

ORIGINAL RESEARCH PAPER

# REGIONAL AND SECTORAL CONVERGENCE IN EU TAXONOMY DISCLOSURE QUALITY EVIDENCE FROM NORDIC AND DACH FIRMS

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## ABSTRACT

This study examines the quality of disclosures under the European Union (EU) Taxonomy among 171 publicly listed companies headquartered in the Nordic countries (Denmark, Sweden, Norway, Finland) and the DACH region (Austria, Germany, Switzerland), based on 342 firm-year observations from the 2024 and 2025 reporting periods. Disclosure quality is assessed through three dimensions – accessibility, detail and visual clarity – which are combined into a composite Disclosure Quality Index, and complemented by an assessment of external verification practices. Drawing on institutional and legitimacy theory, the study tests whether disclosure quality differs systematically between Nordic and DACH firms, between banking and non-banking firms in their propensity to obtain external assurance, and between manufacturing and financial/insurance firms in disclosure granularity, using non-parametric statistical methods; an exploratory analysis further examines variation across all NACE industry groups represented in the sample. Across all tests, no statistically significant regional or sectoral differences in disclosure quality are found. These findings suggest that the binding and harmonised regulatory framework of the EU Taxonomy is associated with convergence of disclosure practices across regions and sectors that have historically differed in terms of voluntary reporting maturity. The study contributes to the recent literature on compliance with the EU Taxonomy by directly assessing the quality of disclosures, rather than the mere existence of disclosures, and by examining whether institutional and sectoral differences persist after the introduction of a mandatory reporting regime.

**Keywords:** EU Taxonomy, disclosure quality, sustainability reporting, Nordic countries, DACH region, institutional theory



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## 1. Introduction

Since the entry into force of Regulation (EU) 2020/852 (the EU Taxonomy Regulation), the disclosure of taxonomy-aligned economic activity has become a defining feature of corporate sustainability reporting across the European Union. From the 2022 financial year, large listed companies falling within its scope have been required to disclose the proportion of turnover, capital expenditure and operating expenditure aligned with the environmental objectives of the Regulation. This disclosure obligation was subsequently reinforced by the Corporate Sustainability Reporting Directive (Directive (EU) 2022/2464), which extended the population of firms subject to mandatory sustainability reporting and introduced more detailed disclosure standards.

While the existence of these disclosure obligations is well documented, comparatively little is known about the quality with which firms comply with them, and in particular about whether that quality varies systematically across the institutional and sectoral contexts in which firms operate. The EU Taxonomy framework prescribes what must be disclosed, but affords considerable latitude in how that information is presented – in terms of its accessibility, the level of detail provided, and the clarity of its visual presentation. Given that disclosure quality, rather than mere disclosure existence, ultimately determines whether the intended economic benefits of mandatory sustainability reporting are realised in practice (Christensen, Hail, et al., 2021), understanding whether such quality converges across previously divergent institutional and sectoral contexts is of considerable practical and academic relevance.

In their research on corporate ESG assessment Christensen, Serafeim, et.al. (2022) have shown that greater disclosure does not mean automatically greater comparability. Even though disclosure volumes have increased, independent evaluators still disagreed about same companies, with disclosure itself identified as contributing to that disagreement.

Design of the EU Taxonomy aimed to overcome this type of comparability problem with establishment of single, harmonised and mandatory classification system, rather than relying on discretionary, provider specific methodologies. However, whether this harmonisation objective is being achieved in practice – that is, whether disclosure quality is converging across regions and industries that have historically differed in their sustainability reporting maturity – remains an open empirical question.

This paper addresses this question by examining the quality of EU Taxonomy disclosures among 171 publicly listed companies headquartered in seven European countries (Austria, Germany, Switzerland, Denmark, Sweden, Norway and Finland), based on 342 firm-year observations drawn from the 2024 and 2025 reporting periods. Disclosure quality is assessed along three dimensions – availability, granularity and visual clarity – and complemented by an assessment of external assurance practices. The study investigates:

- a) does disclosure quality differ systematically between firms headquartered in Nordic countries and firms headquartered in the DACH region;
- b) does the propensity to obtain external assurance differs between the banking and other sectors; and
- c) does disclosure granularity differ between manufacturing firms and firms operating in the financial and insurance sector.

As a further, exploratory step, the analysis also tests whether disclosure quality differs across the full set of thirteen NACE industry groups represented in the sample, in order to establish whether the three focal comparisons capture the broader pattern of industry-level variation or whether additional, un-modelled heterogeneity remains.

Main contribution of the paper, with examination of these questions, to the emerging literature on EU Taxonomy compliance is that moves beyond binary question of disclosure

existence to assess disclosure quality directly with use of structured content analysis approach. Also, it tests does regional and sectoral institutional differences, long assumed to shape sustainability reporting practices, still continue to explain variation in disclosure quality once a mandatory, harmonised regulatory framework is in place.

The paper structure is as follows: chapter two reviews the literature on EU sustainability disclosure regulation and quality measurement as well as the theoretical basis for the paper's hypothesis; chapter three sets the methodology with setting out the sample, variable coding and statistical approach; chapter four reports the results of the study with chapter five that interprets them and chapter six closes with the study's conclusions with limitations and future research opportunities,

## **2. Literature Review**

### **2.1. The EU Taxonomy and the Regulation of Sustainability Disclosure**

The EU Taxonomy Regulation (Regulation (EU) 2020/852) establishes a classification system that defines which economic activities can be considered environmentally sustainable, structured around a set of environmental objectives and accompanying technical screening criteria. Firms within its scope are required to disclose the share of turnover, capital expenditure and operating expenditure aligned with these criteria. The Corporate Sustainability Reporting Directive (Directive (EU) 2022/2464) subsequently broadened the population of firm's subject to mandatory sustainability reporting and introduced the European Sustainability Reporting Standards, which set more detailed requirements for the structure, granularity and assurance of disclosed information.

According to Christensen, Hail, et.al. (2021), a central objective of this regulatory architecture is to reduce the information asymmetries and comparability problems that have characterised voluntary ESG disclosure through history. The EU Taxonomy prescribes a single, legally binding classification standard

that applies uniformly across member states and sectors, while commercial ESG rating, with provider specific methodologies have been found to give different assessments even with an increase in the scope of information disclosure (Christensen, Serafeim, et.al., 2022). In principle, this should reduce variations across companies in disclosure practices that are attributable to differences in voluntary reporting choices rather than fundamental differences in sustainability.

However, regulatory consistency in disclosure content does not guarantee consistency in disclosure quality. Companies retain discretion over how taxonomy-related information is presented – for example, whether it is disclosed in a separate, easily accessible section of the annual report, whether core activities are described with sufficient specificity to be verifiable, and whether accompanying tables and figures are structured for user understanding. It is this discretionary dimension of quality, rather than the binary nature of disclosure, that is the focus of this paper.

### **2.2. Measuring the Quality of Sustainability Disclosure**

The assessment of disclosure quality has a long tradition in the social and environmental accounting literature, which has generally relied on structured content analysis of corporate reports (Milne & Adler, 1999). Whereas early studies focused primarily on the extent, or volume, of disclosure, more recent literature has increasingly emphasised that quality – encompassing dimensions such as accessibility, specificity and presentation – is conceptually distinct from, and arguably more informative than, extent alone (Milne & Adler, 1999).

Building on this tradition, the present study operationalises EU Taxonomy disclosure quality along three dimensions: availability (ease of locating taxonomy-related information within corporate reporting), granularity (the level of activity- or project-specific detail provided) and visual clarity (the

standardisation and readability of the reporting format). These dimensions are complemented by an assessment of external assurance, reflecting the broader accounting literature on voluntary and mandated assurance of non-financial information (Simnett et al., 2009). Since Simnett et al. (2009) demonstrate that the decision to obtain external assurance, and the choice of assurance provider, are systematically related to firm-, industry- and country-level characteristics, external assurance is treated here as an additional indicator of disclosure credibility that may itself vary systematically across institutional and sectoral contexts.

### **2.3. Institutional and Sectoral Determinants of Disclosure Quality**

Two theoretical perspectives inform the hypotheses developed in this study: institutional theory and legitimacy theory.

Institutional theory suggests that formal organisational structures and practices are shaped not only by technical efficiency considerations but also by prevailing institutional rules and expectations, which organisations incorporate in order to secure legitimacy, stability and continued access to resources (Meyer & Rowan, 1977). Prior to the introduction of mandatory EU Taxonomy disclosure, sustainability reporting practices were widely reported to differ across European institutional contexts, with Nordic countries frequently characterised as possessing more mature sustainability reporting cultures and more established voluntary disclosure norms than firms in the DACH region. Under a purely voluntary disclosure regime, such institutional differences would be expected to persist, or even to widen, as more sustainability-mature firms exploit their greater discretion to disclose more. However, once a binding regulatory rule such as the EU Taxonomy prescribes the content and structure of disclosure in detail, that rule itself becomes the institutionalised standard against which organisational legitimacy is judged. Firms across otherwise different institutional contexts face a comparable incentive to conform closely to this shared standard, which should narrow pre-existing regional differences in disclosure quality.

Legitimacy theory offers a complementary explanation, particularly for external assurance practices. Firms operating in more heavily regulated, reputation-sensitive and stakeholder-scrutinised industries – such as banking – are argued to face stronger legitimacy pressures to demonstrate the credibility of their disclosures through independent verification (Deegan, 2002; Simnett et al., 2009). The banking sector has historically been subject to extensive prudential and public disclosure requirements, and banking institutions typically maintain long-standing relationships with external auditors and assurance providers. This institutional familiarity with formal assurance processes could be expected to translate into a higher propensity to obtain assurance for EU Taxonomy disclosures specifically, relative to less intensively regulated sectors.

A related sectoral argument applies to disclosure granularity. Because financial and insurance undertakings apply taxonomy alignment primarily at the level of financial exposures, which are inherently more standardised and systematically tracked through existing risk-management and regulatory reporting infrastructure, financial firms might be expected to report taxonomy-aligned activity with greater specificity than manufacturing firms, whose taxonomy-aligned capital and operating expenditure typically relate to more heterogeneous, project-specific investments that are harder to disclose with comparable granularity. Beyond these two focal industries, firms in the remaining NACE sectors represented in the sample – including utilities, transportation, real estate, technology and consumer-facing industries – arguably occupy an intermediate position, facing neither the highly standardised financial-exposure reporting environment of the financial sector nor the project-heterogeneity challenges characteristic of manufacturing, motivating the exploratory, sample-wide industry comparison reported alongside the three focal hypotheses.

## 2.4 Hypothesis Development

On the basis of the theoretical arguments outlined above, the following hypotheses are proposed:

*H1: Firms headquartered in Nordic countries demonstrate significantly higher EU Taxonomy disclosure quality than firms headquartered in the DACH region.*

*H2: Firms operating in the banking sector exhibit a higher likelihood of obtaining external assurance for EU Taxonomy disclosures than firms operating in non-banking sectors.*

*H3: Manufacturing firms exhibit a lower level of disclosure granularity in EU Taxonomy reporting than firms operating in the Financial and Insurance sector.*

These hypotheses are tested empirically in chapters 3 and 4.

## 3. Data and Methods

### 3.1. Sample

The present study investigates the quality of EU Taxonomy disclosures among a sample of publicly listed European companies. The sample consists of 171 firms from Austria, Germany, Switzerland, Denmark, Sweden, Norway, and Finland. In order to maximise statistical power for the cross-sectional comparisons examined in this study, data collected for both available reporting periods (2024 and 2025) are pooled, resulting in 342 firm-year observations.

### 3.2. Data Collection Procedure

The data were obtained from publicly available corporate reporting documents for the 2024 and 2025 reporting periods. The primary sources comprised annual reports, sustainability reports and EU Taxonomy disclosures published by the companies included in the sample. These documents were examined to identify information relating to the companies' EU Taxonomy reporting practices.

The data were collected manually using a structured content analysis approach. For each firm-year observation, the relevant reporting documents were reviewed, and the information required to assess Availability, Granularity, Visual Clarity, and External Assurance was identified and coded. The resultant dataset comprises one observation for each company and reporting year included in the analysis.

Each firm-year observation was additionally classified according to its NACE industry group and broad geographical region (Nordic or DACH). In addition, firms were also classified according to whether they belonged to the banking sector. These classifications were subsequently employed for the regional and sectoral comparisons reported in the empirical analysis.

### 3.3. Operationalization of Variables

Disclosure quality was assessed using three dimensions:

- ✓ Availability: ease of access to EU Taxonomy information;
- ✓ Granularity: level of detail provided regarding Taxonomy-aligned activities;
- ✓ Visual Clarity: degree of standardization and readability of reporting formats.

The coding of each variable was conducted on a three-point ordinal scale, ranging from 1 (low quality) to 3 (high quality). The external assurance variable was coded as a binary variable, with 0 representing the absence of assurance and 1 representing the provision of assurance.

The composite Disclosure Quality Index (DQI) was constructed in order to capture overall disclosure quality. The DQI is the arithmetic mean of Availability, Granularity, and Visual Clarity.

### 3.4 Methods of Data Analysis

The data were analysed using both descriptive and inferential statistical techniques. A range of descriptive statistics

were calculated, including means, medians and standard deviations. The purpose of this analysis was to provide an overview of the disclosure quality dimensions and external assurance practices within the sample. The internal consistency of the Disclosure Quality Index (DQI) was assessed using Cronbach's alpha. Furthermore, Spearman rank correlations were calculated to examine the associations among the three ordinal disclosure quality dimensions: Availability, Granularity, and Visual Clarity. Pearson correlations were additionally examined as a robustness check.

Given the ordinal measurement of the individual disclosure quality dimensions, non-parametric statistical procedures were used for the hypothesis tests involving disclosure quality and granularity. In order to test H1, a Mann-Whitney U test was used to compare the DQI of firms headquartered in the Nordic countries with that of firms headquartered in the DACH region. For H2, a chi-squared test of independence was employed in order to examine the association between banking-sector membership and external assurance. In order to test H3, a Mann-Whitney U test was employed to compare the disclosure granularity of manufacturing firms and firms operating in the financial and insurance sector.

A Kruskal-Wallis test was conducted as an exploratory analysis to assess whether there were any differences in disclosure quality across the thirteen NACE industry groups represented in the sample. This comprehensive analysis was employed to ascertain whether the sectoral pattern observed in the focal hypothesis tests was also evident across the entire range of industries included in the study.

## 4. Results

### 4.1 Descriptive Statistics

The descriptive analysis indicates a relatively high overall level of EU Taxonomy disclosure quality across the sample. The mean scores achieved for Availability and Visual Clarity were both 2.60, while Granularity demonstrated a lower mean score of 2.13. The mean Disclosure Quality Index was 2.44 on a three-point scale.

It was found that approximately 67.3% of firms provided easily accessible Taxonomy information, while 66.7% used clear and standardised reporting formats. However, only 31.0% of the respondents disclosed project- or activity-specific information, indicating that reporting detail remains the weakest dimension of disclosure quality.

The prevalence of external assurance within the sample was a salient finding. A significant proportion of the observations reported external assurance of their sustainability disclosures, with approximately 86.5% of all observations falling into this category.

**Table 1.**  
*Descriptive Statistics for Disclosure Quality Variables*

| Variable                       | Mean | Median | SD    |
|--------------------------------|------|--------|-------|
| Availability                   | 2.60 | 3.00   | 0.617 |
| Granularity                    | 2.13 | 2.00   | 0.693 |
| Visual Clarity                 | 2.60 | 3.00   | 0.618 |
| External Assurance             | 0.87 | 1.00   | 0.342 |
| Disclosure Quality Index (DQI) | 2.44 | 2.67   | 0.598 |

### 4.2 Reliability Analysis

The three dimensions of information disclosure quality showed strong positive associations. Since the variables were measured on ordinal scales, Spearman rank correlation coefficients were used to calculate the associations. The values ranged from 0.699 to 0.989 ( $p < 0.001$ ), indicating a high degree of consistency across the dimensions.

To check for robustness, Pearson correlations were also analyzed, yielding very comparable results. The strongest association was observed between accessibility and visual clarity ( $r = 0.992$ ,  $p < 0.001$ ), indicating a significant overlap between these two dimensions.

The reliability test resulted in a Cronbach's alpha coefficient of 0.922,

indicating excellent internal consistency and justifying the combination of accessibility, granularity, and visual clarity into a composite disclosure quality index (DQI). Although the very high correlation between availability and visual clarity indicates a certain conceptual overlap, both dimensions are retained because they measure different aspects of the quality of information publication: the availability of information, that is, the way the report is presented.

**Table 2.**  
*Spearman Rank Correlations among Disclosure Quality Dimensions*

| Variable          | 1        | 2        | 3     |
|-------------------|----------|----------|-------|
| 1. Availability   | 1.000    |          |       |
| 2. Granularity    | 0.699*** | 1.000    |       |
| 3. Visual Clarity | 0.989*** | 0.699*** | 1.000 |

### 4.3 Hypothesis Testing

*H1: Firms headquartered in Nordic countries demonstrate significantly higher EU Taxonomy disclosure quality than firms headquartered in the DACH region.*

A Mann-Whitney U-test was conducted to compare the quality of disclosure between Nordic ( $n = 180$ ) and DACH ( $n = 162$ ) companies and the results showed that there was no statistically significant difference between the two groups ( $U = 13,751.5$ ;  $p = 0.344$ ). Despite the slightly higher mean rank value recorded for DACH companies (176.61) compared to Nordic companies (166.90), the observed difference was not considered statistically significant. Consequently, hypothesis 1 (H1) was not confirmed.

*H2: Firms operating in the banking sector exhibit a higher likelihood of obtaining external assurance for EU Taxonomy disclosures than firms operating in non-banking sectors.*

The aim of this research was to determine whether banking institutions ( $n = 60$ ) are more likely to conduct external audits than non-banking entities ( $n = 282$ ). For this purpose, the chi-square test was

applied. The results showed the absence of a statistically significant connection between belonging to the sector and the practice of conducting verification ( $\chi^2 = 0.001$ ;  $p = 0.977$ ). The use of external verification was found to be a common practice in both groups, with verification completion rates exceeding 86%. Consequently, hypothesis H2 is not confirmed.

*H3: Manufacturing firms exhibit a lower level of disclosure granularity in EU Taxonomy reporting than firms operating in the Financial and Insurance sector.*

To test the hypothesis that financial and insurance companies ( $n = 60$ ) provide more detailed information than manufacturing companies ( $n = 170$ ), a Mann-Whitney U-test was conducted. Financial companies showed a slightly higher average rank (121.53) compared to manufacturing companies (113.37). However, this difference was not statistically significant ( $U = 4,738.5$ ;  $p = 0.373$ ). Consequently, hypothesis H3 was not confirmed.

### 4.4 Exploratory Industry Analysis

Because H1–H3 each compare only two groups at a time, a broader, exploratory test was conducted to establish whether disclosure quality varies across the full set of thirteen NACE industry groups represented in the sample, which range in size from 2 to 170 firm-year observations. A Kruskal–Wallis test was conducted to assess disclosure quality differences across all NACE industry groups. The findings revealed no statistically significant disparities among the various industrial sectors ( $\chi^2 = 10.028$ ,  $df = 12$ ,  $p = 0.614$ ), indicating a relatively uniform level of disclosure quality across these domains. Table 3 reports the descriptive statistics underlying this test.

Group sizes vary considerably, from 2 to 170 firm-year observations, so the smallest groups in particular should be interpreted with caution. Even so, mean DQI scores cluster fairly closely across groups, mostly between 2.24 and 2.61, with the two smallest groups ( $n = 2$  and  $n = 8$ ) reaching the highest observed means of 2.83. This pattern is consistent with the non-significant Kruskal–Wallis result and supports the conclusion that the absence

of a manufacturing–financial gap under H3 reflects a broader pattern of industry-level convergence, rather than being specific to the two focal sectors compared under that hypothesis.

**Table 3.**  
*Disclosure Quality Index by NACE Industry Group*

| NACE Group                              | n   | Mean DQI | SD   |
|-----------------------------------------|-----|----------|------|
| Agriculture                             | 8   | 2.33     | 0.71 |
| Mining                                  | 16  | 2.40     | 0.60 |
| Manufacturing                           | 170 | 2.44     | 0.60 |
| Energy                                  | 10  | 2.37     | 0.67 |
| Construction                            | 8   | 2.46     | 0.73 |
| Trade                                   | 8   | 2.54     | 0.47 |
| Transportation                          | 6   | 2.61     | 0.39 |
| Hospitality                             | 2   | 2.83     | 0.24 |
| Information & Communication             | 34  | 2.24     | 0.70 |
| Real Estate                             | 8   | 2.58     | 0.39 |
| Professional Services                   | 8   | 2.83     | 0.18 |
| Human Health and Social Work Activities | 4   | 2.25     | 0.50 |
| Financial & Insurance Activities        | 60  | 2.49     | 0.59 |

**Table 4.**  
*Summary of Hypothesis Testing Results*

| Hypothesis | Expected Relationship                               | Statistical Test | p-value | Decision      |
|------------|-----------------------------------------------------|------------------|---------|---------------|
| H1         | Nordic firms > DACH firms (DQI)                     | Mann–Whitney U   | 0.344   | Not supported |
| H2         | Banking firms > Non-banking firms (Assurance)       | Chi-Square       | 0.977   | Not supported |
| H3         | Financial firms > Manufacturing firms (Granularity) | Mann–Whitney U   | 0.373   | Not supported |

## 5. Discussion

The aim of this paper was to test a fairly simple assumption: that regions and industries with more established sustainability traditions would produce higher quality disclosures under the EU taxonomy. The results, in all three hypotheses, suggest otherwise.

None of the expected shortcomings materialized. Nordic companies did not outperform their DACH counterparts in disclosure quality. Banks were no more likely than other sectors to seek external verification. Financial and insurance companies reported taxonomy-compliant activities without greater granularity than manufacturers. Given how often the Nordic countries are cited as a benchmark for sustainability reporting, it is worth dwelling on the lack of any regional advantage here.

One simple interpretation is that reporting under the EU taxonomy is becoming truly harmonized across European companies, rather than just mandatory in name. That companies operating in very different institutional traditions seem to converge around a broadly consistent reporting standard, rather than reproducing their pre-existing regional differences, is in itself a significant outcome.

A parallel story holds true at the industry level. Neither the comparison of manufacturing versus finance nor the broader NACE analysis of the thirteen groups in Table 3 showed significant differences. The average DQI scores across these thirteen groups lie in a fairly narrow range – mostly between 2.24 and 2.61 – despite group sizes ranging from just two firms to 170. This narrowness is important: it suggests that the zero score for H3 is not an artifact of comparing the two sectors, but rather reflects something closer to the convergence of the entire sector.

These findings should be read alongside recent evidence that questions how far EU sustainability regulation has actually harmonised reporting in practice. Using a difference-in-differences design comparing EU and non-EU OECD firms, Tariq (2025) finds that the introduction of mandatory

EU sustainability reporting is associated with a widening, rather than a narrowing, of the gap between disclosed and actual sustainability performance, and that country-level heterogeneity tied to legal origin persists after the mandate takes effect. Similarly, in a content analysis of EU Taxonomy disclosures by BET-listed companies, Dascalu et al. (2026) document a persistent execution gap between eligibility and actual technical alignment – several firms report substantial taxonomy-eligible turnover alongside near-zero verified alignment – even though, consistent with the pattern reported here, they find no statistically significant difference in interpretative flexibility between high- and low-impact sectors. Read together with the present results, this points to an important distinction between the structural or presentational quality of disclosure – how accessible, detailed and clearly formatted the information is, which this study finds to be converging – and the substantive content of what is disclosed, such as the degree of taxonomy alignment actually achieved or the gap between disclosure and underlying performance, which other studies find to remain uneven across firms and countries. A regulation can standardise the form in which information must be presented while leaving considerable room for divergence in what that information actually says.

The absence of a Nordic advantage found here is also consistent with a broader body of evidence that complicates the simple narrative of Nordic sustainability leadership. Even before the EU Taxonomy came into force, Branco et al. (2018) found that companies from Mediterranean European countries reported higher engagement with Global Reporting Initiative guidelines than their Nordic counterparts on several dimensions, suggesting that regional reputations for sustainability maturity do not always translate into measurable reporting advantages. Turning to the sectoral results, this absence of a banking-sector assurance premium also sits somewhat uneasily alongside Tariq's (2025) finding that industries facing greater stakeholder scrutiny tend toward more symbolic, rather than more substantive, transparency once reporting becomes mandatory – a reminder

that a higher propensity to obtain assurance does not by itself guarantee that the resulting disclosures are more informative. At the same time, industry analysis of banks' Green Asset Ratios under the EU Taxonomy finds that cross-country comparability has recently declined as institutions adopted divergent calculation methods following regulatory simplification (ING, 2025). Read alongside the present finding of no significant sectoral gap in the propensity to obtain external assurance, this suggests a similar structure-versus-substance distinction at the sector level: whether firms assure their disclosures appears to have converged, but how the specific quantitative metrics underlying those disclosures are calculated may not have – a distinction that the three disclosure-quality dimensions used in this study, which do not assess the comparability of the underlying figures, are not designed to capture.

One interpretation of all this fits comfortably into institutional theory: once a binding rule like the EU Taxonomy spells out exactly what harmonised disclosure looks like, that rule itself becomes the yardstick against which companies are judged, regardless of where they are located or what industry they operate in (Meyer & Rowan, 1977). In a voluntary regime, companies that are more mature in terms of sustainability would have every incentive to keep improving. In a mandatory, harmonised regime, that incentive largely disappears – everyone is measured against the same yardstick. The fact that even the gap in underwriting between banks and other sectors has narrowed suggests that external underwriting itself may be moving towards a near-universal practice rather than a hallmark of specifically regulated industries. The practical implications run in several directions. For regulators, this is encouraging evidence that a mandatory, harmonised disclosure framework can do what it was designed to do – narrow the gap between historically strong and historically weak reporters. For companies still lagging behind in granulation, the weakest of the three dimensions examined here, the results leave less room for regional or sectoral excuses: companies in very different contexts are converging on similar standards,

so lagging now looks more like a company-specific choice than an institutional constraint. And for those preparing reports and comparing their own reporting, industry research results are a useful corrective—comparing yourself to only a narrow group of companies can underestimate how far the field as a whole has already moved; the sample size in Table 3 is probably a more honest measure.

## 6. Conclusion

This paper examined whether the quality of disclosure according to the EU taxonomy among 171 European companies varies systematically across regions or sectors. In three separate tests, the answer was consistently no.

The Nordic region did not show a statistically significant quality advantage over the DACH region (H1), despite its reputation as a leader in sustainability reporting. Banks were no more likely than other sectors to seek external verification (H2). Financial and insurance companies did not disclose more detailed information than manufacturers (H3). An exploratory examination of all thirteen NACE groups in the sample confirmed the same conclusion: the quality of disclosure does not differ significantly across industries either.

This pattern is more than a series of null results – it suggests something specific about how a mandatory, harmonised disclosure regime works. Rather than the institutional advantages that one would expect to hold under voluntary reporting, the evidence here is consistent with an explanation in which the regulatory rule itself becomes the standard against which legitimacy is judged (Meyer & Rowan, 1977), drawing firms from otherwise very different institutional environments toward a common level of compliance. The disappearance of any sectoral gap in assurance is a particularly telling detail: external assurance of taxonomy disclosure approaches a near-universal baseline, rather than remaining reserved for only the most closely monitored industries.

Three groups of stakeholders could draw different conclusions from this.

Regulators gain preliminary confirmation that standardized, binding frameworks can indeed reduce differences in reporting quality across regions and sectors – a valid argument for continuing to invest in such instruments. Companies that still lag behind in terms of granularity – which in this study has shown to be the weakest dimension – lose a convenient excuse: competitors from very different regions and sectors are adopting similar standards, and the lag increasingly reflects company decisions rather than structural shortcomings. On the other hand, investors comparing published data from different countries and industries might find that the comparability problem – under such a binding regime – is less pronounced than expected.

Before drawing general conclusions, several limitations should be noted. Although the ordinal coding on which the DQI is based is statistically reliable (Cronbach's  $\alpha = 0.922$ ), it does involve a degree of researcher judgement that independent replication could help confirm. The sample is confined to companies headquartered in the Nordic countries and the DACH region, so the extent to which these findings generalise to other parts of Europe remains untested. The analysis at the NACE classification level, although informative, relies on some very small industry groups – several have fewer than ten observations, and the Hospitality group only two – which limits the reliability of the estimates for these specific groups, even though the pattern across the sample as a whole is consistent. Finally, because the study pools two reporting years to achieve adequate statistical power, it provides a cross-sectional snapshot of disclosure quality rather than a within-firm analysis of change over time.

These limitations point to several directions for future research. Extending the analysis to other European regions beyond the Nordic-DACH area would help establish whether the convergence documented here reflects a broader continent-wide pattern or is specific to the seven countries examined. As the requirements of the European Sustainability Reporting Standards become more detailed, replicating this analysis in subsequent

reporting periods would indicate whether convergence is maintained, and in particular whether the persistent gap in granularity – the weakest of the three quality dimensions identified here – narrows as more prescriptive disclosure requirements take effect. Re-analysing the smaller NACE groups, including mining, hospitality, and human health and social work activities, once larger samples become available would also improve the reliability of sector-specific estimates. Finally, a longitudinal analysis tracking individual firms' disclosure quality over successive reporting periods, rather than pooling cross-sections as in the present study, would allow a more direct test of whether convergence reflects genuine institutional change or a compositional feature of the pooled sample – an avenue for research that is already under way.

## References

- Branco, M. C., Delgado, C., & Marques, C. (2018). How do sustainability reports from the Nordic and the Mediterranean European countries compare? *Review of Managerial Science*, 12(4), 917–936. <https://doi.org/10.1007/s11846-017-0233-4>
- Christensen, D. M., Serafeim, G., & Sikochi, A. (2022). Why is corporate virtue in the eye of the beholder? The case of ESG ratings. *The Accounting Review*, 97(1), 147–175. <https://doi.org/10.2308/TAR-2019-0506>
- Christensen, H. B., Hail, L., & Leuz, C. (2021). Mandatory CSR and sustainability reporting: Economic analysis and literature review. *Review of Accounting Studies*, 26(3), 1176–1248. <https://doi.org/10.1007/s11142-021-09609-5>
- Dascalu, I., Ionescu, B.-Ș., Grosu, V., & Ciobotar, A. B. (2026). Empirical analysis of the discrepancies between declarative commitment and performance in applying the EU Taxonomy at the BET Index level. *Journal of Risk and Financial Management*, 19(6), 429. <https://doi.org/10.3390/jrfm19060429>
- Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282–311. <https://doi.org/10.1108/09513570210435852>
- Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting. OJ L 322, 16.12.2022, pp. 15–80.
- ING. (2025). European Taxonomy disclosures 2025: Higher ratios, lower comparability. ING Research. <https://think.ing.com/articles/european-taxonomy-disclosures-2025-higher-ratios-lower-comparability/>
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363. <https://doi.org/10.1086/226550>
- Milne, M. J., & Adler, R. W. (1999). Exploring the reliability of social and environmental disclosures content analysis. *Accounting, Auditing & Accountability Journal*, 12(2), 237–256. <https://doi.org/10.1108/09513579910270138>
- Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088. OJ L 198, 22.6.2020, p. 13.
- Simnett, R., Vanstraelen, A., & Chua, W. F. (2009). Assurance on sustainability reports: An international comparison. *The Accounting Review*, 84(3), 937–967. <https://doi.org/10.2308/accr.2009.84.3.937>
- Tariq, A. (2025). Mandatory sustainability reporting and the disclosure-performance gap: insights from the EU directive. *Meditari Accountancy Research*, 33(7), 536–567. <https://doi.org/10.1108/MEDAR-02-2025-2838>