelled alignment than what companies report. Much of this divergence can be explained by a strict application of the precautionary principle within ISS ESG's model whereby, in the absence of sufficient relevant (proxy) information, activities are considered not aligned with the taxonomy.

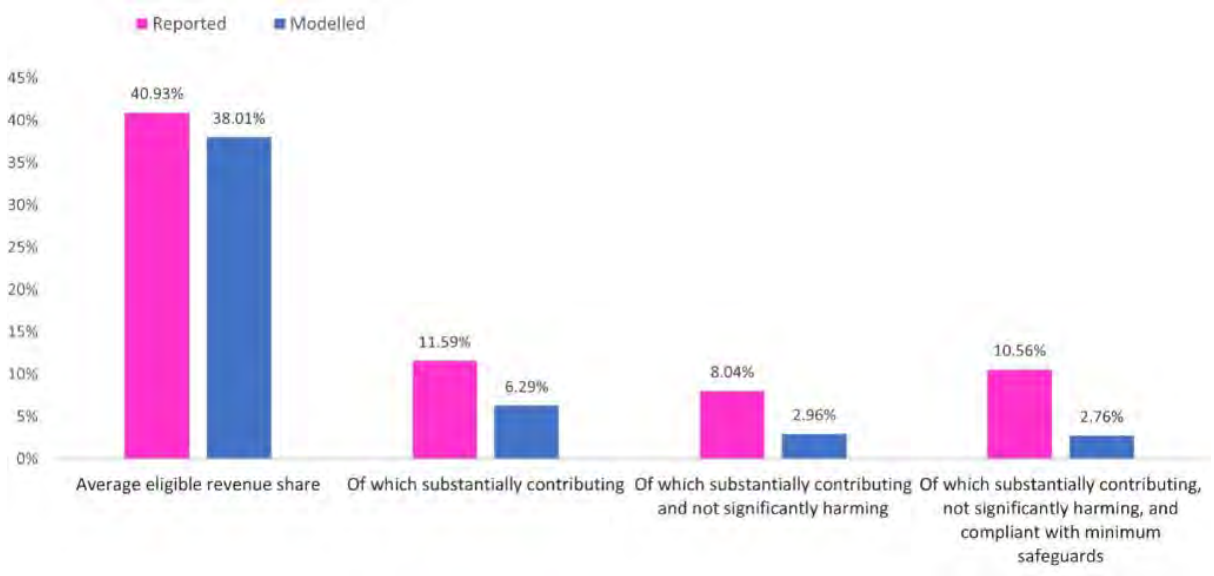

Figure 12: Reported vs Modelled Alignment Outcomes, fiscal year 2022. Source: ISS

Notes: Reported average eligibility (leftmost bars) as well as reported overall alignment (rightmost bars) reflect aggregated figures reported by companies. The reported substantial-contribution-aligned share, as well as the share of revenues aligned with substantial contribution and DNSH criteria (two sets of bars in the middle), are derived from companies' activity-level disclosures. In some instances, company-reported activity-level disclosures are missing or do not match aggregated figures reported by the company.

Option 1: lack of data = no compliance

PROs:

- It's closer to the regulation
- It minimizes the risk of greenwashing while keeping with the precautionary principle.

[36] analysis conducted by ISS ESG

- It incentivizes companies to disclose information needed for DNSH assessment.

CONs:
- Strict application of DNSH assessment means very low (almost non-existent) levels of compliance by non-reporting companies.
- It makes it harder for SMEs to be aligned given their larger data gaps.

Option 2: lack of data = compliance

PRO:
- Wider alignment assessment coverage.
- Increases the usability of the EU Taxonomy for a wide range of use-cases.
- Allows for the assessment of SMEs.
- Closer to actual values reported by companies.

CON:
- It may discourage data collection efforts by entities and data providers.
- It may discourage the development of strong estimation models.
- It may result in greenwashing if the evidence of non-compliance is not captured when applicable.
- May not be consistent with the precautionary principle.

The choice between options 1 and 2 should be considered together with how estimates can be carried out: a strict application of estimation requirements (i.e. only exact metrics can be used, all criteria must be met, and evidence of activity applicability must be provided) risks making it difficult for any non-reporting company to be aligned if lack of data for any of the criteria means no compliance.

3.3 Step Four: Determine Compliance with 'Minimum Safeguards'

The minimum safeguards clause (Taxonomy Regulation Article 18[37]) specifies that minimum safeguards *"shall be procedures implemented by an undertaking that is carrying out an economic activity to ensure the alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights."*

Practically, this means that undertakings whose economic activities are to be considered as Taxonomy-aligned have to align with the standards for responsible business conduct mentioned in:

- The Organisation for Economic Co-operation and Development Guidelines for Multinational Enterprises (OECD MNE Guidelines);
- The UN Guiding Principles on Business and Human Rights (UNGPs), including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work; and
- The International Bill of Human Rights.[38]

[37] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R0852
[38] https://ec.europa.eu/finance/docs/level-2-measures/Taxonomy-regulation-delegated-act-2021-4987_en.pdf

The Platform published a report following the European Commission´s mandate to provide recommendations to the European Commission on the interpretation of Article 18 on minimum safeguards and their implementation.[39] The report has identified four areas as the most relevant for the application of minimum safeguards:

1) Human Rights (including labour and consumer rights and a fair transition);
2) Combating Bribery, Bribe Solicitation and Extortion;
3) Fair Competition; and
4) Taxation.

The report provided detailed recommendations to the European Commission on how FIs should assess compliance. FIs should verify the existence of adequate human rights due diligence processes as the most important proof of compliance. The Platform also recommends using other proxies for compliance.[40]

The minimum safeguards in the Taxonomy Regulation act as a safety net. They ensure that investments and activities labelled as "sustainable" actually meet a baseline of social and governance standards. This prevents activities from being considered sustainable if they violate human rights, labour rights, or engage in unfair business practices.

The substantive topics identified in the OECD MNE Guidelines referenced in Article 18 are:

- Human rights
- Employment and Industrial relations
- Environment
- Bribery, bribe solicitation, and extortion
- Consumer interests
- Science and technology
- Fair competition
- Taxation

Sources: Final Report on Minimum Safeguards,

Some practical examples of indicators (non-exhaustive) that could serve as a minimum standard for assessing social and human rights compliance:

1. Transparency in Reporting
2. Labour Practices
3. Community Engagement
4. Remediation Mechanisms
5. Legal Compliance
6. Lack of E&S resources including personnel and Training and Capacity Building
7. Environmental Impact

These indicators collectively would provide a more comprehensive assessment of a company's social and human rights performance, helping to identify areas where improvement is needed and encouraging responsible business practices. *Source: EBRD*

Due Diligence Process & Supporting Measures:

[39] Platform´s report on Minimum Safeguards
[40] For further information, please read the Platform´s report on Minimum Safeguards. https://finance.ec.europa.eu/publications/call-feedback-draft-report-platform-sustainable-finance-minimum-safeguards_en

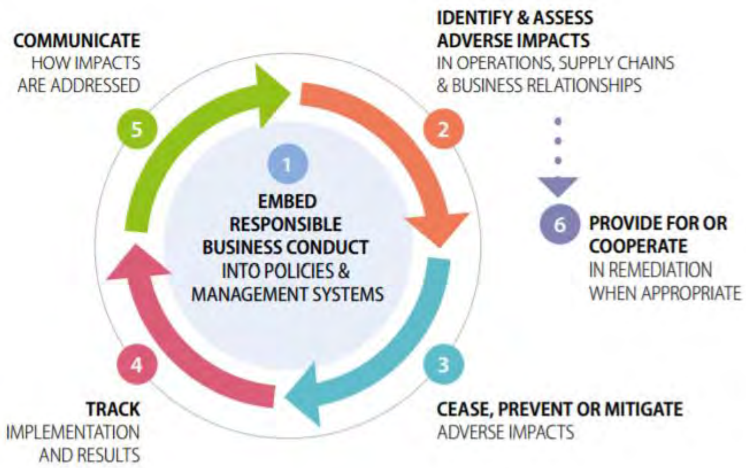

Figure 13: OECD Due Diligence Process

The OECD Due Diligence Guidance for Responsible Business Conduct

An undertaking must **implement appropriate procedures**, including **procedures to continuously identify, prevent, mitigate or remediate the relevant actual and potential adverse impacts** connected with their **own operations, value chains and business relationships** in order to ensure their activities are carried out in line with these standards.

Sometimes, despite implementing all appropriate procedures, an undertaking cannot address certain risks or eliminate certain negative impacts. This does not necessarily mean that the undertaking does not comply with the minimum safeguards, provided that the undertaking has clearly disclosed these potential impacts and explained what it did to identify, prevent, mitigate or remediate them and why it could not eliminate certain impacts. In fact, it is recognised that there can be instances where, despite reasonable due diligence measures, undertakings may still not be able to prevent, cease or mitigate adverse impacts when it comes to the adverse impacts in the undertaking's value chain.

PROS & CONS using standards and guidance

PROS

- Standards establish a common language and framework for protecting basic human rights. They provide a baseline expectation for how governments and businesses should treat individuals and establishing common ground for regulations
- Standards are typically more flexible than regulations
- International standards promote consistency across different countries and beside domestic legislation

CONS:

Companies face difficulties complying with Minimum Safeguards (MSS) due to main challenges:

- Inadequate or non-existent corporate due diligence processes, and
- Difficulty demonstrating adherence to the United Nations Guiding Principles on Business and Human Rights (UNGPs) and Organisation for Economic Co-operation and Development (OECD) guidelines
- Challenges to improvement and put standards into practise

3.3.1 Assessing compliance with the Minimum Safeguards (MSS)

Banks may wish to assess their clients' MSS alignment because:

1. The information provided as part of the self-declaration forms may be incomplete and require a more specific effort on behalf of the financing bank for the assessment of MSS compliance
2. Banks may soon have binding due diligence requirements as part of the Sustainable Corporate Governance initiative, and are increasingly influenced by domestic legislation linked to due diligence (e.g., the Netherlands)
3. Banks need an accurate understanding of their clients' MSS compliance in order to encourage Taxonomy alignment for clients who are not yet fully aligned

Table 7: Assessing compliance with Minimum Safeguards by credit institutions

Type of clients	**Unknown use of proceeds (general-purpose loans)**	**Known use of proceeds (i.e., specialised finance, project finance loans)**
CSRD clients	available through their public reporting and subject to limited assurance	available through their public reporting and subject to limited assurance or the provision of a self-declaration form or questionnaire
Non-CSRD clients	-	the provision of a self-declaration form or questionnaire
SMEs	N/A*	"For SMEs it should be considered that the requirements are proportionate to their risk profile and size, and that they do not place unnecessary burden on them." (Final Report on Minimum Safeguards) eg. the provision of a self-declaration form or questionnaire
Retail clients	N/A	N/A
Residential real estate lending	N/A	N/A
Car loans	N/A	N/A

Sources: https://www.unepfi.org/wordpress/wp-content/uploads/2022/02/Practical-Approaches-to-Applying-the-EU-Taxonomy-to-Bank-Lending-2022.pdf

PROS and CONS of assess client MSS alignment:

PROS

- **Incomplete Self-Declaration Forms:**
  Self-declared information by clients may lack detail, requiring banks to conduct a more thorough assessment of their MSS compliance. This ensures a more accurate understanding of the client's environmental impact and potential risks.
- **Emerging Due Diligence Requirements:**
  The Sustainable Corporate Governance initiative suggests potential binding due diligence regulations for banks. Assessing clients' MSS alignment proactively helps banks prepare for these upcoming requirements and avoid potential non-compliance issues.
- **Domestic Legislation and Due Diligence:**
  Increasingly, domestic laws in countries like the Netherlands mandate due diligence procedures for financial institutions. Assessing MSS alignment helps banks comply with these legal obligations.
- **Encouraging Taxonomy Alignment:**
  By understanding their clients' current MSS compliance status, banks can identify those who are not yet fully aligned with the EU Taxonomy. This allows them to encourage these clients to adopt and implement the Taxonomy, promoting a more sustainable financial system.
- **Mitigating Risk:** Ensures compliance with evolving regulations and reduces potential legal or

reputational risks associated with financing non-compliant clients. ● **Promoting Sustainability:** Encourages clients to adopt sustainable practices, contributing to a broader positive environmental impact **CONS:** ● Additional work ● The need to coordinate work ● Lack of resources and expertise

Banks may need to employ a separate process to assess client performance and compliance with the MSS in case they are interested in assessing their Taxonomy alignment (e.g., banks with large SME portfolios). One such tool could be the provision of a self-declaration form or questionnaire Source

PROS and CONS of a self-declaration form or questionnaire

Questionnaire	**Self-declarations**
PROS: ● neatly checks information regarding MSS **CONS:** ● subjective assessment of the FI ● the assessment may vary in different FI ● too many questionnaires and surveys for companies ● the survey may not reach the right person ● FIs cannot verify responses, do not act as advisors, and do not have auditing capabilities	**PROS:** ● well-known practice for other issues in the FI ● simple and understandable self-declaration mechanism ● understanding the requirements ● compliance with the company's disclosure in their report on MSS (ESG or sustainable report) **CONS** ● due diligence, the necessary to confirm that MSS is a well-researched area

3.3.2 MSS based on company data

How: ESG Report - disclosure information (CSRD, ESRS, SASB, GRI Standard etc.)

Example: ESRS provides a strong framework for companies to report on how they address them: ESRS S1 Own workforce, ESRS S1 - S4 –Social ESRS S2 Workers in the value chain, ESRS G1 Business conduct (Bribery & corruption) - see attachment 2.

PROS ● Internal assessment ● External verification (in some case) **CONS** ● Potential for incompleteness ● May not address all potential data, information and risks, particularly for SMEs or companies not under CSRD

3.3.3 MSS based on estimation.

When a company fails to comply with these minimum safeguards, there can be red flags that investors, regulators, or even the public can identify. Example of indicators of non-compliance:

- Inadequate or non-existent corporate due diligence processes on human rights, including labour rights, bribery, taxation and fair competition
- Final liability of companies for breaches in any of these areas
- Lack of collaboration with a National Contact Point (NCP), and an assessment of non-compliance with OECD guidelines by an OECD NCP
- Non-response to allegations by the Business and Human Rights Resource Centre

Sources: The Platform on Sustainable Finance, Final Report on Minimum Safeguards, October 2022

3.3.3.1 Media monitoring / adverse media screening

How: using external databases on adverse media checks and using professional media monitoring services to verify violations

Example: adverse media screening, or checking for negative news, is an important part of customer due diligence

PROS & CONS

PROS

- Tracking mentions of company: real-time monitoring
- Getting alerts for mentions that matter
- Banks already use the tool for PR and reputation reasons

CONS

- News without verifications, or from an unknown source
- Disinformation and fake news
- An unsustainable volume of alerts and the relevance of these alerts

3.3.3.2 Mapping MSS requirements against ESG indicators and ESG Ratings

How: ESG Ratings (S&P, MSCI, Sustainalytics, LSEG, Fitch, etc.)

Example:

LSEG has identified 28 ESG indicators as proxies to MSS requirements. These indicators apply universally to all economic activities, unlike DNSH requirements where various ESG indicators apply to different activities.

Table 4. Examples of MS requirements vs ESG indicators

MS Requirement	Topic	ESG Indicator
The activity should be carried out "in alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights"	Human Rights	Public commitment to respect and support the protection of internationally proclaimed human rights: The company has made a specific commitment to apply either the UN Guiding Principles on Business and Human Rights or the OECD Guidelines for Multinational Enterprises
	Combating Bribery, Bribe Solicitation and Extortion	Bribery – Policy or commitment statement: addresses countering bribery

Figure 14: Extract on Data Vendor Minimum Safeguards approach. Source: LSEG[41]

[41] https://www.lseg.com/content/dam/ftse-russell/en_us/documents/research/navigating-eu-taxonomy-regulation.pdf

PROS & CONS of ESG indicators (ESG Ratings)

PROS
- External assessment
- Covers most of the MSS areas
- Already existing mechanism
- Automatization process - import data from ratings into internal FI's system

CONS
- Different methodologies used by different providers
- Reliance on one single data source
- Some models may not fully incorporate all the article 18 Taxonomy Regulation requirements

3.3.3.3 MSS estimations based on public database:

Companies may be flagged for non-compliance with Minimum Safeguards (MSS) if they exhibit any red flags, including inadequate due diligence processes regarding human rights (labour rights included), bribery, taxation, and fair competition. Additionally, final legal liability for breaches in these areas, lack of cooperation with a National Contact Point (NCP) on human rights concerns, an assessment of non-compliance with OECD Guidelines by an NCP, or failure to respond to allegations by the Business and Human Rights Resource Centre (BHRRC), a leading human rights watchdog, can all raise concerns about a company's commitment to MSS.

How: Access to public information, e.g. State Labour Inspection, Office of Competition and Consumer Protection or taxations regulations

Example: tax compliance

- **Polish white list of VAT taxpayers**

According to the Polish VAT Act, there is an obligation to publish a list of VAT taxpayers known as the "White List" on the Ministry of Finance's website. This list contains information about entities that are active VAT taxpayers and are required to maintain VAT records.

- **Obligation to prepare and publish information on the execution of tax strategy in Poland**

According to the Act of 28 November 2020 amending the Corporate Income Tax Act, taxpayers have 12 months after the end of the tax year to publish certain information on their website and submit the website's address to the tax office. A fine of up to PLN 250,000 is provided for failure to comply with this obligation. Obligated are: taxpayers whose revenues exceeded EUR 50 million in a tax year and tax capital groups. A list of such entities is published annually by the Ministry of Finance.

PROS & CONS of using public database with taxes:

CONS:
- There may be different taxes, not only national ones
- There is no indication of what is included in Tax Compliance Regulations
- The EU requirements focus on quantitative disclosures, while the proposed reporting requirements in Australia align more closely with the Global Reporting Initiative 207 and necessitate a description of the group's tax approach, in addition to quantitative tax information
- Mainly large public companies in certain jurisdictions

How: public database with information on **breaches and violations**

Example:

- Complaints database - OECD Watch
- Database of specific instances - Organisation for Economic Co-operation and Development (OECD)
- Global Rights Index
- Business & Human Rights Resource Centre
- Global Slavery Index | Walk Free
- Forced Labour Index
- Electronics Watch coordinates industry-independent supply chain monitoring and facilitates the remediation of human rights abuses in public procurement electronics hardware and Low Emission Vehicle (LEV) supply chains https://electronicswatch.org/en/
- Responsible Minerals Initiative (RMI):A global initiative that promotes responsible sourcing of minerals from conflict-affected and high-risk areas. They work with companies, governments, and civil society to improve traceability and address human rights abuses in the mineral trade. https://www.responsiblemineralsinitiative.org/

PROS & CONS of public database:

PROS

- Credibility
- Fast track to data (if already public, if not long waiting)
- Reliable data sources
- Automatization process - import data from database into internal FI's system
- Primary source
- Costs and resources

CONS

- Scattered information
- Incomplete global coverage
- They will be different in each country - mapping of potential sources
- May not be updated
- Who is responsible for the accuracy of this data?
- Complexity across multiple data sources for data ingestion and management
- Not a full proxy to all requirements in article 18

3.3.4 Minimum Safeguards – Compliance Challenges

Challenges with compliance and conformity assessment in the scope of Minimum Safeguards (MSS):

1. Lack of awareness among SMEs:
   - Insufficient knowledge about Minimum Safeguards (MSS) requirements.
   - Absence of processes within companies to manage MSS compliance.
   - Lack of practical guidance, leading to non-compliance with MSS.
2. Lack of a standardised approach to MSS reporting:
   - Inconsistent methods for reporting MSS compliance.
   - Insufficient guidelines for businesses on how to approach MSS compliance.
3. Inadequate awareness of business partner (investee companies, counterparties, supply chain, etc.)

verification:

- Can underestimate the importance of verifying business partners' MSS compliance.
- Lack of procedures for verifying business partners' MSS status.

4. Limited access to information on business partners:

- Insufficient legal basis to access information on business partners regarding MSS compliance.
- Lack of support in obtaining or verifying information about business partners, especially financial information.

Example of mapping ESRS and minimum safeguards:

- ESRS S1 Own workforce
  - eg. ESRS S1 - S4 –Social
  - S1-1 – Policies related to own workforce Disclosure Requirement
  - S1-2 – Processes for engaging with own workers and workers' representatives about impacts Disclosure Requirement
  - S1-3 – Processes to remediate negative impacts and channels for own workers to raise concerns Disclosure Requirement
  - S1-4 – Taking action on material impacts on own workforce, and approaches to mitigating material risks and pursuing material opportunities related to own workforce, and effectiveness of those actions
- ESRS S2 Workers in the value chain
  - S2-1 – Policies related to value chain workers
  - S2-2 – Processes for engaging with value chain workers about impacts
  - S2-3 – Processes to remediate negative impacts and channels for value chain workers to raise concerns
  - S2-4 – Taking action on material impacts on value chain workers, and approaches to managing material risks and pursuing material opportunities related to value chain workers, and effectiveness of those actions
- ESRS G1 Business conduct (Bribery & corruption)
  - G1-2 – Management of relationships with suppliers
  - G1-3 – Prevention and detection of corruption or bribery
  - G1-4 – Confirmed incidents of corruption or bribery
  - G1-5 – Political influence and lobbying activities
  - G1-6 – Payment practices

3.4 Treatment of Use of Proceeds Within Future Green Use-of-Proceeds Securities

3.4.1 Key messages

- Currently, there is very little reported Taxonomy alignment data available on use-of-proceeds instruments. Only very small portions of sustainability bonds claim Taxonomy alignment and only a small portion of second-party opinions conducted contain Taxonomy assessments.
- This lack of data, lack of clarity and restrictive guidance around use of estimates in the context of use-of-proceeds instruments leads managers of article 9 funds and of green bond funds to report very low Taxonomy alignment, with the majority stating 0% alignment.
- This shows a clear need for an increase in reported data and clarity around use of estimates.
- For SPO providers, there is in principle no need to use estimates. SPO providers have access to issuers directly to obtain relevant data and information from them on their use-of-proceeds frameworks. Information reported and retrieved from the issuer allow an SPO provider to make a clear assessment based on thresholds set by the TSC; in case of insufficient information, only a partial[42] or no alignment can be inferred.
- For fund managers or others holding UoP instruments in their portfolios, there is a need for estimates to determine the Taxonomy alignment at arm's length/without access to the issuer to obtain data until

[42] While an issuer or entity cannot be partially aligned as per the regulation, a bond framework could be. For example, in case of a portfolio of projects, some of which Taxonomy aligned and some of which not.

there are sufficient bonds assessed on their taxonomy alignment. However, the nature of the instruments and the lack of available information post-issuance in particular, hamper this.

Several approaches in relation to estimates are described in this report, including pros and cons.

3.4.2 Scope of this report/section

As per ICMA's definition, use of proceeds instruments are green, social or sustainability bonds. This section focuses mainly on Green Bonds (GBs) or Sustainability bonds with environmental objectives[43, 44], as this is where the topic of Taxonomy alignment is most relevant and where most (though not much) data is available. This section looks at available reported data on Taxonomy alignment of green bonds, second-party opinions (SPOs) and green bond funds; and at the applicability and potential approaches of the use of estimates by SPO providers, and by data vendors and/or green bond fund managers in absence of reported data.

For clarification purposes, the analysis does not include loans, sustainability-linked instruments or other debt finance instruments other than bonds.

3.4.3 Previous Work on Estimates in relation to Use of Proceeds Instruments

Previous work by the Platform was limited to a section in the October 2022 Taxonomy Usability report. Relevant parts have been included in section 5.1 of this report. The main conclusion in the 2022 report was:

> "The Platform recommends the European Commission to create equivalent tables that would establish equivalent quantitative or qualitative criteria, wherever possible, based on international standards for all EU legislation-based criteria to enhance the international operability of the Taxonomy. The Platform recommends the European Commission should take further steps to identify the gaps between existing EU, international standards and national legislation referenced in the Climate Delegated Act." State of Data

3.4.4 Availability of Taxonomy alignment data of GBs

Data on Taxonomy alignment reported by issuers would the most important source of data for investors to use to inform investment decisions and to determine the alignment of their funds holding these instruments. While the pool of publicly available alignment data of GBs is growing, the following sections show that data is inconsistent and patchy. The data that is available is usually only available pre-issuance on bond frameworks, rather than on actual bonds at or after allocation. Based on the small amount of available data, the conclusion is that a Taxonomy alignment of GBs is still low.

An LGX study analysed 5,451 listed green, sustainability bonds and sustainability-linked bonds included in the LGX DataHub to identify the number and level of EU Taxonomy and/or the EU GBS related disclosures. The information contained in the LGX DataHub is extracted from issuers' public disclosures. The analysis of 5,451 sustainable bonds indicates 'that elements of the green classification system are already included in the disclosures for 14% of the green, sustainability and sustainability-linked bonds listed worldwide.' However, only about 1% claims EU Taxonomy alignment at the bond level. Note that this data is from May 2022, but more current statistics on this could not be found.

[43] Green bonds are debt instruments issued by governments, supranational organizations, and companies to finance environmental projects.

[44] In the section on SPOs that include an EU Taxonomy Assessment, few SPOs for Sustainability bond frameworks were included.

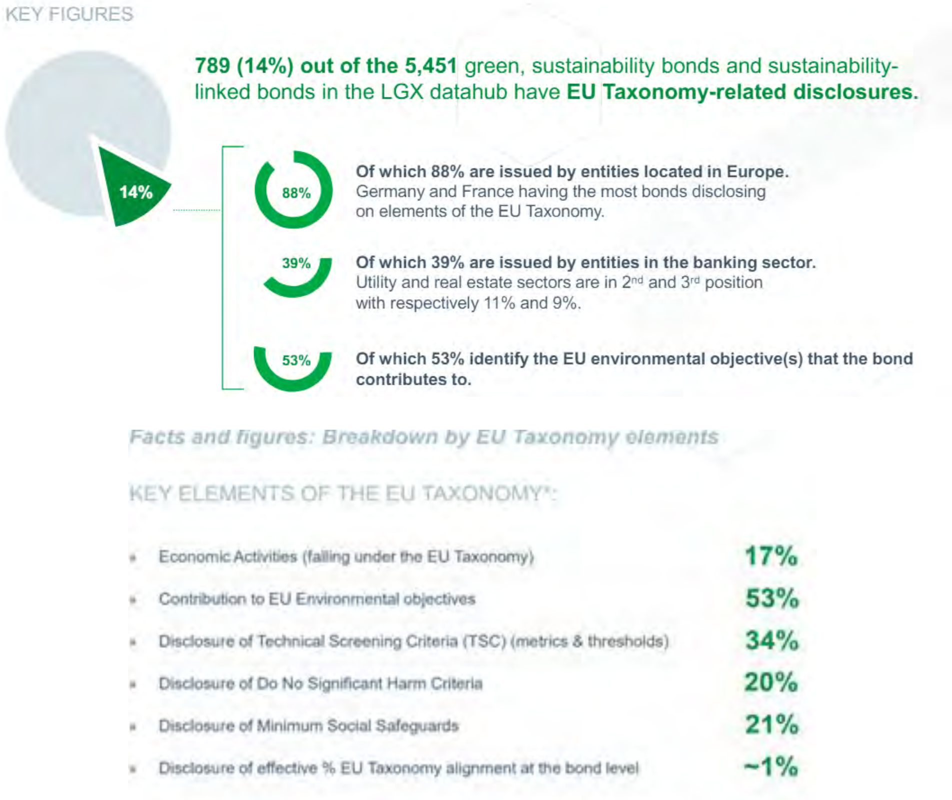

Figure 15: Extract from LGX DataHub, from May 2022

According to Environmental Finance, until end of Q1 2024, 289 bonds ($192bn)[45] reference or claim some level of alignment with EU taxonomy in their frameworks or issuance document which corresponds to approximately 6.3% of cumulative issuance of green bonds ($3.034tn)[46]. The data base does not opine on the validity/greenness/alignment of self-labelled sustainable bonds and loans. Any self-labelled bond or loan is added to the database with the intention of creating the most comprehensive database possible.

According to a Clarity AI study, looking at potential Taxonomy alignment of 17,000 UoP bonds, only 1.6% self-report to be aligned[47].

[45] Environmental Finance data base
[46] Data 23 April 2024: https://www.climatebonds.net/
[47] Are green bonds aligned with the EU Taxonomy? – Clarity AI

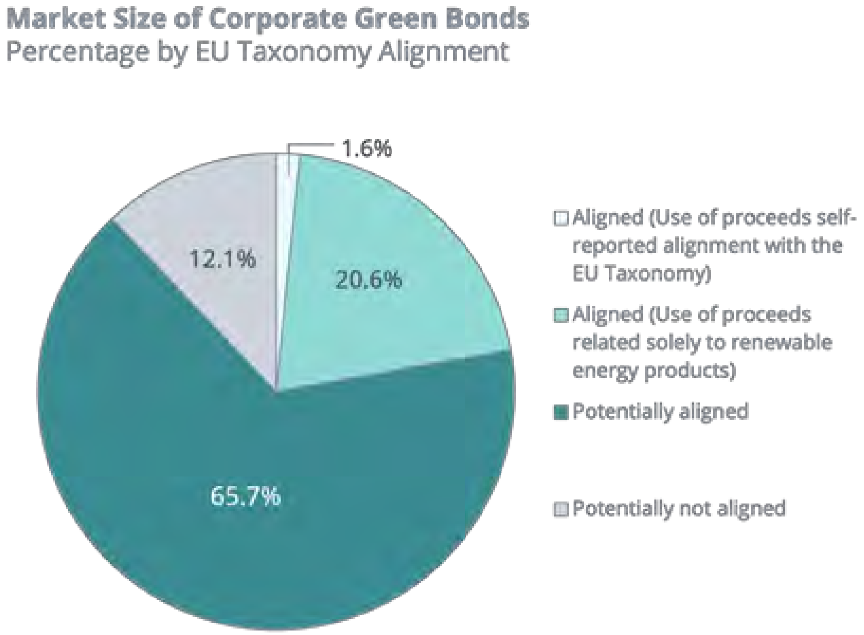

Figure 16: Market Size of Corporate Green Bonds by Taxonomy alignment

3.4.5 SPO data

3.4.5.1 Morningstar Sustainalytics Second-Party Opinions (SPOs)

In absence of reported information by issuers, published EU Taxonomy SPOs constitute the most thorough source of information to assess alignment. However, EU Taxonomy SPOs only cover a small portion of the overall SPOs published: of the 604 SPO conducted by Morningstar Sustainalytics since 2020 for issuers from the EMEA region 57 included an EU Taxonomy Assessment, i.e. less than 10%. Only 34 of these SPOs were published, as issuers sometimes opt not to publish the assessments.

As can be seen in the graph below, of the 34 SPOs published by Morningstar Sustainalytics since 2020 that include an EU Taxonomy Assessment, 79% were fully aligned on the SC, 41% were fully aligned on DNSH, 38% were fully aligned with all criteria. 21% chose to have their frameworks assessed without considering the DNSH criteria, in many cases these were non-EU issuers.

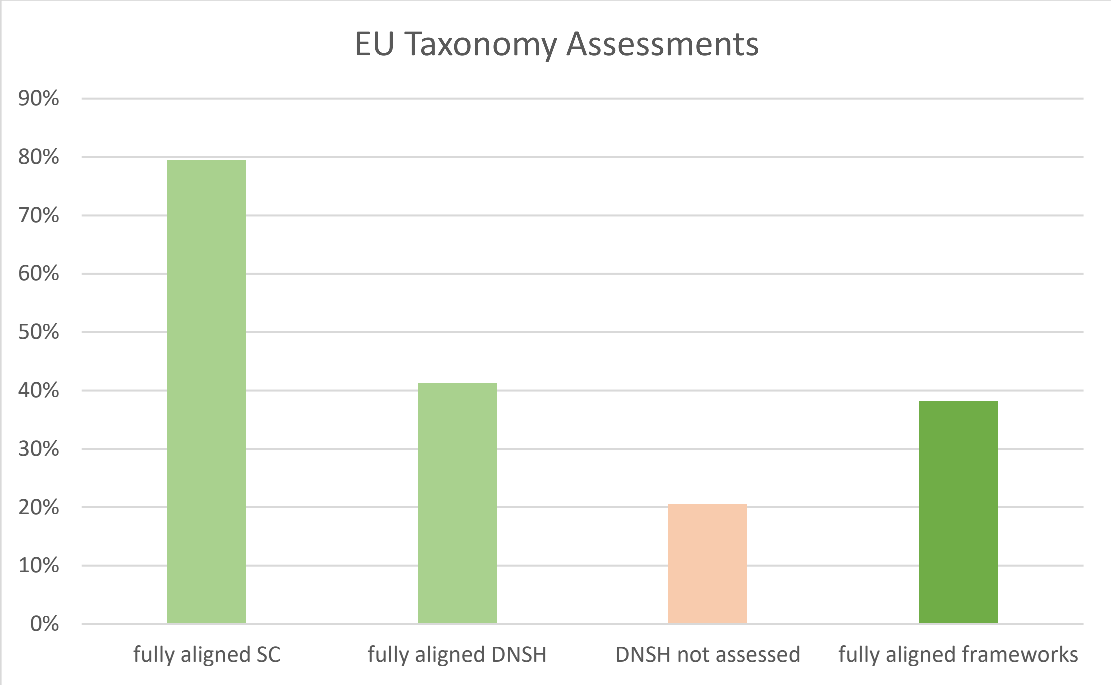

Figure 17: Morningstar Sustainalytics Taxonomy assessments in SPOs in EMEA since 2020

The data shows the low availability of data on EU Taxonomy alignment overall for investors, but also shows that many issuers are still facing difficulties to fully align with the EU Taxonomy. This is driven by the various usability issues well documented by the Platform.

3.4.5.2 ISS-Corporate Second-Party Opinions (SPOs)

SPOs including EU Taxonomy assessment cover a small portion of the overall SPOs published: of the ca. 350 SPOs conducted by ISS-Corporate since 2022 for bond issuers globally, 39 included an EU Taxonomy assessment, i.e. about 11%. 36 of these SPOs were published.

ISS-Corporate offers two types of EU Taxonomy assessments: either a full alignment assessment, including assessment against the EU Taxonomy Technical Screening Criteria for substantial contribution, Do No Significant Harm and Minimum Safeguards, or an eligibility assessment, including an assessment against the EU Taxonomy Technical Screening Criteria for substantial contribution only. Out of the 39 SPOs executed by ISS-Corporate, 70% correspond to a full alignment assessment and 30% to an eligibility assessment.

As can be seen on the chart below, of the full alignment assessment: 96% were fully aligned on the SC, 78% were fully aligned on DNSH, 88% were fully aligned on MS and 74% were fully aligned with all criteria. In case of issuers opting for the eligibility assessment, all were fully aligned on SC.

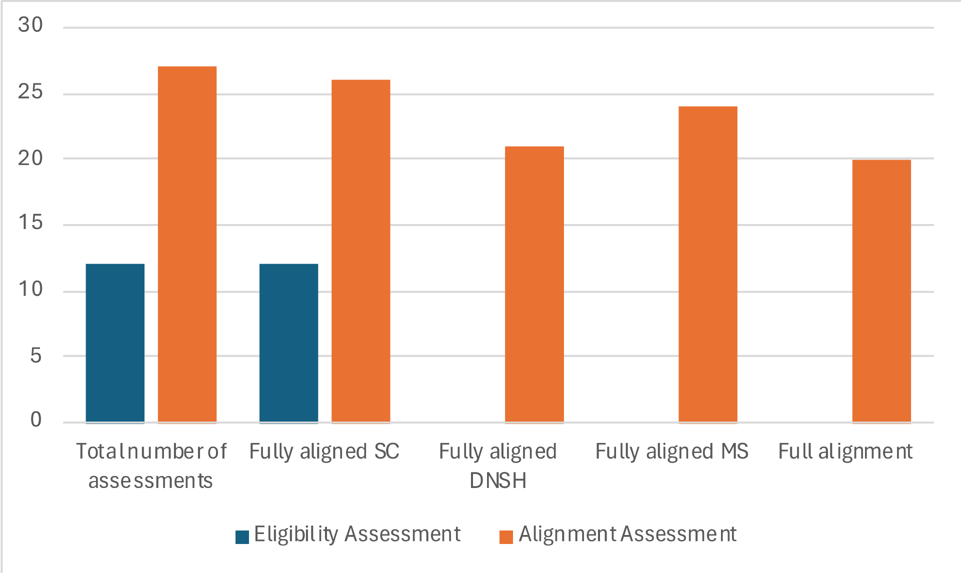

Figure 18: ISS-Corporate Taxonomy assessments in SPOs since 2022

3.4.5.3 Publicly available SPO data

Looking at publicly available SPO data, the overall market shows a similar picture. Analyzing 19 frameworks assessed by ISS, S&P and Sustainalytics that were found in the public domain as a sample[48], mainly from H2 2023 gives the following figures: 89% were fully aligned on the SC criteria for activities assessed, 21% did not have DNSH assessed, 47% had fully aligned DNSH criteria. Having said this, it is unclear how many assessments were done that were not included in the published SPO, in other words, it is unclear how representative this data is. As stated earlier, issuers may opt out of having the SPO disclosed.

3.4.6 Taxonomy alignment of Green Bond funds

Green Bond funds are a meaningful way to understand Taxonomy-related practices in relation to UoP instruments, as they are fairly common and as they should have an incentive to promote the Taxonomy alignment of their funds, given their green investment objectives. Based on latest reported data under the ESG Exchange Template (EET), 76% of Green Bond funds[49] report 0% alignment and the average reported alignment is 5%. Given the green credentials of these funds, one would expect higher and more consistent Taxonomy alignment figures across funds. The infrequent and low Taxonomy alignment figures reported by green bond fund managers can be explained by the lack of reported data and the uncertainty around estimates.

The graph below shows the significant difference of alignment reported by Green Bond funds.

[48] The analysis was made on the basis of publicly available SPOs that included an EU Taxonomy Assessment. SPOs form other providers were also included in the analysis but these SPO did not include EU Taxonomy Assessments.
[49] Morningstar data, April 4th 2024, 145 funds using terms ‘green bond’ or ‘climate bond’ in their names with AuM of $38.5 bn

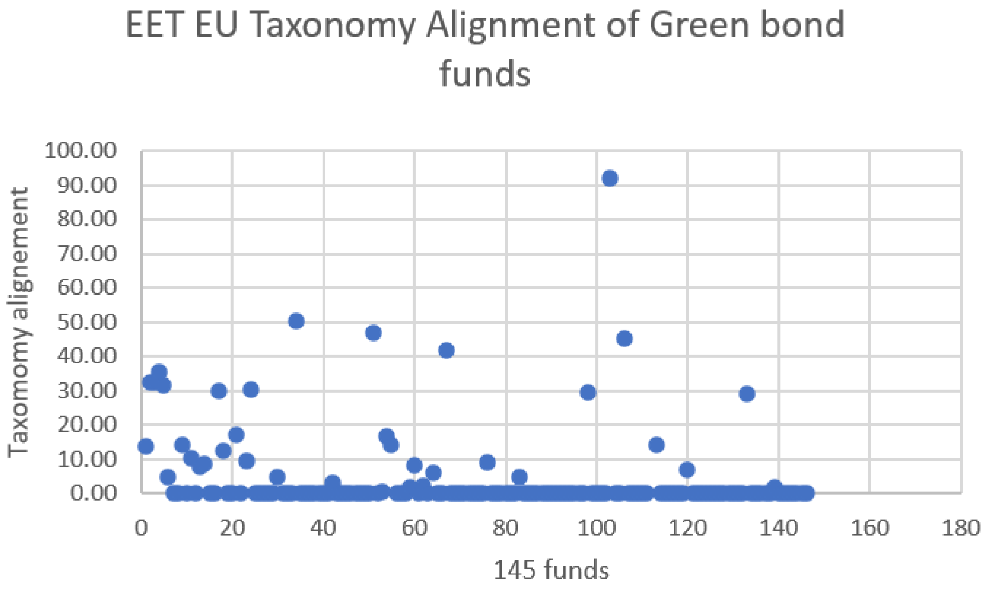

Figure 19: EET EU Taxonomy Disclosure of Green Bond Funds

The table below shows the discrepancy of data reported via the EET (actual alignment) against the data reported via the SFDR template directly available to retail investors (minimum alignment commitment).

Taxonomy alignment of 10 largest Green Bond Funds

Name	**Fund Size USD**	**Alignment based on latest EET data**	**Minimum alignment target SFDR template (incl sovereign)**
AMUNDIEuro GovtTLTD GRN Bd UCITS ETFAcc	2.7bn	13.85%	0%
Goldman Sachs Green Bond-I Cap EUR	2.7bn	32.37%	25%
AXA WF ACT Green Bds I Dis EUR	1.8bn	35.38%	5%
BNP Paribas Green Bd I Cap	1.5bn	4.78 %	0.5%
Eurizon Absolute Green Bonds Z Acc	1.4bn	0%	0%
iShares Green Bd Idx (IE) D H Acc EUR	1.3bn	0%	0%
Mirova Global Green Bd I/A (EUR)	1.3bn	14.13%	10%
Amundi Rspnb Invest Imp Green Bds I C	1.2bn	0%	0%
Allianz Green Bond W EUR	890m	10.32%	0.01%
Eurizon Green Euro Credit Z EUR Acc	865m	0%	0%

Table 8: Taxonomy alignment of the larges Green Bond funds. Source: Morningstar data, April 4th 2024

These discrepancies suggest that asset managers feel more free to report higher numbers in the report/dataset used by the industry, than in regulatory templates.

Finally, SFDR templates also seem to suggest that asset managers have different practices and/or understanding regarding the use of estimates (see Annex 1).

Use of estimates in the context of use-of-proceeds instruments

3.4.7 Use of estimates in the context of Second Party Opinion Providers

SPO providers conduct EU Taxonomy assessments at the request of issuers. So far, voluntary disclosure of UoP alignment with the EU Taxonomy are mainly provided at pre-issuance level through Taxonomy SPOs and are hence at framework level, rather than at bond level. There are some post-issuance Taxonomy assessments[50] but the working group felt that additional guidance was something the EU Green Bond Standard (EuGBS) requires.

Like for issuer reporting, EU Taxonomy SPOs require judgement but it does not rely on estimates per se. SPOs rely on information reported or shared by the issuer to seek confirmation or assess that the TSC and MSS will be met[51].

For this assessment, bond framework criteria are mapped to NACE activities and the respective TSC. Issuers are required to provide evidence for the alignment of the framework criteria with the EU Taxonomy.

Typically, SC are integrated by issuers in the UoP criteria in the frameworks. SPO providers would request specific information to assess the issuer's ability to meet the criteria beyond the alignment claims in the framework. For instance, the SPO provider could assess whether specific country regulations, internal processes, certifications (ISO), or ad hoc action would ensure alignment with SC and DNSH criteria (systems or requirements put in place). Likewise for the MS, good practice is for SPO providers to go beyond claims to align with standards mentioned in the regulation[52], by assessing policies, due diligence management systems, reporting on due diligence process and controversies.

Some SPO providers perform extensive research into the specifics of activities to be financed to perform the assessment, such as reviewing regulation outside the EU on whether these align with the TSC and do not rely on estimates. Examples of information used include:

- The presence of issuer-level ESG risk processes and mechanisms to identify / prevent / manage / mitigate / remedy social and environmental risks related to green projects;

Under such issuer-level ESG processes and mechanisms; the assessment of parameters such as (i) the level of disclosure on ESG practices, (ii) the disclosure of information on risk coverage, (iii) the pertinence of the information provided by the issuer framework to the relevant DNSH TSC; and (iv) the pertinence of the green project type to be funded for the relevant DNSH in question;[53]

- Assessment of the stringency of and compliance with the applicable environmental and social laws and regulations;

[50] https://www.statkraft.com/globalassets/0/.com/6-investor-relations/funding/green-finance-framework/statkraft-green-finance-impact-report-2022-final.pdf#page=2
[51] saint-gobain-green-bond-framework-second-party-opinion1.pdf (mstar-sustops-cdn-mainwebsite-s3.s3.amazonaws.com)
[52] OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights, including the International Labour Organisation's ('ILO') declaration on Fundamental Rights and Principles at Work, the eight ILO core conventions and the International Bill of Human Rights
[53] Idem.

- Implementation of international environmental and social standards and management systems such as International Standards for Organization (ISO), Task Force on Climate-Related Financial Disclosures (TCFD), IFC standards;
- Presence of an environmental impact assessment (EIA). Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented;
- Presence of regulatory authorisations and permits for the green project(s) in question;
- Imposition by the issuer of “social clauses” to its suppliers;
- Conduct of climate and environmental proofing in infrastructure investments;
- More specific and ad hoc actions implemented by the issuer regarding any specific ESG issue;

If the information provided by the issuer is deemed insufficient, the UoP instrument can only be assessed as partially aligned or not aligned.

3.4.8 Use of Estimates in the context of financial products holding UoP instruments

Funds or other financial products holding UoP instruments that wish or need to report Taxonomy alignment have to either report 0% or use estimates, in the absence of reported data. Unlike SPO providers, these market participants, especially when operating in the secondary market, may not have full access to issuer information directly. As such, they develop their own estimation approaches or make use of data providers.

3.4.8.1 Pre-issuance

Regulatory guidance is unclear on the treatment of bond frameworks, which do not constitute ‘reported data’ as they do not necessarily guarantee the same Taxonomy-alignment of the issued bond (e.g. in the case of a framework covering multiple projects, with potentially different levels of alignment). However, in the case of multiple bonds or projects under one framework, the alignment proportion of the framework may not be the same as the alignment of an individual bond or project. Also, as actual impacts on occur during the life-cycle of the project financed, framework alignment does not necessarily guarantee bond alignment.

UoP framework claims or alignment commitments should be treated cautiously and should be subject to due diligence by investors. Similarly to the case of SPO providers described above, estimates may or may not play a role in their approach.

Practices whereby ‘auto-aligned’ activities (e.g. renewable energy activities such as power generation from wind energy that have no substantial contribution criteria) are considered aligned without assessing DNSH and MS, are deemed insufficient under current regulatory guidance. All three Taxonomy tests (SC, DNSH and MSS) need to be performed in order to produce sufficient alignment conclusions.

3.4.8.2 Post-issuance

In the absence of SPOs, a green bond investor can assess a pre-issuance bond framework, where one would rely on information provided by the issuer and where estimates do not play a role as such (as described in the SPO provider section). We note that estimating alignment post-issuance is very much complicated by the general lack of post-issuance and allocation data: without information on how proceeds were allocated, it is very hard to know what projects have been funded and what to base estimates on, particularly in the case of bonds funding multiple projects or a portfolio of bonds.

A pre or post allocation report that includes Taxonomy alignment reporting, preferably reviewed by an external reviewer, will constitute ‘reported data’ by the issuer, and as such an investor could use that information for their reporting. For non-EU issuers or for EU issuers with significant non-EU operations, this should be subject to further due diligence.

However, allocation reports are not yet common in this still nascent market. We note that estimating alignment post-issuance is very much complicated with a lack of post-issuance and allocation data: without information on how proceeds were allocated, it is very hard to know what projects have been funded and what to base estimates on, particularly in the case of bonds funding multiple projects or a portfolio of bonds.

For example, consider a bond framework for a bond that includes 2 potential projects in equal split:

- Project A – 100% aligned project in renewable energy
- Project B – not-aligned project that meets DNSH and MSS but does not meet SC criteria

The Taxonomy alignment of the framework pre-issuance would be 50%. However, if at a certain moment proceeds have been allocated to project B, but not yet to project A (and perhaps the issuer decides not to allocate funds to project A at all), one cannot claim that the alignment of the issuance is 50%. Given the lack of post-issuance data, estimating the alignment of the issuance based on the framework's alignment may not be appropriate.

Also, actual positive or negative impacts of the project financed will only occur during the life of the project, so after allocation. Again, given current the lack of post-allocation information, the only available data is from the framework. Under the EuGB regulation, the requirement to publish allocation reports and have them reviewed, will greatly improve this situation. An EuGBS pre or post allocation report, which will include the Taxonomy alignment and will have been reviewed by an external reviewer, will constitute 'reported data'. In particular in combination with an impact report. For those instruments, an investor will not need to apply estimates.

In conclusion, given the nature of the instrument and the current state of data, we need to give flexibility to bond holders to use pre- or post-allocation data as they see fit.

3.4.8.3 Overview of potential approaches

Overall, green bond fund managers could look at other sources to estimate alignment of their holdings:

Table 9: Pros and Cons of Estimating UoP Taxonomy alignment

Approach	Pros	Cons
EU taxonomy SPO	-Stringent assessment -Nuanced report identifying areas of alignment? -include reported information and beyond	-Relatively few Taxonomy SPOs carried out and published, therefore not a source of abundant data -Resource & time intensive -Pre-dominantly pre-issuance, not post-issuance - bond framework alignment may differ from actual bond/project alignment
Self-declared (or not considered in SPO) Taxonomy alignment by the issuer pre-issuance	-Publicly reported information	-No assurance nor assessment beyond claim , so only usable in combination with additional due diligence
Taxonomy reporting at issuer level - Issuer's overall alignment - Alignment of specific activity/ies covered by UoP instrument	- Publicly available data (though not yet available for all issuers)	- Precautionary principle cannot be ascertained, although in many cases the alignment of the UoP instrument would likely be higher than the issuer alignment
UoP category as proxy for SC alignment (renewable energy/auto-aligned activities only[54])	-Useful to assess SC	-No guarantee of DNSH or MSS or of meeting all SC - only for auto-aligned activities
Alignment with Green Bond Principles, as proxy for DNSH alignment	-Large data availability and market coverage -helpful for eligibility	-No guarantee of alignment as market standards lack detailed taxonomies
Alignment with Climate Bond Standard	-Overlap for some SC criteria with Climate Bond Standard	- No guarantee of alignment as standard lacks detailed DNSH criteria aligned with EU taxonomy and certain SC differ as well

[54] Typical examples are some renewable energy activities such as electricity generation from solar photovoltaic or wind that naturally have a life cycle GHG emissions intensity lower than the Climate Delegate Act's threshold. Currently set at 100g CO_2e/kWh.

	- Data more widely available	

Besides the approaches above, a green bond fund manager can apply the approaches for eligibility, SC, DNSH, and MSS in the other sections of this report on the specific economic activities financed by the instrument.

Not all financial entities have the same access to direct data or engagement capacity. Banks may get the data more easily thanks to their closer relationship with counterparties, for instance, during the loan origination process. Even within the investor community, small asset managers may be at disadvantage versus big asset managers with much larger resources. The need for third- party data will therefore be more pronounced in the case of the latter.

3.4.9 Thoughts for Consideration

1. **With the adoption of a number of debt-only Taxonomies internationally,** such as those in Singapore and China, consideration could be given as to whether an internationally taxonomy-aligned bond could be equivalent to an EU Taxonomy aligned bond.

2. **The EC could further converge Taxonomy reporting practices by bond investors by drawing a list of best practices which could be improved over time** (see table in section 5.2.3).

3. **The EC could increase the usability of the EU Taxonomy by building and maintaining correspondence tables:** these would establish equivalent quantitative or qualitative criteria, wherever possible, based on international standards for all EU legislation-based criteria to enhance the international operability of the Taxonomy. The Platform recommends the European Commission should take further steps to identify the gaps between existing EU, international standards and national legislation referenced in the EU Taxonomy.

4. **The EC could consider growing the pool of data available to investors by requiring GBs to:**
   - Disclose the proportion of alignment with the Taxonomy and make use of EU GB voluntary templates;
   - Seek third-party assessments of Taxonomy alignment information and, in case of EU GBs, by an external verifier supervised by the European Securities and Markets Authority (ESMA);
   - Publish related third party assessment pre and post issuance.

5. For the sake of comparability and robustness of impact reports, we'd encourage the EC to consider a combination of prescribed **impact metrics** for each Taxonomy objective to report on in the EuGBS impact report, with the flexibility for an issuer to add impact metrics to the prescribed list as relevant. Where relevant, we'd encourage clarity on metrics consider insufficient (e.g. reporting on avoided emissions is considered insufficient by PCAF).

3.4.10 Annex I: Extract of SFDR templates for funds reporting above 0%

3.4.10.1 GS Green Bond-I Cap EUR

'The green bonds with an environmental objective aligned with the EU Taxonomy are defined as those investments which meet the technical screening criteria and do no significant harm criteria relevant to each economic activity as per the EU Taxonomy instructions. The green bonds with an environmental objective that are not aligned with the EU Taxonomy are aligned instead with the focus areas of the Green Bond Principles, i.e. renewable energy, energy efficiency, pollution prevention and control, environmentally sustainable management of living natural resources and land use, terrestrial and aquatic biodiversity conservation, clean transportation, sustainable water and wastewater management, climate change adaptation, circular economy adapted products, production technologies and processes and/or certified eco-efficient products and green buildings. This is confirmed through the assessment based on the Green, Social and Sustainability Bond Assessment Methodology.'

3.4.10.2 AXA WF ACT Green Bds

‘The Financial Product takes into consideration the criteria of the EU Taxonomy environmental objectives and the ‘do not significantly harm’ criteria of the EU Taxonomy. The minimum share of sustainable investments with an environmental objective aligned with the EU Taxonomy is 5.0 % of the Financial Product Net Asset Value.’

3.4.10.3 BNP Paribas Green Bd I Cap

‘The extent to which sustainable investments with an environmental objective contribute to the environmental objectives set out in Article 9 of Regulation (EU) 2020/852; climate change mitigation, climate change adaptation, the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control and/or the protection and restoration of biodiversity and ecosystems and are aligned with the EU Taxonomy are disclosed in the two graphs below in the document. The Management Company is improving its Taxonomy-alignment data collection to ensure the accuracy and suitability of its Taxonomy sustainability-related disclosures. Further subsequent prospectus and taxonomy-alignment commitments updates will be made accordingly. Economic activities that are not recognised by the Taxonomy Regulation are not necessarily environmentally harmful or unsustainable. In addition, all activities that can make a substantial contribution to environmental as well as social objectives are not yet part of the Taxonomy Regulation.’

3.4.10.4 Mirova Global Green Bd I/A (EUR)

‘The Fund commits to invest a minimum of 10% of its net assets in sustainable investments with an environmental objective that are aligned to the EU Taxonomy. The alignment with EU Taxonomy of the economic activities is based on use of proceeds or revenues or directly reported by the issuers or equivalent data collected or estimated by third party data provider based on publicly available information. The minimum taxonomy-aligned investments are not subject to an assurance by an auditor or review by a third-party.’

PART 4: SFDR – PAI Estimation Models

4.0 Usability Considerations on Principal Adverse Impact Reporting

A lack of company-reported data and poor disclosure practice is a challenge not only for Taxonomy alignment reporting but also for the determination of Principal Adverse Impacts (PAI) of investments. In the context of PAI statements and/or for use in the context of avoiding significant harm for investments with a sustainability objective based on article 2(17) SFDR, financial market participants may find that data is missing because either:

1. The position is not in scope for the metric in question, e.g. for a sovereign issuer, no information is available on PAI indicators applicable to corporates; or
2. There is a lack of reported information, which can be due to either underreporting or reporting of metrics that do not correspond 1:1 to the requirements from the regulation.[55]

Estimations can help close the data gap where data is missing due to a lack of reporting or due to the reported data not aligning well with the regulatory metric, as outlined in point 2 above. This is the focus for this note. Estimations cannot be used to arrive at outcomes for positions that are not in scope of the metric in question, point 1 above (See Annex 1 for examples on non-eligible holdings). Before we dive into estimation approaches, we would like to elaborate on choices that may also drive different data outputs for entity-level reporting under SFDR with respect to ESG data and financial metrics.

4.1 Corporate ESG Reporting as the Basis for SFDR Entity-Level Reporting

Context

- ESG Data is typically reported annually by corporates; breaches of international norms reported by third parties typically refer to a specific point in time.
- ESG Data is typically reported in line with the fiscal reporting period of the company (Figure 1).
- ESG Data typically carries a lag of 3 to 18 months from the financial statement of the company. This has many reasons from data collection to validation and quality controls.
- There may be multiple ESG datapoints used in a single PAI, these can come from various sources and periods of reporting may not always be synchronized.

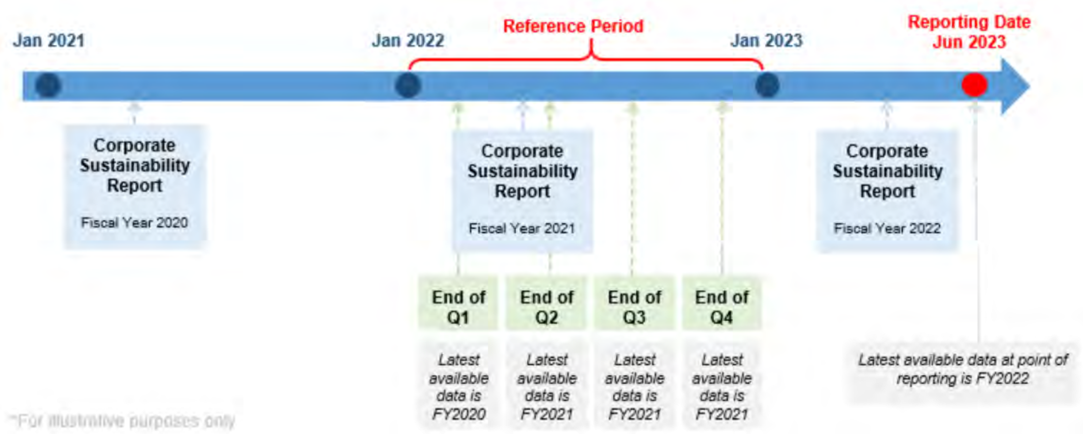

Figure 20: SFDR Entity Level Disclosure

55 Starting from 2025, companies subject to CSRD will be required to report ESG Data alongside their financial statement; including, where material, mandatory and optional PAIs.

When aggregating ESG data for SFDR entity-level reporting, there are different options, each with pros and cons as set out in Table 10 and Figure 20.

Table 10: Options for SFDR entity-level reporting

Option One: Fiscal Aligned ESG Data *When reporting in June 2023, use data from a named fiscal year for all investments (e.g. FY2021, the data set published during 2022 reference period)*	**Option Two:** Latest Available ESG Data at point of Reporting *When reporting in June 2023, use the latest available data as at the reporting date (e.g. FY2022 for some, FY 2021 for others)*	**Option Three:** Latest Available ESG Data at each Quarter End Date *When reporting in June 2023, use the latest available data as at each quarter end date of the reference period (e.g. mix of FY 2020 and FY2021)*
PROS • Consistency in reporting data from the same fiscal period • Ease of application on n v n-1 comparison	**PROS** • The most usable approach – easy to identify latest available ESG data at point of reporting • The most current representation of the ESG profile of the investment	**PROS** • A fair reflection of the ESG data available at point of decision making (relevant in particular for UNGC violations and controversial weapons data)
CONS • Does not consistently represent the data available at point of investment decision making • The ESG data may not be available for all companies over a single fiscal period (so when choosing this approach a fiscal year that is 2 years prior to the reporting year would be most appropriate and thus could be a stale representation of the ESG profile of the investment) • Adverse impacts which occur after an FMP divests are included in PAI reporting (e.g., UNGC violation in Q1 23 for a position divested in Q4 22)	**CONS** • Does not represent the ESG data available at the investment decision point • Varied ESG fiscal periods across the investment, based on reporting cadence of the underlying company • Adverse impacts which occur after an FMP divests are included in PAI reporting (e.g., UNGC violation in Q1 23 for a position divested in Q4 22)	**CONS** • Requires FMPs to snapshot and store PAI data at each quarter end date of the reference period • Does not represent the most current ESG profile of the investment • Varied ESG fiscal periods across the investment, based on reporting cadence of the underlying company

The Data Provider Group notes that options 1, 2 and 3 are all permitted under SFDR and should continue to be available for investors to choose the appropriate method that suits their data/reporting processes.

4.2 Financial Metrics in SFDR Entity-Level Reporting

Context

- SFDR requires PAI impact to be averaged over (at least) quarterly holdings data for entity-level reporting
- Quarterly holdings data should be a combination of the **valuation** of the individual investment price **at fiscal year-end** and the **quantity** of investments

Table 11: How to value investments for SFDR Entity level reporting

Regulatory requirement: adjust holding value for year-end EVIC	**Option 1: leave current value as is**	**Option 2: recalculating for quarterly EVIC**
This requires adjusting the current value of investments for each quarter-end with the year-end EVIC.	• Not adjusting end-of-quarters current value of investments with fiscal end-year value	• EVIC is calculated as all shares outstanding * price (=market cap) plus notional of all outstanding debt.

• The adjustment factor requires the following input • Share price as of portfolio date • Fiscal year-end of the investee • Share price as of fiscal year-end of investee • These data points are not necessarily available for all investee companies and all securities in-scope		• Outstanding debt is reported usually quarterly, but the market cap changes every day. • Calculating EVIC with share price at every quarter end, brings it "in sync" with the market value of positions in the portfolio.
PROS • Avoids importing market price volatility	**PROS** • Matches market practice: e.g. presentation of asset allocations, performance & risk calculations, look through analysis for prudential reports	**PROS** • straightforward (real-time) implementation, no data-intensive adjustment needed
CONS • High complexity in implementation for limited PAIs • Introduces other biases linked to e.g. changes in the #shares issued (capital in/decrease, stock split, corporate actions), liquidation of companies, changes in net debt ratio	**CONS** • Imports market price volatility for certain PAIs	**CONS** • Deviates from current interpretation of the regulation, still imports some market volatility • For those who have implemented year end EVIC calculations could be costly to undo

The Data Provider Group notes that the regulatory requirement deviates from standard market practice of quarterly portfolio screenshots and has created substantial problems in practical implementation.

4.3 Treatment of Missing Data

Context

- Where data is not reported, the information can be obtained through making reasonable assumptions. [56]
- For the reporting year 2022, data availability across the mandatory PAIs remains patchy (see Table 12).

Table 12: Mandatory PAIs from Table 1 of Annex 1 of the SFDR RTS and availability of data[57,58]

Climate and Other Environment-Related Indicators		
Theme	Indicator	Availability of Data (MSCI)
Greenhouse gas emissions	1. GHG emissions Scope 1 GHG emissions Scope 2 GHG emissions	57.5% (Scopes 1+2)

[56] According to Art. 7(2) of the SFDR: *Where information relating to any of the indicators used is not readily available, financial market participants shall […] details of the best efforts used to obtain the information either directly from investee companies, or by carrying out additional research, cooperating with third party data providers or external experts or making reasonable assumptions*.

[57] For indicators applicable to corporate issuers, availability of disclosure represents the percentage of MSCI ACWI IMI constituents with available disclosures. For indicators applicable to sovereigns and supranationals, availability of disclosure represents the percentage of sovereign issuers or countries in the MSCI ESG Government Ratings coverage universe with available data. For certain indicators (PAI 4, PAI 7, PAI 11 and PAI 14), the availability of disclosure represents the percentage of MSCI ACWI IMI constituents that were researched. For PAI 10, the availability of disclosures represents the percentage of MSCI ACWI IMI constituents flagged for exposure on this indicator. As of May 6, 2024.

[58] The availability of disclosure reflects MSCI ESG Research's interpretation of the mapping from MSCI ESG Research data points to SFDR indicators.

	Scope 3 GHG emissions Total GHG emissions	Reported and estimated (Scopes 1, 2, and 3): 96.9%
	2. Carbon footprint	
	3. GHG intensity	
	4. Exposure to companies active in the fossil fuel sector	92.2%
	5. Share of non-renewable energy consumption and production	36.5%
	6. Energy consumption intensity per high impact climate sector	51.8%
Biodiversity	7. Activities negatively affecting biodiversity-sensitive areas	1.7% Assessed: 96.4%, based on MSCI Biodiversity Screening Metrics Methodology
Water	8. Emissions to water	0.3%
Waste	9. Hazardous waste ratio	20.1%
Indicators for Social and Employee, Respect for Human Rights, Anti-Corruption and Anti-Bribery Matters		
Theme	Indicator	Availability of Data
Social and employee matters	10. Violations of UN Global Compact principles and Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises	0% Assessed: 96.1%, based on MSCI ESG Controversies methodology
	11. Lack of processes and compliance mechanisms to monitor compliance with UN Global Compact principles and OECD Guidelines for Multinational Enterprises	92.5% Assessed based on MSCI SFDR Adverse Impact Metrics Methodology
	12. Unadjusted gender pay gap	6.3% Availability of estimated data will be added once the data has been released
	13. Board gender diversity	95.8%
	14. Exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons)	100% Sourced from MSCI Business Involvement Screening Research methodology based on reported data
Indicators Applicable to Sovereigns and Supranationals		
Theme	Indicator	Availability of Data
Environmental	15. GHG Intensity	95.6%
Social	16. Investee countries subject to social violations	0% Assessed: 98.0%, based on the EU Sanctions list

Source: MSCI ESG Research, May 2024.

There are various approach to address non-reporting ('missing data'). Some are elaborated in Table 4. ESMA is on record with a statement that assuming that a company does no significant harm because it does not report on an indicator is 'not an option'.[59]

Table 13: Approaches to address missing data

Only use reported data: Use the data you have to calculate the PAI in relation to all investments and complement it with coverage information in the disclosure	Extrapolation: Calculate the PAI based only on the portion of holdings for which you have data and extrapolate – based on the (questionable) assumption that the outcome is representative of all your holdings. Extrapolation could be done over all holdings or only eligible holdings.	Fill gaps with estimates: Use quantitative estimates (e.g. sector averages) reasonable assumptions or "worst case" assumptions to fill the data gaps and calculate the PAI based on that (potentially complemented by a coverage disclosure indicating the share of reported vs. estimated data)	Obtain from Investee company: Investor requests information directly
PROS • Transparent, simple • Accurate The CONS partly resolve themselves by 2025 for holdings subject to CSRD	**PROS** • Better coverage	**PROS** • Better coverage • Reasonable accuracy can be achieved	**PROS** • Better coverage • Accurate
CONS • Disincentivizes disclosure • Assuming NULL or zero in cases of missing data can, for some PAIs, lead to substantially understating an adverse impact.	**CONS** • Estimates might be a better representation of the truth than assume the rest is of the same value as the average of the known portion. • Does not apply the precautionary principle	**CONS** • Depends on quality of estimates and type of datapoint (also not feasible for each PAI e.g. gender pay gap, % women on board). • Particularly challenging/ inaccurate for SME estimations. • Cannot work for non-eligible holdings	**CONS** • Disadvantages smaller asset managers, who are less likely to be given the information required • Provision of data bilaterally is not transparent or verifiable by a third party • Companies become inundated with bilateral requests for data

Poor reporting represents an additional problem. Some examples are presented here below.
Case 1: Disclosures may have mathematical error: sum of renewable & non-renewable energy consumption is greater than total energy consumption or water recycled is larger than total water consumption.
Case 2: Inconsistent unit of measure for energy consumption in the fillings, e.g. once mentioning billions of GJ, once omitting billions.
Case 3: Delays in reporting: issuers in UK or having operations in UK have released their Gender Pay Gap report for FY 2022 in March/April 2024.

[59] Public hearing on SFDR Delegated Regulation, June 2023. Review of the SFDR disclosures – public event on the European Supervisory Authorities' consultation - YouTube

4.4 Estimation Approaches

Context:

- Within the category of estimates, depending on the type of PAI indicator, different approaches may be applied to arrive at an estimate.
- The group has identified four general estimation approaches as illustrated in Table 5.

Table 14: Estimation Approaches for Data fills

<u>Quantitative estimates:</u> Good quality estimates are an option to fill gaps, applying precautionary principle	<u>Reasonable assumptions:</u> Reasonable assumption based on contextual information are an option to fill gaps, applying precautionary principle.	<u>Worst case assumptions:</u> Where data is missing assume worst case even if unlikely.	<u>Media/NGO source:</u> A review of media/NGO sources can be used to identify non respect.
PROS • Reasonably accurate if sufficient data exists • Tested methodologies exist • Precautionary principle can be incorporated	**PROS** • More accurate than worst case assumption	**PROS** • Strictest application of precautionary principle • Appropriate approach where no relevant contextual information can be leveraged	**PROS** • More reliable than company reporting alone • Allows to flag non-respect also where no court ruling exists (yet) • Tested methodologies exist
CONS • For many PAI indicators there is not sufficient information to base estimates on	**CONS** • Only possible where relevant contextual information exists	**CONS** • Does not reflect relevant contextual information even where available • Extremely punitive against non-reporting entities (e.g. in EM or SMEs)	**CONS** • Reliant on cases of non-respect being flagged by stakeholders • Only applicable to limited no. of PAI indicators

Table 6 shows an overview of the different types of PAI indicators included in the SFDR Delegated Act and the estimation approaches which can be applied to each to fill data gaps.

Table 15: Estimation Approaches for PAIs

PAI Type	Example	Estimation options
Quantitative indicators		
Emissions	Carbon Emissions, Hazardous waste	Quantitative estimates
Percentages/Ratios	% earning less than adequate wage, CEO pay ratio	Quantitative estimates
Counts	# of severe human rights issues and incidents, # of days lost to injuries	Quantitative estimates
Qualitative indicators		
Involvements	Fossil Fuels, Operations affecting threatened species	Reasonable assumptions, worst case assumptions*
Lack of policies/measures	companies without water management policy	Worst case assumptions
Non-respect	Non-respect of OECD Guidelines & UNGP	Media/NGO sources

*Applying worst case assumptions for "Involvement" type PAI indicators may lead to very unrealistic outcomes. E.g. it would not be realistic to assume that a non-reporting food company is involved in controversial weapons. Reasonable assumptions which take into consideration relevant information such as sector, location, business model or other will lead to more accurate outcomes.

4.5 Challenges and best practices for estimations

4.5.1 General challenges

When building estimates on the back of reported data, the collection process needs to be synchronized, i.e. all companies must have been researched and the data collection (nearly) completed for all companies in coverage. Otherwise, there is a risk that a data point is estimated for a company, while the company has already reported data. Or that the estimation model is built on the back of a small sub-set of reported data.

For quantitative indicators, historic comparability is limited as the data is not driven by the company's sustainability profile and how it changes year-on-year but by that of its sector peers and the degree of reporting within a sector.

The draft Final SFDR RTS presents new challenges for estimations by the high specification of certain indicators like e.g. accumulated earnings in non-cooperative tax jurisdictions and the use of non-specified terms like 'excessive use of…', 'insufficient employment of….', 'adequate wage', which are open to interpretation and may be subject to diverging local legislation, standards or norms. This increases the complexity of PAI reporting and defining data collection guidance and data methodology for third party providers.

4.5.2 Best practice for quantitative estimates

Estimation models are costly to build and to maintain. They require a separate data infrastructure as each estimated data point needs to be distinguishable from a reported data point for transparency. We would not recommend an approach where estimates are built for each and every PAI.

- For cases where gaps are relatively small as a % of the total universe of companies covered, or where data may become available with a delay, we see no need to build estimates (e.g. board gender diversity).
- For some PAI indicators very limited data is available (e.g. emissions to water or gender pay gap). Here estimation models should use external data sources (e.g. country or sector specific data from reputable multilateral institutions like the OECD, IEA or academic data bases) instead of building on reported data.
- For some PAI indicators data is available from a relevant share of companies (e.g. non renewable share of energy consumption and production) but gaps in reporting remain. These provide a good basis for estimates, as a sufficiently large amount of data per peer set is available.

Estimated data can incentivize or disincentivize companies to report. However, given the number of providers and estimation approaches in the market, there is scope for thinking that the impact overall will be diluted. Nevertheless, best practice would dictate to setting the estimated data point above the sector average to avoid underreporting by the 'poor' performers.

PART 5: Annex: Inclusion/Exclusion of Non-Eligible Holdings & Cash

Context

- SFDR defines PAI indicators for three types of entities: corporates, sovereigns and real estate
- Some PAI indicators must be calculated in relation to "all investments" which according to the Q&A document from November 2022 "should be understood to mean both direct and indirect investments funding investee companies or sovereigns through funds, funds of funds, bonds, equity instruments, derivative instruments, loans, deposits and cash or any other securities or financial contracts"
- The European ESG Template developed by FinDatEx includes fields for eligible assets for each PAI, defined as "% of assets (versus notional / AUM), which could provide data"

Asset/investment*	Weight	Value of investment €millions	EVIC €millions	Scope 1+2+3 Emissions (t = tonnes)	Fossil Fuel Involvement (YES/NO)
Corporate A	20%	€1m	€2m	2t	YES
Corporate B	20%	€1m	€1m	1t	NO
Sovereign C	20%	€1m	N/A	N/A	N/A
Sovereign D	20%	€1m	N/A	N/A	N/A
Cash	20%	€1m	N/A	N/A	N/A

Option One: Carbon Footprint and Fossil Fuel investment in relation to all holdings & cash PAI 2: (€1m / €2m * 2t + €1m / €1m * 1t) / €5m = 0.4 t/ €m Where it says N/A we assume "No" involvement in fossil fuels **PAI 4: 20%**	**Option Two:** **Carbon Footprint and Fossil Fuel investment in relation to eligible holdings (Corporates A&B)** PAI 2: (€1m / € 2m * 2t + €1m / €1m * 1t) / €2m = 1 t/ €m Where we represent the "YES" as a portion of eligible PAI disclosures **PAI 4: 50%**
PROS • Simplicity • Comparability – always divide by the same denominator • Seems to be the direct interpretation of the supplementary guidance of the regulation	**PROS** • Impact statement not sensitive to amount of non-eligible holdings
CONS • Understatement of adverse impacts due to inclusion of non-eligible holdings in the denominator • If you have a large cash position, this would lower the PAI %	**CONS** • Would need to be accompanied by a coverage ratio • Coverage ratio would need clarity and consistency in how it's defined – preference for coverage ratio to reflect all positions (e.g. 40%) because common interpretation in the market & allows better context to interpret the number

We considered four options for how coverage could be displayed. Of the four, Option 1 is cleaner to see where

PAI indicators have been used in the computation of the score relative to the total investment and provides a usable and consistent approach. This is also used in the remainder of examples provided in this Annex.

Option One	Option Two	Option Three	Option Four
Numerator: where there is PAI data **Denominator**: all investments **Examples:** Would include reported and/or estimated or extrapolated data sets. Would exclude non-PAI eligible security types like cash and derivatives from the numerator.	**Numerator:** where there is reported PAI data **Denominator**: all investments **Examples:** Would include only reported data and exclude estimated or extrapolated data sets. Would exclude non-PAI eligible security types like cash and derivatives from the numerator.	**Numerator:** where there is PAI data **Denominator**: securities eligible to PAI **Examples:** Would include reported and/or estimated or extrapolated data sets in numerator. Would exclude from the denominator + numerator non-PAI eligible security types like cash and derivatives	**Numerator:** where there is reported PAI data **Denominator**: securities eligible to PAI **Examples:** Would include only reported data and exclude estimated or extrapolated data sets from numerator. Would exclude from the denominator + numerator non-PAI eligible security types like cash and derivatives.

Worked Example 1: Carbon Emissions

Asset/investment*	Weight	Value of investment €millions	EVIC €millions	Scope 1 Emissions (reported) in tonnes	Scope 1 Emissions (estimated – quantitative estimate) in tonnes
Corporate A	20%	€1m	€2m	2t	N/A
Corporate B	20%	€1m	€1m	Not Disclosed	2t
Sovereign C	20%	€1m	N/A	N/A	N/A
Sovereign D	20%	€1m	N/A	N/A	N/A
Cash	20%	€1m	N/A	N/A	N/A

Only use reported data:	Extrapolation:	Fill gaps with estimates:
Use the reported data you have to calculate the PAI in relation to all investments and complement it with coverage information in the disclosure PAI 1: (€1m / €2m * 2t) = **1t** **Coverage: 20%**	Calculate the PAI based only on the portion of holdings for which you have data and extrapolate – based on the (questionable) assumption that the outcome is representative of all your holdings → For holdings with data, (average) scope 1 emissions per €m EVIC is 1t, hence FMP assumes this value for all holdings. Option 1 PAI 1: 5 * (€1m * 1 t/€m) = **5t** for every holding	Use estimates (e.g. sector averages) or “worst case” assumptions to fill the data gaps and calculate the PAI based on that (potentially complemented by a coverage disclosure indicating the share of reported vs. estimated data) → For eligible holdings (i.e. corporates) scope 1 emissions can be estimated applying the precautionary principle

	Option 2 PAI 1: 2 * (€1m * 1 t/€m) = **2t** for every PAI eligible holding **Coverage: 100%**	PAI 1: (€1m / €2m * 2t) + (€1m / €1m * 2t) = **3t** **Coverage: 40%** Share of estimated data: 20%

Article 7(2) Where information relating to any of the indicators used is not readily available, financial market participants shall include in the section 'Description of policies to identify and prioritise principal adverse impacts on sustainability factors' in Table 1 of Annex I details of the best efforts used to obtain the information either directly from investee companies, or by carrying out additional research, cooperating with third party data providers or external experts or making reasonable assumptions.

Worked Example 2: Unadjusted Gender Pay Gap

SFDR Entity Level Reporting

Asset/investment*	Weight	Value of investment €m	Unadjusted Gender Pay Gap (reported)	Unadjusted Gender Pay Gap (estimated – quqntitative estimate)
Corporate A	20%	€1m	80%	N/A
Corporate B	20%	€1m	Not Disclosed	No estimation possible
Sovereign C	20%	€1m	N/A	N/A
Sovereign D	20%	€1m	N/A	N/A
Cash	20%	€1m	N/A	N/A

Only use reported data:	Extrapolation:	Fill gaps with estimates:
Use the reported data you have to calculate the PAI in relation to all investments and complement it with coverage information in the disclosure. PAI 12: **80%** **Coverage: 20%**	Calculate the PAI based only on the portion of holdings for which you have data and extrapolate – based on the (questionable) assumption that the outcome is representative of all your holdings → For holdings with data, (average) unadjusted gender pay gap is 80%, hence FMP assumes this value for all holdings. PAI 1: **80% (Inaccurate)** **Coverage: 100%**	Use estimates (e.g. sector averages) or "worst case" assumptions to fill the data gaps and calculate the PAI based on that (potentially complemented by a coverage disclosure indicating the share of reported vs. estimated data) → There are no reliable methodologies to estimate the unadjusted gender pay gap; this approach cannot be applied to this PAI

Worked Example 3: Exposure to Controversial Weapons

SFDR Entity Level Reporting

Asset/investment*	Weight	Value of investment €m	Involvement in Controversial Weapons (reported by company)	Involvement in Controversial Weapons (estimate –	Involvement in Controversial Weapons (estimate – worst case assumption)

				reasonable assumption)	
Corporate A	20%	€1m	NO	N/A	N/A
Corporate B	20%	€1m	Not Disclosed	YES	YES
Corporate C	20%	€1m	Not Disclosed	NO	YES
Corporate D	20%	€1m	Not Disclosed	No estimate available	YES
Cash	20%	€1m	N/A	N/A	N/A

Only use reported data:	Extrapolation:	Fill gaps with estimates:
Use the reported data you have to calculate the PAI in relation to all investments and complement it with coverage information in the disclosure Potential to include a flag from media/NGO sources that indicate the company is involved in controversial weapons (more reliable than company reporting alone for this PAI) PAI 14: **0%** **Coverage: 20%**	Calculate the PAI based only on the portion of holdings for which you have data and extrapolate – based on the (questionable) assumption that the outcome is representative of all your holdings → For holdings with data, (average) involvement is "NO", hence FMP assumes this value for all holdings. PAI 14: **0%** **Coverage: 100%**	Use estimates (e.g. sector averages) or "worst case" assumptions to fill the data gaps and calculate the PAI based on that (potentially complemented by a coverage disclosure indicating the share of reported vs. estimated data) PAI 14: **20%** (using reasonable assumptions; most accurate) Share of estimated data: 20% **Coverage: 60%** PAI 14: **60%** (using worst case assumption; strictest application of precautionary principle) **Coverage: 80%** Share of estimated data: 60%

Worked Example 4: No of Convictions for Violation of Anti-Corruption and Anti-Bribery Laws

Asset/investment*	Weight	Value of investment €millions	No of Convictions (reported)	No of Convictions (estimated – Media/NGO sources)
Corporate A	20%	€1m	2	N/A
Corporate B	20%	€1m	Not Disclosed	0
Corporate C	20%	€1m	N/A	N/A
Sovereign D	20%	€1m	N/A	N/A
Cash	20%	€1m	N/A	N/A

Only use reported data:	Extrapolation:	Fill gaps with estimates:
Use the reported data you have to calculate the PAI in relation to	Calculate the PAI based only on the portion of holdings for which	Use estimates (e.g. sector averages) or "worst case"

all investments and complement it with coverage information in the disclosure *Potential to include information from media/NGO sources that indicate the company has been convicted (more reliable than company reporting alone for this PAI)* PAI 17: **2** **Coverage: 20%**	you have data and extrapolate – based on the (questionable) assumption that the outcome is representative of all your holdings → For holdings with data, (average) no of convictions is 2, hence FMP assumes this value for all holdings. PAI 17: **10 (Inaccurate)** **Coverage: 100%**	assumptions to fill the data gaps and calculate the PAI based on that (potentially complemented by a coverage disclosure indicating the share of reported vs. estimated data) → Through research of third-party sources, no conviction could be identified and hence it is estimated that Company B has not been convicted PAI 17: **2** **Coverage: 40%** Share of estimated data: 20%