



EU Taxonomy



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Rules fit for Purpose?

Ensuring Taxonomy Efficacy

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Glossary

CAPEX -	Capital Expenditure
CSRD -	Corporate Sustainability Reporting Directive
ESAP -	European Single Access Point
ESRS -	European Sustainable Reporting Standards
GT -	Grounded Theory
IPCC -	Intergovernmental Panel for Climate Change
NFRD -	Non-Financial Reporting Directive
OPEX -	Operating Expenditure
SFDR -	Sustainable Finance Disclosure Regulation
(UN)PRI -	(United Nations) Principles for Responsible Investment

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Executive Summary

The EU Taxonomy, accompanied by its associated reporting directive (CSRD), marks a pivotal moment in sustainability regulation. The EU Taxonomy is estimated to influence around €2.94 trillion, considering only publicly listed parent companies [1]. The core aim of the Taxonomy is to redirect capital towards a more sustainable and equitable economy with a long-term outlook. The main finding of our research is that in order **to ensure the efficacy of the EU Taxonomy, a grace period for reporting EU Taxonomy alignment should be introduced.** In this grace period companies would report their alignment to EU Taxonomy regulations without fearing immediate penalty. The focus in early stage reporting should be on proving a substantial contribution to the Technical Screening Criteria. The 'minimum safeguards' (MS) and the 'do no significant harm' principles (DNSH) can be included over time. The grace period is necessary because our research reveals that non-0% reporting on EU Taxonomy alignment is minimal. Moreover, the projected impact of the aforementioned minimal reporting of non-0% alignment is set to escalate with the rollout of the CSRD, affecting an estimated additional 38,300 companies in the EU by 2026 that have limited to no experience with sustainability reporting.

Additionally, the last delegated act on the environment was published last June and is open for consultation until mid-December. This creates a window of opportunity. This momentum together with the increased dependency on the EU Taxonomy through the (Taxonomy based) EU Green Bonds Standard, covering 2.2 trillion USD, and the aforementioned CSRD, make it apparent that research into ensuring the efficacy of the EU Taxonomy is timely and relevant [9, 11, 26].

This study engaged participants from a prior UNPRI paper and additional industry professionals to offer a well-rounded perspective on the EU Taxonomy's current usability and quality of reporting. The interviews explored the reception of existing directives and forthcoming regulations (NFRD, SFDR, CSRD) that implement the Taxonomy, aiming to unearth potential challenges and areas for improvement. The focus was on three areas: Data Access and Quality, Third Party Data Providers (Validators), and the European Single Access Point (ESAP), as these three areas have been discussed extensively in UNPRI papers [20, 25] and other discussions regarding the Taxonomy's efficacy and deployment [6, 11, 16, 21].

The findings suggest a common desire among fund practitioners for an effective Taxonomy. Despite this, investors expressed reservations concerning the Taxonomy's impact on their business strategies, indicating that substantial refinements are required for broader market engagement. Even sceptically inclined managers displayed a willingness to be proven wrong. The study underscores the importance of fostering engagement across market participants by advancing the Taxonomy to a mature stage. Alterations in the Delegated Acts to provide reassurances and further clarifications at the company level are proposed as a viable means to achieve this.

The responses garnered indicate a perceived lack of usability and/or engagement with the EU Taxonomy in its current guise. The sample of respondents, representing proactive industry participants or the front-runners in green finance, **revealed that even dark green funds report a 0% Taxonomy alignment due to the unavailability of data regarding the underlying assets of the reporting entity.** The findings are distilled into policy insights addressing the research question: What policy alterations can enhance Taxonomy efficacy?

The culmination of this research is a "Timeline to Taxonomy Maturity" drawn from the findings, which outlines the journey towards reliable and plentiful reporting and legacy data, morphing

the Taxonomy into a more potent tool. The maturity horizon is projected within five to ten years, aligned with the phased introduction of reporting directives.¹

In summary, this paper delineates critical domains for future Taxonomy efficacy research. It sheds light on the current bottlenecks hampering the Taxonomy's evolution to an effective self-regulating system, pinpointing the leverage points where the EU could channel resources for enhanced efficacy.

1. Background of the EU Taxonomy

Global fund managers were aware of the role of Environmental Social Governance (ESG) reporting before the introduction of the SFDR and EU Taxonomy, yet reporting was frequently lacking. A 2015 CFA Institute survey shows that survey respondents see value in companies providing ESG data to the marketplace; 61% agree that public companies should be required to report at least annually on a set of sustainability indicators in accordance with the most up-to-date reporting framework (51% Americas, 84% Asia-Pacific, 82% EMEA). However, 72% of the same respondents reported not knowing how much spending should be allocated to independent ESG verification processes [17]. Currently, the activities outlined in the Taxonomy supposedly cover 80 percent of all EU GHG emissions [23].

The EU Taxonomy marks an attempt to measure, monitor, and report on the impact of business activities on the environment, establishing a “common language” that is required to connect the physical currency of Greenhouse Gas (GHG) emissions (and other hazardous substances and processes) to economic and financial ones [24]. Creating a common standard for what can be broadly considered sustainable practice will allow for more reliable reporting and data to back any ESG screening done by fund investors [14].

As outlined in the Technical Expert Group (TEG) report, the EU taxonomy is “[...] a tool to help investors [and] companies [...] navigate the transition to a low-carbon resilient and resource-efficient economy.”[15, p. 2]. The Taxonomy sets performance thresholds (referred to as “technical screening criteria”) for economic activities that make a substantive contribution to one of six environmental objectives, do no significant harm (DNSH) to the other five, and meet relevant minimum (social) safeguards [14].²³

This research paper aims to serve as a starting point for discussing possible areas of improvement regarding the overall usability and quality of reporting of the EU Taxonomy. Therefore, the research question is a guiding principle rather than a specific hypothesis: *What policy changes can be made to ensure Taxonomy efficacy?* To address the aforementioned factors and increase the efficacy of the EU Taxonomy, this research also offers a deep dive into three distinct areas of practical improvement. After the deep dive and a discussion of the results, the main focus areas will be translated into concrete policy suggestions, hereby, creating a practice-based lens through which new perspectives for improvement can lead to fruitful discussions on how to ensure the efficacy of the EU Taxonomy.

1 Theoretical considerations are discussed in the appendix.

2 Referring to the Minimum Social Safeguards, or Minimum Safeguards (MS) provision, which requires EU Taxonomy aligned companies to report on their environmentally sustainable activities to respect basic human rights and follow good business conduct rules [23].

3 A third country entity is defined as an entity established in a third country or, where it is established in the [European] Union, having its executive management structures in a third country.

1) Accessibility and Data Quality

A critical aspect of applying the EU Taxonomy to investment decision-making is the availability and quality of data. The EU Taxonomy requires investors to make informed judgments on the sustainability of economic activities based on specific criteria. Therefore, the availability of relevant data and its accuracy and reliability are essential for its effective application. However, for companies adopting the Taxonomy, the process of retrieving relevant data and its efficiency will necessarily require a learning curve with instances of mistakes and blind spots. For example, none of the case studies in the UNPRI research assessed sovereign bonds, as they lacked a clear methodology to do so [20]. Additionally, the initial Taxonomy did not cover activities relating to quarrying or mining [14].

The EU Taxonomy is an ambitious project for climate regulation that is being introduced in phases. This phased approach allows for monitoring and assessment of its usability and effectiveness along with early amendments and clarification [19, 21, 25]. The Taxonomy aims to define sustainable practices based on quantifiable and retrievable data, striking a balance between granularity and flexibility [14].⁴ The final form of the Taxonomy will be complex and will require further technical screening and criteria. Clear communication with investee companies and collaboration to obtain necessary data is essential [20]. The reception of these issues and how they are addressed will impact the cost of implementation and the perceived efficacy of the Taxonomy.

2) Third Party Data Providers

The current predominant method of accessing ESG data in finance is via Third Party data providers (validators). ESG data providers play a crucial role in influencing investment decisions by providing information and assessments of companies. The global ESG data market is thriving, with Europe leading in spending and the US market rapidly expanding. The market is dominated by a few large vendors, followed by secondary competitors and smaller specialised providers. The main service categories are research and analytics, comprising 70% of the market, with the rest attributed to ESG indices [29]. Investor demand and regulatory requirements are driving the growth of the ESG data market, with asset management companies being the primary spenders. Discrepancies in ESG ratings are attributed to measurement, scope, and weight variations among rating agencies [30]. There may be bias favouring larger companies in ESG scoring due to their resources and reporting capabilities [31]. Initial findings indicated that data vendors provide a wide range of estimates regarding Taxonomy eligibility, with low levels of correlation among them based on their business model [32]. The assessment of portfolio alignment with the EU Taxonomy should ideally yield consistent responses but currently shows a disparity among data vendors. It is essential to examine the current adoption of the EU taxonomy from the perspective of FMPs and identify areas for improvement.

2. The European Single Access Point (ESAP)

ESAP (European Single Access Point) is a digital platform developed by the European Commission that aims to improve access to financial, standards, and sustainability information

⁴ “To ensure the broadest usability of the Taxonomy possible, the TEG had to arbitrate between granularity and flexibility as well as between complexity and clarity. A very granular Taxonomy, which uses precise metrics and thresholds, is expected to provide clarity and to minimise the risk of greenwashing. Nevertheless, there is a risk that requirements that are too granular and stringent lower the willingness of stakeholders to take up the Taxonomy, due mainly to the costs to access the necessary data and adapting their internal processes. On the other hand, more flexibility in the definition of screening criteria may facilitate the use of the Taxonomy but increase significantly the risk of divergent interpretations and greenwashing” [p. 101]

for companies operating in the EU. The main purpose of the platform is to list public reporting information on companies, including financial, tax, and sustainability information. It is a cross-country platform providing comparisons to both investors and regulatory officials. However, the platform will also provide a single point of access for companies to report on their sustainability practices and compliance with sustainability standards [8].

Effectively, ESAP is a tool solely to assist information access: “ESAP will provide access to information already made public in application of the relevant European directives and regulations” [15]. This means that it adds no new reporting requirements but will include the already mandated CSRD and earlier reporting legislation.

While it has been suggested that ESAP will be designed in a user-friendly way, there currently exists very little information on how this will materialise in practice [15]. Therefore, it is difficult to assess what fundamental features, if any at all, companies can be prepared to use. At this stage it is important that the EU takes into account the considerations of the companies that will provide the data and feed the input information into ESAP, as this will affect both the reporting standards and the quality of information ultimately put onto the platform. To be of any use to investors and regulators, the platform consequently needs to be input-friendly and adaptable to companies’ reporting processes. This is particularly important as the EU Commission describes ESAP as being a platform that multiple sectors may use for different purposes...

“ESAP will contribute to the achievement of the objectives of the Strategy for Financing the Transition to a Sustainable Economy and of the European Green Deal by making easily available and usable information about the sustainability of European entities’ activities. This will also allow public authorities, private stakeholders, and civil society to better assess the sustainability of European entities and, more generally, the progress towards the EU’s policy objectives related to sustainable development including the EU’s climate strategy and targets” [8, p. 2].

ESAP can help improve the EU taxonomy reporting in several ways. Some suggestions are listed below:

- Streamlined reporting process
- Consistency and comparability
- Accessibility and transparency
- Data quality
- Continuous improvement

In conclusion, as we address the research question focusing on how to enhance the efficacy and subsequent success of the EU Taxonomy, several pivotal factors come into play. The accessibility and data quality lie at the very core of the issue, ensuring that relevant data is available and reliable for stakeholders to make informed decisions. Third-party data providers play a crucial intermediary role, bridging the gap between policy and practice, and influencing investment decisions. Their impact on ESG data consistency underscores their significance in this context.

Additionally, the European Single Access Point (ESAP) emerges as a crucial tool, although its effectiveness is yet to be fully unveiled. ESAP promises to streamline reporting processes, enhance consistency and comparability, improve accessibility and transparency, and elevate data quality. It has the potential to become a key enabler for companies and investors alike in embracing and effectively implementing the EU Taxonomy. Together, these intertwined factors form the infrastructure that will shape the success and meaningful impact of the EU Taxonomy in promoting sustainable practices and achieving the EU’s ambitious climate and

sustainability objectives in line with the IPCC’s 1.5°C trajectory and goals outlined in the Paris Agreement [10, 12, 13].

3. Data Collection and Sample Methods

Initially, fund managers that had previously participated in the writing of UNPRI research papers on the Taxonomy were contacted. However, in order to garner more holistic insight, the search criteria were expanded in a way of purposeful sampling to *any professional displaying active working knowledge of the Taxonomy in an Asset Management Company based in Europe*. This led to 10 interviews consisting of a range of job descriptions. Table 1 illustrates

Organisation

- KBI Global Investors (Ireland)
- Major Financial Institution (USA)
- Osmosis Investment Management (UK)
- AXA Investments (France)
- MN Pension Fund (Netherlands)
- APG Asset Management (Netherlands)
- Triodos (Netherlands)
- ESG Portfolio Management (Germany)
- IBS Capital Allies (UK)
- Standard Chartered Bank (UK)

the participating organisations, and the country of the participant.

Semi-structured interviews were conducted on the initial topics that were covered in the UNPRI research. The reason for the initial engagement for the UNPRI participants is that deeper insights would come from those who had implemented the taxonomy early. Only 2 interviewees belonged to the original UNPRI paper [20] and were therefore part of the Taxonomy Practitioners Group (TPG).

As can be seen from Table 1, the regional distribution of interviewees was solely concentrated in western Europe. These markets are highly active when considering Green finance activity.

Table 1: Final Sample Characteristics

This is exemplified by the fact that Germany, France, Netherlands, and the UK were 4 of the top 7 highest green bond issuing

countries in Europe between 2020 and 2022, making up 56.79% of the top seven’s total green bond valuation [37].

This research was conducted in a coordinated group of three researchers headed by consultant supervisor Derek de Groot. With a total of three researchers investigating how the access and validity of Taxonomy related data can be improved, there will be grounds for insight sharing and assistance. Each researcher took a focus area: Third party data providers, Data Accessibility and Quality, and consideration of these issues in relation to ESAP (the focus of this paper). It is important to note that all the researchers are following a Grounded Theory and semi-structured interview approach. In order to ensure non-leading interview results we have consulted with J.M.D. Groot (PhD) currently affiliated with the University of Bath.

4. Results

The following sections outline the main criticisms, and common points of view held by the interviewees. What was striking was that all interviewees approached the topic pragmatically, with a desire for the EU sustainable reporting policies to become effective. Many expressed that they believed that this was an ambitious objective but gave good insights as to why.

The insights and suggestions that follow are best framed in the context of adjustments and amendments that can be made to improve the chance that the Taxonomy reaches its full potential as an effective reporting tool that assists with the redirection of capital into green

sustainable projects, fulfilling its function of aligning the European economy with the EUs communicated climate goals.

It is therefore most fruitful to frame the findings and criticisms as aiming to drive the reporting frameworks and data infrastructure to a point of effective maturity by highlighting what delays, roadblocks, and potential threats remain. Following this section, the discussion sections will highlight what implications each of these findings have on suggested policy.

Finally we conclude this section with a timeline to maturity; this highlights critical points and what should be considered in policymaking going forward in order to interact with markets effectively and introduce the correct changes at the right times.

1) Data Access and Issue of Funds reporting before Companies

A ubiquitous finding was the sentiment that funds under the SFDR should not have been forced to report their alignment before companies were required to report their own. Since the assets of reporting entities are only required to report their handling of the Taxonomy until July this year (2023), a situation emerged where funds have to report on data that does not yet exist, or that they are simply not provided with. The outcome is that even the Responsible Investment (dark green) funds holding generally green investments and reporting Articles 8 or 9 are forced to report 0% alignment due to their underlying investees not providing data.⁵

A lack of access to data was thus observed to the point where funds would report that it did not matter if investees alignment was low, and they wanted companies to know that “any data is better than no data”. Communication and a lot of leeway should be given in these initial reporting periods. This data gap means even if funds do want to engage and find out what underlying companies are struggling with, they cannot do so, with information remaining in a black box.

When asked about whether engagement with underlying investees can assist the process of accessing data early, it was suggested that this could only be done in exceptional cases and is not generally feasible due to resource constraints. This was particularly true for funds with large portfolios.

2) Complexity and usability

Interviewed investors frequently expressed concerns regarding the intricacies involved in the EU Taxonomy. Many noted that the taxonomy is laden with detailed technical screening criteria and extensive disclosure requirements that could pose challenges in their application [33]. This observation aligns with the other research on how comprehensive and elaborate regulatory frameworks can impede understanding and integration into practice. Furthermore, several investors noted that the taxonomy's complexity might create a barrier for smaller investment firms, which typically lack the resources needed for thorough comprehension and compliance. This notion reflects previous research, that complex sustainability regulations may inadvertently favour larger organisations with more extensive resources [34].

A streamlined version, or perhaps supplementary guidance that succinctly explains key aspects could alleviate these concerns. Simplifying language and providing practical examples could enhance the Taxonomy's comprehensibility. One way to target this complexity and confusion in the interim is focussing less on the inclusion of MSS and DNSH. For funds and investees this has caused confusion and more clarification has consistently been requested. Practitioners believe that the focus should be on solidifying and refining the Technical Screening Criteria (TSC) first, as it is the most concrete part of the

⁵ Since the underlying investees will only be forced to report under the SFDR this year, any prior disclosures are on a voluntary basis.

Taxonomy. They suggest avoiding overwhelming companies with elusive definitions of DNSH and MSS when they are already reluctant to report. Some view the inclusion of social criteria as going too far too soon and an attempt to socially engineer the economy. The voluntary nature of disclosures may result in measurements from market leaders that may not reflect industry averages. Applying these standards too early may lead to strategic responses and demotivation among compliant firms [4]. Additionally, responses to the TSC have highlighted cultural and industrial differences among countries, and adding DNSH and MSS risks the perception of the EU as socially engineering the economy.

3) Data Provider Discrepancies and Estimated Data

Banning estimated data under the SFDR was seen as obstructive by funds, who felt that it should have been allowed in conjunction with not forcing companies to report first. Interviewees highlighted the potential usefulness of estimated data provided by third-party providers to estimate taxonomy alignment percentages. While concerns about overclaiming and discrepancies among data providers exist, funds stated that clients do not currently prioritise taxonomy alignment in their investment decisions [20, 25]. The banning of estimates was seen as hindering progress and risking further delays in reporting maturity. Funds suggested allowing estimates with clear disclosure of their nature.

Moreover, the discrepancies, while large, are inevitable in the roll out of new reporting legislation and only by working and refining it can it be improved. Practitioners perceived the banning of estimates to not mitigate this “teething phase” but rather stall it, ultimately risking further delay on the path to maturity for reporting.

4) Funds are more concerned about data access and coverage than data quality

In the initial phases of reporting, it is imperative to build up legacy data through which to analyse and measure. It seems generally accepted that there will initially be a margin for error and that discrepancies should not be treated as greenwashing straight away. Funds found that by worrying about data quality too much too early, the EU Commission was effectively putting the cart before the horse.

While this was the sentiment expressed by most interviewees, there were conflicting sentiments from others who stated that a basis of quality *should* be somewhat given before flooding data infrastructure with data that is difficult to process.

This highlights a resource issue and effect between funds and banks of varying sizes, an emergent theme that was pointed out in various interviews. Additionally, if data is too varied, it loses comparability, and more data cleaning or processing is necessary. Therefore, data hygiene is more important in resource constrained firms.

5) Scale dependent effects for funds on Taxonomy reporting efficiency

The scale of an investment firm plays a significant role in its ability to innovate and adapt to sustainable investment regulations like the EU Taxonomy. Larger firms have more resources and diverse expertise, enabling them to invest in technology, develop proprietary tools, and effectively integrate sustainability criteria [35].

“Our scale allows us to conduct comprehensive research and experimentation in sustainable investing. We have been able to develop proprietary tools and models that aid us in better aligning with the EU Taxonomy.” – Interviewee 7

Smaller firms, while agile, face resource limitations that can slow down their adaptation to sustainable investment regulations. However, they may leverage external services or partnerships to overcome these constraints and enhance their capacity to innovate [36].

6) Globally oriented funds were more pessimistic

The higher-level senior interviewees expressed more pessimistic views on the Taxonomy, possibly due to disappointment with the amount of work and refinement still needed. They questioned the revolutionary impact and anticipated the continued use of third-party data providers. The sentiment of interviewees shifted between positive and negative, reflecting the idealistic hope conflicting with the iterative reality of the legislation rollout. Overall, interviewees believed that the Taxonomy was a step in the right direction but expressed doubts about its expected significance. The opinions of global fund practitioners aligned with their portfolio compositions, with EU investments representing a small portion. The Eurocentricity of the Taxonomy and its legislation made it impractical for portfolio-wide adoption. These sceptics took a holistic perspective and highlighted the need for substantial change within a shorter time frame to address imminent climate issues. Analyst-level interviewees were less sceptical, but tempered their expectations, recognizing that the Taxonomy alone cannot achieve all desired sustainability goals.

7) Nuclear and Gas

While perceptions of the Taxonomy are generally neutral, all interviewees recognized the controversy surrounding the inclusion of natural gas and nuclear energy. Flip-flopping on this issue damages the Taxonomy's perception and risks undermining its integrity as a green asset identifier.

8) Shifting burden of proof to non-sustainable funds

According to several interviewees, the assessment of taxonomy alignment poses a substantial task for sustainable funds, while non-sustainable funds are not required to undertake a comparable level of effort when they have zero alignment. This could create a downward bias as investment and asset managers may simply choose to disclose zero alignment rather than risk penalties for providing inaccurate information and overstating their environmental credentials [28]. Mandating transparency for all funds by legislative measures would not only create a level playing field but also enable investors to make informed decisions about their investments, ensuring greater clarity and accountability in the investment process. One interviewee suggested that legislation should shift the burden of proof onto non-sustainable funds and create more incentives for sustainable funds to report their alignment with sustainability criteria.

9) ESAPs Reception

The general outlook on ESAP was positive from the interviewees, all of whom responded with tempered optimism. Their sense is that in its best form ESAP would help greatly with standardising reporting and collating data at the fund level. However, the usability of the platform has to be inclusive, accessible, and transparent enough, otherwise it will not change their business approach. Currently, data providers are used to obtain data, an approach that is seen as the most cost-effective way of aggregating data into an informative format for use of the fund during its screening procedures. These data providers are perceived to have sophisticated data scraping and retrieval techniques, resulting in effective data products.

It is likely that ESAP would not replace data providers, but instead facilitate market efficiency in this respect by potentially dropping the cost of effective ESG screening. However, such an

outcome is only possible if the cost efficiencies are passed through to the market price instead of being absorbed by rent-seeking behaviour from data providers.

Comparisons to already existing platforms like EDGAR were made.⁶ However, this is also coupled with a disbelief that the Commission is able or willing to sufficiently fund the development of ESAP to bring it to a level of usability that will make it of any interest in funds.

10) Tenets of success for ESAP

Along with the findings outlined above, the central tenets of success for ESAP as highlighted by the interviewees will be discussed below. These were the themes and central points that emerged throughout the interviews. In order to be listed, each point had to have either appeared in multiple interviews or have been highlighted by an interviewee and supported with compelling arguments.⁷

a. Searchability and the guarantee of data retrieval should be designed with smaller funds in mind.

The ESAP working group should liaise with smaller funds about their data collection procedure and needs. Additionally, another way of mitigating this effect and a more cost-effective policy suggestion is to use the ESAP differently as a simple data lake and ensure (through policy incentives or public tenders) that data providers develop effective packaged products that are affordable and effective at the smaller fund levels.

b. ESAP must facilitate standardisation of reporting and comparability of companies at the fund level

By presenting examples on what to report to ESAP and formats on how ESAP data should look like, ESAP can guarantee the presence of all required information and help standardise both the information present and also the format it is presented in. Standardising of data through ESAP could increase the ease of data aggregation and comparability along with assisting implementation of machine learning for data scraping. Companies stated that they will conduct their own quality assessments when prospecting new investments. However, it should also be stated that information should be audited before being published on ESAP to guarantee data quality.

c. Allow ESAP to be a standard setter for reporting in each industry

A focal point that ESAP could potentially assist on is creating a standardisation of data reporting across sectors. By making sector-based searching (and of course filtering) available, companies would be able to see what other industry players are reporting in the case of uncertainty.

d. Examples NACE code

There are many instances where examples and clarification can be provided on the ESAP platform. For example, the technical screening criteria, while generally clear, are still open for interpretation in some situations, a feature of ESAP could be to have a flag feature so companies can report difficulty or uncertainty in a particular reporting area per NACE code. For other disclosures, it would be helpful to outline required reporting with examples of DNSH

⁶ <https://www.sec.gov/edgar/search-and-access>

⁷ Most of the headings are points that were also uncovered by the PRI research, however the underlying actions that the commission can do to guarantee their resilience are built upon these points.

per NACE code. In case of uncertainty, this flagging feature could be helpful for creating a clear picture of the maturity of reporting in early disclosures.

e. A delayed ESAP is preferred over a dysfunctional one

Originally, ESAP was planned for 2024-2026, but is now looking at a 2027 implementation. Further delays would generally not be met with disdain. Under the CSRD, listed SMES are only required to start reporting in 2028 [38]. Therefore, practitioners generally do not see a reason to rush to implement early if areas of the economy will have not even had their first reporting period by this time. In fact, waiting may provide added benefits for ESAP.

f. Ex ante versus ex post refining

Implementing ESAP before 2028 does make sense, as it will allow for early testing before reporting hits the SME level. However, this inevitably means that ESAP will be designed before the sector specific needs for company reporting are truly known. Therefore, any design of ESAP prior to 2029 (one year after first reports are published at SME level) will be exposed to an ex ante assumption of what these companies may need.

An added benefit of lagged implementation is guaranteeing an existing data pool throughout the entire reporting sphere down to the SME level before full rollout. Reporting on TSC, MSS, and DNSH will likely vary greatly depending on industry and context, therefore it would be advantageous to observe sector specific reporting initially. The EU commission can then take best cases and publish them on ESAP as examples for each industry sector (and sub-sectors). Furthermore, by taking this time to see reporting at the company level, there will also be a chance to determine if ESAP may benefit from adding reporting features that are sector specific. Therefore, lagged implementation will serve to effectively beta-test the software before rolling it out at scale.

11) International harmonisation

The investors' perceptions regarding the global relevance and applicability of the EU Taxonomy have several implications for its diffusion as a global standard. While some investors are in favour of globalising the EU Taxonomy, others are advocating for its role as a blueprint that can inspire different regions to develop their own frameworks.

Moreover, there is work by ISSB and the EU on international conversion tables, and the First delegated act on ESRS enhances interoperability with international reporting standards, the lack of non-European consultation reduces the EU Taxonomy's legitimacy for it being rolled out to global supply chains. This may be partially mitigated by the inclusion of external countries as observers in the EU working groups, leading to a more global perspective. This would not only legitimise the EU Taxonomy as a global standard, it would also improve the alignment of economic activity with our sustainability targets, while mitigating the chances of ESG window-dressing stemming from practices such as carbon outsourcing from posing a threat.

"The taxonomy has set a high bar, but its European focus can be limiting. A global standard could streamline sustainable investing across borders,"

Ultimately, many investors noted the importance of harmonising sustainability criteria globally, but recognized the challenges of adapting an EU-focused taxonomy globally.

12) Timeline to Taxonomy Maturity

With the lagged reporting requirement for the broader economy following the CSRD, and based on the estimated time from interviewees it takes to build up data maturity in Taxonomy

reporting, a predicted economy-wide critical mass for Taxonomy reporting could be reached in the early to mid-2030's. The current intention-performance gap in sustainable investment can be attributed to various factors: limited accessible data, differing reporting methodologies, knowledge for effective decision-making, and hesitancy to fully commit to ESG practices [18, 18]. Concerns about lower returns during the transition phase have been shown to be temporary, with improved performance when managers wholeheartedly embrace ESG strategies; with the note that the type of screening and ESG selection process should not hinder risk diversification [19]. Eventually, the application of the Taxonomy will provide a common framework and enhance access to data on sustainable activities, aiding in better ESG project screening for fund investors.

This will likely be after a few high-profile cases of bad actors being caught out at the larger company and fund level, and after a more streamlined reporting ecosystem has been refined. The interim will be turbulent, and missteps will occur. It is important to distinguish intentional 0% alignment reporting from poor Taxonomic literacy.

To conclude, early cases of over-reporting should not be penalised at the initial stages, otherwise the collective effort of reaching a mature and effective data infrastructure and framework will be jeopardised. Figure 2 was created based on the interactions in the interviews along with our respective research and outlines the critical points on the pathway towards EU Taxonomy maturity.

Timeline to Taxonomy Maturity

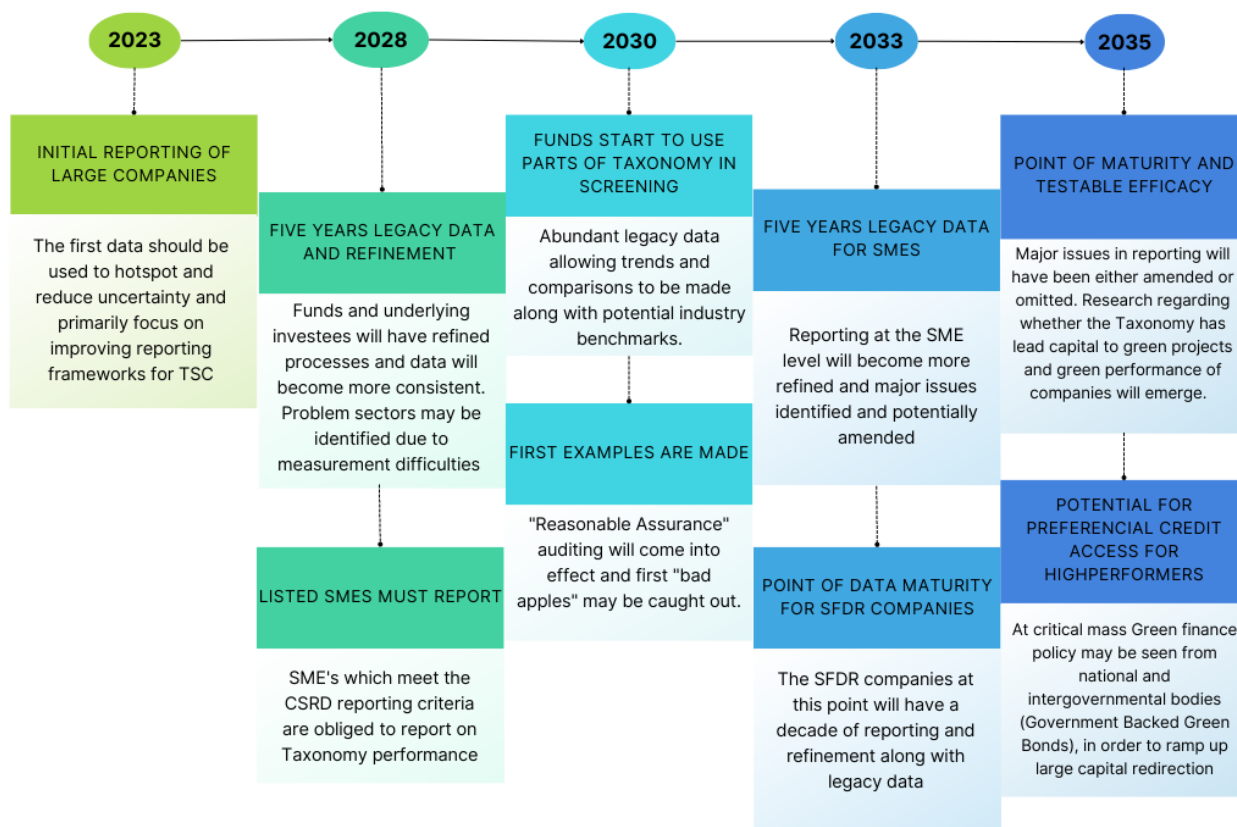


Figure 2: A timeline to EU Taxonomy Reporting and Data Maturity

Source: This research

5. Conclusion

The conclusions of this paper should be read with the following limitations in mind: since the start of discussions on the outline of the research and the discussions on the scope of the paper the geo-political reality in Europe has been greatly affected by the ongoing war in Ukraine. Moreover, as mentioned in the executive summary, the third delegated act has been published after our research was conducted. Therefore, a more in-depth analysis of economic activities affected by the EU Taxonomy and an in depth analysis of the impact of topics that are included in the third delegated act are beyond the scope of this research paper.

Based on the semi-structured interviews conducted on asset fund practitioners subject to Taxonomy reporting we first highlight areas of contention in the current structure of the Taxonomy and its respective reporting directives. The primary findings relate to:

Data Access and Quality - Access and reporting has been delayed due to the order of the staggered rollout requiring funds to report before they obtain data from their underlying investees (resulting in almost all funds reporting 0% alignment). Generally, funds worry more about simply obtaining the data at this stage than the quality. Quality follows access, but access is necessary first (4.1.1), however, smaller funds and more resource strapped funds responded with more consideration for data quality first (4.1.4). Secondly, the complexity of the Taxonomy may lend itself to favour larger more well-resourced firms (4.1.2), such considerations should also be applied to the company level.

Third Party Data Providers - Data providers current inconsistencies in their alignment estimations should not result in a banning of estimations, but a transitory phase of clearly labelled estimation-based disclosures (4.1.3). ESAPs implementation can affect how data providers interact with the market, and its design and roll out needs to consider who in the market the platform will benefit the most. Allowing smaller funds to collect data in house, while large funds may outsource advanced data scraping and aggregation techniques to data providers. If ESAP is only usable for the data providers, then there exists a threat of rent seeking behaviour from the sector (4.3.1 & 4.3.2). The burden of proof as soon as possible should be shouldered onto the under performers than over-performers, as there currently exists little incentive for the broader market to engage with the Taxonomy rendering it a tool upon which to discriminate between frontrunners (4.2.5).

ESAP - The above findings relate to what should be considered and included into the ESAP platform. Along with this, tenets to success relating to different highlighted barriers are outlined (4.3.2). Particularly targeting standardisation, size effects, and reporting proficiency diffusion (Tenets: 1, 2, 4, and 5).

All outlined areas in this report are imperative to a smooth transition towards Taxonomy maturity. Considerations on what to target first should be reconciled against the "Timeline to Taxonomy Maturity" (Figure 2) so as to prioritise and plan timely interventions and amendments. Efforts for inclusivity of the broader market and smaller participants must be focused on in order for the Taxonomy to reach a critical mass and become an effective investable universe. For that to happen it must also provide value at each reporting level from the individual company up to the global fund level. Such an outcome can be navigated by effective engagement and targeting of said barriers the Taxonomy offers itself to become an exemplary SBR by 2030. In doing so, the EU will achieve recoupling at the respective Fund level and individual company level, and subsequently form the desired stewardship at the individual management level of companies.

1) Policy Suggestions

The intent of this research was to improve the chances of successful adoption of the Taxonomy. The way this was done was first by asking employees of varying seniority in the

financial market with direct experience of the Taxonomy to report what the current roadblocks were and what they believed needed to be changed for more effective rollout. The feedback from the interviews forms the basis for the following policy suggestions.

Previous research suggests in order to ensure the efficacy of the EU Taxonomy, it is imperative that each stakeholder sees the Taxonomy as a tool for enhanced insight and decision-making processes rather than solely a compliance policy requirement [7]. From the findings in this research and extant literature [7, 9, 11, 20, 21, 22, 28], the research has three policy suggestions stemming from answering the research question.

Policy Suggestion A. - Introduce a “Grace Period” allowing estimations and no threat of penalty to early reporting companies.

The 0% reported alignment for most interviewees is a significant indicator of the current data gap, and the lack of voluntary disclosures shows signs of reluctance and/or uncertainty at the company level. Interviewees believe that this stems from a fear of overclaiming. To tackle this, a grace period could be made explicit in reporting. In this grace period, companies would report for 2 or 3 reporting cycles, but without the threat of prosecution or penalty if their measurements are found to be inaccurate. This grace period would be initiated for large companies currently implicated by the CSRD that do not fall under the NFRD yet.

The grace period would also allow leeway for substantiated estimations to be used so long as they are explicitly stated as such. Additionally, these estimates could only be used under the pretence that they are a transitional reporting tool to be used in a grace period and replaced with fundamental measurements from the company itself thereafter, unless sector dependent factors make such measurement impossible (based on the communicated judgement and explicit discretion of the reporting authority itself).

Policy Suggestion B. - Lessen stringency on MSS and DNSH during the “Grace period” of early reporting companies.

MSS and DNSH increases the compliance burden and can potentially result in less companies wanting to report Taxonomy alignment even when the TSCs are met, hereby raising the cost of compliance to a point that it becomes untenable for resource strapped companies to meet the EU Taxonomy requirements. This is particularly the case for smaller companies because they are also less likely to seek financing through state backed financial vehicles like green bonds.

More research needs to be focussed on how MSS and DNSH should take shape as they are highly context dependent, and a framework must be developed that allows a case-by-case analysis and measuring of the issue. This will also give time for the MSS and DNSH to be refined and received internationally instead of implementing a blanket of social conditions that may be received differently across the international sphere (reduced risk of claims of social engineering and politicisation).

Policy Suggestion C. - Mandatory disclosure through ESAP platform. Deepen channels for continuous improvement, knowledge sharing and communication between companies and regulator (Ensuring ESAP is usable and effective for funds and reporting companies of all sizes)

Smaller funds and companies should be consulted on how ESAP should be designed so as to ensure large scale adoption. This large-scale adoption would mitigate the negative size effects that may be experienced in the market from smaller (and generally more resource strapped) companies and funds. Steps for an effective ESAP are outlined in 4.3.2. Considerable funding should be allocated in the development of multiple communication channels to facilitate streamlined feedback, knowledge sharing (knowledge libraries), and data capturing.

ESAP can be used as a flagging system as well as encouraging knowledge sharing. Additionally, notes can be made based on NACE code and sector, specifying the particular issue or difficulty and engaging others to share their solutions regarding reporting in this way.

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Appendix

1) Theoretical framework and considerations

In this appendix the theoretical aspects of this research will be considered, it outlines the fitness of institutional theory as an adequate framework for investigating the topic and more specifically the application of the strain of institutional literature known as Decoupling.

Carpenter and Feroz's work on the adoption of Generally Accepted Accounting Principles (GAAP) in US public institutions illustrates the interplay between regulatory, normative, and cultural aspects in institutional theory and how they affect the adoption of reporting frameworks [2].

The EU Taxonomy and related reporting directives are seen through the lens of institutional theory as emerging from changing societal norms regarding environmental responsibility. The EU uses regulatory means to shape cultural and normative change but faces potential strategic responses from agents [2, 3, 4].

Institutional theory helps explain how norms become authoritative guidelines. The EU aims to influence authoritative guidelines towards effective, transparent, green reporting. The Taxonomy involves regulatory indicators enforced by the EU Commission, but its success depends on normative and cultural factors at the meso and micro-levels [3, 4, 5].

The EU is a complex institution with a significant impact on member states, businesses, and individuals. The EU Taxonomy promotes sustainable economic activities to achieve climate and environmental objectives.

In conclusion, institutional theory is valuable for understanding institutional influence on behaviour and outcomes. Applied to the EU Taxonomy, it sheds light on the institutional structures and cultural beliefs influencing sustainable economic activity, including the risks of decoupling. Decoupling may stem from various sources, including strategic responses [6[7]].

Regarding decoupling and System-Based Regulation (SBR), the EU Taxonomy represents a significant recoupling effort aligning with EU objectives [7]. SBR operates at multiple organisational levels, and practitioners' perceptions are crucial. Decoupling can occur between the EU Commission and fund managers, between fund managers and businesses, and within businesses. While only previously applied on one institution, this paper applies SBR over the meta-institution that is the EU [6]. In terms of regulatory approaches, Principle-Based Regulation (PBR) monitors organisations based on set standards, while SBR encourages organisations to focus on their own management systems for compliance [6]. The EU Taxonomy operates on a reporting basis, aiming to improve environmental performance and screening processes. It fosters self-regulation and incentivizes sustainable practices [7].

A study on a Danish Construction Company's response to the Taxonomy highlights the importance of practitioners' perceptions in their engagement. If practitioners view the policy as impractical, they may strategically distance themselves from it, affecting compliance and institutional fit [24].

In summary, the focus is on avoiding decoupling at various levels to ensure the Taxonomy's intended adoption and perception as a valuable tool for decision-making, beyond being a mere policy requirement.

2) Theoretical Discussion of the Results

Goal-system level (Commission to Fund level)

Interviewees showed cautious pragmatism and eagerness for effective Taxonomy rollout. There was a belief that Taxonomy implementation would improve fund performance (4.1.2 & 4.1.4). However, the mixed sentiment on Taxonomy efficacy, with global fund senior

practitioners being most sceptical highlights a need for continuous improvement and engagement as time goes on (4.2.2). A need for better communication from the EU to fund level to avoid misalignment will assist this. Funds highlighted the importance of reassurance and closer contact with markets, many referred to the Delegated Acts and Second Counsel, showing a readiness and appreciation for communication efforts and clarifications. Such efforts and future amendments to the Taxonomy should consider the implication of size effects on the ability to adapt to complex legislation such as the Taxonomy (4.1.3 & 4.2.1), as well as shifting the current burden of proof from high performers to under performers (4.2.5). These different aspects can partially be targeted through the different tenets to success in ESAP (namely tenets 1 & 2)

System-practice level (Fund to company level)

Handling data at the fund level is simple due to data already being quantified and captured, the difficulty will be at the individual company level (SFDR and CSRD reporting). Concerns and fears of investee companies regarding over-claiming and indicates a need for clarification and reassurance (4.1.1).

Moreover, the observed data gap experienced from the fund practitioners amended via required reporting from companies from this year (2023), however, the lack of voluntary disclosures preceding this indicates a reactive compliance outlook taken from companies who are only reporting because they have to. Therefore, at this boundary there is a higher chance of decoupling, as new compliance reporting is likely to not be seen as expedient to business performance, and subsequently, be met with strategic responses [2, 3, 4]. We suggest that in contrast to the cooperative sentiment felt at the goal-system level, the sentiment is much more subdued at the system-practice level, particularly due the size effects that currently affect at the fund level may be magnified at the company, due to the sector having less reporting experience as a whole and being responsible for creating the respective measurements demanded under the TSC (4.1.2). This is because the Taxonomy's added value is less evident at the company level, and the cost-benefit ratio is likely a lot worse when considering the amount of novel reporting processes that will need to be considered.

As one interviewee pointed out, Taxonomy reporting should not be framed as a compliance issue as this does not solicit good responses or proactivism from the companies. Instead, engaging the reporting as a tool for monitoring and benchmarking the business so as to be used to make a better workplace for employees and a more resilient company for shareholders. Such an outcome is necessary in order to foster internal stewardship from managers in companies in order to gain traction as a self-regulating system.

There are mixed reports on the Taxonomy's effects on engagement between funds and underlying investees, most funds reported there is limited engagement due to resource constraints (4.1.1). However, in one case the Taxonomy's social side (MSS, DNSH) allows for funds to justify dialogue on social issues with companies, although this is the exception rather than the rule. Most funds are still far from becoming stewards of a green economy and only engage with underlying investees in particular circumstances and therefore most of their portfolio will not be engaged directly

System-based regulation and recoupling

The predicted mid-2030s maturity of the Taxonomy falls outside the bounds of some EU climate goals, making it challenging to achieve a recoupling effect in line with shorter-term targets. However, the 2030 goals serve as benchmarks for a 2050 trajectory, allowing impact over a longer-term to be considered. The critical mass for Taxonomy implementation is likely to be reached before 2040, determining its effectiveness. The signal sent by the EU's commitment to regulate sustainable practices has already initiated discussions and actions within companies, leading to

awareness and shifts in practices. The EU Commission's responsiveness to feedback and improved communication can contribute to the Taxonomy's success as a sustainable reporting tool and subsequent SBR. While elements of regulation and (PBR) will remain, relying solely on punitive measures will not foster the Taxonomy's intended outcomes. The path to maturity and effective communication from the EU Commission can influence market perceptions and facilitate alignment with climate goals.

Biases and future research

It is important to note a fundamental sampling bias in this research as professionals in the sustainable finance space were interviewed on the basis of their publicised experience. Therefore the sample represents companies that are proactive and/or resourced enough to dedicate professionals to the sustainable reporting transition. It is advised that the average firm is an area that should be focused on in future research. Therefore, the following are proposed research areas to investigate the effective adoption and influence of the Taxonomy into actual business practice along with testing whether the Taxonomy was effective in fostering SBR:

- Quantitative study on the impact of EU reporting frameworks on investment decisions.
- Longitudinal data set to measure changes in aggregate taxonomy aligned capital.
- Survey to capture practitioners' opinions and investigate impact on green projects/business practices.
- Study on data providers' consistency and biases in reporting alignment percentages.
- Comparative mapping of methodologies based on observed biases.
- Survey of companies reporting under SFDR and CSRD to understand perception, reactions, and reporting processes.
- Investigation of shifts in ESG practices due to Taxonomy's reporting directives.
- Research to facilitate knowledge diffusion and sharing of best practices.

Transcripts & Quotes from interviewees:

"[...] we're encouraging them [...], even if you're not 100% aligned because we understand the difficulties with the DNSH and so on, at least tell us where you are at the moment. If there's just a portion of your green bond that is aligned with the technical screening criteria [...] please let us know. Let us know as well where you're struggling with." - *Interviewee 3*

"Even lenders are struggling to get data out of their clients" - *Interviewee 2*

"[...] we have intensive engagement with around 150 companies, and these are mostly companies that are active in sectors that are crucial for the energy transition or very vulnerable for human rights issues. So with these companies, we would talk about their taxonomy alignment reporting and how to improve it then data caps. But it's just a fraction of the total companies we invest in and for the other companies, we don't have the resources." - *Interviewee 1*

"There are a lot more small players in the private side and it becomes tricky because they may not have been tracking this data already and they are really the people who [...] don't have correct data and what I also think kind of went in the opposite way here again, speaking a bit against the system. Here I feel like CSRD should have maybe been implemented before SFDR was" - *Interviewee 6*

“So [the Taxonomy] is just ridiculously technical, far too detailed and, and borderline useless in its current format.” - *Interviewee 7*

“We don’t expect anyone to be fully aligned as of today, if you can have already information on parts of the taxonomy, whether the technical screening criteria [is] the place to start with because the criteria there are well defined and they will not change radically in the near future and then try to cope with the DNSH, but at least if we can have a bit of comfort, a bit more comfort around substantial contributions Yeah, then criteria, that would be a good start. And then we’ll see about DNSH and minimum social safeguards, which Yeah, they have built is much more complicated.” *Interviewee 3*

“[...] that is probably the single biggest challenge to use taxonomy. If we were allowed to use estimated data or from the likes of MSCI or SUSTAINALYTICS or one of the many companies out there [...] they could simply look at a company, they could apply algorithms and so on to try and estimate the percentage of taxonomy alignment. Of course, we would disclose that it was estimated needless to say, then it will be usable, but because we’re not essentially, you’re not allowed to use estimated data, and then it becomes useless” - *Interviewee 9*

“To do that would be very, very expensive and frankly over-estimating the importance of this taxonomy data in the first place. [...] Our clients aren’t really going to care whether the number is 5.0% or 5.5%, Or six. Why would anyone go to the trouble of cherry picking [data providers]?” - *Interviewee 5*

“I think that concerns about data accuracy or growth being overdone, because I think that people are worrying about data accuracy before the data. So I would like to - I would like to get the data first which, by and large, doesn’t exist. And once I have [...] a reasonable volume and only once I have a reasonable volume of data, I worry about quality.” - *Interviewee 5*

“[Our organisation] has always been a bit of a frontier with the whole impact and sustainability side and they don’t have as many resources as, let’s say, a Rabobank and ING does in that sense. So, when they get questionable data, that puts a lot of strain on the bank employees. To sift through that data because not all of the data can be. Analysed, through technology, right. A lot of it has to be done manually as well.” - *Interviewee 6*

“We have a lean structure, which allows us to make quicker decisions. However, it’s a double-edged sword; our resource constraints can sometimes slow us down.” - *Interviewee 8*

“[...] the data gets a bit more accurate, but actually it’s not going to revolutionise the way we do business. We almost certainly would still use the third-party supplier to aggregate that data and bring it into a format that we can use ourselves now.” - *Interviewee 8*

“[...] I could be wrong, and if I’m wrong, it’s because the data presented by [ESAP] to users such as us is so, sort of, user friendly, so amenable to direct import into our systems that we can collect the external data inhouse. Frankly, I doubt it to the point I think it’s widely unlikely that the Commission will in practise, you know, create a database trying to be actually usable with our systems without some sort of third-party provider. [If] it isn’t in a format that we can readily use then it’s not going to be reduced. And please remember again this project I don’t want to sound like a broken record. Even if there’s a single access point, and a single source of data for all the companies in the EU, that’s still only one sixth of all the companies we invest in, so we still need a third-party supplier.” - *Interviewee 7*

“I think that the liability of proof should be with people who make unsustainable investments. If Article 6 had to do more paperwork, then they would suddenly strive to be all green and do more sustainable investments. Now, they are just going for Article 6 because then they must do less compliance. [...], factory which pollute, they should have the burden of proof. That

would make things easier and more rewarding for people who are trying to do good." - Interviewee 5

"Without a single access point, this data will be available through data vendors, which are only available for people or institutions or people with enough resources to buy the data. So yeah, I think from a market issue perspective, it would actually be better if the data would be available for the entire investment market." - Interviewee 1

"[data providers] want free money for nothing. I'm very happy for them to take that broad data and then show me a tool for climate transition plenty. But they just have to work a little bit harder." - Interviewee 3

"So, corporates will use I think annex two, financial institutions like us will use six and eight. Those Annexes have a few mistakes in them, but they are still usable, they need improving but they're useful" - Interviewee 2

"And I think from that next period, 29 to 35. You will see improvements and refinements as bad actors, bad players get caught out. Right if the current public sentiment because you think we're thinking about the man and woman on the ground, who will see increasing climate change, climate warming, that's, that's another thing. You're gonna see democracy having to move that way. Because they're going to see how their lives are impacted. As that happens, corporations will then realise that, you know, they've got to be seen to do something, they will increasingly disclose because it will ultimately be about how they're going to maintain the social licence to operate." - Interviewee 2



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