



econsense



SUSTAINABLE FINANCE
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Let's talk numbers: EU Taxonomy reporting by German companies

What can we learn from the first EU Taxonomy reporting season?

econsense is a network of internationally operating companies which share a common goal: They want to actively shape the change to a more sustainable economy and society. We support our members in anchoring sustainability in operational practice, in strategy, and along the supply chain. We track and analyze all relevant issues from environmental protection to human rights – always with a focus on the business case for sustainability. In exchange with business, politics, and civil society, we proactively address sustainability challenges and advocate frameworks and policies that enable innovation and competitiveness. This makes econsense a valued thought leader, advisor, and partner in matters of sustainability.

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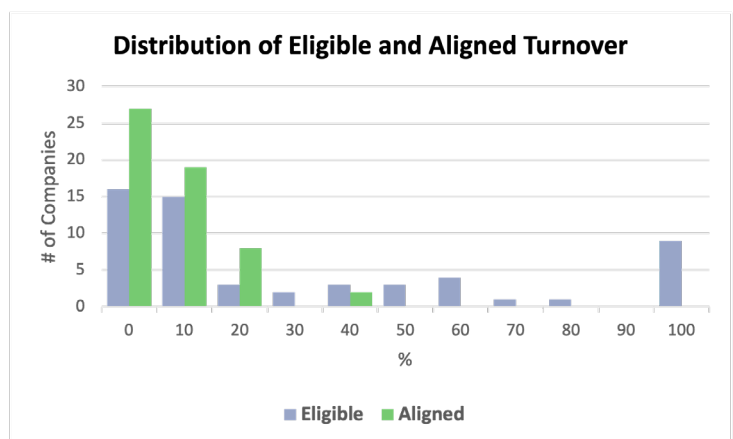
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Executive Summary

The European Union introduced the EU Taxonomy in 2020 with the objective of providing clarity to investors, financial institutions and companies on what constitutes an environmentally sustainable economic activity. As of 2023, companies falling under the non-financial reporting directive (NFRD) are obliged to report the alignment of their business with the climate objectives of the EU Taxonomy for the first time. The report shows that German companies in this sample invested roughly EUR 43.23 billion in EU Taxonomy environmentally sustainable activities and aims to provide insights into the first complete reporting cycle of the EU Taxonomy by quantitatively analyzing the reported EU Taxonomy KPIs of 42 large German companies in the real economy and showcasing opportunities and challenges econsense member companies experienced.

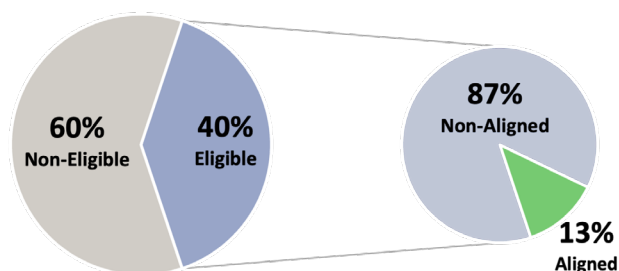
The EU Taxonomy presents a valuable opportunity for companies to **foster internal discussions on sustainability**, to better measure their sustainability performance and to enhance the credibility of a company's product portfolio. This holds particularly true for companies whose activities fall within the scope of the EU Taxonomy, as they can effectively utilize the EU Taxonomy in their strategic decision-making. Yet, the implementation of the EU Taxonomy has unveiled several **implementation challenges** for companies (e.g., data availability and unclear definitions) as highlighted in the case studies of this paper. Moreover, the first full reporting cycle shows that **the link between financial and sustainability data** in the EU Taxonomy calls for an **integrated implementation process** as experts from several departments are needed. Engaging several departments in the entire process presents the opportunity to **raise awareness, build knowledge and foster acceptance for sustainability** within an organization.¹

The quantitative analysis reveals that the average **EU Taxonomy-eligible² turnover is 26 percent**, demonstrating that the companies in the sample have a low level of turnover that could potentially be considered environmentally sustainable according to the EU Taxonomy. However, there is a strong heterogeneity in EU Taxonomy-eligibility between the examined industries. Out of the total **EU-Taxonomy-eligible turnover, three percent is EU Taxonomy-aligned**. In other words, while 26 percent of the total turnover generating economic activities in this sample are covered by the EU Taxonomy, only three percent of these activities substantially contribute to the climate objectives of the EU Taxonomy.



While these figures appear low, it is important to note that this is a first accounting of EU Taxonomy reporting and these numbers might be higher in the future. The Capital Expenditure (CapEx) figures could possibly reveal something about the future since **CapEx** offers a “dynamic and forward-looking view of companies’ plans to transform their business activities.”³ The investigated companies exhibit an average

CapEx (n=42)



EU Taxonomy-eligible CapEx of 40 percent of which **13 percent is EU Taxonomy-aligned**. The higher alignment share (in comparison to turnover) could indicate that companies have started to **transform their business models** and have the potential to more significantly contribute to the achievement of the EU Taxonomy's environmental objectives in the near future. This insinuates that companies could utilize the EU Taxonomy to demonstrate their transition steps and ambition in

the coming years. A **growing alignment share** (for all KPIs) can thus be used as a **central criterion** by investors. However, it remains vital that investors read the KPIs alongside the qualitative information and assess them in relation to the company's overall sustainability strategy to get a full picture. Lastly, the average EU Taxonomy-eligible OpEx is 30 percent, of which 9 percent is EU Taxonomy-aligned.⁴

The analysis also reveals that the vast majority of companies disclose their EU Taxonomy data in the annual report as part of the non-financial section, thus including their EU Taxonomy KPIs in an important communication for investors. Furthermore, 81 percent of the companies looked for voluntary assurance of their disclosures.

The **industry analysis** further reveals a strong **heterogeneity** regarding the EU Taxonomy KPIs. On average, the Consumer Discretionary, Industrial, Real Estate, and Utility industries have substantially higher EU Taxonomy-eligible turnover, CapEx and OpEx. These industries have a large potential to make a genuine contribution to meeting the EU's climate targets by aligning their activities. Other industries such as Health Care or Consumer Staples have zero percent EU Taxonomy-eligible turnover.

For the EU Taxonomy to be an effective part of **transition planning** across industries and to enable companies to show where they actively help to transform the economy, broadening the current framework of EU Taxonomy is an option. Alleviating the implementation challenges highlighted in this paper could further facilitate a robust integration of the EU Taxonomy in companies and strengthen the application of the EU Taxonomy to help companies demonstrating their transition towards a sustainable economy. However, extending the EU Taxonomy comes at the cost of additional reporting requirements. Policy makers, investors and companies could enter a dialogue on which scope of EU Taxonomy reporting could be most effective for redirecting capital to a green economy. Stakeholders will face **trade-offs** when further **developing and implementing the EU Taxonomy**, such as the balance between standardization and over-regulation. While greater standardization would bolster comparability, it may come at the cost of increased data requirements (or vice versa). Another trade-off arises between the scope of the EU Taxonomy and the risk of impact washing. A broader scope could lead to improved applicability, but it may come at the expense of the level of ambition of the 'substantial contribution' criterion. Finding the right balance between scope and ambition will require the collective efforts of all relevant stakeholders. Lastly, some companies may embrace the EU Taxonomy as a strategy tool whereas others might find limited

value in its current setup and might regard the EU Taxonomy reporting as a tick-the-box exercise. Over the coming years, companies will need to reflect which position is most suitable for their business model and their financing strategy.

In summary, the **EU Taxonomy** holds immense potential as a **valuable tool for companies to demonstrate** how they are **aligning their business model with a sustainable and low-carbon economy**. By tackling implementation challenges and bolstering its applicability, the EU Taxonomy can evolve into a source of decision-useful sustainability data. This could allow investors and financial market participants to better understand how green their investments are (i.e., substantially contributing to an environmental objective) and to redirect capital.

Table of Contents

1.	Introduction	10
2.	The EU Taxonomy	11
	2.1 EU Taxonomy reporting requirements for non-financial undertakings.....	14
	2.2 EU Taxonomy in the financial system: A disclosure and transformation tool.....	15
3.	Quantitative analysis of the first EU Taxonomy reporting.....	19
	3.1 Industry and activity comparison.....	21
	3.2 Further EU Taxonomy reporting information	24
4.	Implementation of the EU Taxonomy.....	26
	4.1 Case studies: experiences from applying the EU Taxonomy	29
5.	Key findings	43
6.	Endnotes	46
7.	Publication bibliography.....	51
8.	Appendix	56

List of Abbreviations

BTAR	Banking Book Taxonomy Alignment Ratio
CapEx	Capital Expenditure
CRVA	Climate Risk and Vulnerability Assessment
CRR	Capital Requirements Regulation
CSRD	Corporate Sustainability Reporting Directive
DNSH	Do No Significant Harm
EBA	European Banking Authority
EPREL	European Product Registry for Energy Labelling
ESG	Environmental, social, and governance
ESRS	European Sustainability Reporting Standards
EU	European Union
EU ETS	EU Emission Trading System
EUGBS	European Green Bond Standard
FTSE Russel ICB	FTSE Russel Industry Classification Benchmark
GAR	Green Asset Ratio
GHG	Greenhouse gas
KPIs	Key Performance Indicators
LCA	Life-cycle analysis/ Life-cycle assessment
MiFID II	Markets in Financial Instruments Directive II
MS	Minimum Social Safeguards
NFRD	Non-Financial Reporting Directive
OECD	Organisation for Economic Co-operation and Development
OpEx	Operating Expenditure
PSF	Platform on Sustainable Finance
SDGs	Sustainable Development Goals
SFDR	Sustainable Finance Disclosure Regulation
SPO	Second Party Opinion
TSC	Technical Screening Criteria
UN	United Nations

List of Figures

Figure 01: The six environmental objectives of the EU Taxonomy	12
Figure 02: How to comply with the EU Taxonomy?	13
Figure 03: Assessing economic activities for EU Taxonomy-alignment.....	15
Figure 04: Application of the EU Taxonomy in the financial system	16
Figure 05: The use of the EU Taxonomy in the financial system.....	18
Figure 06: EU Taxonomy KPIs	19
Figure 07: The distributions of companies with eligible and aligned turnover, CapEx and OpEx	20
Figure 08: Turnover - Consumer Discretionary and Industrials	22
Figure 09: CapEx - Consumer Discretionary and Industrials.....	23
Figure 10: OpEx - Consumer Discretionary and Industrials.....	23
Figure 11: Assessing EU Taxonomy-alignment step by step	29
Figure 12: Implementation of the EU Taxonomy in three phases	30
Figure 13: Due diligence process & supporting measures	38
Figure 14: EU Taxonomy KPIs	60
Figure 15: EU Taxonomy KPIs - Consumer Staples	61
Figure 16: EU Taxonomy KPIs - Technology	62
Figure 17: EU Taxonomy KPIs - Health Care.....	63
Figure 18: EU Taxonomy KPIs - Telecommunications.....	64
Figure 19: EU Taxonomy KPIs - Basic Materials	65
Figure 20: EU Taxonomy KPIs - Utilities	66
Figure 21: EU Taxonomy KPIs - Utilities	67
Figure 22: EU Taxonomy KPIs - Consumer discretionary	68
Figure 23: EU Taxonomy KPIs - Industrials.....	69

List of Tables

Table 01: An overview of the EU Action Plan..... 11

Table 02: EU Taxonomy KPIs by industry22

Table 03: Most frequently reported EU Taxonomy activities.....24

Table 04: Cross-cutting CapEx24

Table 05: List of investigated companies58

Table 06: EU Taxonomy KPIs by industry.....70

Table 07: Top three activities by KPI71

1. Introduction

The EU Taxonomy represents a significant advancement in the field of sustainable finance as it offers a uniform, science-based classification system to assess the sustainability of an economic activity. This framework, published by the European Union (EU), lays out specific thresholds and criteria for economic activities to be considered environmentally sustainable, providing clarity for investors, financial institutions and companies. It harmonizes the definition of sustainability across the European financial market, effectively eradicating ambiguity or confusion over green investments. This systematization reduces greenwashing, a situation where a company or product falsely claims to be environmentally friendly. Reducing greenwashing is of significant value to investors seeking to make decisions in line with their environmental, social, and governance (ESG) criteria.

From a broader perspective, the EU Taxonomy is pivotal in driving the transition towards a more sustainable economy, as stipulated in the European Green Deal. By integrating ESG factors into the financial decision-making process, the EU Taxonomy encourages economic activities that contribute to climate change mitigation and adaptation, pollution prevention and control, transition to a circular economy, protection and restoration of biodiversity and sustainable water and marine resources. This definition could help shift capital towards sustainable projects, thereby accelerating the region's achievement of environmental and climate goals. Furthermore, the reporting requirements embedded within the EU Taxonomy enable regulatory authorities to monitor progress and compliance, thereby reinforcing the commitment to sustainability within the financial sector. For the fiscal year 2022, non-financial undertakings (hereafter referred to as companies) had to report the alignment of their business with the EU Taxonomy for the first time. This reporting unveils insights into how the European economy is supporting the goals of the European Green Deal. The reporting process also uncovered challenges to the implementation of the EU Taxonomy at the company level.

This report examines the first-time implementation of EU Taxonomy reporting in Germany by quantitatively analyzing the annual reports of companies in the real economy. Corporate reports of a total of 42⁵ companies were examined. The following performance indicators are quantitatively assessed for industry-specific and within industry differences: EU Taxonomy-eligible and aligned turnover, capital expenditure (CapEx) and operating expenditure (OpEx). Furthermore, opportunities and challenges companies experienced in the first full reporting cycle are gathered from German companies as anecdotal evidence for future improvements in the framework. From both analyses, the report derives recommendations regarding the usability of the EU Taxonomy and potential future regulatory developments.

This report is structured as follows. Chapter 2 provides an introduction and explanation of the EU Taxonomy, its objective, design and functionality. In section 2.1, the EU Taxonomy reporting requirements are outlined. Section 2.2 discusses the use of the EU Taxonomy in the financial sector. The results of the quantitative analysis of the first reporting year under the EU Taxonomy are presented in chapter 3, where, i.e., the results of the analysis of the EU Taxonomy Key Performance Indicators (KPIs) (i.e., turnover, CapEx and OpEx) are presented and discussed. In addition, a comparison of the industries and activities with regard to the reported EU Taxonomy KPIs is provided in section 3.1. As part of the industry deep dive, the results

of the two largest industries of the sample are presented in detail. Chapter 3 ends with the presentation of the analysis of the further EU Taxonomy reporting Information. Chapter 4 outlines experiences by econsense member companies in applying the EU Taxonomy and lists case studies of companies implementing the EU Taxonomy along the different stages in the application process. This report ends with chapter 5 summarizing the key results.

2. The EU Taxonomy

On December 11, 2019, the 27 member states of the EU committed to reducing the EU's net greenhouse gas (GHG) emissions by at least 55 percent compared to 1990 levels by 2030 as part of the European Green Deal.⁶ Furthermore, the EU has committed to achieving climate neutrality by 2050.⁷ The Green Deal is a central component of the European Commission's strategy to implement the United Nation's (UN) Agenda 2030 and the 17 Sustainable Development Goals (SDGs).⁸ With the European Green Deal, the European Commission aims to ensure the successful transformation of the European economic system for a sustainable future. Economic growth will be decoupled from resource consumption.⁹ The European Commission aims to ensure that Europe becomes the first climate-neutral continent with the European Green Deal.¹⁰ Against the background that the public resources of the EU will not be sufficient to finance the required transformation of the European economic system, private capital must be mobilized. Therefore, the European Commission has assigned a key role to the entire financial system.¹¹ The European Commission estimated in 2018 that an annual investment gap of approximately EUR 180 billion must be closed and consequently capital flows must be redirected from non-sustainable investments¹² to sustainable investments. The European Commission published the EU Action Plan on March 8, 2018 to establish a sustainable financial framework to achieve the European climate and energy objectives, which are mainly derived from the Paris Climate Agreement.¹³ As Table 1 illustrates, the European Commission is pursuing three specific objectives with the EU Action Plan and has defined a total of 10 actions to achieve these objectives.¹⁴

Objective	Action	Description
(1) Reorienting capital flows towards a more sustainable economy	1	Establishing an EU classification system for sustainable activities
	2	Creating standards and labels for green financial products
	3	Fostering investment in sustainable projects
	4	Incorporating sustainability when providing financial advice
	5	Developing sustainability benchmarks
(2) Main-streaming sustainability into risk management	6	Better integrating sustainability in ratings and market research
	7	Clarifying institutional investors' and asset managers' duties
	8	Incorporating sustainability in prudential requirements
(3) Fostering transparency and long-termism	9	Strengthening sustainability disclosure and accounting rule-making
	10	Fostering sustainable corporate governance and attenuating short-termism in capital markets

Table 01: An overview of the EU Action Plan¹⁵

Since the EU Green Deal came into force, the European Commission has introduced and successively developed a Sustainable Finance Framework by publishing the EU Action Plan.¹⁶ As part of this plan, the 'Strategy for Financing the Transition to a Sustainable Economy' was published on June 6, 2021.¹⁷ This publication should supplement the EU Action Plan, where the European Commission once again emphasizes the need to redirect private capital into sustainable investments in order to achieve the objectives of the EU Green Deal.

"Europe will need an estimated EUR 350 billion in additional investment per year over this decade to meet its 2030 emissions-reduction target in energy systems alone, alongside the EUR 130 billion it will need for other environmental goals." (EU Commission, 2021 p. 1)

The European Commission's Sustainable Finance Framework consists of the following three building blocks: 1) a classification system, or 'taxonomy' of sustainable activities, 2) a disclosure framework for non-financial and financial companies, and 3) investment tools, including benchmarks, standards and labels.¹⁸ The first building block of the Sustainable Finance Framework was introduced in 2018 in the first action of the EU Action Plan. The first action "Establishing an EU classification system for sustainable activities", which the European Commission initiated by publishing the EU Taxonomy on June 18, 2020, aims at creating a uniform understanding and language of (environmentally) sustainable economic activities.¹⁹ The EU Taxonomy defines six environmental objectives designed to protect institutional and private investors from greenwashing, to support companies in the real economy in the transformation to a sustainable economic system and, especially, to help mobilize capital for the transformation to a sustainable economic system.²⁰ Accordingly, the EU Taxonomy plays a central role in the realization of the Green Deal.²¹ Figure 1 illustrates the six environmental objectives of the EU Taxonomy.²²

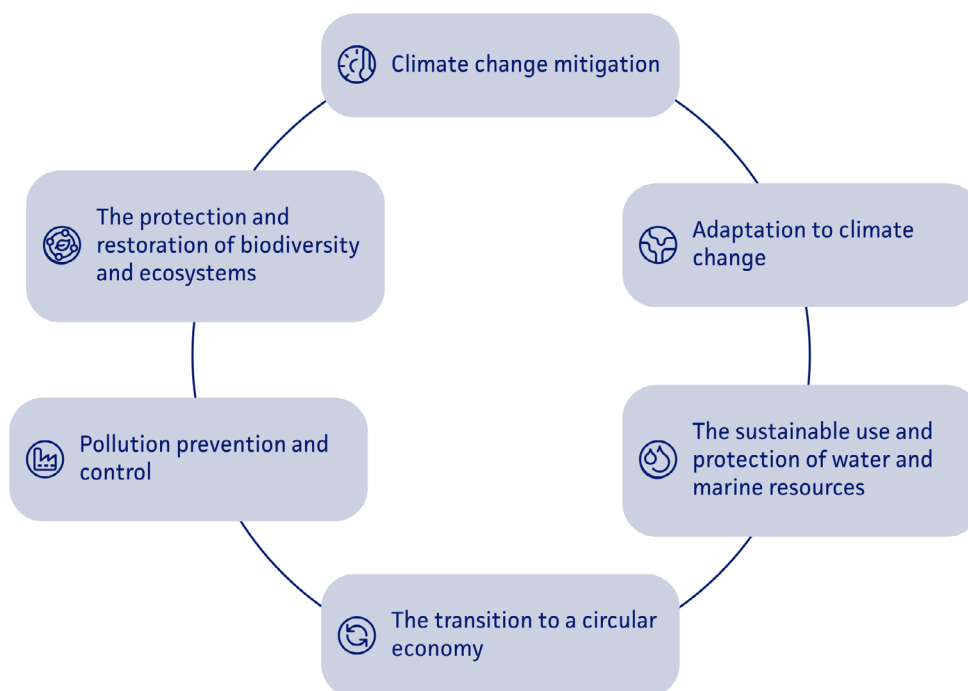


Figure 01: The six environmental objectives of the EU Taxonomy²³

According to the EU Taxonomy, an economic activity can be considered EU Taxonomy-aligned if it is in line with technical screening criteria (TSC)²⁴ and makes a significant contribution to achieving at least one of the six environmental objectives of the EU Taxonomy, while not significantly harming any of the other five environmental objectives (DNSH) and complying with the minimum social safeguards (MS) (see

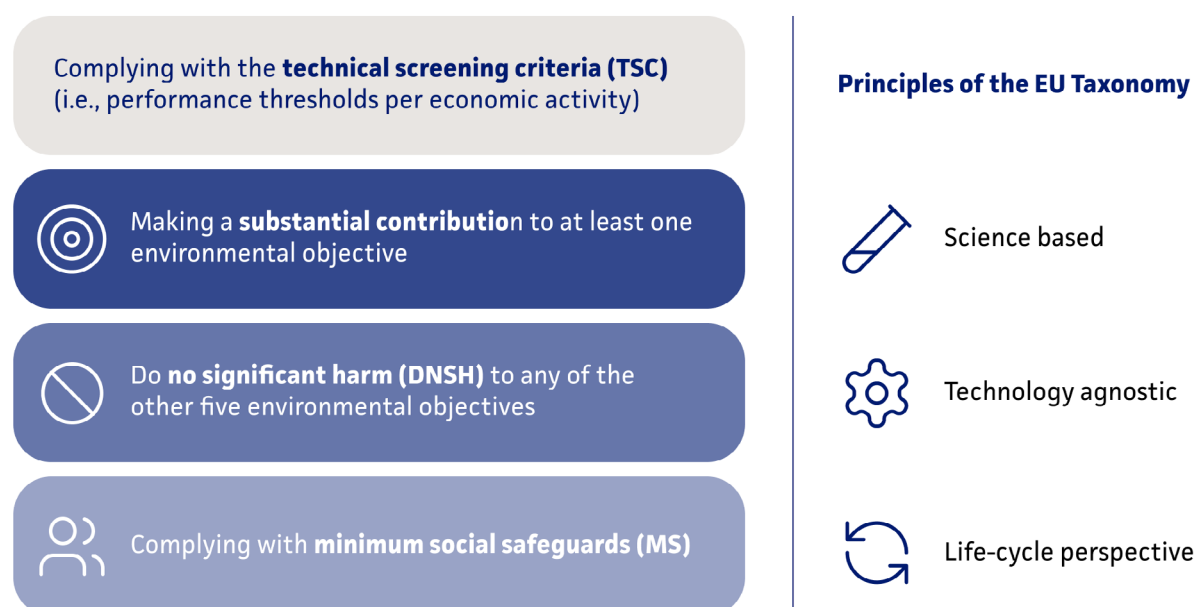


Figure 02: How to comply with the EU Taxonomy?²⁶

First, the European Commission published the TSC for the first two environmental objectives, namely (1) climate change mitigation and (2) climate change adaptation by means of so-called delegated acts.²⁷ Then on April 5, 2023, proposals for the TSC for the remaining four environmental objectives were put forward by the European Commission.²⁸ Once the TSC for the four remaining environmental objectives have been finalized, the EU Taxonomy could help mobilize private capital for all its environmental objectives and thereby fully unfold its potential.

A second building block of the EU Sustainable Finance Framework is disclosure. The European Commission introduced stringent disclosure requirements for non-financial and financial institutions by creating the Corporate Sustainability Reporting Directive (CSRD) and the Sustainable Finance Disclosure Regulation (SFDR). Only public interest entities²⁹ are currently obligated to incorporate the EU Taxonomy in their reporting. The CSRD will require large, as well as listed small and medium-sized, companies operating in the EU to disclose sustainability data.³⁰ The CSRD will replace the Non-Financial Reporting Directive (NFRD) by the end of 2024, thus affecting annual reports for 2024.³¹ The number of companies reporting under the EU Taxonomy will increase from 11,600 to 50,000 in the EU, and a mandatory limited assurance of sustainability reports including EU Taxonomy data will be introduced. The disclosure obligations for companies affected by the EU Taxonomy differ from the disclosure obligations of financial institutions.³² Companies and financial institutions must disclose the extent of EU Taxonomy-eligible economic activities and the proportion of EU Taxonomy-aligned economic activities since the EU Taxonomy came into force.³³ By increasing the disclosure of relevant information and signaling that companies are following an

EU Taxonomy-aligned strategy, attracting more sustainability-oriented investors and gaining a potential competitive advantage might be possible.³⁴

In summary, the European Commission has created a science-based uniform classification system for (environmentally) sustainable economic activities with the EU Taxonomy. The CSRD/NFRD and SFDR ensure the disclosure of the necessary sustainability-related information. Affected institutions are required by the CSRD/NFRD to publicly report, for example, the proportion of their EU Taxonomy-aligned economic activities. This information enables financial market participants (e.g., asset managers, insurance companies and pension funds) to determine and disclose the share of EU Taxonomy-aligned investments at the financial product level. Due to the increased sustainability-related disclosure requirements of the CSRD/NFRD, investors can more easily take sustainability aspects into account due to the increased transparency and redirect their capital flows into (environmentally) sustainable investment objects.

2.1 EU Taxonomy reporting requirements for non-financial undertakings

The EU Taxonomy imposes mandatory disclosure requirements on companies regarding the economic activities listed in the EU Taxonomy to foster transparency. Companies that fall under the scope of the NFRD (and soon the CSRD) must report the extent a) to which their activities are covered by the EU Taxonomy (i.e., EU Taxonomy-eligibility) and b) comply with the criteria set out in the Taxonomy delegated acts (i.e., EU Taxonomy-alignment):

- a. **EU Taxonomy-eligible activities** are economic activities listed and described in the EU Taxonomy irrespective of whether they meet the TSC specified in the climate delegated act³⁵ (and future delegated acts). Hence, eligibility does not indicate the environmental performance of the activity.³⁶
- b. **EU Taxonomy-aligned activities** are EU Taxonomy-eligible activities that meet all the requirements of the EU Taxonomy (as described in the previous section) and comply with the TSC. The EU Taxonomy considers an aligned activity to be an environmentally sustainable economic activity.³⁷

The specific reporting obligations and timelines for companies are outlined in the disclosures delegated act supplementing Article 8 of the EU Taxonomy regulation.³⁸ In 2023, the first full implementation of the EU Taxonomy took effect requiring companies to disclose the proportion of their environmentally sustainable activities for the fiscal year 2022. However, only the delegated act on the two climate objectives has been adopted so far, i.e., climate change mitigation and adaptation.³⁹

The regulation requires companies to disclose the proportion of their a) Turnover, b) CapEx and c) OpEx affiliated with EU Taxonomy-eligible and EU Taxonomy-aligned economic activities. These three financial KPIs can be described as follows:

- a. Turnover: Share of net turnover resulting from economic activities that are EU Taxonomy-aligned. Turnover indicates a company's current contribution to the environmental objectives ('**static view**').⁴⁰

- b. CapEx: Share of capital expenditures associated with an activity already aligned with the EU Taxonomy or that constitutes a credible plan to extend or reach alignment. *“CapEx provides a **dynamic and forward-looking view** of companies’ plans to transform their business activities.”*⁴¹
- c. OpEx: Share of operational expenditures related to EU Taxonomy-aligned activities or CapEx plan. Non-capitalized costs such as R&D, renovation measures or short-term leases are covered by OpEx.⁴²

A significant aspect of these reporting requirements is that they require companies to systematically **link financial and sustainability information for the first time**, irrespective of whether companies are sustainable or not. Translating environmental performance into these three financial KPIs supports financial market participants in their decision-making processes, as these KPIs are well-defined and comparable.⁴³ However, the climate objectives of the EU Taxonomy do not currently cover all industries but only industries with the highest GHG emissions.⁴⁴ *“Through the Taxonomy [climate delegated act], the EU Taxonomy criteria cover the economic activities of roughly 40% of listed companies, in industries which are responsible for almost 80% of direct greenhouse gas emissions in Europe.(Source: Eurostat)”*⁴⁵ Hence, by prioritizing industries most significant for GHG emissions reductions, the climate delegated act does not cover all other industries that could potentially make (minor) substantial contributions.⁴⁶

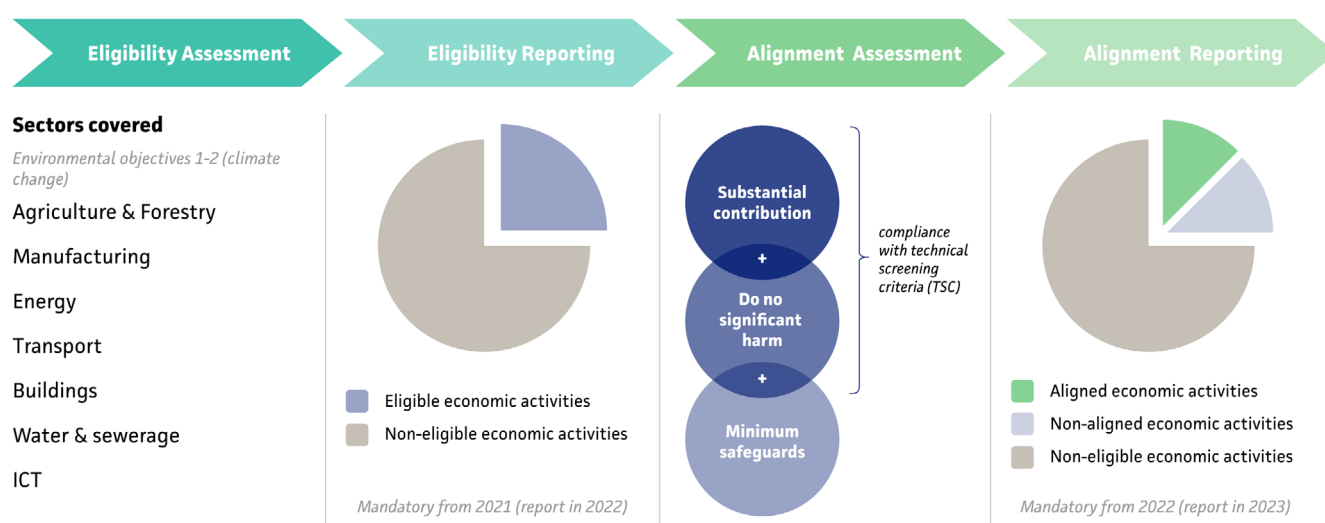


Figure 03: Assessing economic activities for EU Taxonomy-alignment⁴⁷

2.2 EU Taxonomy in the financial system: A disclosure and transformation tool

The EU Taxonomy should help actors in the financial system better understand how green their investments are (i.e., substantially contributing to an environmental objective) and to redirect capital flows to those green activities and thus increase available capital for the transformation.⁴⁸ To foster the transformation, the EU has created several disclosure requirements for financial actors based on the EU Taxonomy and proposes the use of the EU Taxonomy as a tool for investment decisions⁴⁹, see figure 4.

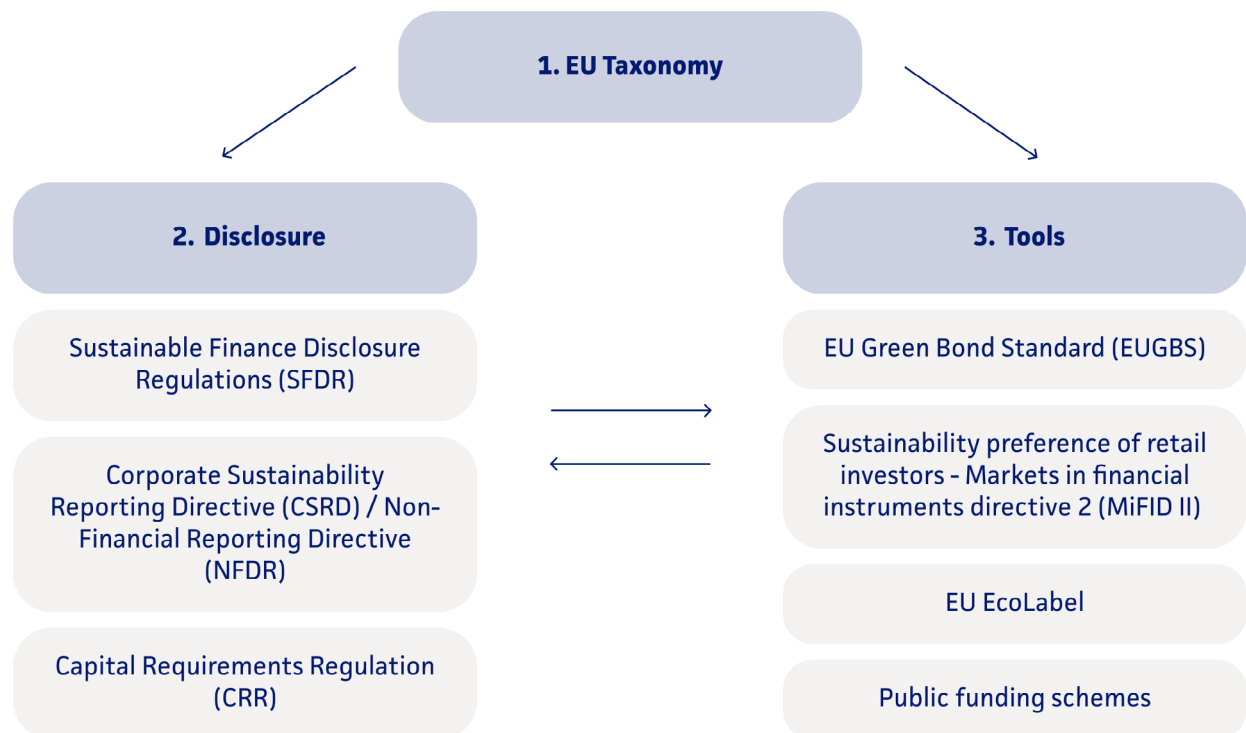


Figure 04: Application of the EU Taxonomy in the financial system⁵⁰

Disclosures

Disclosures create information flows relevant along the supply chain and motivate actors to adapt their behavior.

- **Sustainable Finance Disclosure Regulation (SFDR):** The SFDR regulates the sustainability reporting by many financial market participants pertaining to strategies, processes and products.⁵¹ The EU Taxonomy is part of the disclosures for sustainable products in⁵²:
 - Pre-contractual Disclosures: Financial market participants must provide pre-contractual disclosures to investors regarding how and to what extent their activities align with the EU Taxonomy.
 - Periodic Reports: Participants must also disclose the proportion of their investments that are EU Taxonomy-aligned in their periodic reports.
 - Non-Alignment Disclosures: If the participant does not consider any of the environmental objectives or if a product does not have sustainable investments as its objective, they must clearly state so in their disclosures.
- **Corporate Sustainability Reporting Directive (CSRD):** The CSRD will replace the NFRD. The aim is to integrate corporate sustainability reporting into financial reporting (i.e., into the management report).⁵³ The CSRD standardizes and increases the sustainability information disclosure requirements of the affected companies with uniform EU standards, the European Sustainability Reporting Standards (ESRS).⁵⁴ Affected companies are required to publicly report, for example, the proportion of their EU Taxonomy-aligned economic activities.

- **Capital Requirements Regulation (CRR):** Article 449a of the CRR regulates the ESG disclosures of financial institutions falling within the Basel III regime. Here, the European Banking Authority (EBA) outlines how those institutions should report their Green Asset Ratio (GAR) and their Banking Book Taxonomy Alignment Ratio (BTAR). Those ratios indicate the degree to which a portfolio is aligned with the EU Taxonomy.⁵⁵ GAR shows the values for financing to reporting companies and some private lending (e.g., mortgages) whereas BTAR allows banks to consider non-listed companies for which they collect the EU Taxonomy values themselves (e.g., renewable energy products in special purpose vehicle structures).

Tools

Tools help investors create products and services that allow the redirection of capital flows in line with the EU Taxonomy.

- **EU Green Bond Standard (EUGBS):** The EUGBS references the EU Taxonomy to define which activities are eligible for financing under the framework.⁵⁶
- **Markets in Financial Instruments Directive II (MiFID II):** Following a recent amendment, MiFID II requires investment advisors to assess sustainability preferences of retail clients during the advisory process.⁵⁷ The EU Taxonomy information provided through the SFDR should become one selection criterion catering to sustainability preferences.
- **EU Ecolabel:** The EU Ecolabel is supposed to include financial products in order to allow retail investors to identify sustainable financial products. In the current proposal, having relatively high EU Taxonomy shares⁵⁸ in a financial product is a key aspect for receiving the label.⁵⁹
- **Public support schemes:** Increasingly, public funding support is pegged to the EU Taxonomy. Examples include governments starting to use the EU Taxonomy for sovereign green bond issuances thus ringfencing public procurement to the EU Taxonomy⁶⁰ and large promotional banks such as the European Investment Bank⁶¹ or KfW⁶² linking their strategies and support programs to the EU Taxonomy.

The manifold applications of the EU Taxonomy in the financial system usually require real economy actors to report their EU Taxonomy-aligned shares first. The CSRD/NFRD and SFDR ensure the disclosure of the necessary sustainability-related information. This information enables financial market participants (e.g., asset managers, insurance companies and pension funds) to determine and disclose the share of EU Taxonomy-aligned investments at the financial product level. Due to the heightened sustainability-related disclosure requirements of the NFRD/CSRD as well as the SFDR, investors can more easily take sustainability aspects into account due to the increased transparency and redirect their capital flows into (environmentally) sustainable investment objects (see Figure 5).

This first reporting season will help financial actors implement their disclosure requirements and could lead to an increased use of the EU Taxonomy as a tool for financing the transformation. This will allow retail and institutional investors to use the EU Taxonomy as a compass for making investment decisions that support the transformation of the European economy, as Figure 5 illustrates. The mandatory sus-

tainability preference query according to MiFID II can play a significant role in redirecting retail investors' capital flows. Retail investors can specify the minimum proportion of EU Taxonomy-aligned investments during the financial advisory process for example. The financial advisory service can, based on the disclosure requirements of the SFDR, provide information on the extent to which the recommended financial products contribute to an environmental objective.

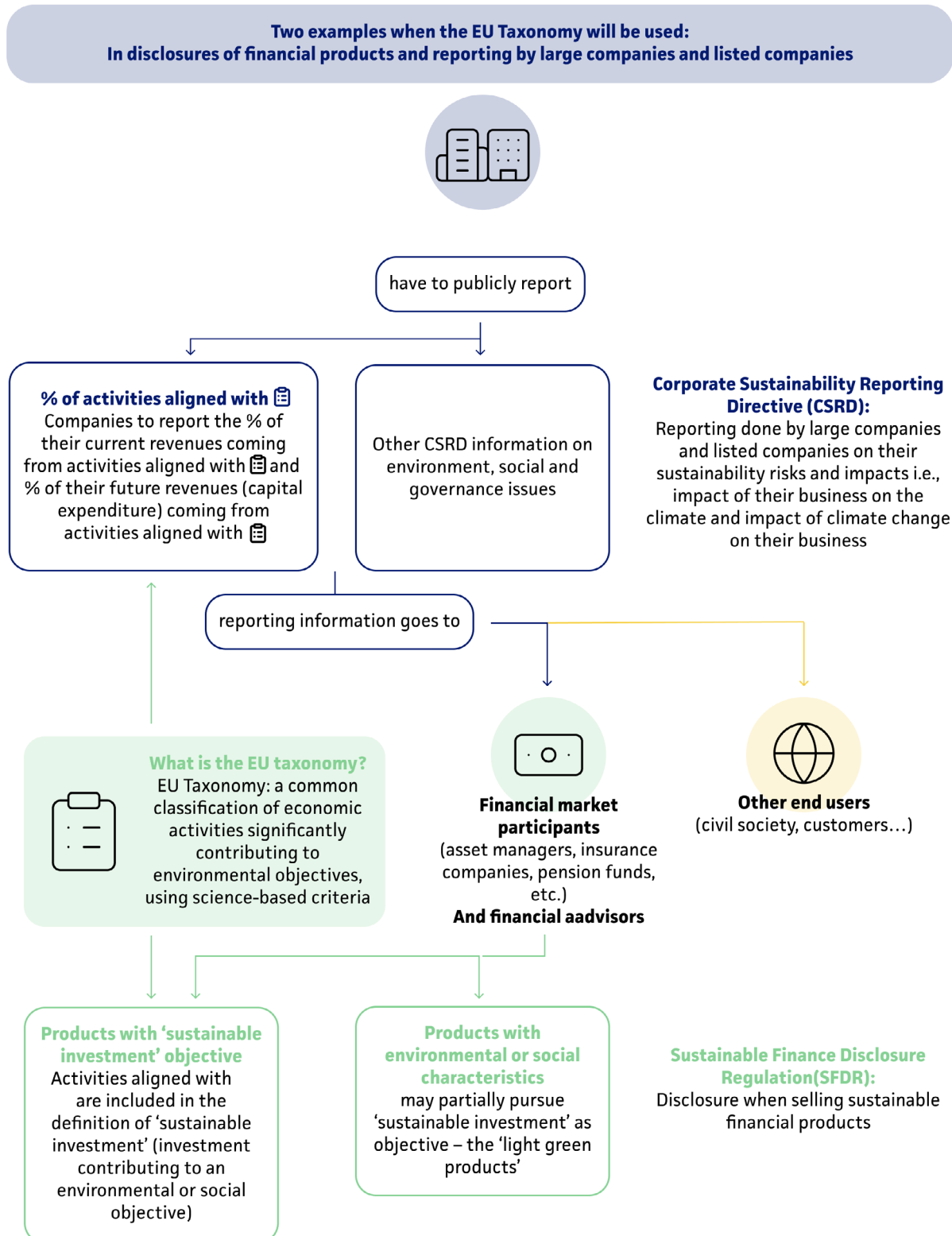


Figure 05: The use of the EU Taxonomy in the financial system

3. Quantitative analysis of the first EU Taxonomy reporting

This section presents and discusses the results of analyzing all DAX companies and econsense member companies that reported EU Taxonomy information for the financial year 2022. A systematic data collection was conducted for the 42 companies⁶³ that were included in the final sample.^{64,65}

In summary, the data shows:

- That the business models of the 42 investigated companies do not have a very strong relationship with the first two environmental goals of the EU Taxonomy (i.e., climate change mitigation and adaptation). The companies have an average of 26 percent EU Taxonomy-eligible turnover.
- The contribution to the achievement of the first two environmental goals of the EU Taxonomy actually made by the investigated companies is also rather low. On average, three percent EU Taxonomy-aligned turnover is reported.
- An industry comparison (e.g., Industrials vs. Telecommunications) shows a strong heterogeneity with regard to the EU Taxonomy KPIs.
- Companies report notably higher average EU Taxonomy-eligibility and EU Taxonomy-alignment for CapEx and OpEx.
- Higher EU Taxonomy-aligned CapEx seems to indicate that the business models of the companies studied may contribute more to the achievement of the EU Taxonomy environmental targets in the future.
- In absolute terms, German companies in this sample invested roughly EUR 43.23 billion in EU Taxonomy environmentally sustainable activities.

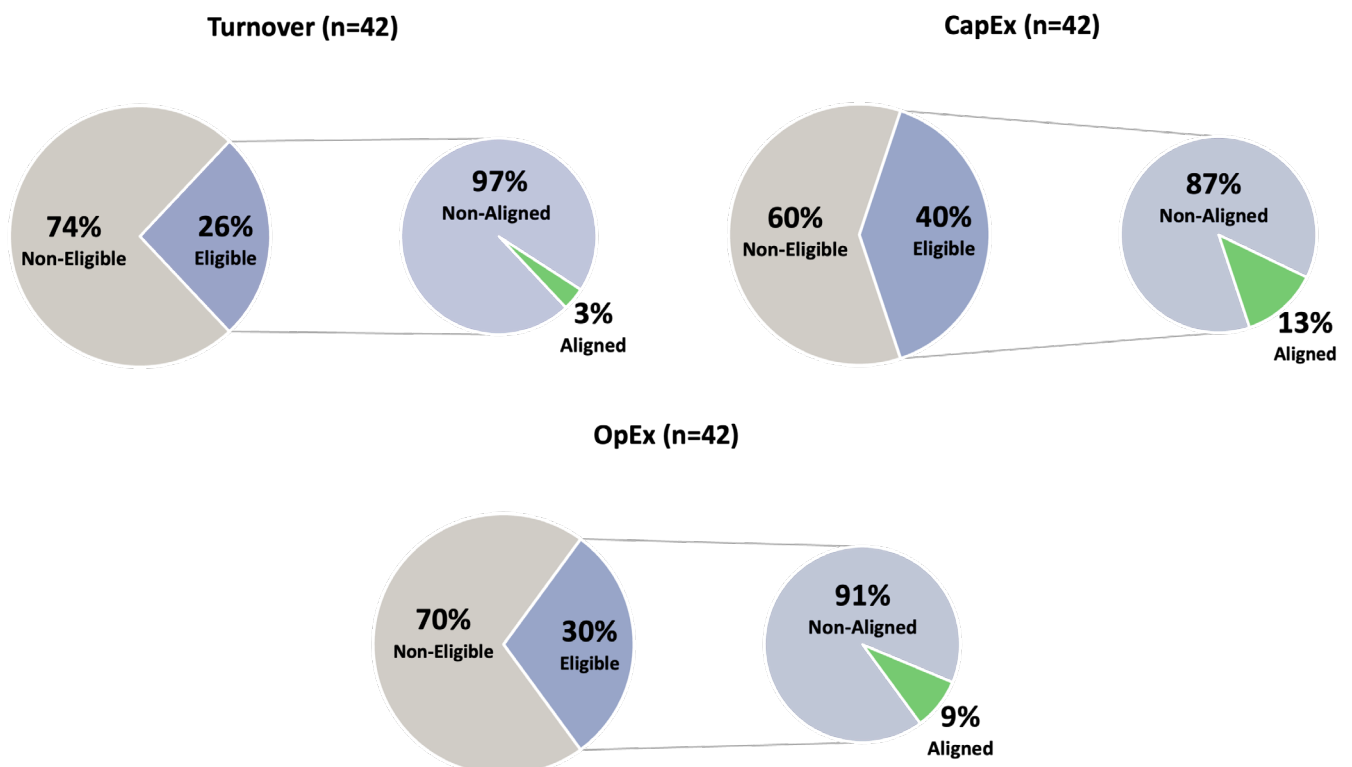


Figure 06: EU Taxonomy KPIs⁶⁶

Figure 6 present the average company's EU Taxonomy-eligibility and alignment KPIs pertaining to turnover, CapEx and OpEx. 74 percent⁶⁷ of the turnover from the average company in the sample is not eligible under the current version of the EU Taxonomy. In other words, 74 percent of the average company's turnover is from activities that are not covered by the EU Taxonomy due to its focus on high climate impact industries (i.e., industries with high GHG emission levels). Of the 26 percent of turnover that is eligible, three percent is considered to conform with the EU Taxonomy's TSC for environmentally sustainable activities, i.e., only three percent is considered aligned. In other words, while 26 percent of the total turnover generating economic activities in this sample are covered by the EU Taxonomy, only three percent of these activities substantially contribute to the climate objectives of the EU Taxonomy.

The percentage of eligible and aligned CapEx is slightly higher at 40 and 13 percent, respectively. The substantially higher average EU Taxonomy-aligned CapEx indicates that the business models of the investigated companies may contribute more to the achievement of the EU Taxonomy's environmental objectives in the future. The percentage of eligible OpEx is similar to that of turnover at 30 percent while aligned OpEx is higher at nine percent.

The distributions of companies with eligible and aligned turnover, CapEx and OpEx shows that the majority of the companies in the sample have similar levels of eligibility and alignment. These distributions are presented in Figure 7.⁶⁸ These bar charts illustrate the number of companies reporting EU Taxonomy-eligible and aligned turnover, CapEx and OpEx in ten percent increments. For example, 16 companies exhibit an eligible turnover between zero and ten percent, while 19 companies have an aligned turnover between zero and ten percent.

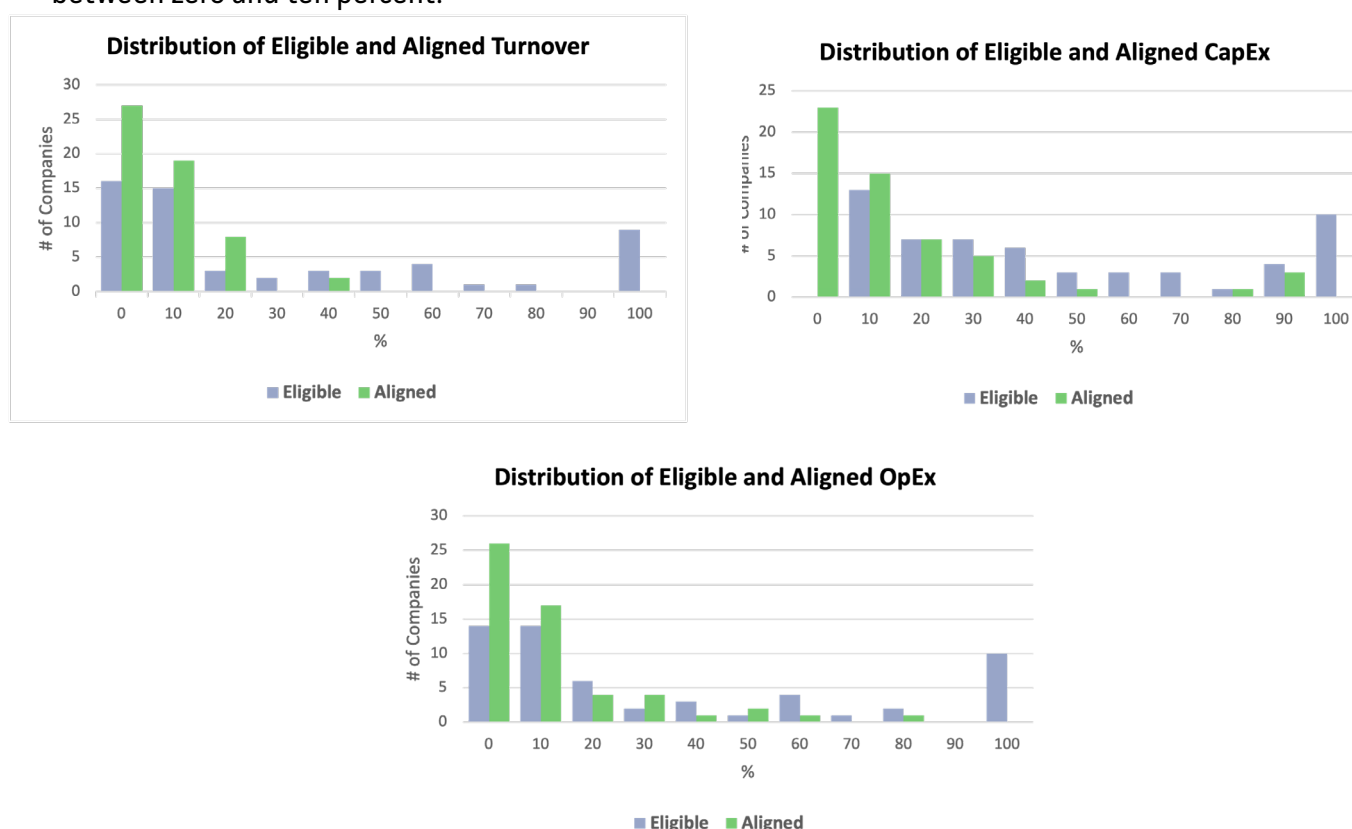


Figure 07: The distributions of companies with eligible and aligned turnover, CapEx and OpEx⁶⁹

As Figure 7 demonstrates, companies with either zero or up to ten percent of EU Taxonomy-eligible/aligned turnover, CapEx and OpEx compose the majority of the sample. Around ten companies in each distribution report EU Taxonomy-eligible turnover, CapEx and OpEx of 90 percent or more. However, these numbers drastically sink when it comes to alignment, where the highest level of EU Taxonomy-aligned turnover, CapEx and OpEx is up to 40, 90 and 80 percent, respectively. Furthermore, both the EU Taxonomy-eligible and aligned turnover, CapEx and OpEx appear to be right skewed.

Key messages:

- Every company in the sample has some EU Taxonomy-eligible CapEx while 16 companies do not have any EU Taxonomy-eligible turnover. This could possibly hint at companies investing in cross-cutting activities.⁷⁰
- The average percentage of EU Taxonomy-eligible CapEx is higher than that of the EU Taxonomy-eligible turnover which might lead to higher EU Taxonomy-eligible turnover and OpEx in the near future.
- Around ten Consumer Discretionary, Industrial, Real Estate and Utility companies have very high EU Taxonomy-eligible turnover, CapEx and OpEx. These companies can potentially make a large contribution to meeting the EU's climate goals by aligning their activities.

In summary, the EU Taxonomy-aligned turnover, CapEx and OpEx from both the average company and the majority of companies in the sample are currently low. Most of the reported activities were linked to climate change mitigation while few were linked to climate change adaptation. As of today, the companies in the investigated sample do not seem to be making any major substantial contributions to climate protection according to the EU Taxonomy. This finding makes sense, since the EU is currently not on a Paris aligned path.⁷¹ Thus, the present analysis underpins the extent of the European transition that is still necessary to achieve carbon neutrality by 2050, as the contribution that the business models of the studied sample currently make to achieving the EU Taxonomy's environmental objectives is rather low.

3.1 Industry and activity comparison

This section presents the results of the industry⁷² and activity analysis. Table 2 presents the absolute and relative values for the industry analysis. At first glance, it can be seen that the turnover, CapEx and OpEx values are heterogenous across the industries. The Real Estate companies in the sample stand out with an average 93 percent EU Taxonomy-eligible turnover. However, their EU Taxonomy-aligned turnover, while being among the highest, is still low meaning there is a lot of potential in these Real Estate companies that is not currently being exploited. This finding is similar for Technology and Utilities companies in the sample. A further point that stands out is the very high level of EU Taxonomy-eligible and aligned CapEx seen in Utilities companies, which can be expected based on the European push to use more renewable energy. Finally, low-impact industries (e.g., Health Care) seem to have a higher level of cross-cutting activities evidenced by the low levels of EU Taxonomy-eligible turnover and OpEx compared to CapEx.

Industry	N	Turnover		CapEx		OpEx	
		Eligible	Aligned	Eligible	Aligned	Eligible	Aligned
		%	%	%	%	%	%
Consumer Discretionary	11	36	4	51	12	39	15
Industrials Basic	10	30	2	40	9	40	7
Materials	6	12	0	15	1	10	1
Health Care	5	0	0	24	3	4	0
Consumer Staples	5	0	0	26	4	1	0
Telecommunications	5	11	2	8	0	7	0
Utilities	5	26	15	80	68	47	34
Technology	5	41	2	41	3	21	3
Real Estate	5	93	14	99	13	94	13

Table 02: EU Taxonomy KPIs by industry⁷³

Industry deep dive: Consumer Discretionary and Industrials

As part of this deep dive, the two largest⁷⁴ industries in the sample were examined, i.e., Consumer Discretionary and Industrials.⁷⁵ Consumer Discretionary and Industrials are of special interest both in terms of size and importance for the German economy. Furthermore, they are both resource and energy intensive making them of particular importance to the EU Taxonomy and the transition to a climate friendly economic system as well. The largest number of companies in the sample belong to the Consumer Discretionary industry which is followed by Industrials as can be seen in Figure 8.⁷⁶ The total turnover from companies in the Consumer Discretionary industry is ca. four times that of Industrials while the average percentage of EU Taxonomy-eligible turnover between the two industries is quite similar. Furthermore, the level of EU Taxonomy-aligned turnover is quite low at four and two percent of eligible turnover, respectively.

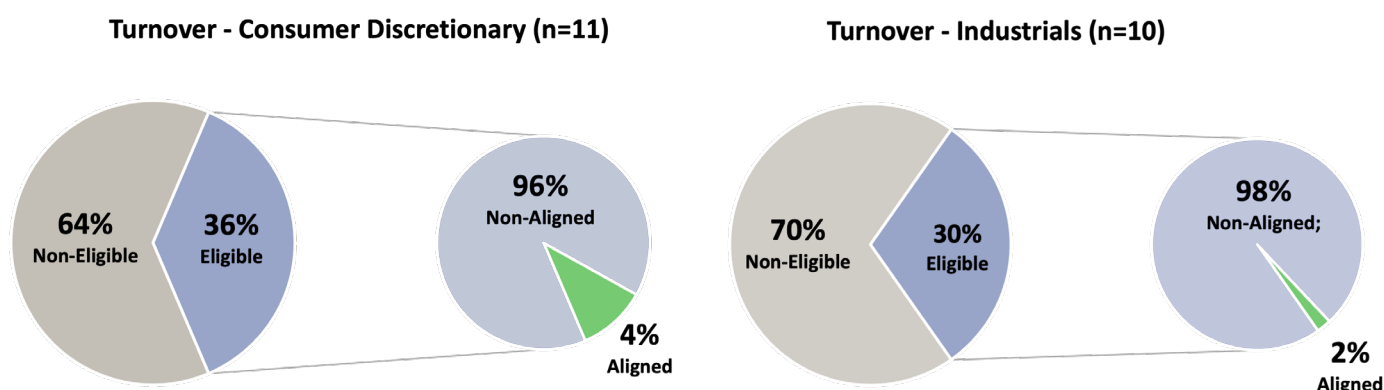
Figure 08: Turnover - Consumer Discretionary and Industrials⁷⁷

Figure 9 shows that the average companies in these two industries invested around half of their CapEx in EU Taxonomy-eligible activities. However, the amount of money invested in EU Taxonomy-aligned CapEx drops to around ten percent of eligible CapEx for both industries. In absolute terms, the average company in the Consumer Discretionary and Industrials industries invested around 2.63 billion and 0.29 billion euros in EU Taxonomy-aligned CapEx in 2022, respectively.

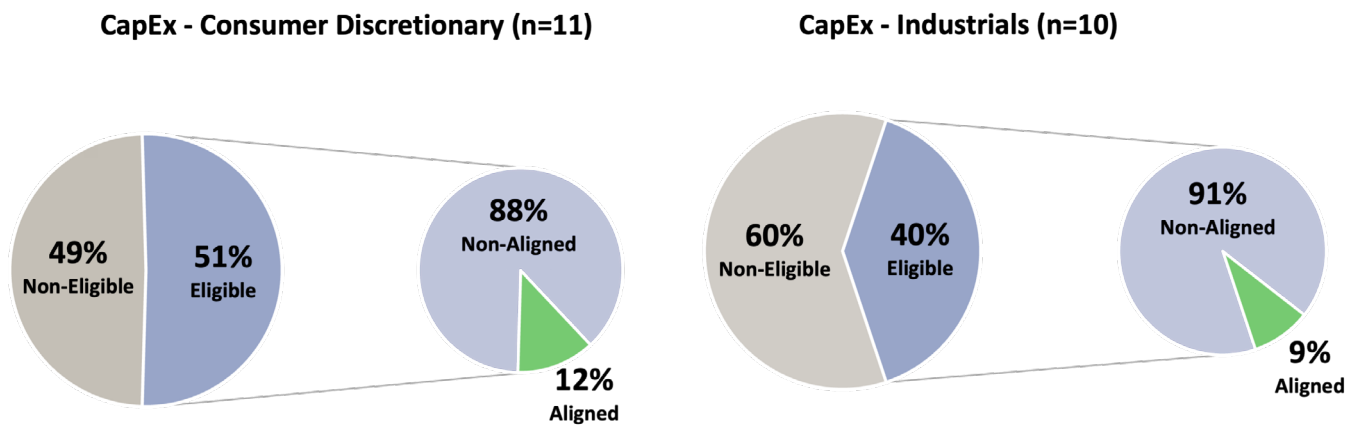


Figure 09: CapEx - Consumer Discretionary and Industrials⁷⁸

Based on Figure 10 the average EU Taxonomy-eligible OpEx for the two industries does not really differ, however, the average relative EU Taxonomy-aligned OpEx for Consumer Discretionary companies is around twice that of Industrials.

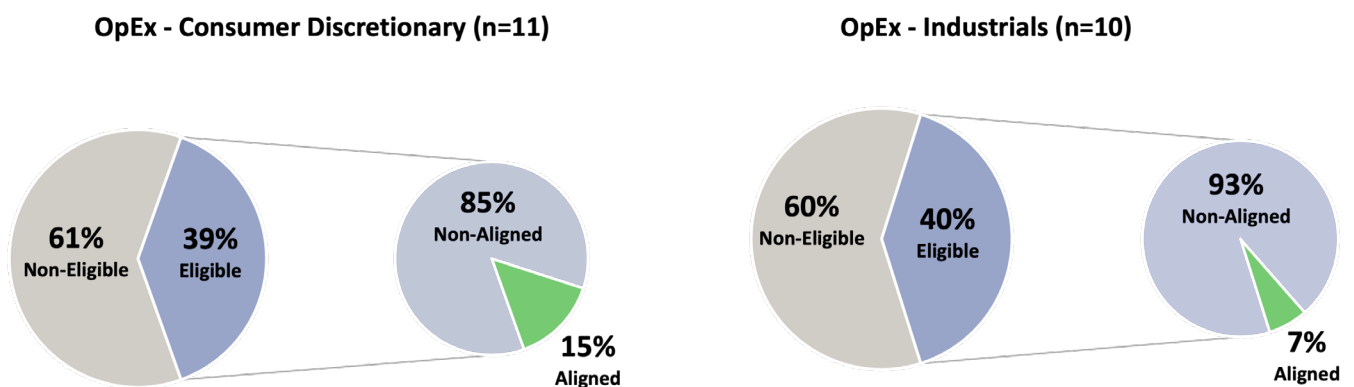


Figure 10: OpEx - Consumer Discretionary and Industrials⁷⁹

To gain a better understanding of which activities play a role for the companies in the sample, the most frequently reported economic activities were examined. Table 3 presents the five most frequently reported economic activities for the companies in the investigated sample. ⁸⁰

#	Economic activity
3.6	Manufacture of other low carbon technologies
4.1	Electricity generation using solar photovoltaic technology
6.5	Transport by motorbikes, passenger cars and light commercial vehicles
7.3	Installation, maintenance and repair of energy efficiency equipment
7.7	The acquisition and ownership of buildings

Table 03: Most frequently reported EU Taxonomy activities

Deep Dive: Cross-cutting activities

The next step in the analysis was to examine how much of the eligible and aligned CapEx went to cross-cutting activities, i.e., activities outside a company's core business. For example, a company could have low EU Taxonomy-aligned turnover in the future, but green infrastructure used in creating this turnover. Table 4 presents the results of this analysis. Almost nine percent of EU Taxonomy-eligible CapEx is attributable to cross-cutting activities while a little more than one percent of the EU Taxonomy-eligible CapEx is actually EU Taxonomy-aligned. This could be interpreted as first evidence that if companies in the sample are investing in EU Taxonomy-aligned activities the majority of the investment is being made in the core business area.

	Eligible	Aligned
Mil €	8951.23	692.16
%	8.86%	1.29%
% Total	3.62%	0.28%
N	36	15

Table 04: Cross-cutting CapEx⁸¹

3.2 Further EU Taxonomy reporting information

The following information provides further insights into how the econsense and DAX members in our sample report their EU Taxonomy data.

- 40 companies⁸² reported EU Taxonomy-eligible turnover, CapEx or OpEx from activities related to climate change mitigation while only two companies reported EU Taxonomy-eligible turnover, CapEx

or OpEx from activities related to climate change adaptation. 52 companies reported EU Taxonomy-eligible turnover, CapEx or OpEx without mapping them to climate change mitigation or climate change adaptation. Two companies reported EU Taxonomy-eligible turnover, CapEx and OpEx without mapping them to any activities.

- Around 25 percent of the companies reported an EU Taxonomy related CapEx plan.⁸³
- One company in the sample reported EU Taxonomy-aligned activities as a proportion of adjusted EBITDA and expanded CapEx at the group and segment levels in addition to the turnover, CapEx and OpEx KPIs.
- The vast majority of companies reported the EU Taxonomy data in the annual report as part of the non-financial information section. A few companies reported the EU Taxonomy information in the combined management report section or in an extra EU Taxonomy section. A small number of companies reported the EU Taxonomy data in an extra sustainability report or in a separate document.
- Around 40 percent of the companies included a textual explanation of the EU Taxonomy turnover, CapEx and OpEx KPIs. Of those companies, the vast majority reported the KPIs as a proportion of the total turnover, CapEx and OpEx in the textual explanation but a few companies reported the KPIs as a proportion of EU Taxonomy-eligible turnover, CapEx and OpEx. Around 60 percent of the companies did not provide a textual explanation of the aforementioned KPIs.
- Auditors provided a limited assurance assessment of the EU Taxonomy information reported for 30 companies, reasonable assurance for four companies and no assurance for eight companies.
- Around 50 percent of the companies explained either their low EU Taxonomy-alignment or the difference between EU Taxonomy-eligible and aligned turnover, CapEx and OpEx in public reports. The most prominent explanations offered by the companies include: 1) the core business is not covered by the current form of the EU Taxonomy and therefore the company's activities cannot be assessed; 2) it is not possible to obtain the information from suppliers and service providers necessary to demonstrate alignment with the EU Taxonomy; 3) proving compliance with the DNSH and TSC along the value chain is not currently possible; 4) life-cycle assessments are missing at both the company and supplier level; 5) data availability is restrictive and regulatory uncertainty increases the risk of investing in the wrong activities.

4. Implementation of the EU Taxonomy

The following chapter summarizes experiences by econsense companies in applying the EU Taxonomy. First, the report summarizes feedback from econsense member companies⁸⁴ on the EU Taxonomy in the following dimensions: company-internal experience, policy experience and investor perspective. The experiences were gathered in bilateral and work group discussions with econsense members. Then, case studies of econsense companies applying the EU Taxonomy are provided showcasing anecdotes from applying the EU Taxonomy. We thank all participating companies for making this chapter possible by writing the case studies and for providing us with their opinions based on their experiences. The opinions contained in this chapter do not necessarily represent the opinions of the authors of this report.

Company-internal experiences

The companies mentioned that creating a uniform understanding of what constitutes a sustainable economic activity offers the opportunity for companies to provide transparent and comparable information to help investors assess the sustainability performance of a company's activities. In addition, the provisions introduced by the EU Taxonomy can help advance internal (corporate) discussions on sustainability, define a sustainable product portfolio and enhance the credibility of a company's product portfolio, demonstrating a very important feature of this regulation. As such, the EU Taxonomy can also contribute to raising awareness about ESG issues in investment decisions of companies. For example, companies use the EU Taxonomy criteria in their sustainability evaluation of an investment. Some companies have also started using the EU Taxonomy in their green finance framework, such as e.on, Mercedes-Benz or Volkswagen.⁸⁵ According to their assessment, EU Taxonomy-aligned CapEx can especially help investors understand the future greening of business models.

Some econsense companies report that the introduction of measurable KPIs linked to core business activities help them understand their progress towards climate and sustainability targets. The link between financial and sustainability data in the EU Taxonomy calls for an integrated implementation process. Experts from several departments such as Finance & Accounting/Controlling, Sustainability, and business units, including product experts, work towards combining all the relevant expertise. This knowledge exchange between different departments is often organized in dedicated project groups. EnBW states that establishing a steering committee at the outset including representatives from Controlling, Accounting, and Sustainability has proven effective in their EU Taxonomy reporting.⁸⁶ As the implementation progresses, however, EnBW stresses that a decentralized approach could prove advantageous, ensuring an efficient information flow for the screening process. Such an approach to implementing the EU Taxonomy further necessitates significant upskilling efforts, amplified by the high degree of interdisciplinarity. While that may require additional resources, engaging several corporate functions in the entire process presents the opportunity to raise awareness, build knowledge, and foster acceptance for sustainability within an organization.

Some econsense companies report that the low eligibility figures in some industries limit the use of the EU Taxonomy for internal steering processes and investment decisions for companies with no/low eligibility numbers. These companies fear that this might lead to challenges when communicating about

EU Taxonomy figures, especially as long as other stakeholders have not built-up capacities to interpret EU Taxonomy figures appropriately. Those companies call for extending the EU Taxonomy and including more activities, which could remedy this issue and improve the EU Taxonomy's usability as an internal steering tool across several industries.

The EU Taxonomy has also directly influenced the IT systems of affected companies as reporting processes must be expanded to collect both financial and environmental data at the activity level. This level of reporting detail requires major adjustments to IT systems for most econsense members since the granular data per activity and often per site was not readily available in financial reporting systems. The companies report that collecting such granular data has proven to be very challenging. Furthermore, making these necessary IT adjustments took time and necessitated manual solutions for the first-time reporting of EU Taxonomy data, further affecting the usability of the EU Taxonomy as the data quality may not be robust.

While assurance of EU Taxonomy data is not yet mandatory (CSRD changes this), companies must provide adequate and appropriate documentation of how data was collected, be it manual with spreadsheets or with IT tools, for EU Taxonomy reports to be auditable. According to the companies with audited EU Taxonomy figures, having internal control systems in place to safeguard the adequate documentation takes time and requires clear guidelines on the reported content. According to these companies, this should also be in the interest of the regulator to ensure robust data for investors.

Policy experiences

The European Commission has recently proposed new activities on the four remaining environmental objectives and the two climate objectives, expanding the scope of activities covered by the TSC.⁸⁷ However, the European Commission has been silent on other initiatives such as a social taxonomy⁸⁸ or an extension to the current framework to include activities which operate in between the substantial contribution and DNSH performance thresholds and are transitioning / less harmful activities (amber taxonomy).⁸⁹ Defining multiple thresholds for an economic activity and distinguishing between already existing and novel projects could increase the informative value of the EU Taxonomy.⁹⁰

In the view of econsense members, the communication on the development of new criteria, reporting requirements and interpretation guidelines by the European Commission fell short of expectations while reporting companies faced a very short lead time for the implementation of the requirements. The narrow timeframe for implementation and the short-term nature of guidance (e.g., FAQ documents) exacerbated the application and could ultimately lead to heterogeneous reports according to some company representatives. Consequently, companies face a lack of plannability which could further delay the establishment of robust reporting processes and IT infrastructure.

econsense members faced interpretative issues when implementing the complex requirements of the EU Taxonomy due to a high degree of uncertainty. Some companies state that the TSC contain unclear terms, miss important definitions, use subjective language and exhibit imprecise criteria for substantial contribution and DNSH. Especially the latter reveals significant usability and interpretation challenges due to

imprecise terms and references to further documents and regulations, thus increasing the complexity of the regulation. For many companies, complying with the TSC is challenging when activities are carried out outside the European Union. Around 75% of the DNSH criteria refer to EU environmental legislation which poses a challenge when assessing alignment of activities beyond EU borders.⁹¹ According to some econsense members, the recommendations made by the Platform on Sustainable Finance (PSF) in their Data & Usability report could alleviate some of these concerns.⁹²

Some companies highlight that installing a permanent EU help desk or contact platform where companies can address questions directly to and get in touch with the European Commission/competent authorities would support the effective implementation of the EU Taxonomy. This help desk could provide comprehensive interpretation guidance. The answers provided by the help desk could then be made available to the public on a regular basis to ensure uniform application.

Investor perspective

Some companies communicated that it is unclear how financial market participants utilize the EU Taxonomy. They fear that investors and other stakeholders have unrealistically high expectations on alignment ratios of companies and subsequently financial products. To fully understand which levels of alignment ratios can be deemed realistic and why comparison across industries remains challenging, companies would like investors to analyze their business models from various angles. They highlight two aspects:

- The level of ambition of the EU Taxonomy is high and the EU has introduced science-based sustainability standards in the corresponding delegated acts of the regulation with long-term objectives. As a result, addressees of the EU Taxonomy reports can expect low alignment ratios in the early stages of application. Notwithstanding, companies can utilize the EU Taxonomy to demonstrate their transition steps and ambition in the coming years. A growing alignment share can be used as a central criterium by investors. Since the CapEx KPI offers an overview of how companies plan their transition looking forward, investors could use CapEx to assess the future viability of a company's business model.
- General coverage of activities in the EU Taxonomy: the current scope of the EU Taxonomy is focused on high-impact industries and thus, some industries are outside the scope of the EU Taxonomy. As a result, comparing EU Taxonomy KPIs across different industries is challenging. Comparisons within an industry should also be carried out carefully as differences on how activities are treated in different stages of the same product persist.

econsense members stress that it remains vital that investors read the EU Taxonomy KPIs alongside other sustainability information and assess them in relation to a company's overall sustainability strategy to get a full picture.

4.1 Case studies: experiences from applying the EU Taxonomy

The first-time reporting of the EU Taxonomy has unveiled numerous opportunities for companies, albeit accompanied by several implementation challenges and contradictions. This section outlines the different steps companies must perform to test their economic activities against the EU Taxonomy criteria as highlighted in figure 11. For each step in the process, general usability concerns are highlighted below and followed by practical examples provided by econsense member companies.⁹³ Subsequently, two case studies offer valuable insights into the capital market perspective of the EU Taxonomy.

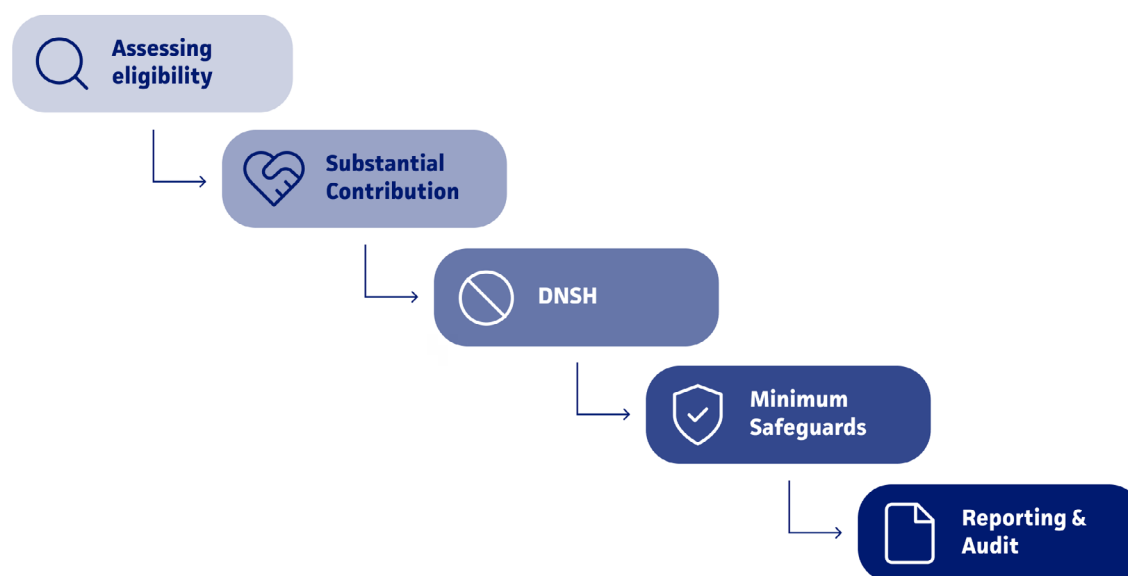


Figure 11: Assessing EU Taxonomy-alignment step by step⁹⁴

1. Assessing eligibility:

Description | The first step is to assess whether the companies' activity (or activities) matches the description of the economic activity laid down in the corresponding delegated act of the EU Taxonomy.⁹⁵ A company must cover all its activities in the eligibility assessment, regardless of whether these take place outside the European Union. However, the assessment generally does not require value-chain information.⁹⁶

Challenge | There are several challenges when it comes to assessing the eligibility of an activity. For example, some descriptions may be unclear or too broad, while some activities may not be covered in the delegated act, despite possibly making a substantial contribution.⁹⁷ The PSF has also called for further clarifications of economic activities, as they have observed "situations where similar companies are interpreting their eligibility to the Taxonomy differently".⁹⁸ In their report, they compare five car manufacturers and find that one company deems supply chain activities (manufacture of aluminum and steel) eligible while the majority opted for turnover-generating activity 3.3 'manufacture of low carbon technologies for transport'.⁹⁹

2. **Alignment assessment:** An EU Taxonomy-eligible economic activity must comply with several conditions to be recognized as EU Taxonomy-aligned.

a. **Substantial contribution** to at least one environmental objective

Description | Testing compliance with the TSC may require the collection and assessment of relevant and granular information to ascertain alignment, for example GHG emissions, water use, waste management, life-cycle emissions, and other specific data, depending on the activity.¹⁰⁰

Challenge | In addition to the required level of complexity and granularity, companies may face unclear definitions, subjective language, and insufficient guidance when testing against criteria, e.g., terms such as ‘best performing alternative technology/product/solution available on the market’ with no further definition.¹⁰¹ There are inconsistencies due to the divergent treatment of activities based on the different stages of the value chain or whether they classify as an enabling activity, resulting in alternating requirements to demonstrate the GHG emissions of the activity.¹⁰² For example, some activities require a life-cycle analysis (LCA) to demonstrate emission savings in comparison to the best performing alternative, while other activities contain certain GHG emission thresholds.¹⁰³

EnBW Example

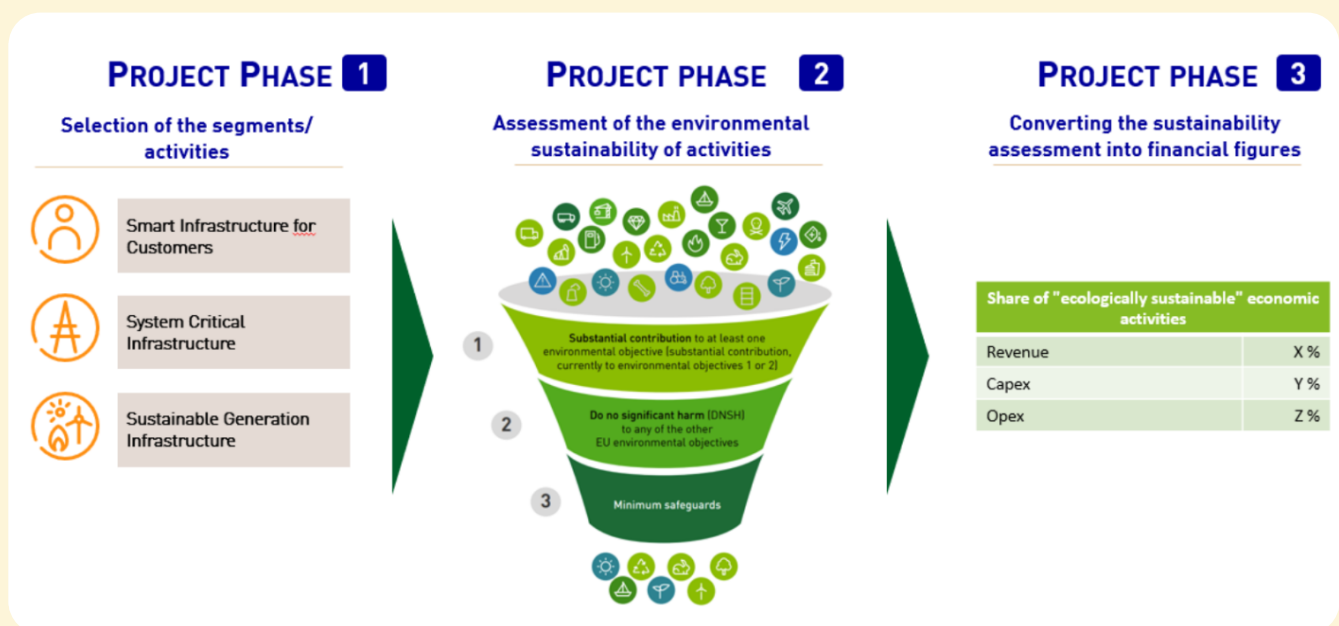


Figure 12: Implementation of the EU Taxonomy in three phases¹⁰⁴

The activity electricity generation from hydropower is a relevant activity for EnBW (activity 4.5). To assess the substantial contribution to climate change mitigation, EnBW must demonstrate, among other things, that an LCA is available for the plants which shows that the GHG emission intensity of the generation is below 100 gCO₂e/kWh. Since hydropower plants do not emit CO₂ during electricity production and have

long useful lives, EnBW has not carried out an LCA for each hydropower plant but has used reference values from the German Federal Environment Agency as a reliable, independent third party. We feel encouraged in this approach by the European Commission's FAQ of 19.12.2022. For the assessment of the environmental sustainability of the transmission and distribution of electricity, i.e., the construction and operation of electricity grids that transport electricity via high-voltage, medium-voltage and low-voltage grids, at least one of three specified criteria must be met. In fulfilling the criteria, EnBW focuses for the distribution grids on the requirements for the newly created generation capacities. Over a rolling period of five years, more than 67% of the newly created generation capacities of the grid must be below the threshold value of 100g CO₂e/kWh applicable to generation. This threshold is measured on a life cycle basis according to the criteria for electricity generation.

As a reporting utility, EnBW is required to provide evidence of the life cycle emissions requirements for the activities described. EnBW can either carry out its own extensive LCAs for individual power plant locations or generation capacities or alternatively use existing (reference) analyses from authorities or reputable institutes, such as the German Federal Environment Agency. These analyses can convincingly demonstrate that, on the one hand, electricity generation from run-of-river plants at 2.7 g CO₂e/kWh is well below the threshold value of 100 g CO₂e/kWh. In addition, EnBW must update this indicator annually for a rolling five-year period in relation to its own grid companies - the value at EnBW is between 86-100% for EnBW distribution grid companies and thus meets the requirements.

After the successful identification of a contact person in the respective business division, they are sensitized and informed about the comprehensive and complex requirements of the EU Taxonomy. This should be followed by clarifying together (with colleagues from accounting and controlling) which EU Taxonomy requirements are applicable to the business activity, whether these are complied with and how this can be proven. In case of uncertainty, an exchange with other experts helps to clarify how the requirements are to be interpreted and, if necessary, an enquiry with experienced and competent advisors before finally coordinating one's own procedure with the auditor at an early stage. An analogous approach can be taken when examining whether other environmental goals have been significantly harmed. Finally, the necessary documents and evidence must also be provided on time for all EU Taxonomy-aligned economic activities to be able to meet the schedule for the preparation of the non-financial statement. In this way, compliance with the requirements can be documented in a comprehensible manner for third parties, e.g., the auditor.

All in all, for us as EnBW the EU Taxonomy offers the opportunity to credibly prove the sustainable transformation of our business portfolio with financial key performance indicators to our stakeholders.

Junheinrich example

As an intralogistics solution, the battery-powered material handling equipment manufactured by Jungheinrich enables the reduction in GHG emissions during the use phase in other industries, such as logistics, retail or wholesale. Thus, it is EU Taxonomy-eligible according to economic activity 3.6. 'Manufacture of other low carbon technologies'. To make a significant contribution to climate change mitigation, GHG emission savings must be calculated and verified against the best-performing alternative technology available on the market using specific standards such as ISO 14067.

Based on internally conducted product LCAs, Jungheinrich was able to identify trucks fitted with a lithium-ion battery as a low-carbon alternative to trucks fitted with a lead-acid battery. Subsequently, to achieve EU Taxonomy-alignment, a comparative product LCA must be carried out for both battery systems for each electric truck.

The performance of a product LCA is a resource-intensive process that requires a large amount of internal and external data which is usually not immediately available to obtain a meaningful and reliable result. Its preparation may take several months and requires expert knowledge, depending on its scope and the complexity of the product. In addition, ISO standards leave room for interpretation when conducting LCAs, and there is no industry-accepted methodology.

Thus, Jungheinrich can only achieve EU Taxonomy-alignment of its products with a high input of resources. In addition, the best-performing alternative approach means that only some of the produced battery-powered trucks can achieve EU Taxonomy-alignment.

At the same time, other economic activities covering the manufacture of electric vehicles contribute to climate change mitigation as soon as they do not cause tailpipe CO₂ emissions. Moreover, in this case no distinction is made between different battery technologies. Consequently, manufacturers of electric vehicles registered on roads can report a contribution to climate change mitigation without comparison to alternative products and preparation of product LCAs.

Battery-powered intralogistics solutions should similarly to electric vehicles be able to demonstrate their contribution to climate change mitigation as soon as they do not cause tailpipe CO₂ emissions. In this case, GHG emission savings would not have to be proven by a resource-intensive product LCA, resulting in less effort to achieve EU Taxonomy-alignment. Moreover, multiple battery-powered products not generating tailpipe CO₂ emissions could be sustainable.

Since battery-powered intralogistics solutions can also contribute to sustainable transport as electric vehicles do, the intralogistics industry should be explicitly considered in the regulation, e.g., by a separate activity or integrated into another activity. The TSC should follow the narrative that intralogistics solutions contribute to climate change mitigation as soon as they can be operated in a carbon-neutral manner. This could lead to increased sustainable turnover in the NACE sector 'manufacturing', as the distortion related to effort to achieve EU Taxonomy-alignment across green transport solutions would diminish. Greater consideration of intralogistics solutions would result in Jungheinrich being able to make greater use of the valuable intention of the EU Taxonomy regulation and thus realize more benefits.

Bayer example on cross-cutting activities



CapEx (c) – Opportunity or additional burden with limited steering effects?

To expand the reach of the EU Taxonomy regulation the EU introduced the concept of 'cross-cutting activities' also referred to as CapEx (c) (specified in section 1.1.2.2. (c) in Annex 1 of the Delegated Regulation 2021/2178). Under this paragraph all CapEx investments 'to become low-carbon or to lead to GHG reductions' are considered independent from the eligibility of the economic activities of a company. This, in theory, provides the opportunity to report EU Taxonomy-aligned CapEx even if the company is operating in a sector which is not (yet) covered by the EU Taxonomy.

As the economic activities of the Bayer AG are not (yet) mentioned in the climate delegated act, the company's revenues, and associated CapEx and OpEx were not relevant for the EU Taxonomy reporting in 2022. Still the company has committed to science-based targets (SBTi) and to become net-zero by 2030, which requires significant efforts and investments reflected both in CapEx and OpEx. Is the disclosure of the cross-cutting activities (CapEx (c)) a chance to reflect these commitments and to provide desired steering effects both internally as well as for better financing conditions?

The first challenge came with the interpretation and subsequent identification of eligible CapEx under this paragraph. For eligibility there is no proof required that the activity is actually reducing the GHG emissions, but rather it suffices that the activity is described in the climate delegated act. Hence, several thousand CapEx activities were screened on a project, sub-project or asset level and were mapped to the relevant activities. Not surprising, most of the identified eligible investments were related to building construction & renovation and to transportation activities. However, in total these activities represented only ~10% of Bayer's overall CapEx in 2022, still covering many individual projects across the globe. Not

included were many activities targeting the reduction of GHG emissions (like switching to renewable energy provided by 3rd parties or collaborations with logistic providers to reduce the footprint of warehousing & transportation) as they are neither resulting in CapEx nor EU Taxonomy relevant OpEx.

Significant organizational efforts and data analytics were required to just get to this point. Proving alignment along the substantial contribution and DNSH criteria is likely to multiply this effort. In the end the maximum EU Taxonomy-alignment could be 10% for CapEx (with no aligned revenues), seriously limiting the impact on any green asset ratio. On top comes the challenge of potentially significant volatility of the CapEx (c) ratio as only short-term projects (up to 18 months for implementation) are eligible. This makes any consistent messaging even more complicated. As the detailed information for proving alignment was not readily available and could also not yet be obtained with reasonable effort Bayer had to ultimately disclose 'no alignment' on the CapEx (c) investments.

The limitations of the CapEx (c) approach are even more obvious when considering the effects from the draft delegated acts for the remaining environmental objectives. Parts of Bayer's business will likely become EU Taxonomy-eligible. Subsequently the alignment of CapEx follows the revenue assessment of the relevant economic activities (CapEx (a) & (b)) and will no longer be assessed separately as cross-cutting activity under CapEx (c). It is our current understanding that only for the economic activities which remain out of scope of the EU Taxonomy the separate assessment continues. That means that any investment activities in the Pharmaceutical and Consumer Health Segments of Bayer will no longer be considered under CapEx (c), while the screening remains mandatory for the CropScience and overarching group activities.

In summary, the well-intentioned expansion of the reach of the EU Taxonomy by the inclusion of cross-cutting activities leads primarily to additional bureaucratic efforts for compliance purposes, but without either significant effects on the steering of financial investment streams or providing a consistent basis for project evaluation supporting the path towards a carbon neutral business.

b. Do No Significant Harm to any other environmental objective

Description | Once a company has demonstrated an activity makes a substantial contribution to one of the environmental objectives, it must ensure that the activity does not cause any significant harm to any of the other five environmental objectives. The TSC for DNSH cover qualitative, quantitative, and process-based criteria and can be classified in five different categories. These categories range from further thresholds such as absolute emission levels (DNSH – climate change), process measures, and references to international standards and EU legislation.¹⁰⁵ In addition to general DNSH-criteria laid out in the appendices to the delegated act [appendices A – D] that can apply to certain economic activities, each activity can have further specific DNSH-criteria.

Challenge | Many DNSH criteria pose considerable challenges and may exacerbate the usability of the EU Taxonomy. For example, some DNSH criteria are imprecise and ambiguous and thus result in application issues.¹⁰⁶ The use of imprecise criteria such as 'minimize', 'reduce' and 'improve' without

quantifiable criteria poses challenges for companies and necessitates more guidance.¹⁰⁷ Inconsistencies regarding various activities can also be seen in the DNSH criteria and may result in advantages for some industries.¹⁰⁸ In addition, the DNSH criteria reference many external documents and EU laws, impeding a straight-forward adherence of the provisions.

DHL Group Example



The EU Taxonomy activity 6.5 transport by motorbikes, passenger cars and light commercial vehicles is one of the most relevant EU Taxonomy activities for DHL Group as we operate a large fleet of over 118,000 vehicles of which over 29,000 are e-vehicles. The expansion of this e-vehicle fleet is one of the key objectives of DHL Group to reduce the logistics-related GHG emissions. All these e-vehicles fulfill the substantial contribution criterion for activity 6.5 as they have zero tailpipe emissions and are therefore subject to the evaluation of the DNSH criteria. In the light of the large number of e-vehicles the DNSH criteria pollution prevention and control means an enormous effort as one part of the criteria addresses the specific tires on an e-vehicle. The criteria requests that all tires “comply with the external rolling noise requirements in the highest populated class and with rolling resistance coefficient (influencing the vehicle energy efficiency) in the two highest populated classes” (European Commission (2021a), p. 104) in respect to the European Product Registry for Energy Labelling (EPREL). To capture and analyze this data is challenging for DHL Group as we operate in over 220 countries and territories. Furthermore, manufacturers of our e-vehicles often do not know exactly what tires regarding brand and product name are initially installed on the vehicles. Another challenge arises from the definition of the criteria itself, as no information is given of what a populated class of tires actually means and how it has to be determined. The EPREL database which should be used for analyzing the highest populated class, does not offer the necessary functionality to make this required determination considering the combination of fuel efficiency and rolling resistance.

Besides the problems in the practical application of this DNSH criteria, the criteria itself seems to be at least questionable in its purpose. For example, if an e-vehicle has tires that are not aligned because the tires do not meet the highest populated class criterion, it could incentivize a change of tires that may have not yet reached their operational life. This finally can result in unnecessary waste. In addition, requiring a high class in the external rolling noise class for e-vehicles raises the question of true relevance. E-vehicles in last-mile operations usually operate on rather low speed levels. The noise emissions are actually so low that the EU introduced a directive which requires e-vehicles to emit an artificial sound (i.e., acoustic vehicle alerting system) to protect vulnerable road users. Against this background, limiting the noise level of tires for e-vehicles are of low relevance and is in no way proportional to the enormous effort of the analysis.

The presented problems in the practical application of the tire requirement as well as the questionable purpose led us to the conclusions that the tire requirement in the DNSH criterion pollution prevention and control needs to be dropped for e-vehicles to improve consistency and comparability of the transportation activities across companies within the EU. The EU Taxonomy reporting of several companies for 2022 showed that they had problems reporting their e-vehicles as aligned especially due to the complexity of the tire requirement. Furthermore, it would improve the possibility to report e-vehicles outside the EU as aligned, because the EU tire label is generally only distributed in the EU.

In conclusion, dropping the tire requirement for e-vehicles of the DNSH criteria pollution prevention and control would reduce complexity of the screening process and therefore allow companies to increase their transparency in regards the objective of climate change mitigation which is valuable for overall aim of the EU to redirection capital flows towards sustainable investments.]

Bayer example on Appendix A



Appendix A requires a robust climate risk and vulnerability assessment (CRVA). Depending on the expected lifetime of the economic activity different climate projections need to be applied. Based on the outcome of the CRVA adaptation solutions that can reduce the identified physical climate risk need to be implemented. Unfortunately, the Appendix A requirements could not yet be fulfilled by Bayer despite significant existing climate risk assessments. Before a capital expenditure is approved, risks arising from aspects such as climate conditions as well as storm and flooding dangers at the respective site are comprehensively reviewed and evaluated. However, this is not yet done in a way that adequately covers all verifiable criteria for the EU Taxonomy, which will result in additional effort for future project assessments. As the climate risk analysis is relevant for the entirety of our EU Taxonomy-eligible economic activities, none of our Taxonomy-eligible capital expenditure is reported as EU Taxonomy-aligned in 2022. Also, there are still some open questions related to applying Appendix A to CapEx (c). Per definition economic activities under CapEx (c) only last a maximum of 18 months ('such measures are implemented and operational within 18 months'). Thinking of the example of the activity 'renovation of an existing building' under CapEx (c), what is the expected lifetime of that activity? Taken literally, it must be something between 1 and 18 months, because this is the remaining time of the economic activity 'renovation of existing building'. This conclusion would result in a small scale of climate projections, because within 18 months the climate related hazards do not change significantly at a location. It would also ease

the process of the CRVA. One could also argue that the renovated building will be in use for more than 20 years so that a larger scale of climate projections should be used for the CRVA. This argumentation would fit much better to the purpose of the EU Taxonomy to only report sustainable investments as EU Taxonomy-aligned. Nevertheless, this is the expected lifetime of the building, not the economic activity itself. Since Appendix A is a generic DNSH criterium, i.e., it applies to all economic activities without activity-specific adaption, an interpretation by the reporting entity is needed. As stated before, it would make more sense to take the 'time of use' into consideration for the expected lifetime. But especially under CapEx (c), this would cause more effort without significant benefit. Therefore, we would appreciate easing the process of alignment assessment for CapEx (c), not only related to Appendix A, but to the complete process.

c. Alignment Assessment: Minimum Social Safeguards:

Description | The final step in the alignment assessment requires companies to ensure that their economic activity are carried out in compliance with MS as laid down in Article 18 of the EU Taxonomy regulation.¹⁰⁹ This entails adhering with the standards for responsible business conduct.¹¹⁰ In their most recent report, the PSF has identified four areas as the most relevant for the application of minimum social safeguards, i.e., human rights; bribery, bribe solicitation and extortion; fair competition; and taxation.¹¹¹ The purpose of the introduction of MS is to prevent green investments from being labelled 'sustainable' despite potential negative impacts on human rights.¹¹²

Challenge | There remain ambiguities and inconsistencies regarding the application of these MS. For example, it is unclear whether the economic activity itself must be carried out in compliance with MS (Article 3) or whether the company must have relevant procedures in place (Article 18). Whilst the PSF insinuates the latter in the Data & Usability report, the German Sustainable Finance Advisory Committee has raised concerns about this issue in their last report.¹¹³

Industry example¹¹⁴

For the compliance with MS, processes need to be implemented, which ensure the compliance with specific frameworks, such as OECD Guidelines, UN Guiding Principles on Business and Human Rights and some others. Thus, a due diligence process must be in place, which consists of the following steps:

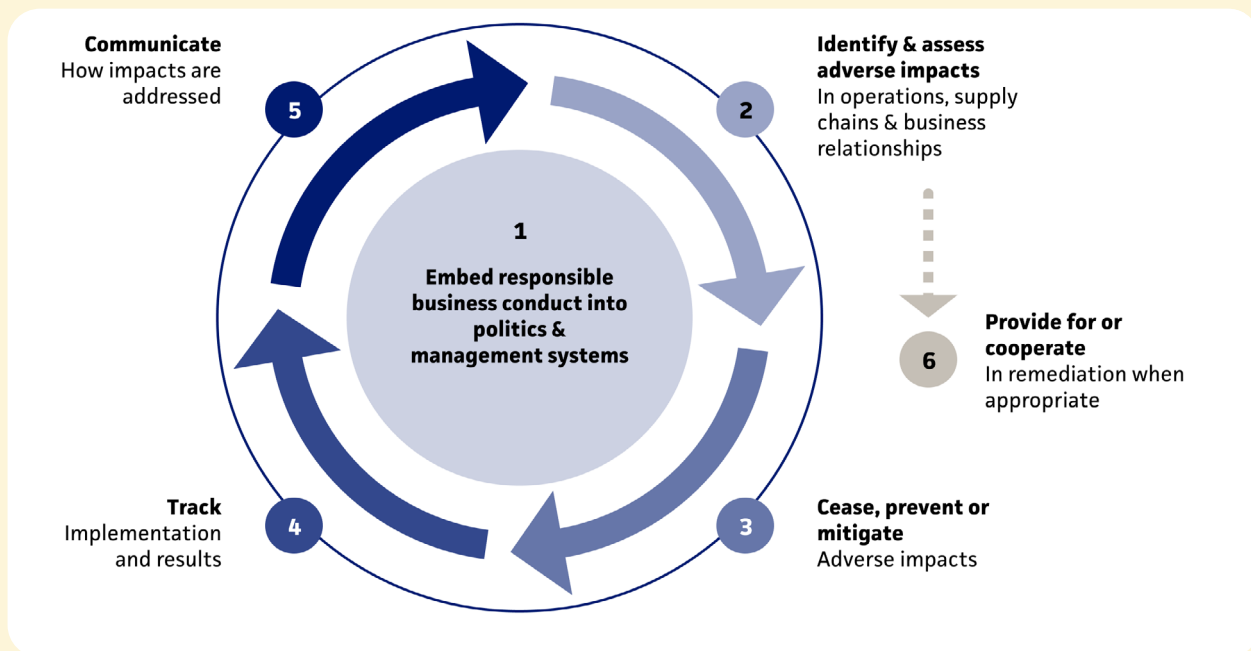


Figure 13: Due diligence process & supporting measures¹¹⁵

To obtain information on the processes and procedures already in place, various contact persons from relevant subject areas were consulted. On the one hand, these were determined based on the supply chain scope (own operations, supply chain, distribution chain) and on the other hand at topic level (human rights, anti-corruption & bribery, taxation, fair competition). For some topics, there were also subcategories and separate contact persons identified to obtain a transparent picture of the processes and to ensure the best possible assignment of responsibilities. To ensure complete processing, the steps of the due diligence process were worked through in various meetings analogous to the required topics and documented in a uniform template. In this template, the most important documents and information were linked to the respective topic and discussed in detail, analogous to the due diligence process. General processes which are applicable for all core MS topics, such as the complaints mechanism for example, were treated and documented as an overarching topic.

The goal of this preparation of the topics was to obtain a dedicated overview of the existing processes, to identify gaps where applicable, and to build subsequent measures on top of already existing processes. During the assessment it became clear that the MS requirements can be covered by already existing processes. Nevertheless, it also became apparent that there is room for improvement in some areas to be able to cover the requirements more transparently. One example here would be the establishment of a broad risk analysis. Even though the company has already been carrying out risk analyses/risk assessments for years - taking into consideration classification into risk countries/suppliers and exchanges with various stakeholders to assess risks and has firmly established these processes - these procedures will be elaborated within the framework of the German Supply Chain Due Diligence Act (LkSG).

One key success factor for the performance of the MS assessment was the identification of the correct responsibilities and experts to discuss the MS requirements and link them with the already existing processes and procedures within the company.

4. Reporting & Audit

Description | The EU Taxonomy and the corresponding delegated act¹¹⁶ introduce distinct reporting requirements for companies, i.e., disclosing the proportion of their EU Taxonomy-eligible and -aligned turnover, CapEx, and OpEx.¹¹⁷

Challenge | The EU Taxonomy focusses on economic activities rather than entire entities, which forces companies to disclose relevant information at the activity level. This requirement goes beyond current reporting standards and necessitates the establishment of new processes to gather the data¹¹⁸, e.g., the breakdown of financial & environmental data by economic activity. Furthermore, the definition of CapEx in the EU Taxonomy is ambiguous and may result in a lack of comparability. Next to that, the OpEx figure does not often play a big role in current financial reporting as a KPI, rendering the relevance of OpEx questionable for some companies.¹¹⁹

BASF example



BASF appreciates that there has been progress regarding the practical implementation of the EU Taxonomy rules (e.g., recently published amendment to Appendix C). At the same time BASF calls for further efforts to be made in this regard. For example, the complexity and the ambitious TSC of the legislation still are presenting several challenges and we experience an increasing effort to deal with the scope and level of detail of the requirements (e.g., need for numerous assessment trainings – not only but also for our experts outside Europe). One further example refers to the activity manufacture of soda ash (3.12), where the screening criteria for substantial contribution is linked to the EU Emission trading system (EU ETS). As the EU ETS covers only specific high emitting processes several processes are not covered or exempted by the EU ETS benchmark system. One of numerous examples is the production of soda ash as by-product in a caprolactam production network, which nevertheless is eligible regarding the activity description. So, the emission calculation regarding EU ETS is not applicable for those processes. This results in TSC incompatible with the process and activities per se not to be aligned by given EU Taxonomy criteria. We therefore recommend for further clarification, specifying that the activities cover only processes

which are part of the EU ETS until further applicable criteria next to EU ETS benchmarks are published.

Moreover, the rules lack an interpretative clarity. Companies are required to make individual interpretations, which limit the comparability of EU Taxonomy reports. This led during our reporting cycle 2022 to uncertainties for both, BASF, and our auditor. Legal gaps resulted in an increased coordination effort and in some cases to short-term adjustments on the critical path of the reporting process. The challenges are reinforced by short-notice publications of legal requirements and interpretation guidelines like the draft notices containing frequently asked questions (FAQs) published in December 2022. The derivation of the EU Taxonomy-KPIs requires to involve numerous internal environmental-, financial-, data- and IT-experts as well as external professionals and therefore it is challenging to react within a short window of time. We want stress additionally, that the OpEx KPI is defined in a way completely unaligned with existing controlling and reporting standards. Thus, leading to high efforts in OpEx KPI derivation and emphasizes further uncommon definitions of the EU Taxonomy.

We also see a need for action regarding the reporting templates. We think the templates are not clear and include redundant information. In particular, the templates published in the Delegated Regulation 2021/2178, Annex XII (templates for nuclear and fossil gas related activities) created uncertainties within the reporting 2022 for both: auditors and preparers with additional efforts to gain common understanding.

Finally, we strongly recommend including a provision for materiality considerations to allow companies to focus on their core activities instead to put huge efforts in analysis of any eligible activity, which is not relevant - neither for the company's steering into a sustainable transformation nor for the investors.

Capital markets perspective on the EU Taxonomy

The following case studies, preceded by the real economy case studies of econsense member companies, aim to provide a first perspective on how some actors in the capital market perceive the EU Taxonomy.

Deutsche Börse Example



DEUTSCHE BÖRSE
GROUP

Capital markets need a better regulatory framework to unlock the full potential of the EU Taxonomy

Whether the sustainable transition will be successful will also depend on the ability of EU capital markets to efficiently allocate capital to high-impact projects and firms. As science-based transparency tool, the EU Taxonomy can be part of the solution and is intended to strengthen market-driven processes.

However, the EU Taxonomy is not the primary tool for capital and portfolio allocation, given that it currently only covers part of the investment universe. Sustainable financial products often still report zero percent EU Taxonomy-alignment. One of the most important reasons for this is to prevent greenwashing claims, given that reliable data to back up EU Taxonomy-related commitments is still limited.

The lack of EU Taxonomy data spreads through the system. The increasing demand for ESG products takes often place without the application of the EU Taxonomy. Introducing temporary solutions to fix this, such as certain quantitative thresholds based on unclear definitions for ESG funds, might only make the situation even worse. In the mid- to long-term, this could undermine the use of the EU Taxonomy. Given the current low levels of EU Taxonomy-alignment of financial products, this may create a disincentive for product manufacturers or distributors to use the EU Taxonomy, in favour of less robust and comparable criteria.

Instead, the regulatory framework should enable product design capable of considering dynamic and forward-looking information such as capital expenditures as part of EU Taxonomy data. There are also synergies especially between the EU Taxonomy and corporate transition plans. Since we need to mobilize further investments urgently, the development of ESG performance-orientated ESG benchmarks and indices is an essential component of a scaling-up strategy and for transition finance. Deutsche Börse Group (DBG) is therefore expanding its already large array of ESG DAX or STOXX indices, increasingly using forward-looking information.

Implementing an ESG investment strategy and developing products hence means assessing EU Taxonomy data in relation to the overall sustainability strategy of companies. And even available EU Taxonomy data alone is often difficult to interpret and compare, since it uses open-ended concepts such as “best practice”. But investors are looking for signals easy to interpret. Therefore, as a solution, DBG offers ESG analytics for investment decisions, such as ESG ratings, or governance solution to exercise active ownership (ISS).

Moreover, it is important not to lose sight of the complete lifecycle of ESG investments. The future sustainable finance ecosystem will need to encompass primary as well as secondary markets. Derivatives markets are a key component of mature secondary markets but the role of ESG derivatives is not fully understood yet. They can play a central role in securing market-based financing for EU Taxonomy-aligned investment activities in the primary markets. DBG’s Eurex is one of the leading ESG derivatives exchanges and, additionally, its repo business ensures supporting EU Taxonomy-related liquidity and collateral fluidity contributing to the development of an efficient and transparent ESG market.

Ultimately, it is imperative that the EU implements a better regulatory framework in order that capital markets can unlock the full potential of the EU Taxonomy. The entire ecosystem of participants, products and services must be able to contribute to the financing of EU Taxonomy-aligned investment activities. Each of them brings a vital contribution to the market and is interdependent on the others – thus, their inclusion will make the sustainable transition less difficult, less costly, and significantly more efficient.

DZ Bank Example



Sustainable bonds, and in particular green bonds, have gained significant relevance in recent years. The share of new sustainable bond issues from European corporates has surged from 9% in 2020 to 38% in 2023 so far. Against this backdrop, there has been growing demand in the market for greater transparency and standardization of what constitutes a sustainable investment. The EU Taxonomy is supposed to address this demand.

Especially Utilities or Automotive manufacturers already use the EU Taxonomy intensively. We as DZ BANK see a clear trend: more and more green finance frameworks from EU corporates of these industries take into account the EU Taxonomy regulation and have their alignment of their frameworks assessed by a third party, often as part of the obligatory Second Party Opinion (SPO) – this provides investors with a certain amount of clarity whether their investments are likely aligned with the EU Taxonomy. ‘Likely’ should be highlighted though, as there is no certainty that the proceeds are really EU Taxonomy-aligned. Some issuers on the other hand are including the TSC on a best effort basis only. For other industries, classification is sometimes more difficult. Suppliers of automotive components, for example, are not yet covered, even though the process is ongoing. The European Commission just published new draft delegated acts for the EU Taxonomy, where automotive suppliers are explicitly included. This shows that the EU Taxonomy is dynamic, but it is also evidence that activities not yet included in the EU Taxonomy can be sustainable, but respective criteria are not defined yet. This is one reason why EU corporates from these industries are either not considering the EU Taxonomy in their frameworks or including a reference only. This may lead to a temporary disadvantage: In 2023 so far, the oversubscription for Green Bonds with EU Taxonomy assessment is slightly higher (3.84) than for green bonds with a reference only (3.2) or without reference at all (2.94). We thus would prefer a stronger communication from the EU that activities currently not covered by the EU Taxonomy are not necessarily less sustainable, while at the same time accelerate the process of defining TSC for all corporate industries.

Already more than half of all green bonds from EU corporates include at least a reference to the EU Taxonomy nowadays, and the share of EU Taxonomy-assessed frameworks within this number steadily increases. This trend will persist, as a lot of large EU corporates are reporting the share of EU Taxonomy-alignment for the first time this year. Another trend will emerge: first frameworks refer to the established EU Taxonomy reporting when describing the management of proceeds. Here, the SPO provider does not need to assess the EU Taxonomy-alignment, as this is being done by the company as part of group management report and hence externally audited. We highly welcome this approach, which should encourage issuers that are already reporting on EU Taxonomy to implement this fact into their funding strategy.

This will not be the case for SMEs before 2025, but for this issuer group, capital markets can offer a great opportunity to have their activities being checked by an SPO provider. Thereby issuers get a first guidance on how far they are in their reporting process.

Apart from the usability challenges that not all industries are yet defined, or that criteria for sectors can

differ in their ambitiousness, the EU Taxonomy offers a variety of opportunities, such as a high degree of transparency and at least partial standardization. It will be easier to compare bonds within a sector, a comparison between the industries, however, remains difficult. The EU Taxonomy will be expanded significantly in the coming years, we hence encourage corporates to consider the EU Taxonomy-alignment now to prepare for the future. Synergies arise partly from existing reporting. And while it will still take some time for the EU Taxonomy to fully settle in capital markets, the significance of the classification system as a green benchmark will further increase over the medium-term.

5. Key findings

This section presents the key findings of the quantitative analysis of chapter 3 and highlights lessons learned based on the experience of econsense member companies in the first full year of EU Taxonomy-aligned reporting. Lastly, this section provides an outlook into what trade-offs industry, financial markets, researchers and policy makers should discuss going forward.

Quantitative Analysis of the first EU Taxonomy reporting:

- On average, **26 percent EU Taxonomy-eligible turnover** is reported. At present, the business models of the investigated companies indicate **a relatively focused potential** to make a substantial contribution to achieving the EU's climate targets. The EU Taxonomy's scope is focused on certain high impact sectors and thus the core business activities of some industries are not covered. Broadening the scope and allowing for more (enabling) activities could alleviate this if implemented in line with the principles of the EU Taxonomy. Otherwise, there is the risk of impact washing the EU Taxonomy.
- An **industry comparison** reveals a strong **heterogeneity** regarding the **EU Taxonomy KPIs**. On average, the Consumer Discretionary, Industrial, Real Estate, and Utility industries **have substantially higher EU Taxonomy-eligible turnover, CapEx and OpEx**. These industries have a large potential in making a genuine contribution to meeting the EU's climate targets by aligning their activities.
- **Real Estate** has the **highest average EU Taxonomy-eligible turnover** at 93 percent. In contrast, **Health Care** and **Consumer Staples** have **zero percent** EU Taxonomy-eligible turnover. The **Utility industry** has an average **EU Taxonomy-eligible turnover of 26 percent**. However, Utilities have the **highest¹²⁰ EU Taxonomy-aligned turnover** (15 percent), **CapEx** (68 percent) and **OpEx** (34 percent).
- On average, **three percent EU Taxonomy-aligned turnover** (of eligible turnover) is reported. This indicates that the **current contribution** of the investigated companies towards achieving the first two

environmental objectives of the EU Taxonomy is also **rather low**. For some industries, the turnover figure is not always the most meaningful KPI (e.g., due to trading activities). Hence, analysts should familiarize themselves with the EU Taxonomy first before assessing companies based on the framework.

- The companies report notably higher average **EU Taxonomy-eligibility (40 percent)** and **EU Taxonomy-alignment (13 percent) CapEx**, suggesting that the investigated companies might be starting to **transform their business models** to further align with and **contribute to** achieving the **EU climate objectives**.
- The vast majority of companies reported the EU Taxonomy data in the annual report as part of the non-financial information section, thus including their EU Taxonomy KPIs in an important communication for investors. Furthermore, auditors provided a limited assurance assessment of the EU Taxonomy information reported for 71 percent of companies and reasonable assurance for ten percent.

Experiences from the first full reporting cycle:

- The **EU Taxonomy** presents a valuable opportunity for companies to **foster internal discussions** on sustainability, to better **measure their sustainability performance**, and to enhance the **credibility of a company's product portfolio**. Although the first full reporting cycle has unveiled usability issues in certain industries, it remains important to further develop the EU Taxonomy to enable companies to strategically integrate the EU Taxonomy.
- The link between finance and sustainability data in the EU Taxonomy calls for an **integrated implementation process** as **experts from several departments are needed**. Engaging several corporate functions in the entire process further presents the **opportunity to raise awareness, build knowledge and foster acceptance for sustainability within an organization**.
- Companies can **utilize the EU Taxonomy to demonstrate their transition steps and ambition in the coming years**. A **growing alignment share** can thus be used as a central criterium by investors. However, it remains vital that investors read the KPIs alongside the qualitative information and assess them in relation to the company's overall sustainability strategy to get a full picture.
- The **EU Taxonomy** can be part of transition planning: it **shows where companies actively help to transform the economy**. Broadening the EU Taxonomy and including more activities could **improve the EU Taxonomy's usability as an internal steering tool** for companies across several industries. Further extending the EU Taxonomy by amber elements could allow companies to signal where they are not in line with the current policy initiatives and where they are transitioning. Low impact aspects could also allow companies to clearly communicate that their rather low eligibility ratios are driven by a relatively low environmental impact of their business models. This however comes at the cost of additional reporting requirements.

Outlook

The first reporting season of the EU Taxonomy shows that more work is needed to make the EU Taxonomy an integral part of the European Green Deal. Stakeholders will face trade-offs when further evolving and implementing the EU Taxonomy. From the analysis, the following will be highly relevant.

1. **Standardization vs. over-regulation:** on the one side, the first reporting season shows that some parts of the EU Taxonomy require further clarification to allow for higher standardization and thus higher levels of comparability. On the other side, companies raise concerns about data availability due to the high regulatory detail (be it along the value chains or outside the EU). Higher standardization will most likely come with higher levels of data requirements or, vice versa, lower levels of standardization with lower regulatory and data burden. Industry and regulators will need to enter into a dialogue on how to best balance both perspectives.
2. **Greenwashing vs. flexibility:** a core objective of the EU Taxonomy is to reduce the risk of greenwashing when defining economic activities that contribute to the climate goals of the EU based on science. Currently, calls for a more principles-based approach on the EU Taxonomy get louder. All stakeholder groups should enter into a dialogue on what the right level of technicality of the EU Taxonomy is to avoid greenwashing but allow companies room to develop their transition strategies.
3. **Broad scope vs. impact washing:** the analysis shows that only a minority of economic activities can contribute to the climate transformation as defined by the EU Taxonomy. Hence, companies call for an extension of the scope of the EU Taxonomy to other economic activities. The EU Taxonomy defines 'substantial contributions' to environmental goals. By following the call for a broader scope, the EU Taxonomy could gain in popularity and applicability; however, it could reduce the ambition of 'substantial contribution' increasing the risk for impact washing. Finding the right balance between scope and ambition will be the job of policy makers, researchers, the financial industry (i.e., which level of ambition allows for solid investment-decision making), industry, and civil society.
4. **Strategy tool vs. tick-the-box:** the EU Taxonomy is meant to support investment decisions, not only by the financial industry but also by the industry. Currently, it appears that some companies embrace the EU Taxonomy as a strategy tool whereas others find limited value in its current setup and rather regard the EU Taxonomy reporting as a tick-the-box exercise. Over the coming years, companies will need to reflect which position is most suitable for their business model and their financing strategy.
5. **Early mover vs. late adopter:** the development of the EU Taxonomy is continuously progressing. If companies are to consider the EU Taxonomy as a strategy tool, they will need to consider when applying it as such. Early moving might help secure better financing conditions, e.g., through the issue of EU Green Bonds, whereas late adoption might reduce the risk of abrupt policy changes in the framework and allows companies to benefit from learning experiences by competitors.

Those decisions will require discussions amongst many different stakeholders, within companies, industries and between different stakeholder groups. The first reporting season of the EU Taxonomy has provided the first experiences necessary to enter into dialogues. This report will hopefully inform this future process and contribute to making the EU Taxonomy an integral part of Europe's sustainable finance and sustainability ambitions.

6. Endnotes

- 1 These anecdotes are based on the experiences of econsense member companies. Please note that these experiences do not necessarily reflect the views of all econsense member companies.
- 2 EU Taxonomy-eligible activities are economic activities listed and described in the EU Taxonomy that have the potential to be environmentally sustainable (Source European Commission, 2023f.)
- 3 European Commission, 2023f.
- 4 While the turnover and CapEx KPIs are utilized to depict a static and forward-looking perspective, respectively, the significance of the OpEx figure remains unclear.
- 5 The reports of 57 companies were examined for part of the analysis
- 6 The European Parliament and the Council of the European Union, 2020.
- 7 The European Parliament and the Council of the European Union, 2020.
- 8 European Commission, 2019.
- 9 European Commission, 2023a.
- 10 The European Parliament and the Council of the European Union, 2020.
- 11 European Commission, 2023a.
- 12 European Commission, 2023a.
- 13 European Commission, 2018.
- 14 European Commission, 2018.
- 15 European Commission, 2018.
- 16 European Commission, 2021.
- 17 European Commission, 2021.
- 18 European Commission, 2021 p. 2.
- 19 European Commission, 2018.
- 20 European Commission, 2023d.
- 21 European Commission 2023c, p. 2.
- 22 The European Parliament and the Council of the European Union, 2020.
- 23 Source: Own illustration based on The European Parliament and the Council of the European Union, 2020 p. 17.
- 24 TSC define what is required for a given economic activity to determine under what conditions this economic activity (1) makes a significant contribution to achieving an environmental objective while (2) not significantly harming any other environmental objective.
- 25 The European Parliament and the Council of the European Union, 2020.
- 26 The European Parliament and the Council of the European Union, 2020.
- 27 European Commission, 2023d.
- 28 European Commission, 2021. Note: The proposals were open for consultation until May 3, 2023.
- 29 Public interest entities are listed companies and companies with more than 500 employees that are regulated by the Non-Financial Reporting Directive and financial institutions which offer and distribute financial products within the EU (envoria, 2023 p. 2). Financial institutions are only required to comply with these disclosure requirements if they fall under the NFRD and have more than 500 employees (EU Taxonomy Info, 2023b)
- 30 envoria, 2023.

- 31 European Commission, 2023b p. 2. Note: Financial institutions are only required to comply with these disclosure requirements if they fall under the NFRD and have more than 500 employees.
- 32 EU Taxonomy Info, 2023a p. 1.
- 33 EU Taxonomy Info, 2023a, p. 1.
- 34 EU Taxonomy Info, 2023a, p. 4.
- 35 European Commission, 2021.
- 36 European Commission, 2023f.
- 37 European Commission, 2023f.
- 38 Council of the European Union, 2021.
- 39 In 2022, companies were only obliged to report EU Taxonomy-eligible activities for financial year 2021.
- 40 European Commission, 2023f.
- 41 European Commission, 2023f.
- 42 European Commission, 2023f.
- 43 European Commission, 2023f.
- 44 European Commission, 2023f.
- 45 European Commission, 2023f.
- 46 European Commission, 2023f.
- 47 Own illustration based on: European Commission, (2023e).
- 48 See: European Commission, 2021b.
- 49 However, this does not constitute an obligation to invest.
- 50 Own illustration based on: European Commission, (2021).
- 51 See: The European Parliament and the Council of the European Union, 2019.
- 52 See: European Commission, 2022.
- 53 See: Deutscher Nachhaltigkeitskodex, 2023.
- 54 See: Deutscher Nachhaltigkeitskodex, 2023.
- 55 See: European Banking Authority, 2022
- 56 See: European Commission, 2023.
- 57 See: European Securities and Markets Authority, 2023.
- 58 The final design of the EU Ecolabel for financial products is still under development.
- 59 See: European Commission, 2020.
- 60 E.g., the Netherlands: Yoruk Bahceli, 2023.
- 61 See: European Investment Bank Group, 2025.
- 62 See: KfW, 2023.
- 63 Table 5 in the appendix provides an overview of companies that were included in the sample (p 57).
- 64 Financial companies were excluded from the sample due to the lower degree of EU Taxonomy reporting requirements for the 2022 financial year.
- 65 The methodology behind the analysis can be found in the appendix (p. 59).
- 66 Own illustration based on own calculations. Note: The values are relative (a percentage of the total of eligible and aligned turnover, CapEx and OpEx).

- 67 Table 8 in the appendix presents the absolute value in euros (p. 71).
- 68 Note: These distributions are based on an expanded sample of 57 companies. The sample size was expanded for the industry analysis in the next section to ensure that each industry comprises a minimum of 5 companies. The authors expanded the sample with 15 companies from the STOXX600 index by choosing the largest companies, based on market capitalization, with EU Taxonomy data. Table A.1 in the appendix provides an overview of the companies in the DAX and econsense and extended samples. Furthermore, the average percentage of eligible and aligned turnover, CapEx and OpEx for the 57 companies in the extended sample can be found in Figure A.1 in the appendix.
- 69 Own illustration based on own calculations.
- 70 Note: Cross-cutting activities are activities that are generated outside of a company's core business.
- 71 See: AR6 Synthesis Report
- 72 Note: Financial companies were excluded from the sample due to the lower degree of EU Taxonomy reporting requirements for 2022 and there were no energy companies in this sample. Consequently, we examined 9 of 11 industries in the FTSE Russell Industry Classification Benchmark (FTSE Russell ICB).
- 73 Note: This table presents the average turnover, CapEx and OpEx in million euros (Mil €) and as a percentage of the total value (%) for the extended sample of 57 companies by industry. All values have been rounded to two whole numbers for better readability. The aligned percentages are calculated as the percentage of the aligned KPI from the eligible KPI and not from the total KPI.
- 74 According to number of companies in the sample.
- 75 According to the FTSE Russell ICB, the Consumer Discretionary industry includes companies belonging to the following industries: (1) Automobiles and Parts, (2) Consumer Products and Services, (3) Media, (4) Retailers, and (5) Travel and Leisure. Industrials include companies belonging to the following sectors: (1) Construction and Materials, (2) Aerospace and Defense, (3) Electronic and Electrical Equipment, (4) General Industrials, (5) Industrial Engineering, (6) Industrial Support Services, and (7) Industrial Transportation.
- 76 Figures 15-23 for the other industries can be found in the appendix (p.61).
- 77 Own illustration based on own calculations.
- 78 Own illustration based on own calculations.
- 79 Own illustration based on own calculations.
- 80 Table 8 in the appendix provides a more detailed analysis of EU Taxonomy-eligible and aligned turnover, CapEx and OpEx at the activity level (p.71)
- 81 Note: This table presents the EU Taxonomy-eligible and aligned cross cutting CapEx in million euros (Mil €), as a percentage of the EU Taxonomy-eligible or aligned CapEx (%) and as a percentage of the total CapEx (% Total). N represents the number of companies with EU Taxonomy-eligible and aligned cross cutting CapEx based on the sample of 57 companies. It is important to mention that while 55 of the 57 companies reported EU Taxonomy-eligible CapEx at the activity level, only 37 companies reported EU Taxonomy-aligned CapEx at the activity level.
- 82 Double counting is possible since companies often reported, e.g., turnover from activities neither related to climate change mitigation nor adaptation while reporting CapEx in activities related to

climate change mitigation.

- 83 Please find more information on the definition of a CapEx plan in Annex I of EU 2021/2178.
- 84 Please note that these experiences and opinions do not necessarily reflect the views of all econ-
sense member companies.
- 85 Please note that this list is not exhaustive. EON, 2023; Mercedes-Benz, 2023; Volkswagen, 2022.
- 86 EnBW, 2021.
- 87 European Commission, 2023h.
- 88 Elizabeth Meager, 2022.
- 89 Kearney and Thompson, 2022; Platform on Sustainable Finance, 2022b.
- 90 Schütze and Stede, 2021.
- 91 Platform on Sustainable Finance, 2022c.
- 92 The contributions by the companies as listed below reflect the opinions of the respective authors
and not the authors of this paper.
- 93 Platform on Sustainable Finance, 2022c.
- 94 Own illustration based on European Commission, (2023e).
- 95 European Commission, 2021.
- 96 European Commission, 2023f.
- 97 European Commission, 2023f; German Chemical Industry Association, 2023; Sustainable Finance
Advisory Committee of the German Federal Government, 2023.
- 98 Platform on Sustainable Finance, 2022c p. 37.
- 99 Platform on Sustainable Finance, 2022c.
- 100 European Commission, 2023f; Platform on Sustainable Finance, 2022c.
- 101 The German Sustainable Finance Advisory Committee and the Platform on Sustainable Finance
have both identified several unclear definitions, subjective language, and inconsistencies and call for
clear guidance on how to interpret the TSC and definitions to important terms. Sustainable Finance
Advisory Committee of the German Federal Government, 2023; Platform on Sustainable Finance,
2022c.
- 102 Sustainable Finance Advisory Committee of the German Federal Government, 2023.
- 103 Sustainable Finance Advisory Committee of the German Federal Government, 2023.
- 104 EnBW/Deloitte
- 105 Please find a detailed description of these different types of DNSH in the Data & Usability report
of the PSF, Platform on Sustainable Finance 2022c p.50-53.
- 106 Sustainable Finance Advisory Committee of the German Federal Government, 2023.
- 107 Platform on Sustainable Finance, 2022c.
- 108 E.g., differences in the treatment of DNSH criteria regarding the efficiency class of tires and the
scope of responsibility (activities 3.3 vs 6.5).
- 109 The European Parliament and the Council of the European Union, 2020.
- 110 i.e., the OECD Guidelines for Multinational Enterprises; the UN Guiding Principles on Business and
Human Rights, including the principles and rights set out in the eight fundamental conventions identi-
fied in the Declaration of the International Labour Organisation on Fundamental Principles and Rights

- at Work, and the International Bill of Human Rights. (The European Parliament and the Council of the European Union 2020).
- 111 Platform on Sustainable Finance, 2022a.
- 112 Platform on Sustainable Finance, 2022a.
- 113 Sustainable Finance Advisory Committee of the German Federal Government, 2023.
- 114 This case study stems from a real practical example from the Industrials industry; however, the name of the company remains anonymous.
- 115 OECD (2018): OECD-Due-Diligence-Guidance-for-Responsible-Business-Conduct.pdf , P.21
- 116 The Council of the European Union, 2021.
- 117 Please find a detailed description of the reporting requirements for non-financial undertakings in section 2 of this paper. Please note, the specific reporting requirements of financial undertakings are outside the realm of this paper.
- 118 Adequate and effective ICS are also imperative for the external assurance. Obtaining external assurance on the EU Taxonomy disclosures is common practice in Germany, albeit not mandatory until CSRD. See Ernst & Young, 2022.
- 119 EnBW, 2021.
- 120 Measured as a percentage.
- 121 This table presents the top activities by number of companies reporting the activity per KPI (the activities are kept the same for eligible and aligned activities) sorted by activity size, i.e., million euros (Mil €). The % of Total variable is the total euro amount from an activity attributed to the KPI divided by the total euro amount of the KPI across all companies. % of Eligible is the total euro amount from an activity that is EU Taxonomy aligned across all companies divided by the euro amount from an activity that is EU Taxonomy eligible across all companies as a percentage. N represents the number of companies reporting the activity. The table comprises activities from the 57 companies in the extended sample. The following definitions for the activities are provided in ascending numerical order and come from the EU Taxonomy Compass (<https://ec.europa.eu/sustainable-finance-taxonomy/taxonomy-compass>). 3.6: Manufacture of other low carbon technologies; 4.1 Electricity generation using solar photovoltaic technology; 6.5: Transport by motorbikes, passenger cars and light commercial vehicles; 7.3: Installation, maintenance and repair of energy efficiency equipment and 7.7: Acquisition and ownership of buildings.
- 122 EU Taxonomy Compass (<https://ec.europa.eu/sustainable-finance-taxonomy/taxonomy-compass>).

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8. Appendix

Sample..... 57

Methodology 59

EU Taxonomy KPIs..... 60

EU Taxonomy KPIs by industries..... 61

Top three activities by KPI 71

Sample

Company	Industry Classification
adidas AG	Consumer Discretionary
Airbus SE	Industrials
Anheuser-Busch InBev	Consumer Staples
ASML Holding N.V.	Technology
BASF SE	Basic Materials
Bayer AG	Health Care
Beiersdorf AG	Consumer Staples
Bertelsmann SE & Co. KGaA	Telecommunications
BMW AG	Consumer Discretionary
Brenntag GmbH	Basic Materials
Continental Aktiengesellschaft	Consumer Discretionary
Covestro AG	Basic Materials
Daimler Truck AG	Industrials
Dassault Systemes Deutschland GmbH	Technology
Deutsche Lufthansa AG	Consumer Discretionary
Deutsche Post AG	Industrials
Telekom Deutschland GmbH	Telecommunications
Diageo plc	Consumer Staples
E.ON Energie Deutschland GmbH	Utilities
EnBW Energie Baden-Württemberg AG	Utilities
Evonik Industries AG	Basic Materials
Fresenius SE & Co. KGaA	Health Care
GEA Group Aktiengesellschaft	Industrials
Gecina	Real Estate
Heidelberg Materials AG	Industrials
Henkel AG & Co. KGaA	Consumer Discretionary
Iberdrola Energie Deutschland GmbH	Utilities
Infineon Technologies AG	Technology
Jungheinrich AG	Industrials
K+S AG	Basic Materials
Krones AG	Industrials
Mercedes-Benz Group AG	Consumer Discretionary

Company	Industry Classification
Merck KGaA	Health Care
MTU Aero Engines AG	Industrials
Nestlé Deutschland AG	Consumer Staples
Novo Nordisk Pharma GmbH	Health Care
Orange S.A.	Telecommunications
Dr. Ing. h.c. F. Porsche AG	Consumer Discretionary
Prosus	Technology
RHEINMETALL AG	Industrials
RWE AG	Utilities
AB Sagax	Real Estate
SAP Deutschland SE & Co. KG	Technology
Sartorius AG	Health Care
Schaeffler Technologies AG & Co. KG	Consumer Discretionary
SEGRO plc	Real Estate
Swisscom AG	Telecommunications
Symrise AG	Basic Materials
Telefónica Germany GmbH & Co. OHG	Telecommunications
thyssenkrupp AG	Industrials
Unibail-Rodamco-Westfield Germany GmbH	Real Estate
Unilever Deutschland	Consumer Staples
Uniper SE	Utilities
Vitesco Technologies Group AG	Consumer Discretionary
Volkswagen AG	Consumer Discretionary
Vonovia SE	Real Estate
Zalando SE	Consumer Discretionary

Table 05: List of investigated companies

Methodology

This section describes the applied methodology and the data used in the present analysis. Since this analysis focuses on German listed companies, members of the DAX and econsense were investigated. After excluding companies that are not required to report EU Taxonomy information and financial companies since they are not required to report to the same degree as non-financial companies, a sample of 42 companies was left. The sample size was expanded for the conducted industry analysis to ensure that each industry comprise a minimum of 5 companies. The authors expanded the sample with 15 companies from the STOXX600 index by choosing the largest companies, based on market capitalization, with EU Taxonomy data. Please see Table 5 here in appendix for a list of the companies in the sample.

The following data points were then systematically hand collected from public reports for the 2022 reporting year.

The absolute value of eligible and aligned turnover, CapEx and OpEx

The relative value (measured as a percentage of the total) of eligible and aligned turnover, CapEx and OpEx

Turnover, CapEx and OpEx by activity

Company provided explanations of a low-level of EU Taxonomy-alignment

To what extent the EU Taxonomy information provided in reports was assessed and assured by auditors

How EU Taxonomy alignment KPIs were presented in the text of reports

In which report and in what part of the report the EU Taxonomy information can be found

Whether companies reported further EU Taxonomy KPIs other than turnover, CapEx and OpEx, e.g., EU Taxonomy eligible EBITDA.

After collecting the data, the authors proceeded to aggregating the data to provide an overview of the average company in the investigated sample. All financial data was obtained from Refinitiv Datastream.

EU Taxonomy KPIs

Table 6 presents the average turnover, CapEx and OpEx in million euros (Mil €) and as a percentage of the total value (% Total) for the DAX and econsense sample of 42 companies and the extended sample of 57 companies.

N=57				
		Turnover	CapEx	OpEx
Eligible	Mil €	14961.26	2608.14	698.77
	% Total	28.46	42.62	30.89
Aligned	Mil €	2252.33	940.90	231.88
	% Total	4.13	12.11	8.56
N=42				
		Turnover	CapEx	OpEx
Eligible	Mil €	19263.16	3108.79	890
	% Total	25.77	39.77	29.88
Aligned	Mil €	2484.63	1029.28	282.92
	% Total	2.88	12.74	8.64

Table 06: EU Taxonomy KPIs

Figure 14 presents the average turnover, CapEx and OpEx in million euros (Mil €) and as a percentage of the total value (% Total) for the extended sample of 57 companies.

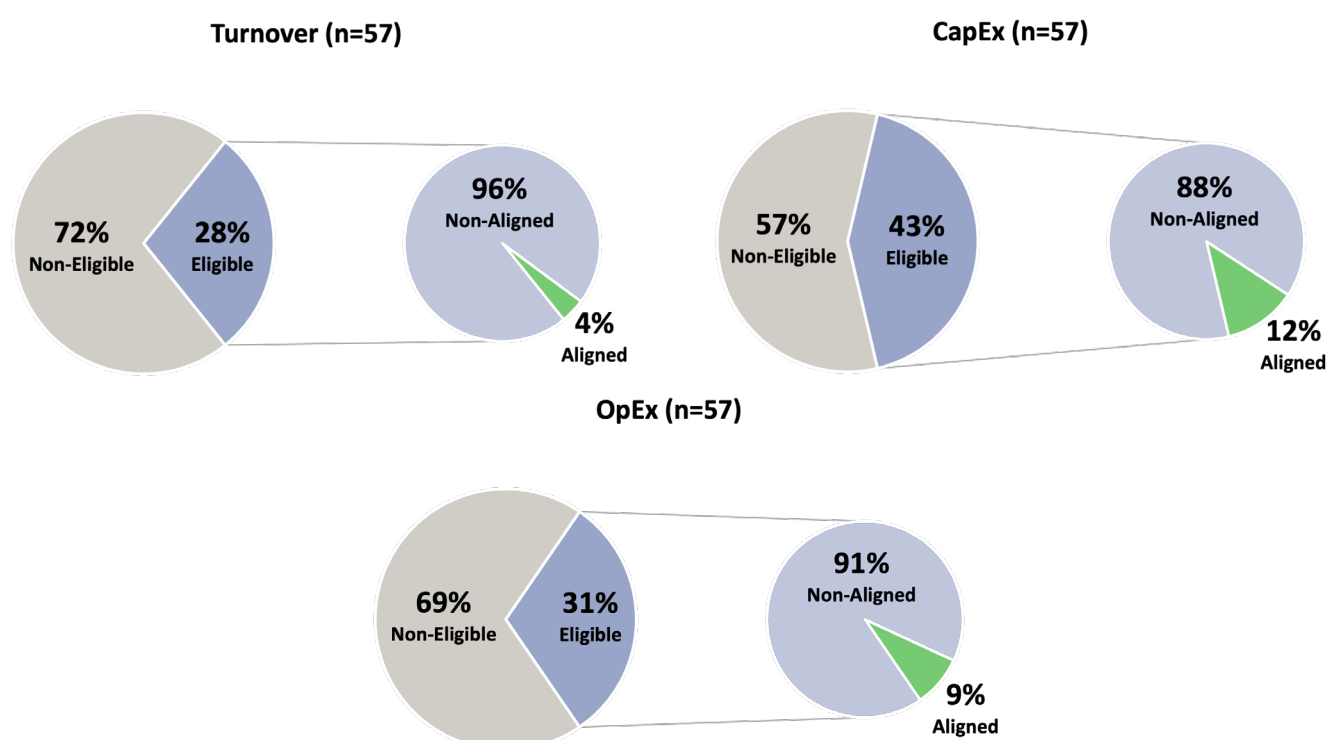
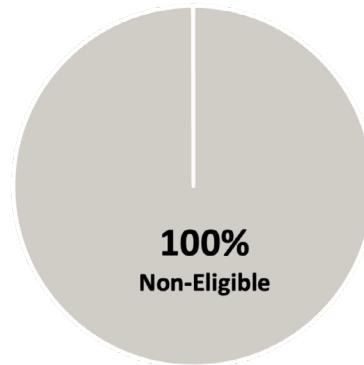


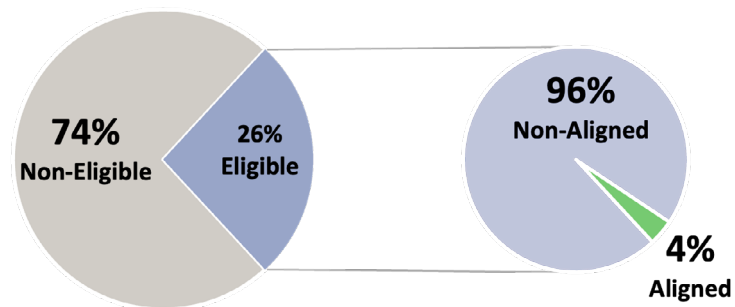
Figure 14: EU Taxonomy KPIs

EU Taxonomy KPIs by industries

Turnover - Consumer Staples (n=5)



CapEx - Consumer Staples (n=5)



OpEx - Consumer Staples (n=5)

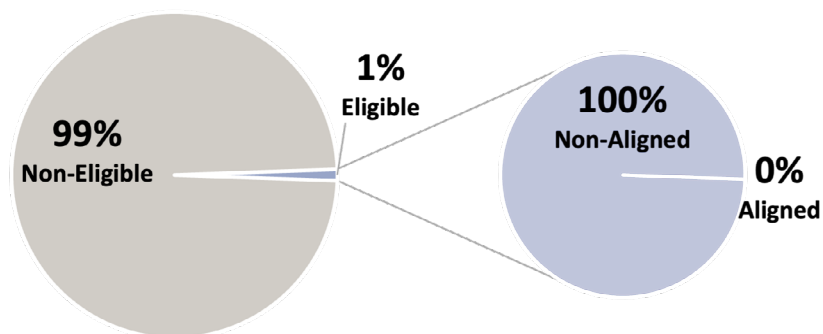
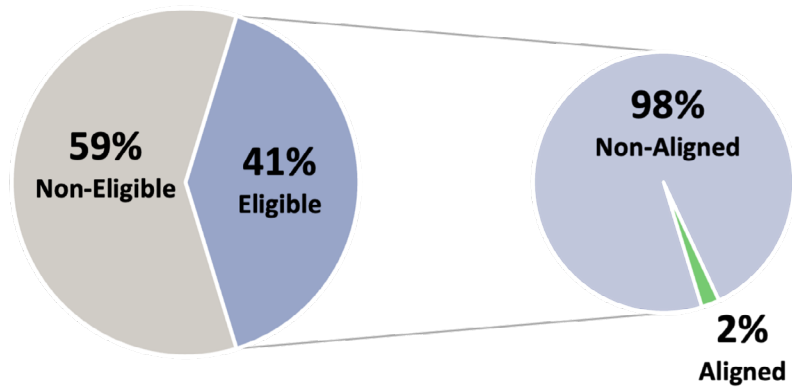
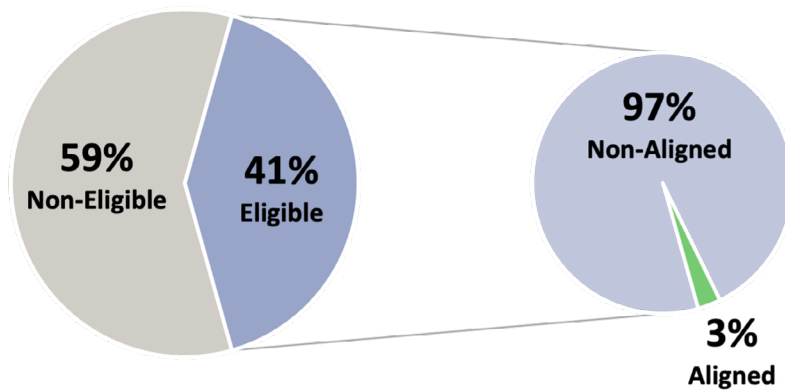


Figure 15: EU Taxonomy KPIs - Consumer Staples

Turnover - Technology (n=5)



CapEx - Technology (n=5)



OpEx - Technology (n=5)

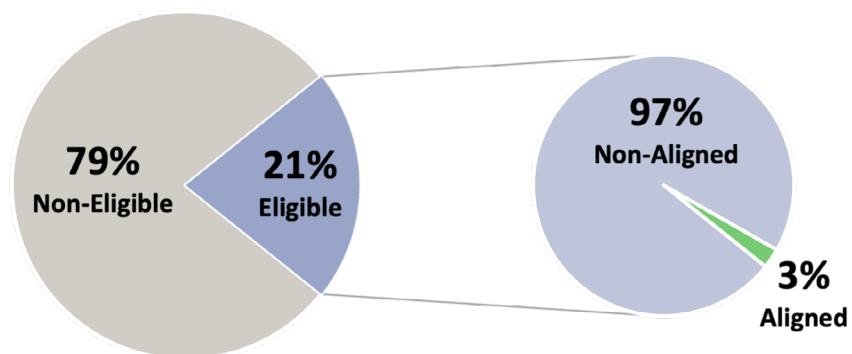
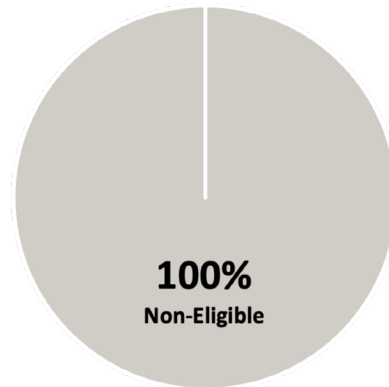
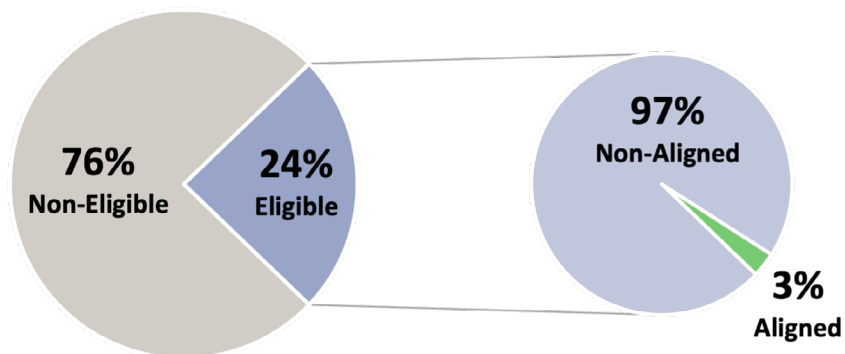


Figure 16: EU Taxonomy KPIs - Technology

Turnover - Health Care (n=5)



CapEx - Health Care (n=5)



OpEx - Health Care (n=5)

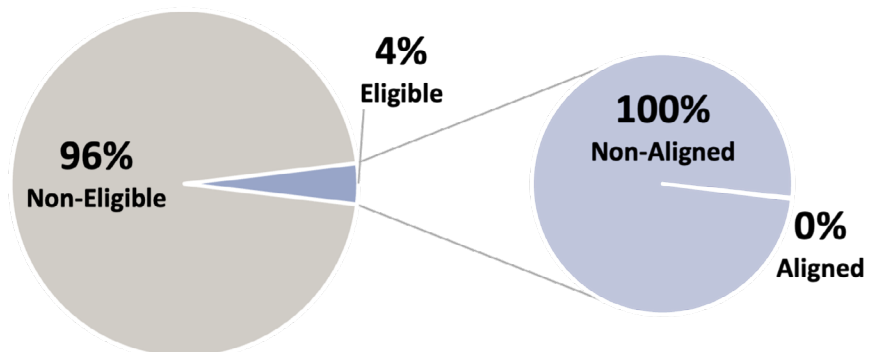
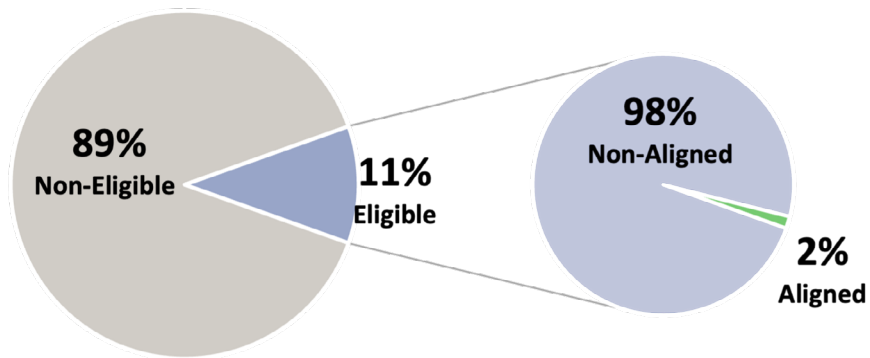
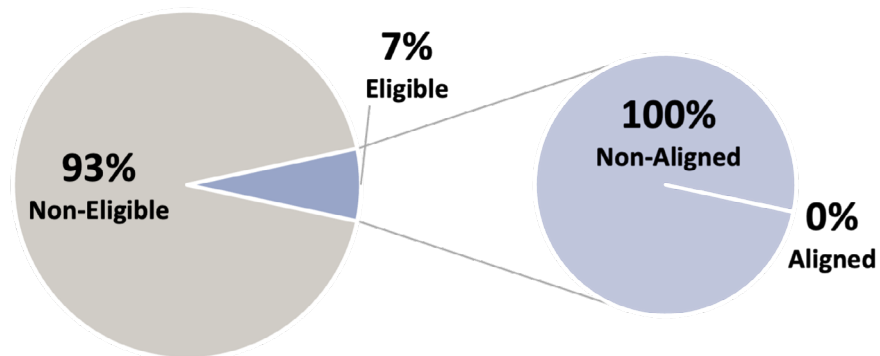


Figure 17: EU Taxonomy KPIs - Health Care

Turnover - Telecommunications (n=5)



OpEx - Telecommunications (n=5)



CapEx - Telecommunications (n=5)

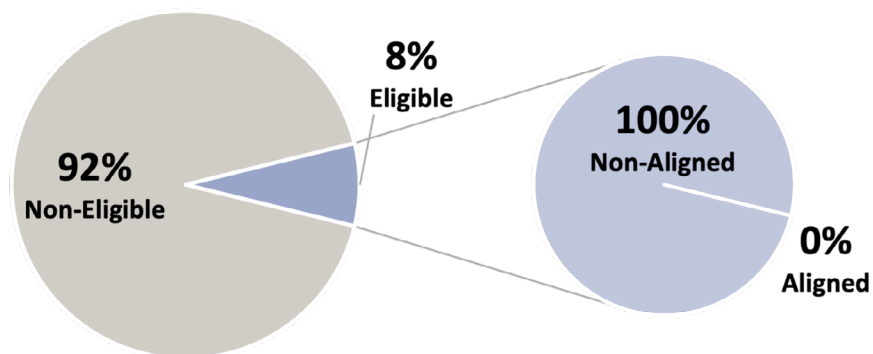
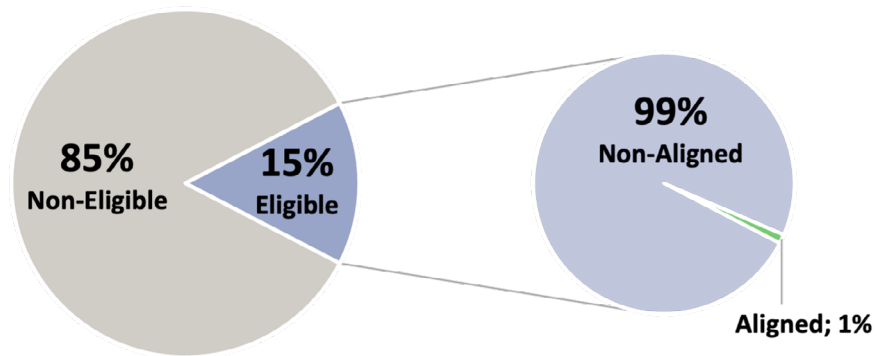
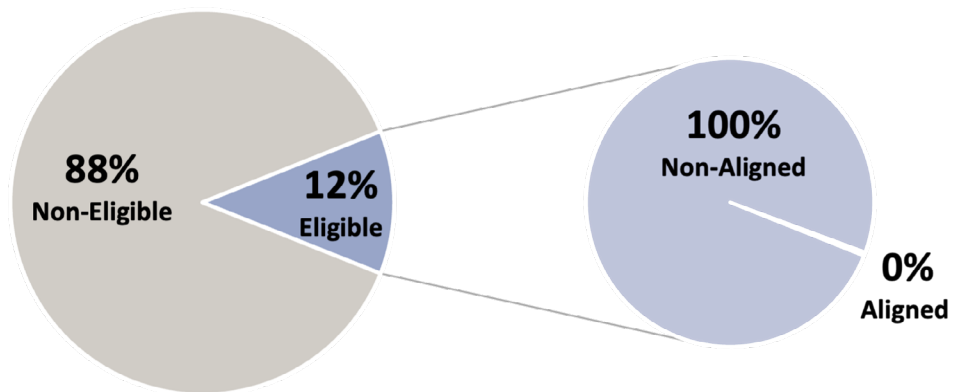


Figure 18: EU Taxonomy KPIs - Telecommunications

CapEx - Basic Materials (n=6)



Turnover - Basic Materials (n=6)



OpEx - Basic Materials (n=6)

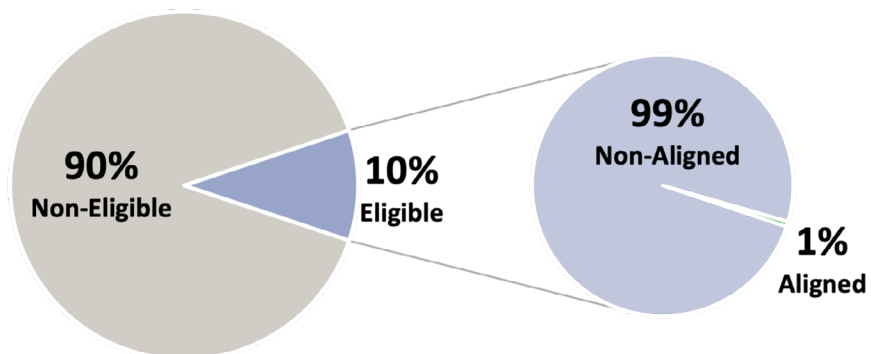
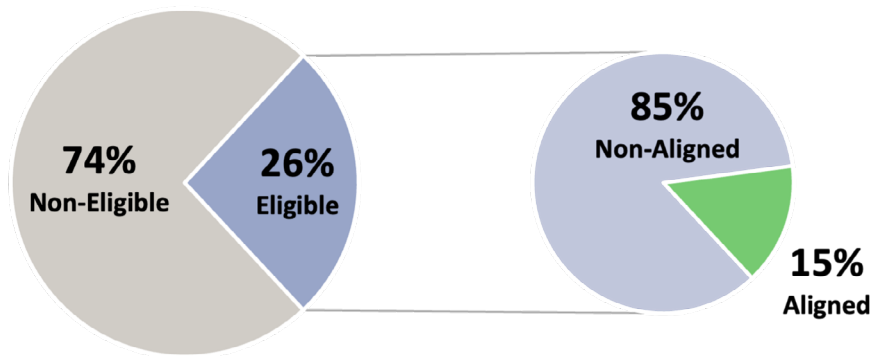
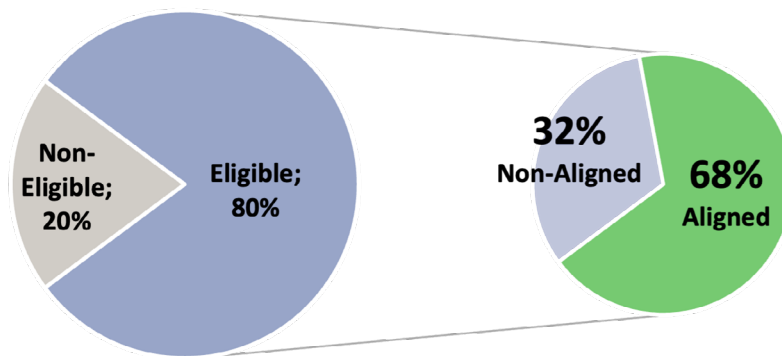


Figure 19: EU Taxonomy KPIs - Basic Materials

Turnover - Utilities (n=5)



CapEx - Utilities (n=5)



OpEx - Utilities (n=5)

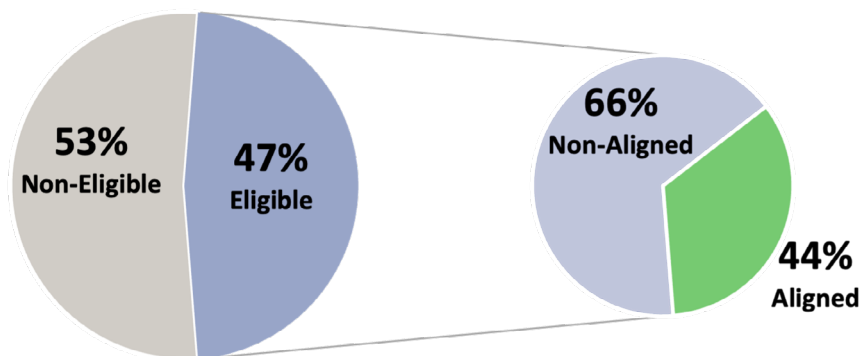
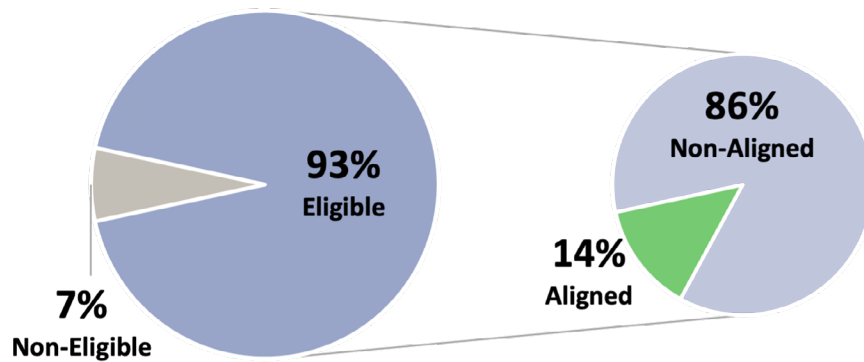
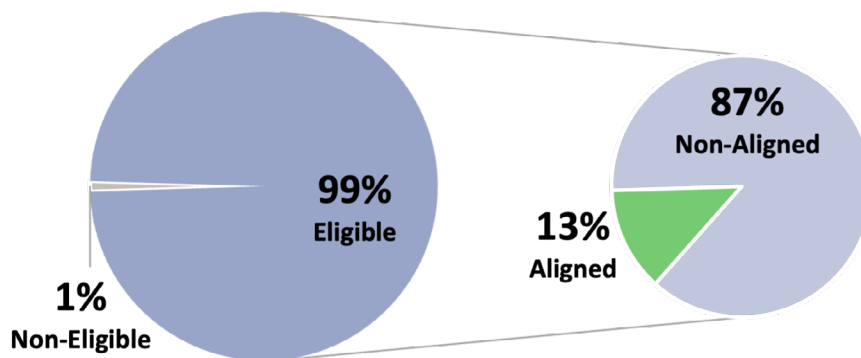


Figure 20: EU Taxonomy KPIs - Utilities

Turnover - Real Estate (n=5)



CapEx - Real Estate (n=5)



OpEx - Real Estate (n=5)

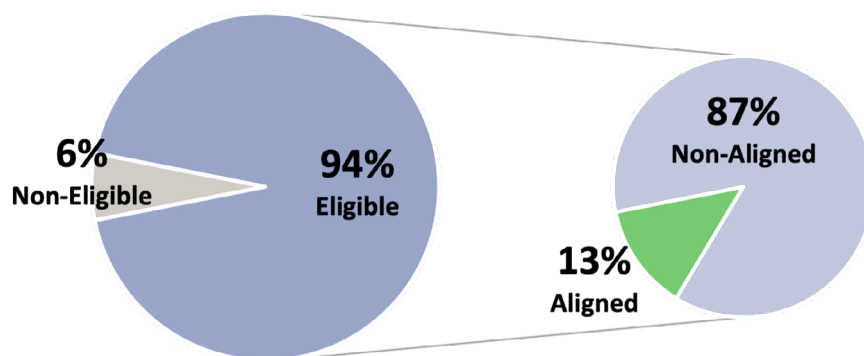
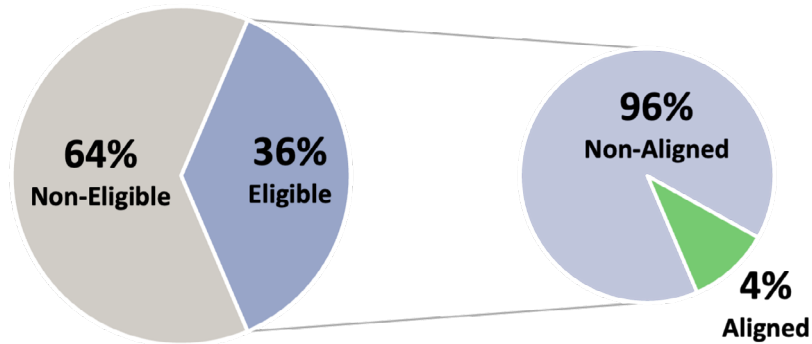
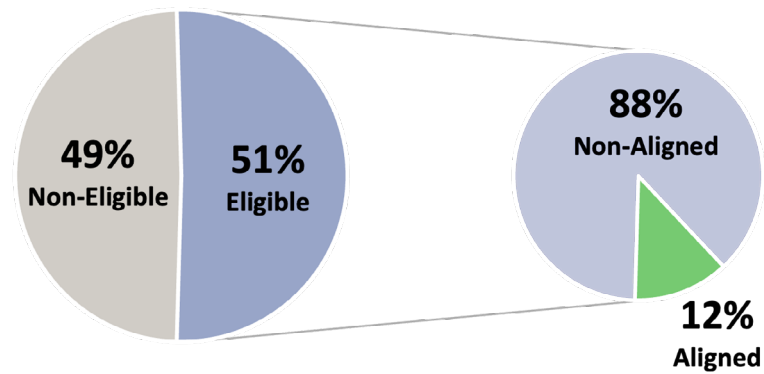


Figure 21: EU Taxonomy KPIs - Utilities

Turnover - Consumer Discretionary (n=11)



CapEx - Consumer Discretionary (n=11)



OpEx - Consumer Discretionary (n=11)

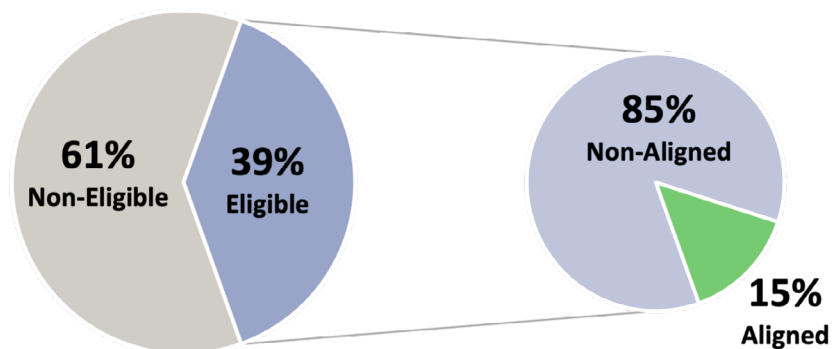
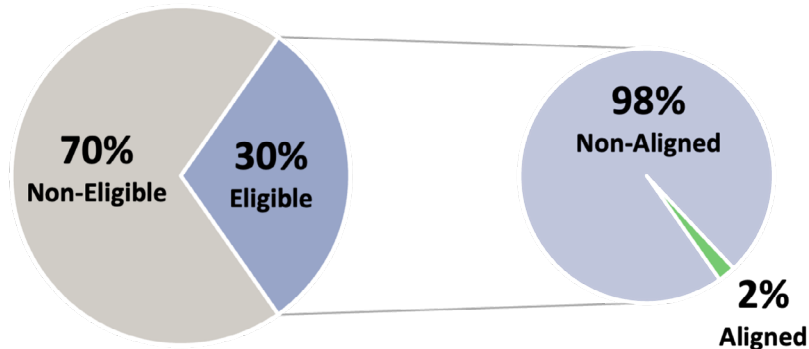
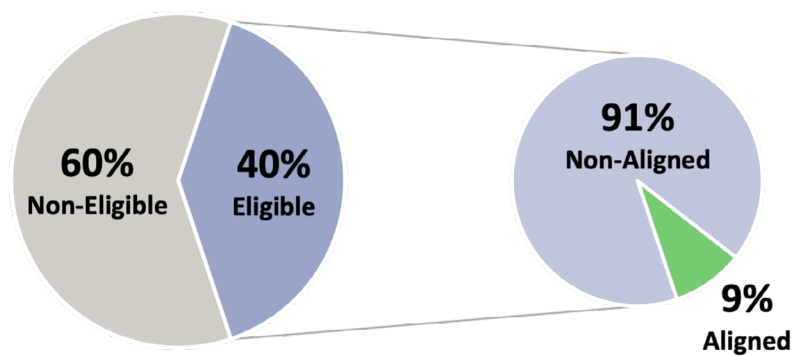


Figure 22: EU Taxonomy KPIs - Consumer discretionary

Turnover - Industrials (n=10)



CapEx - Industrials (n=10)



OpEx - Industrials (n=10)

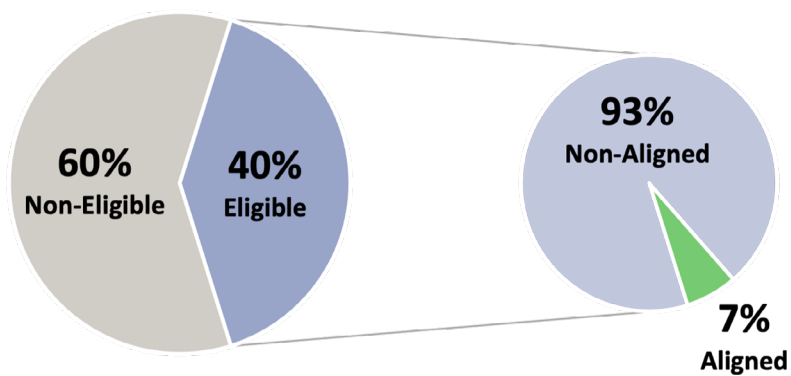


Figure 23: EU Taxonomy KPIs - Industrials

Industry	Turnover					CapEx				OpEx			
	N	Eligible		Aligned		Eligible		Aligned		Eligible		Aligned	
		Mil €	%	Mil €	%	Mil €	%	Mil €	%	Mil €	%	Mil €	%
Consumer Discretionary	11	52220	36	5582	4	9035	51	2627	12	2307	39	860	15
Industrials Basic	10	12561	30	1223	2	1139	40	236	9	570	40	60	7
Materials	6	4901	12	85	0	334	15	8	1	210	10	8	1
Health Care	5	1	0	1	0	453	24	37	3	23	4	0	0
Consumer Staples	5	3	0	0	0	447	26	65	4	5	1	0	0
Telecommunications	5	2245	11	165	2	249	8	2	0	29	7	0	0
Utilities	5	15779	26	9668	15	4176	80	3962	68	767	47	530	34
Technology	5	6017	41	344	2	845	41	102	3	614	21	33	3
Real Estate	5	2420	93	288	14	1110	99	198	13	117	94	17	13

Table 07: EU Taxonomy KPIs by industry

This table presents the average turnover, CapEx and OpEx in million euros and as a percentage of the total value for the extended sample of 57 companies by industry. All values have been rounded to two decimal places for better readability

Top three activities by KPI

Turnover						
	Eligible				Aligned	
Activity	3.6	7.7	4.1	4.1	3.6	7.7
Mil €	14559.37	11338.91	2056.82	2055.96	1779.97	1062.15
% of Total	0.58	0.45	0.08	0.24	0.21	0.12
% of Eligible				99.96	12.23	9.37
N	10	11	10	10	4	6
CapEx						
	Eligible				Aligned	
Activity	6.5	7.7	7.3	7.7	6.5	7.3
Mil €	24798.65	10732.82	1321.63	1224.92	1043.96	121.33
% of Total	10.02	4.34	0.53	2.28	1.95	0.23
% of Eligible				11.41	4.21	9.18
N	24	27	26	11	6	12
OpEx						
	Eligible				Aligned	
Activity	6.5	7.7	7.3	7.7	6.5	7.3
Mil €	1316.75	995.93	485.95	153.86	60.09	56.00
% of Total	3.31	2.50	1.22	1.19	0.46	0.43
% of Eligible				15.45	4.56	11.52
N	12	10	10	5	6	2

Table 08: Top three activities by KPI¹²¹

The largest source of eligible turnover stems from the manufacture of other low carbon technologies (3.6)¹²² which is closely followed by the acquisition and ownership of buildings (7.7). The aligned turnover from these two activities sinks to around 10 percent of the eligible turnover demonstrating that while the turnover can be classified as potentially green, the turnover does not meet all the criteria to be considered green. However, the eligible and aligned turnover from electricity generation using solar photovoltaic technology (4.1) is roughly equal. We can also see that around half of the companies in our sample are investing money in transport by motorbikes, passenger cars and light commercial vehicles (6.5); installation, maintenance and repair of energy efficiency equipment (7.3) and acquisition and ownership of buildings (7.7). However, the number of companies with aligned CapEx in these activities drops to around 20 percent or less of the sample and the percentage of aligned CapEx ranges from ca. 4 to 11 percent

of eligible CapEx. Notably, both the relative and absolute eligible and aligned OpEx are quite small. In summary, the manufacture of other low carbon technologies; transport by motorbikes, passenger cars and light commercial vehicles and the acquisition and ownership of buildings seem to play an important role for the companies in our sample in terms of turnover, CapEx and OpEx. However, these activities might just measure business as usual at a company rather than extra efforts to invest in green activities as evidenced by the high EU Taxonomy eligibility and low EU Taxonomy alignment of these activities.