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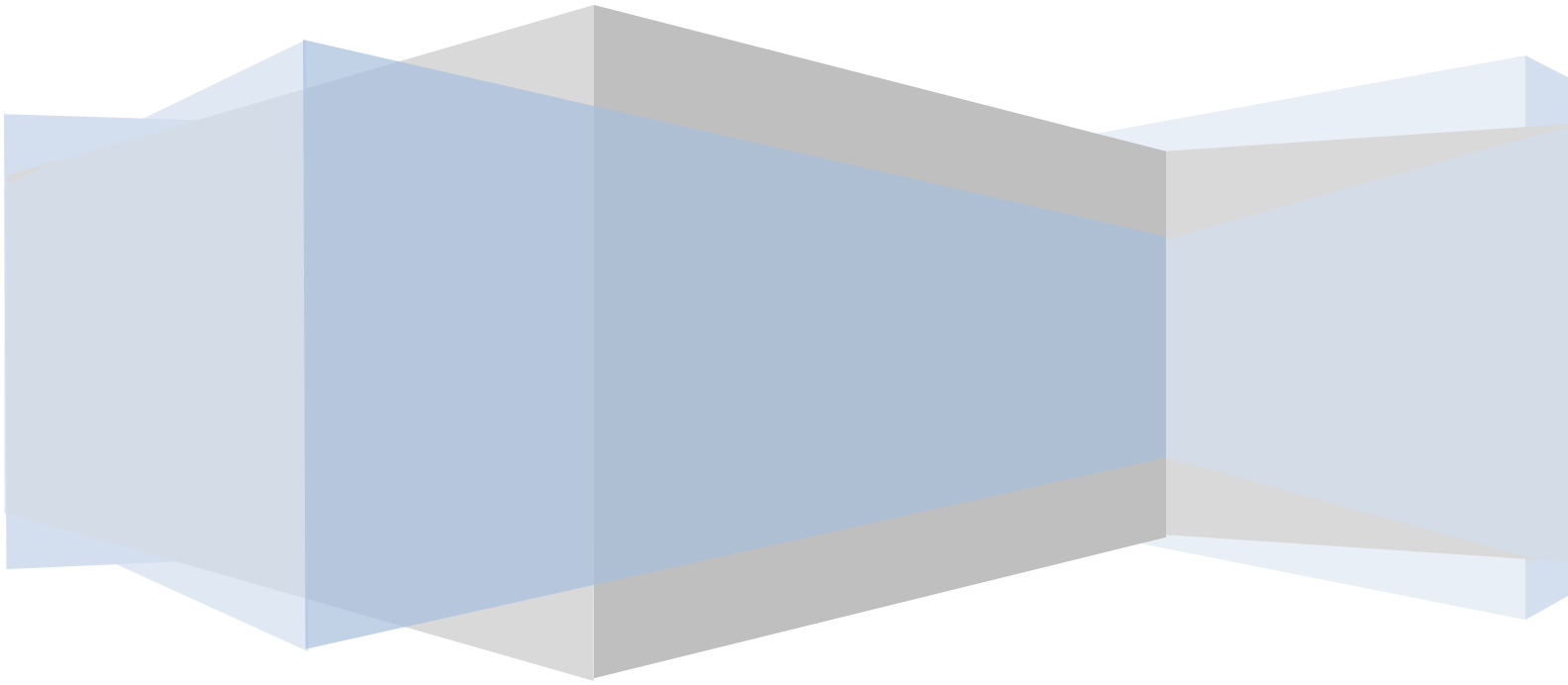
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European Committee of Central Balance Sheet Data Offices

40th anniversary in 2027

Environmental Data, Corporate Reporting and Statistics

Report of the Joint CMFB – ECCBSO Task Force on Environmental Data based on CSRD (TF JECED)

13 November 2026



Acknowledgments

This report was prepared by the Task Force JECED. Draft versions were presented at the CMFB Plenary meeting on 1 July 2026 and at the ECCBSO Plenary meeting on 10 September 2026. In addition to feedback from CMFB and ECCBSO members, all recent political and legal developments have been taken into account in the final version. These include, in particular, the adoption of the Delegated Acts on Revised ESRS and the Voluntary Standard (VS) by the European Commission in July 2026 as part of its simplification agenda. These developments are reflected in the report, as well as in the List of Environmental Indicators (Annex I) and in the list based on the VS (Annex II).

The Co-Chairs and the Workstream leaders thank all members of the Task Force for their exceptionally sustained and intensive joint effort. Their long-standing commitment, dedication, and collaborative spirit have been instrumental in successfully completing the mandate.

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Essential Takeaways

The costs and risks arising from climate change and biodiversity loss have made clear the urgent need for high-quality data to address challenges resulting thereof, in order to conduct monetary policy and to safeguard financial stability as well as to inform policymakers and the public with trusted statistical indicators. This need has been highlighted repeatedly in the past, most notably at the European Statistical Forum in January 2025. Within the corporate sector, public data remains particularly scarce. The legal regime of the Non-Financial Reporting Directive (NFRD) in the European Union provided only limited standardization and covered far too few companies.

The Corporate Sustainability Reporting Directive (CSRD), which replaces the Non-Financial Reporting Directive (NFRD), represents a significant shift in European corporate reporting legislation. It integrates sustainability reporting into the management report governed by the Accounting Directive (AccDir), making it a core component alongside financial statements. The CSRD aims to harmonize data on Environmental, Social, and Governance (ESG) matters through new standards, the European Sustainability Reporting Standards (ESRS), thereby supporting sustainable finance within the framework of the European Green Deal. It shifted obligations from a limited number of "Public Interest Companies" with over 500 employees in the NFRD regime to – reflecting Omnibus I - companies having more than 1,000 employees and annual turnover of more than €450m. Legal Omnibus I changes were introduced in 2025 addressing competitiveness in a changing geopolitical world, nevertheless the scope of companies in the non-financial sector will increase so more corporates are expected to report publicly compared to the NFRD framework.

Despite the latest changes for simplification, the fundamental need for corporate environmental data - beyond emissions, such as details from transition plans or energy consumption - remains evidently and post-Omnibus I CSRD reports will provide such data based on ESRS standards. The revised ESRS adopted by the European Commission on 3 July 2026, which reduce the number of mandatory datapoints by over 60% and the total number of datapoints by over 70%, together with the Voluntary Standard and its value chain cap (adopted also in July), are set to complete this simplification step. Core Greenhouse Gas (GHG) emission data (Scope 1, 2 and 3) are retained, but the wider use of materiality, reliefs and estimates – as well as possible further measures under the Commission's simplification agenda – may affect the completeness, comparability and continuity of the firm-level data needed to produce statistical environmental indicators, notably carbon footprint indicators.

In these circumstances, the TF JECED has addressed the main challenges regarding corporate sustainability reporting data. The provided List of Environmental Indicators, categorized for statistical use, is intended to guide expectations for data availability starting fiscal year 2027. There is no alternative but to continue using available data under the forthcoming regime, whether to support official statistics based on mandatory statistical reporting, to calculate statistical indicators for monetary and financial stability, or to provide granular data for internal analysis or external research.

The JECED report offers guidance for all these purposes. Besides the provided list of indicators, accessibility of corporate reports is displayed – addressing also advantages and limits of the coming European Single Access Point (ESAP). Further, the report describes data sharing as practised at JECED level, assesses the extent of voluntary reporting, elaborates on potential country differences, and includes with considerations on the use of artificial intelligence.

The report includes key recommendations for the use of corporate reporting data. Particularly, in considering the need for further collaboration among European statistical institutions. Results and recommendations shall be implemented in the ERICA Working Group (European Records of IFRS Consolidated Accounts) of the European Committee of Central Balance Sheet Data Offices (ECCBSO), as this group stands within a longstanding institutional setting. In this respect ERICA should progressively evolve into a European reference database for corporate information for statistical purposes, together with other uses, covering both environmental and traditional financial data fields allowing at the same time the sharing of quality-assured data.

Executive Summary and Recommendations

Introduction

ES (1) **Climate change and biodiversity loss** are increasingly shaping **economic risks and financial stability**, making reliable and comparable data essential. Policymakers, central banks, investors and the public require robust indicators to assess exposures, measure risks and design effective responses. This urgency, repeatedly emphasised in international forums such as the European Statistical Forum in January 2025, has brought the importance of climate-related data to the forefront. In this context, **company-level data is particularly critical**, as it provides the granularity needed to understand how climate-related and environmental risks are distributed across sectors and sizes in the corporate sector, which aggregate indicators alone cannot capture. As a result, high-quality firm-level environmental data is fundamental for informed decision-making in the transition to a sustainable economy.

ES (2) Consequently, the use of forthcoming corporate data is indispensable. It will support official statistics based on mandatory statistical reporting, enable the construction of meaningful indicators for monetary and financial stability, and support in-depth internal analysis as well as external research. In short, high-quality company-level climate and environmental data is essential for underpinning robust statistical, analytical and policy frameworks in the transition to a sustainable economy.

ES (3) The **Corporate Sustainability Reporting Directive (CSRD)** markedly improves the availability and usability of company-level Environmental, Social and Governance (ESG) data in Europe by embedding sustainability reporting into the core framework of EU corporate reporting. Compared with the previous Non-Financial Reporting Directive (NFRD), which covered relatively few companies and offered limited standardisation, CSRD **expands both the scope and consistency of reported data**. Through the introduction of the European Sustainability Reporting Standards (ESRS), developed by the European Financial Reporting Advisory Group (EFRAG), it establishes a common framework for ESG disclosures, enabling greater comparability across firms and sectors and making sustainability information a standard, legally mandated component of corporate reporting.

ES (4) Furthermore, CSRD strengthens the accessibility of corporate sustainability data through two complementary developments. First, the establishment of a **European Single Access Point (ESAP)** will provide a central EU platform that publishes these reports, making available sustainability information that was previously fragmented across national registers or portals. In the initial phase, ESAP will only provide access to reports with embedded granular data, implying that additional processing will remain necessary. Second, the extension of the **European Single Electronic Format (ESEF)** to sustainability disclosures requires ESG information to be tagged in a machine-readable (XBRL) format, transforming previously narrative, PDF-based reporting into structured and comparable data.

ES (5) Even following the adjustments under the **2025 Omnibus I initiative**, which reduced and delayed the scope, the CSRD still represents a step-change in data availability. A larger number of companies will report structured ESG information, including not only emissions but also broader indicators such as energy consumption and transition plans. The directive transforms fragmented and scarce ESG disclosures into more harmonised, accessible and decision-useful company-level data, thereby

substantially strengthening the empirical basis for statistical analysis, financial risk assessment and sustainable finance.
As a result, policymakers and analysts expect CSRD to transform the availability and comparability of sustainability data, enabling more detailed risk assessment, improved capital allocation, and enhanced monitoring of transition dynamics across the European economy.

ES (6) The increasing importance of company-level climate data for statistics, financial stability and policy has highlighted the need to better understand and operationalise the new data made available under the CSRD. While the directive represents a major improvement in the standardisation and availability of ESG information compared with the previous NFRD framework, it also raises practical and methodological questions regarding which indicators will be available, how comparable and accessible they will be, and how they can be used for statistical purposes.
Against this background, the **Joint ECCBSO–CMFB Task Force on Environmental data based on CSRD (TF JECED) was established** at the end of 2023 by the European Committee of Central Balance Sheet Data Offices (ECCBSO) and the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB). As a joint initiative of the European Statistical System (ESS) and the European System of Central Banks (ESCB), its objective was to provide a coordinated and resource-efficient response, notably by avoiding duplication of methodological work across institutions.

ES (7) The use of granular corporate data from reports corresponds to the ECB's monetary policy strategy addressing climate change, the G20 Data Gap Initiatives (DGI) Recommendations in the area of climate change (Recommendations III.1-III.7), and the UN initiative for a Global Set of Climate Change Statistics and Indicators, as laid down in the mandate of the Task Force.[1] Furthermore, the use of public information for statistical purposes beyond mandatory statistical reporting is outlined in the European Statistics Code of Practice of the European Statistical System (ESS) and the Public Commitment on European Statistics by the European System of Central Banks (ESCB), which both built the cornerstones of the quality framework of European statistics. Additionally, the use of corporate reporting data is the cornerstone to the objectives of the ECCBSO, where credit assessment for monetary policy in Europe is also a primary advisory function.

ES (8) TF JECED aimed to assess how CSRD reporting can be considered as reliable data source by the ESS, the ESCB and the ECCBSO for statistical and analytical purposes. Its work **focused on three main areas**: **(i)** clarifying the expected **content**, coverage and usability of CSRD data; **(ii)** analysing existing and emerging **ESG datasets** to benchmark data availability and inform expectations for reporting from fiscal year 2027 onwards; and **(iii)** addressing **conceptual and methodological challenges** related to the statistical use of corporate sustainability data, including issues of interpretation, comparability, accessibility and data sharing.

ES (9) The final report of TF JECED provides a comprehensive assessment of CSRD-based environmental data and their implications for statistical use. It particularly presents a **structured List of Environmental Indicators based on the Delegated Act on European Sustainability Reporting Standards (ESRS, Annex I), categorised with statistical use cases**, with the aim of guiding expectations for data availability starting from fiscal year 2027.

[1] See The ECB's monetary policy strategy statement (2025), G20 DGI Recommendations and UNSD — Environment Statistics. See Annex VI for the mandate.

ES (10) At the same time, the work of TF JECED shows that **important challenges remain in practice**. As accessibility of corporate reports is fragmented across Member States at the beginning, the **initial reporting scope was reduced** by Omnibus I compared to initial regulations, and **existing datasets**, while valuable, **cover only a limited subset of the forthcoming CSRD information**. Early analysis of corporate reports indicates that, in the absence of full ESEF tagging, **data extraction remains complex and partly reliant with experimental AI approaches**. In addition, **several conceptual and methodological challenges persist**, affecting the comparability and statistical use of sustainability data, and will require continued methodological development and coordination across institutions.

ES (11) Confirmed by an analysis on national report accessibility, the **forthcoming ESAP - with privileged access granted to European statistical authorities and central banks - is of crucial value**. However, ESAP will provide reports and **not granular data as such** as the digital format regulation ESEF is not expected to apply before fiscal year 2028. **Even** when **granular data is embedded** in annual corporate reports **by ESEF**, a **separate database would be essential** to integrate data points over time.[2]

ES (12) In this respect, **the report highlights the possible avenue for follow-up work** emphasising the need for continued cooperation among European statistical and central banking institutions. The ECCBSO and its **ERICA Working Group** is **well placed to lead further collaborative efforts** for the joint use of CSRD data within the ESS and the ESCB, as ERICA already possesses the **relevant structure for granular reporting data** spanning many years within an existing and efficient European framework (ERICA initially referred to European Records of IFRS Consolidated Accounts). Although this database does not cover all EU countries, ERICA countries represent 86% of the Euro area and 72% of the EU in terms of GDP. Further collaboration could help expand this coverage.

ES (13) The report also includes **additional recommendations** regarding **the use of corporate reporting data**, with the aim of ensuring high-quality, decision-useful information for statistical, analytical, and policy purposes.

Shedding light on CSRD

Data scope and content

ES (14) The initial expectations based on the legally approved CSRD were characterised by a substantial expansion in both the number of reporting entities and the volume of disclosed data. Early estimates indicated that the scope would increase from less than 10,000 firms previously covered under the NFRD to around 50,000 companies across the EU, including large non-listed firms and listed SMEs. This expansion would have generated an unprecedented volume of granular, standardised ESG information at the company level, with firms required to report several hundreds of structured data points under the ESRS, spanning areas such as climate, biodiversity, social and governmental indicators.

[2] A database is essential for several reasons: (a) it serves as a centralized repository for storing corporate reporting data, ensuring consistency, accuracy, and easy access; (b) by maintaining historical data over multiple years, it supports long-term analysis, benchmarking, and year-over-year comparisons; (c) a database would uphold data integrity and security through validation rules and access controls; (d) advanced querying capabilities enable efficient and timely retrievals; (e) scalability, allowing for the extension of entities, such as the inclusion of potential voluntary reports.

ES (15) However, the subsequent Omnibus I political initiative meant a recalibration of these expectations. By aiming to simplify reporting requirements for companies due to the challenging economic situation, it will temper both the effective number of reporting firms and the density of reported data points. While the core objective of enhanced transparency remains unchanged, these adjustments will result in a more phased and proportionate expansion, implying that the realised data landscape will be less extensive than initially anticipated.

ES (16) Against this backdrop, TF JECED had to undertake a structured assessment to clarify the expected content, coverage and usability of CSRD data for statistical and analytical purposes. This included identifying key ESRS data points, assessing the expected number and characteristics of reporting firms under the evolving regulatory scope, and evaluating the potential contribution of voluntary sustainability reporting (see Annex II for an accompanying list based on voluntary reporting). Together, these elements provide a first comprehensive view of the quantity, quality and accessibility of forthcoming company-level environmental data in Europe. The analysis also recognised complementary sources, such as EU Taxonomy reporting, which, while based on a different legal framework, provide additional data points.

ES (17) The TF JECED conducted an in-depth analysis of the original ESRS and its revision by Omnibus I, focusing on environmental and cross-cutting requirements. This work resulted in the structured "**List of Environmental Indicators based on the Delegated Act on ESRS**" (see again Annex I), covering key domains such as climate change (E1), pollution (E2), water and marine resources (E3), biodiversity and ecosystems (E4), and resource use and circular economy (E5), alongside relevant cross-cutting disclosures. The list includes both quantitative and qualitative indicators, requiring additional categorisation for the latter, and incorporates the amendments reflecting the adopted Delegated Act which has entered into legal force on 10 November 2026. Comprising almost 200 data points, and complemented by explanatory notes and usage classifications, this **key output of TF JECED** provides a structured basis for assessing the expected availability of **company-level environmental data and supports the analysis of firms' environmental impacts and risks**.

In this respect, however, it is noteworthy that the simplified ESRS standards no longer require GHG intensity metrics, apply materiality as a general filter to all disclosures, and provide additional reliefs to companies (e.g., the "undue cost or effort" relief and the use of partial estimates for value chain data).

ES (18) TF JECED also contributed to discussions on Omnibus I by assessing its **impact on the reporting population**. An analysis for Italy focusing on second-wave entities suggests a sharp reduction in the number of firms subject to mandatory reporting, declining by approximately 90% (from around 10,500 to 1,300 firms) and by roughly 40% in terms of total assets. Comparable estimates for Germany confirm this pattern and support concerns about a substantial reduction in data availability, particularly for firms with high exposure to physical and transition risks and elevated CO_2 emission intensity, thereby potentially weakening overall transparency.

ES (19) In parallel, the Task Force examined the role of voluntary sustainability reporting under the CSRD framework. In addition to the main list of indicators, a complementary set of data points was compiled based on the "**Sustainability reporting standard for voluntary use" (VS)** which evolved from the Voluntary Sustainability Reporting Standard for non-listed SMEs (VSME), also developed by EFRAG. This simplified framework, adopted as Delegated Act together with Revised ESRS in July 2026,

anchors a value chain cap. This cap limits the sustainability data that a company - subject to mandatory sustainability reporting requirements - may request from smaller suppliers (those with up to 1,000 employees) in its value chain. The standard could also serve indirectly as a **practical alternative to the full ESRS for general voluntary reporting**, which is **encouraged by policymakers** as consequence of the Omnibus I simplification.

ES (20) However, increased reliance on voluntary reporting also entails important limitations. While such reporting may be useful in business-to-business contexts or for applications such as credit risk assessment, it is less well suited for statistical purposes within the ESS or ESCB. In particular, risks of self-selection bias and greenwashing may affect data quality and representativeness, while comprehensive and consistent coverage cannot be ensured. As illustrated by experience within the financial statement framework, voluntary reporting data often remain incomplete and unevenly distributed, limiting their suitability for robust statistical analysis.
In addition, the value chain cap set by the VS will limit the information that companies subject to the CSRD may request from smaller business partners. As the climate-related data points of the VS Basic Module are restricted to energy consumption and Scope 1 and location-based Scope 2 emissions (voluntary for undertakings with 10 or fewer employees), Scope 3 emissions reported by larger companies are likely to rely increasingly on estimates and secondary data rather than on primary data from suppliers.

Data accessibility

ES (21) Against this backdrop of evolving expectations regarding the volume, coverage and quality of CSRD data, an equally important question concerns its practical accessibility for statistical and analytical use. To address this, TF JECED examined the current dissemination landscape in a structured questionnaire among participating countries. Responses from ten countries reveal **substantial heterogeneity in how corporate reports are published and accessed** across the European Union and highlights that a central constraint for the statistical use of corporate sustainability data lies in its limited and uneven accessibility across Member States.

ES (22) While users of reports from listed companies – i.e. companies with securities on an EU-regulated market - benefit from more **structured disclosure frameworks under the Transparency Directive**, the majority of firms publish reports via national **systems** established under the **Accounting Directive**, often through business registers or specialised portals. These systems **differ widely** in governance, accessibility, and functionality, with many requiring fees, offering limited search capabilities, and publishing reports only in national languages. As a result, corporate reporting data remains fragmented, difficult to access, and costly to exploit at scale, particularly for cross-country analysis.

ES (23) The findings strongly reinforce the importance of recent developments linked to CSRD. The forthcoming **ESAP** - by collecting corporate reports from national systems into a single EU-wide platform – **will significantly lower access barriers** compared to a system of currently dispersed multiple national registers

ES (24) The extension of **ESEF** to sustainability disclosures will **address** part of another long-term criticised issue by users, the **lack of granular data**. By ensuring that ESG information is digitally tagged, standardised, and machine-readable, reliance on manual data extraction from heterogeneous formats is reduced. Though a pain point

is at hand as ESEF reporting has been **delayed by policymakers** (although announced being available in first reports of fiscal year 2024). Together, CSRD, ESEF, and ESAP will in the future represent a structural shift: from fragmented and partly inaccessible reporting frameworks to a harmonised and scalable European data infrastructure for ESG information.

ES (25) The questionnaire on accessibility also pointed to **further challenges on corporate reports**, particularly regarding the **timeliness** of data availability. As reporting delays significantly in some countries, especially for non-listed firms, constrains are present on the use of sustainability data for timely statistical analysis.

CMFB Survey and Data Analysis

ES (26) As part of its analytical work, TF JECED conducted a **survey** among CMFB members to **assess current practices, data availability, and future needs in the field of environmental economic statistics**. The results indicate solid coverage in core domains but reveal notable gaps in emerging areas such as biodiversity, ecosystem services, and climate mitigation. Importantly, **around 70% of respondents expressed** a clear **willingness to strengthen cooperation, underscoring the need for enhanced coordination**, methodological harmonisation, including close monitoring of the transition towards CSRD-based reporting.

ES (27) While CSRD is expected to at least partially address these data gaps through standardised and more accessible reporting, this transformation will not be fully realised. Building on the identified needs, TF JECED also examined existing data sources and assessed practical options to improve the availability and accessibility of corporate sustainability data in the transition period prior to the full implementation of ESEF and ESAP.

Existing data

ES (28) While awaiting the first reports under the CSRD, **TF JECED leveraged** the already **existing data source within the ERICA WG** of the ECCBSO, with the aim of both establishing initial benchmark expectations on data to be reported under CSRD and assessing the feasibility of providing a European centralised access to corporate sustainability data for participating countries.

ES (29) Since 2020, the **ERICA WG** has **progressively expanded its collection of non-financial data**, covering key environmental variables such as greenhouse gas (GHG) emissions, energy consumption, water usage, and EU Taxonomy KPIs. As participating countries already represent a substantial share of the European economy, it provides a valuable pre-existing structural framework for ESG data sharing, with manually curated and validated information on listed European non-financial corporations. This makes ERICA a useful proxy for anticipating the type and structure of data that will become available under CSRD, albeit currently limited in scope compared to the full ESRS requirements.

ES (30) Building on this foundation, TF JECED contributed to further improvements in data quality and usability of the ERICA data. A **structured data-sharing procedure** was developed under the ERICA framework, accompanied by quality assurance including validation rules, peer reviews, metadata documentation, and pilot testing. In addition, the Task Force performed targeted data quality checks against data from a commercial provider (Institutional Shareholder Services), focusing primarily on Scope

1 emissions (2020–2024) and selected Scope 2 data (2024). This comparison, based on detailed identifier matching, assessed both data availability and consistency. The exercise led to concrete data improvements by ERICA compilers and contributed to enhanced coverage, coherence, and comparability within the dataset, thereby reinforcing its reliability for analytical purposes.

ES (31) At the same time, the work highlighted both the potential and the current limitations of ERICA in its current form. Initial analyses on levels and trends across industries and firm size classes were conducted on a limited set of key indicators, including Scope 1 emissions, energy consumption, and water usage, providing early insights into firm-level environmental performance. However, these indicators represent only a small subset of the much broader and more granular ESRS data requirements under CSRD. While ERICA therefore serves as a useful stepping stone, both for setting expectations and for supporting analysis in the transition period, it will need to be substantially extended in the coming years to align with the scale, coverage, and complexity of forthcoming CSRD disclosures.

ES (32) Overall, this work underscores the **dual and vital role of ERICA**: as a base ground for methodologies and data quality frameworks, and as a bridge toward a more comprehensive and integrated European ESG data infrastructure, ultimately assisted by ESEF and ESAP.

First CSRD reports and AI extraction explorations

ES (33) Following its preparatory work based on ERICA, TF JECED moved to the analysis of the first CSRD reports, but this phase proved significantly more challenging than anticipated. A key constraint was the absence of mandatory ESEF tagging for sustainability data, as the relevant digital reporting requirements had not yet been fully adopted. At the same time, the incomplete transposition of the CSRD into national legislation, together with ongoing regulatory adjustments under Omnibus I, created additional uncertainty regarding the timing, scope, and availability of data. As a result, the Task Force had to continuously adapt its work programme, shifting from a structured data analysis approach to more exploratory methods.

ES (34) In this context, TF **JECED explored the use of AI tools** to extract structured ESG data from unstructured corporate reports. Several experimental approaches were tested. For instance, INSEE developed methods to extract tables directly from reports, moving from XHTML-based web scraping towards PDF-based extraction techniques using Python tools. While the increasing harmonisation under CSRD improved the detectability of relevant tables, **significant challenges remained** in standardising heterogeneous formats and transforming extracted content into consistent datasets.

ES (35) A structured review of FY 2024 reports from 41 large European companies assessed the usability of ESRS data points, combining AI tools for initial screening with manual validation, draw attention to AI's utility for preliminary analysis but emphasizing the need for human checks.

ES (36) Additionally, the general transformation of PDF sustainability reports into auditable microdata was assessed, using large language and visual-language models to extract emissions and revenue figures, index numerical values, and assign confidence scores.

ES (37) Overall, these experiments have demonstrated that AI can play a valuable role in scaling the analysis of corporate sustainability disclosures, particularly in the absence

of structured reporting formats. However, they also highlight clear limitations: the persistent heterogeneity and complexity of disclosures require significant human oversight, and fully automated extraction remains difficult. This reinforces the importance of ESEF tagging under CSRD, which will ultimately be necessary to move from experimental extraction techniques to a robust, systematic and scalable ESG data infrastructure.

Conceptual challenges in using corporate sustainability data

ES (38) TF JECED has identified and analysed several conceptual challenges related to the statistical use of corporate reporting data. These challenges reflect the close **interlinkage with financial reporting**, the diversity of reporting frameworks, and the evolving regulatory environment.

ES (39) **Many key ESG indicators**, **such as emissions or energy intensity**, are **constructed using financial variables** (e.g. turnover) as denominators, making them directly sensitive to differences in accounting practices. At the same time, sustainability reporting itself is subject to flexibility in definitions, scope, and materiality, which can introduce variability across firms and countries. Together, these factors imply that sustainability data cannot be analysed in isolation but must be interpreted within the broader context of corporate reporting standards, institutional settings and traditions, as well as methodological choices.

ES (40) A further key issue relates to the **classification of firms by size**, which is central to most empirical analyses. While traditional EU frameworks and recommendations distinguish between micro, small, and medium-sized enterprises (SMEs), thus contrasting them to larger entities, recent policy developments, particularly in the context of Omnibus I, highlight the need for **further stratification among larger firms**. At the same time, the revised reporting scope implies that not all large companies will be subject to mandatory sustainability reporting, complicating further traditional size-based analyses. In response, TF **JECED has developed a more refined categorisation of large entities for sustainability data analysis** to help ensure analytical consistency and comparability in sustainability datasets.

ES (41) Applying the JECED size categorisation to the ERICA dataset on listed non-financial entities, a **surprising result** emerges. Contrary to traditional size distributions — where smaller companies are more numerous — **most ERICA companies**, with some national deviations, **fall into the highest size category**. This highlights the distinctive characteristics of listed non-financial entities in Europe.

ES (42) Closely related is the issue of **sector classification**, where the **use of NACE** provides a **natural starting point** but requires additional considerations in the context of sustainability. In particular, it is important to **distinguish between group-level and entity-level activities**, as well as to recognise that firms may be exposed to environmental risks or impacts that extend beyond their primary NACE classification. In this respect, sector-related disclosures under ESRS can offer valuable complementary information, helping to better capture the multidimensional nature of firms' sustainability profiles.

ES (43) Another major challenge stems from **differences in accounting frameworks** across countries. While IFRS has improved comparability for listed companies, many non-listed firms continue to report under national Generally Accepted Accounting Principles (GAAP), leading to divergence in definitions, valuation rules, and

presentation formats. These differences can affect both the level and interpretation of sustainability indicators, particularly when financial variables are used in their construction (as described above). Additional **complexity** arises where the **scope of consolidation used in financial statements differs from the boundary applied in sustainability reporting**, meaning that the set of entities included in each report may not fully overlap. This can lead to inconsistencies in coverage and distortions in derived indicators, particularly when combining financial and ESG variables.

ES (44) The **increasing flexibility embedded in the reporting framework** following the Omnibus I political decisions represents a further **source of variability**. Concepts such as materiality assessments, fair presentation, and the "undue cost or effort" principle allow companies to tailor disclosures to their specific circumstances. While these provisions reduce reporting burdens and improve relevance, they may also result in reduced comparability and increased heterogeneity in reported sustainability data, which could be particularly the case across jurisdictions.

ES (45) Moreover, for financial year 2026 companies may choose to continue applying the original ESRS, to apply them together with selected reliefs of the revised ESRS (as adopted by the Commission in July 2026), or to apply the revised ESRS early, before these become mandatory from financial year 2027. **Users should** therefore **record** which **version of the standards** has been applied, as this may create **breaks in the time series of emissions** and other environmental data.

ES (46) Attention must also be paid to avoid double counting and ensuring **consistency in group-level statistics**. Corporate structures often involve complex group configurations, with data reported sometimes at both subsidiary and consolidated levels. For statistical purposes, it is therefore essential to establish clear rules on the appropriate unit of observation (e.g. legal entity vs. group) and to avoid aggregating overlapping data. This requires careful alignment between ownership structures, consolidation boundaries, and reporting scopes, especially when combining datasets from multiple sources. Robust methodological guidance in this area is crucial to ensure that aggregated indicators accurately reflect underlying economic and environmental realities.

ES (47) Finally, with the reduction in scope resulting from the Omnibus I decisions, mandatory CSRD corporate reports are expected to be prepared **primarily on a consolidated basis**. Particularly for **large listed groups**, these reports will cover **global activities** and will not be country-specific. The global extent of consolidated reports for **entities in the second wave** remains to be seen. This aspect could be evaluated in the **follow-up** activities of ERICA.

To **break down consolidated data** to the level of individual countries, **allocation keys** are necessary, with the understanding that such breakdowns can only provide estimates. Some potential allocation keys may be found within the reports themselves, as mentioned in Annex I (such as company-specific information for certain data points or employee numbers by country). Other allocation keys might be available in traditional financial reports (e.g., revenues as an important variable), or — if access is possible — in datasets reflecting the composition of international groups, such as the EuroGroup Register. Using such figures, for example, the distribution of emission figures could be estimated. Clearly, the existence of high-quality identifiers is important for such exercises, which demonstrates the potential usefulness of the LEI as a primary identifier in the ESAP.

The specific linking of such datasets to obtain country-specific information lies outside

the mandate of the JECED TF and is the responsibility of the respective specialized statistical authorities.

Recommendations and follow-up

ES (48) Building on the comprehensive analysis presented throughout its report – covering the expected scope and content of CSRD data, practical challenges related to accessibility and data sharing, empirical insights from existing datasets and initial reporting, and key conceptual and methodological issues – TF JECED has identified a set of targeted actions to support the effective statistical use of corporate sustainability data. These recommendations aim to address the remaining gaps and challenges, while fostering a coherent and forward-looking framework for the integration of CSRD data into statistical, analytical and policy applications across the ESS and the ESCB. As a conclusion of its work, TF JECED proposes the following key recommendations:

Key Recommendations on the use of CSRD Data for Statistical Purposes

ES (49) The political Omnibus I has postponed reporting for the larger second wave of companies by two years, for reporting periods starting on 1 January 2027 and the revised ESRS becoming mandatory at the same time. As a result, most reports based on the updated ESRS standards will only become available from 2028 onwards. The first ESEF tagging within these reports could be available from 2029 onwards. This period could be used for follow-up activities. In this context, the following recommendations are provided.

Recommendation 1: Leveraging the Richness of Data Points in Corporate Sustainability Reports

Corporate sustainability reports provide not only information on GHG emissions, but also a broad range of other data points that should be utilized. The “JECED List of environmental indicators based on ESRS” (Annex I), can serve as a useful reference for identifying relevant data points that can be used for statistical purposes.

Recommendation 2: Develop ERICA as the central platform for environmental and other corporate data for statistical usage

The ERICA WG of the ECCBSO has indicated its willingness to assess and integrate the TF JECED indicators into the ERICA database. At the same time the **need of further cooperation** between European NSIs and NCBs is necessary as expressed in the CMFB survey (see ES (26)).

To maintain the collaborative spirit of JECED, the ERICA WG of the ECCBSO database offers to **open ERICA to additional institutions without the prerequisite of providing national data**; registration as an observer could suffice, as long as only public data is concerned. In this way, the objectives of JECED are continued within an **existing structural setting**.

Next steps at ERICA may include defining further specifics of a dataset (e.g. identifying the most important ESRS data points); sharing AI-based data extraction methods; gaining advanced practical with CSRD/ESRS reports and integrating additional EU countries into ERICA through digital reports or the involvement of interested institutions

identified. By engaging in a centralized and harmonized data approach through ESAP/ESEF, duplication of national efforts can be further avoided, thereby widening participation.

Recommendation 3: Efficient and consistent access to public corporate reports

Corporate datasets should be as comprehensive as possible with respect to the underlying companies. Therefore, **knowledge of reporting obligations, report accessibility** and **data availability** is important. Reliance solely on private data providers risks meaningful results of analysis undertaken.

The introduction of **ESAP in 2027** should facilitate easier access to CSRD sustainability reports. ESS and ESCB members will have priority access. Although "only reports" are available at the beginning, this **opportunity** should be used. Leveraging e.g. ERICA alongside ESAP could increase country coverage and support further consistency. In a collaborative approach, an even broader access to public corporate reports can be improved for those companies outside CSRD obligations.

Operational Recommendations: Ensuring consistency when using sustainability and other corporate reporting data

4-1 **Financial statements, sustainability reports**, and their respective audit reports are considered the most important components of corporate reporting. The **combined use** of these reports is essential for most purposes of statistical institutions. When utilizing these reports, other sections of corporate reports — particularly Taxonomy Reporting—should also be monitored.

4-2 Corporate reporting will continue to exhibit **differences across EU Member States** in several aspects, including structure, length, and presentation formats. These differences need to be understood. This confirms the need for further collaboration between institutions in Europe.

4-3 The **distinction** between environmental data derived from **consolidated** reports and data from individual **legal entities** is fundamental. Thereby the usage of respective reference data - e.g. on NACE codes - is also essential. For consolidated data, changes in group composition should be monitored as well as the share of activities in national economies. Further, it should be confirmed whether the **scope of consolidation** for financial statements **aligns** with the **reporting boundaries** for sustainability reports.

4-4 Users should be aware of **missing values** that may result from the impact of **Omnibus I** simplifications. This also applies to the revised ESRS (e.g. materiality filter, "undue cost or effort" relief, phase-ins and estimates for value chain data) and to any further simplification measures, which may particularly affect the data available for carbon footprint indicators.

4-5 **AI tools** are **generally useful for data extraction** and analysis, provided that outputs are systematically validated by subject-matter experts. However, full data point extraction from reports is at the current stage not accurate enough, so additional quality measures will be necessary. Full granular **digital reporting** by companies on the other side is not expected to be available before reporting year 2028.

4-6 **Size categorisation** should be aligned with data availability. The use of the JECED size proposal should be assessed.

4-7 When no own experience of **sector categorization** for **consolidated data** is available, it is recommended to follow the **NACE-based approach** of ECCBSO's **ERICA** WG.

4-8 The **break-down of consolidated values** to individual countries should be investigated, including the usefulness of potential **allocation keys** and the limits of such estimates.

4-9 **Carbon footprint and other emission-based indicators** should be designed with the simplified legal reporting framework in mind. In particular, estimated values may be flagged and distinguished from reported disclosures; the coverage and methods of Scope 3 reporting should be monitored; intensity ratios should be derived consistently from financial statement data as intensity metrics are no longer required under the revised ESRS; and imputation approaches should be developed for companies outside the CSRD scope.

If you are looking for …

Granular environmental data points based on ESRS reporting	
List of envirinmental data points based on ESRS	**Annex I**, Sections **4.2-4.3**, 5.2-5.3, 6.2, 7.4., **Rec-1**
Voluntary sustainability reporting / VS / VSME	**Annex II**, Sections **4.4**, **5.5**
Digital reporting of granular data/ESEF/XBRL	Section **1.3**, 5.1, Annex III

Report Accessibility	
ESAP	Section **5.1,** 7.2 + **Rec-3**, Annex III
Public national portals (based on EU Accounting and Transparency Directive)	Section **5.1**, Rec-3
Timeliness of reports	Section **5.1**

Connectivity to official statistics and further statistical analysis Collaboration between ESS and ESCB	
Use cases of ESRS data points	**Annex I** , Section **4.2**
Collaboration between NSIs & NCBs, contined through ERICA	**Rec-2,** Section 7.1
Data sharing	Sections **4.1**, **6.1**, 6.3., 6.5, 7.5
Size categorisations	Section **5.2**
Sector/activity categorisation (NACE)	Sections **5.3**, 5.1, Annex I (SBM-1)

AI aspects	
Specifics on ectraction from reports	Section **7.4**
Use towards Accounting Terminology	Section **5.7**

Implications from traditional financial reporting	
Country differences in accounting rules	Section **5.4**
Experience from voluntary reporting in the past	Section **5.5**

Reporting rules, AccDir, CSRD & Omnibus I implications	
Current rules on mandatory public reporting	Section **1.2**
Omnibus I Proposal and outcome	Sect. **1.2**, 4.3, 5.4-5.5**, 7.2, Annex III**

TF JECED and more	
Organisation & Working plan	Section 2, Section 3
Members	Annex V
Mandate	Annex VI
Abbreviations	Annex IV

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1 Introduction - Need for better corporate environmental data, European CSRD legislation & Omnibus I restrictions

1.1 Data needs, the potential the European CSRD offered and the resulting TF JECED collaboration approach

(1) Sustainability is the practice of meeting present needs without compromising the ability of future generations to meet theirs. It encompasses environmental stewardship, economic resilience, and social well-being. As global challenges like climate change, resource depletion, and biodiversity loss intensify, sustainability has become a guiding principle for governments, businesses, and individuals alike. It encourages long-term thinking and responsible decision-making that balances growth with ecological and social responsibility.[3]

(2) Sustainability encompasses environmental stewardship, economic resilience, and social well-being. As global challenges like climate change, resource depletion, and biodiversity loss intensify, sustainability has become a guiding principle for governments, businesses, and individuals alike. It encourages long-term thinking and responsible decision-making that balances growth with ecological and social responsibility.

(3) Data plays a critical role in advancing sustainability efforts. It enables organizations to measure their environmental impact, track progress toward sustainability goals, and identify areas for improvement. For example, data from energy usage, waste management, and supply chains can reveal inefficiencies and opportunities for reducing carbon footprints[4]. With accurate and timely data, companies can make informed decisions that align with both regulatory requirements and stakeholder expectations. Moreover, data fosters transparency and accountability. Publicly available sustainability metrics allow consumers, investors, and regulators to assess an organization's commitment to sustainable practices. This transparency builds trust and can enhance a company's reputation and competitiveness. It also empowers communities and advocacy groups to hold institutions accountable and push for meaningful change.

(4) Data-driven innovation is key to solve complex sustainability challenges. From predictive analytics that optimize resource use to AI models that monitor environmental changes, data fuels the development of smarter, more sustainable technologies. As the world moves toward a greener future, the integration of data into sustainability strategies will be essential for driving impactful, scalable solutions.

(5) Sustainability, in particular climate change information, has been gaining overwhelming importance from a political, economic and monetary policy perspective. Thus, an urgent need for statistical indicators on climate issues has been addressed by several initiatives with active participation of NSIs and NCBs:

- As underlined in the ECB's monetary policy strategy statement[5] addressing climate change is a global challenge and a policy priority for the EU. Within its mandate, the Governing Council is committed to ensuring that the Eurosystem fully considers, in

[3] For fundamental work and research on integrated or sustainability reporting see e.g. Eccles (2010a, 2010b), Kaplan/Ramanna (2010).

[4] For carbon footprints, see the fundamental work of the GHG Protocol (Homepage | GHG Protocol). For carbon accounting, see e.g. IFC (2024), Maza (2022), von Kalckreuth (2022, 2024, 2026).

[5] The ECB's monetary policy strategy statement (2025). See also ECB Opinions on CSRD, and Omnibus I, as well as ECB staff opinions on ESRS and Revised ESRS, links to websites in the References section ii., together with further links to Eurostat statistics and ESCB statistical indicators. See also Köhler-Geib (2025) and Maza (2022).

line with the EU's climate goals and objectives, the implications of climate change and the carbon transition for monetary policy and central banking.

- G20 Data Gap Initiatives (DGI) Recommendations in the area of climate change (Recommendations III.1-III.7);[6]
- The UN initiative for a Global Set of Climate Change Statistics and Indicators.[7] Furthermore, the use of public information for statistical purposes beyond mandatory statistical reporting is outlined in the European Statistics Code of Practice of the European Statistical System (ESS) and the Public Commitment on European Statistics by the European System of Central Banks (ESCB), which both built the cornerstones of the quality framework of European statistics.

(6) Historically, non-financial reporting emerged as a response to the growing recognition that financial metrics alone could not fully capture a company's performance, risks, and impact on society and the environment. The concept gained traction in the late 20th century as stakeholders, including investors, regulators, and civil society, began demanding greater transparency on environmental, social, and governance (ESG) issues. From the academic world, the idea was advanced that companies should disclose both financial and non-financial information to provide a more complete view of their operations.[8] The Global Reporting Initiative (GRI)[9] was established in 1997, becoming one of the first organizations to develop standardized frameworks for sustainability reporting.
In Europe, the EU took a significant step with the adoption of the Non-Financial Reporting Directive (NFRD) in 2014, which required large public-interest entities to disclose information on environmental, social, employee, human rights, and anti-corruption matters. The NFRD built on earlier voluntary initiatives, such as the GRI, and reflected the EU's commitment to fostering corporate transparency and accountability. However, this directive faced criticism on several fronts, including its lack of standardization in various aspects, the limited number of companies it applied to, and the absence of an audit requirement.

(7) With the Corporate Sustainability Reporting Directive (CSRD) - as part of the European Green Deal – EU policymakers aimed at standardizing ESG reporting to a much higher extent, making this data also suitable for investors, political decision makers, consumers, and official statistics.[10]
The revision of the NFRD through the CSRD was proposed in 2021 by the European Commission. Following political trilogue negotiations, the CSRD was adopted by the European Parliament and the EU Council in autumn 2022, with its legal publication in the Official Journal occurring in early 2023 (Directive 2022/2464 of December 14, 2022). The scope of the CSRD involves an extension of reporting requirements implemented in four waves, with the second wave being particularly relevant for non-financial entities as it expands the requirements to large undertakings and groups in accordance with the EU Accounting Directive, being ~ 50000 companies in Europe.

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6 See e.g. DGI-3 Recommendations III.1-7: G20 DGI Recommendations (imf.org).
7 See e.g. the information provided of the UN Statistics Division at: UNSD — Environment Statistics.
8 See e.g. Eccles/Krzus (2010a, 2010b) or Kaplan/Ramanna (2021) for fundamental work and research on integrated or sustainability reporting.
9 See GRI - Home.
10 For the CSRD, see relevant information at DG FISMA (Company reporting - Finance - European Commission) and e.g. Rasche/Morsing et al (2022).
For a user perspective of sustainability reports, see e.g. Hagemeier/Müller (2026). The underlying initiative, SRN | Sustainability Reporting Navigator, is an academic project "TRR 266 Accounting for Transparency", a trans-regional Collaborative Research Center funded by the German Research Foundation. The SRN is an open-science multi-faceted platform making reporting practices, requirements, and preferences transparent.

(8) **Standardization** of the content in a report was supposed to be achieved through the **European Sustainability Reporting Standards (ESRS)**, which were prepared by EFRAG between 2021 and 2022 and later transposed into EU law as a Delegated Act by the European Commission in mid-2023. The **ESRS consists of 12 standards: 2 general standards, 5 focused on environmental aspects, 4 addressing social aspects, and 1 covering governance-related company issues**, resulting in a significant number of "ESRS data points." (see section 4.2). ESRS 1, ESRS 2 and ESRS E1 ensure a high interoperability with the two standards from the International Sustainability Standards Board (ISSB, IFRS S1 and IFRS S2).
A further standardisation step was the mandatory inclusion of a sustainability report into the management report governed by the AccDir. Additionally, the CSRD introduced an audit requirement for sustainability reports, with a gradual transition from limited assurance to reasonable assurance over time. The directive was applicable starting with fiscal year (FY) 2024 reports for Public Interest Entities (first wave), while the second wave will apply to FY 2025 reports.

(9) Additionally, the new Directive introduced the **double materiality principle**, requiring companies to report on sustainability issues through two lenses: how ESG issues impact the company's finances (outside-in/financial materiality) and how the company impacts people and the environment (inside-out/impact materiality).

(10) With the promise by policymakers that companies were required to publish corporate sustainability reports in the European Single Electronic Format (ESEF) from the beginning with FY 2024 (i.e. at the beginning of 2025), granular ESG microdata would have been available and structured thanks to an XBRL taxonomy elaborated by EFRAG and prepared to become a legal act by ESMA.

(11) Further, the European Single Access Point (ESAP) (see section 5.1), where CSRD reports should be easily available for statistical institutions in the EU with priority access (NSIs and NCBs)[11], a European-wide access point on corporate data will be available in 2027.

(12) In this light, the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB)[12] and the European Committee of Central Balance Sheet Data Offices (ECCBSO)[13] decided to set up the Joint ECCBSO-CMFB Task Force on Environmental Data based on CSRD (JECED) with a focus on the first phase of CSRD implementation of non-financial entities. The broad objective of the Task Force has been to introduce an improved method for ensuring a consistent approach from microdata to macroeconomic indicators. Further, knowledge about the characteristics of public CSRD environmental information from enterprises was to be made widely known.[14]

(13) Here, the role of European NCBs (and the ECB as user) and NSIs with significant balance sheet databases on non-financial entities, organised in the European Committee of Central Balance Sheet Data Offices (ECCBSO) becomes crucial. The use of corporate reporting data is the cornerstone to the objectives of the ECCBSO. In particular, the **ECCBSO's ERICA (European Records of IFRS Consolidated Accounts)** WG turns central to transitorily overcome the drawback of a missing European common data accessibility point. ERICA WG is already collecting ESG data - mostly based on the Global Reporting Initiative (GRI) standard for European listed groups since 2020 -, partially resulting from credit risk assessment systems. The ERICA

11 See Article 8 of No. 4 (c) and (d) in Regulation (EU) 2023/2859 (EUR-Lex - 02023R2859-20240725 - EN - EUR-Lex).
12 At its meeting on 29-30 June 2023.
13 At its meeting on 19-20 October 2023.
14 For the use of corporate reporting data at central banks see e.g. IFC Bulletin No. 65 (2025).

dataset provides data points and disclosures in a sorted, efficient, **timely, good quality and recurrent basis**, within an **existing structural setting**. The CMFB side in the collaboration is the provision of expertise for the needs of official statistics, focussing strongly on the environmental dimension. The development of the relevant datasets could be prioritized when collecting data by the ECCBSO ERICA WG.

(14) In addition, at the beginning of the TF mandate, there has been no comprehensive overview about national and international ESG data related activities of official data producers. The Task Force undertook a stocktaking with the focus on coming CSRD data to fill this gap.

(15) After determining the mandate of the task force in autumn 2023, the TF JECED started its work in February 2024.

1.2 Amendments by Omnibus I to the regulatory CSRD framework and the resulting current legal status

This section offers a short summary of the Omnibus I initiative which has a significant impact on the envisaged improvement in sustainability reporting as proposed in 2021. For more details, please refer to Annex III.

(16) The **CSRD** received **strong support from the beginning 2021 until the end of 2023** by politicians, users, auditors, standard setters and also large companies. Only partial criticism was expressed. A **contrary movement** started in the **first half of 2024**. Transposition by EU Member States, required until July 2024 delayed, was not achieved in many EU countries (among DE, ES, NL, PT).

(17) After the election of the EU Parliament in June 2024, **criticism intensified**, highlighting issues related to European competitiveness. Furthermore, the necessary **update** to the **ESEF** legislation was **not carried out**. In October 2024, the president of the EU Commission announced a revision of the CSRD, in February 2025, the European Commission published its "**Omnibus I**" proposal for **regulatory simplifications on sustainability** aimed at enhancing EU competitiveness in a constantly changing geopolitical framework. Omnibus I has itself been a package of measures, the first key element was the proposal of a delay in the implementation timelines for the second and third CSRD waves (referred to as the "Stop the Clock"). Additionally, significant changes were proposed to the scope and content of CSRD reporting and CSDDD requirements, labelled as "Content" or "Substance".

(18) The **"Stop the Clock"** proposal moved swiftly through the legislative process and was already in force by late spring 2025 (EU - 2025/794). Under the revised timeline, CSRD **wave 2 was postponed from FY 2025 to FY 2027**, and Wave 3 from FY 2026 to FY 2028 (while the "Content" proposal suggested abandoning these waves entirely).

(19) The **"Content" or "Substance"** text proposed significant changes to the scope of the directive. One of the main impacts was the **reduction of companies** with a reporting obligation, limiting it to undertakings or groups with more than 1,000 average employees. This adjustment effectively would have removed approximately 80% of EU entities from the scope, even including a narrowing of the companies previously defined under the NFRD. The final **Omnibus I Directive entered into force on 18 March 2026**, it reduced the scope further, obliging only companies with than 1,000 average employees and having more than > €450m turnover, only **~10% of companies remain in scope** of the CSRD.

(20) As a second main simplification step, the first set of **ESRSs were to be revised**. The final **Technical Advice by EFRAG** to the EU Com resulted in a reduction of more than 60% of ESRS data points, aligning it also further to the ISSB standards. Regarding ESRS E1 – Climate Change, core emissions data to be reported remains robust. However, presentation requirements were stripped. EFRAG submitted a Technical Advice in November 2025. In May 2026 the EU Commission published a Draft Delegated Act for consultation. The final ESRS were adopted on 3 July and published in the Official Journal of the EU on 21 September (Delegated Regulation (EU) 2026/1563 amending Delegated Regulation (EU) 2023/2772). It has entered into force on 10 November 2026. These final simplified ESRS standards are the basis for the accompanying list of environmental indicators (see section 4.2 and Annex I).

(21) The final political outcome also introduced notable changes regarding assurance. **Limited assurance will remain the standard**, with **no** regulatory **shift** towards **reasonable assurance**. Limited assurance will provide a moderate level of confidence in the accuracy of information, while reasonable assurance, typically applied for financial statements, offers a higher level of confidence, indicating the information is free from material misstatement.

(22) The political discussion of Omnibus I persisted throughout the year 2025, and regarding the revision of ESRS, until mid-2026. Thus, it **significantly affected the work of the TF JECED** as **uncertainty** was given which data will be available at the end. The final Omnibus I decision significantly reduces future availability and quality of environmental, social, and governance (ESG) data across the European Union. While the outcome may reduce administrative burdens in the short-term enhancing corporate competitiveness, it risks long-term setbacks in sustainable finance. The tension between simplification and competitiveness on the one side, contrasted to substance and data availability on the other, is central to the ongoing debate of burden reduction. Even after the adoption of the revised ESRS and the VS in July 2026, the Commission's broader simplification agenda remains ongoing (e.g. the planned simplification of the EU Taxonomy delegated acts and the review clauses in the Omnibus I Directive). Further measures could again change the scope and content of reported data and hence the ability to produce statistical environmental indicators, such as carbon footprint indicators, consistently over time.

(23) With the reduction in scope resulting from the Omnibus I decisions, mandatory CSRD **corporate reports are expected to be prepared primarily on a consolidated basis**. With the initial CSRD, at least some individual reports would have been expected (rough estimates indicated more than 20 %). Particularly for large and listed groups, these reports will **cover global activities** and will not be country-specific. The **global extent** of consolidated reports for **entities in the second wave remains to be seen.** This aspect could be **evaluated in the follow-up activities of ERICA.**

(24) To break down consolidated data to the level of individual countries, **allocation keys are necessary**, with the understanding that such breakdowns can only **provide estimates**. Some potential allocation keys may be found within the reports themselves, as mentioned in Annex I (such as company-specific information for certain data points or **employee numbers by country**). Other allocation keys might be available in traditional financial reports (e.g., **revenues** as an important variable), or — if access is possible — in datasets reflecting the composition of international groups, such as the EuroGroup Register. Using such figures, for example, the distribution of emission figures could be estimated. Clearly, the existence of high-quality identifiers is important for such exercises, which demonstrates the potential usefulness of the LEI as a primary identifier in the ESAP.

The specific linking of such datasets to obtain country-specific information lies outside the mandate of the JECED TF and is the responsibility of the respective specialized statistical authorities.

1.3 ESEF – format for granular data, delayed implementation, participation in ESMA's consultation

This chapter describes shortly the ESEF digital format allowing for direct granular data in reports. It also documents the common reply by CMFB and ECCBSO to the ESEF consultation in spring 2025.

(25) The EU Electronic Reporting Format (ESEF) is supposed to be the digital format for corporate reporting, legally defined in a specific Delegated Regulation by the European Commission (Regulation (EU) 2019/815 of 17 December 2018). This format is primarily based on XHTML, with financial statement data tagged using Inline XBRL. ESEF is already mandatory for IFRS consolidated financial statements. For technical identification purposes, the Legal Entity Identifier (LEI) is referenced within the ESEF regulation.

(26) Under the CSRD regulation, **sustainability data must** also be **marked up** following the ESEF approach. The intention of the policymakers was to make granular data **available** with the **first CSRD reports in 2025**. Even in late 2023 it was expressed "digital reporting from the beginning".

(27) However, the **legislative steps were delayed**. Only in December 2024 a consultation by the three ESAs was conducted for three months under ESMAs guidance regarding the tagging of data for ESRS reporting.[15] This consultation focused on marking up the most important ESRS data points and ensuring clear identification of companies, with the LEI maintained by ESMA as the unique identifier for ESEF.

(28) The **CMFB and the ECCBSO** participated in a **common reply** to this consultation through **preparatory work of the JECED** Task Force. The **main message** conveyed was a preference for "fewer tagged, numerical and comparable data points by many companies," as opposed to "many tagged data points by few (listed) companies." This "less is more" approach emphasized **comparability**. Variables considered particularly important from a statistical user perspective were included, such as numerical data like GHG emissions and the list of subsidiaries. There was also a strong emphasis in the reply on the clear identification of the reporting entity and the use of the LEI as the identifier.

(29) The Omnibus I decisions has not generally changed the obligation to use ESEF for sustainability reporting, i.e., the **requirement for a digital format remains**. However, it clarifies that marking up is only necessary once the relevant Delegated Act is adopted, which affects the timing of implementation.[16] Nevertheless the Omnibus I delayed the next legal steps. Regarding the outcome of the consultation, ESMA has neither published a formal report so far nor forwarded a draft to the EU Com for changing the relevant Delegated Act. In its 2027 Annual Work Programme, ESMA announced a new consultation paper on ESEF for sustainability reporting in the first quarter of 2027, probably due to the significant changes by Omnibus I. Generally, an update to the

[15] Together with EU Taxonomy reporting and IFRS Notes.

[16] Additionally, a specific Member State option was included in Article 33, para. 1 of the AccDir. This would allow a specific "publication solution" in Germany, implying an issue on timeliness on the availability before official publication, which is rather late in Germany. See also section 5.1 on this.

regulation is not expected before the end of 2027, which implies that **ESEF application** on **sustainability reports** is **not expected before FY 2029**.

2 TF JECED Organization

(30) Given the breadth and complexity of the mandate, the TF JECED has operated across multiple interconnected workstreams to ensure comprehensive coverage of all strategic objectives. This structure allowed for focused attention on distinct thematic areas while maintaining alignment with the overarching goals of the mandate. Each workstream has been led by subject matter experts and supported by cross-functional teams to foster collaboration, accelerate decision-making, and ensure that interdependencies are effectively managed. The TF design reflected a commitment to agility, inclusivity, and measurable impact, recognizing that the challenges required both specialized insight and coordinated execution.

(31) Therefore, the targets defined in the TF JECED mandate have been organized as follows:

1. Screening of the ESRS standards and development of a list of environmental indicators publicly accessible through the reports, including their potential use cases.
2. Take into account ongoing legal developments
3. Conduct a stocktaking exercise on national and international ESG-data-related activities of official data producers
4. Provide specifics of financial reporting data also applicable to ESG reporting and thus important for data quality (e.g., specifics of group statistics, avoiding double counting) (mainly input from ECCBSO side)
5. Document main country-specific issues of corporate reporting important for data accessibility and quality (mainly input from ECCBSO side)
6. Evaluate data accessibility
7. Analysis of data[17]
    a. Undertake analysis and studies on environmental information and the definition of the ESRS data that could be collected for the abovementioned purpose.
    b. Analyze entities of the first CSRD phase in more depth, sorting variables (which required in the first year, which depending on employee threshold, keeping an eye on the ESRS materiality assessment) (ECCBSO side), determine which variables and perimeter are important for official statistics (main input from CMFB side), all with a strong focus on environmental variables.
    c. Analyse on the use of ESG indicators and how this information could have potential impacts on aggregated information and to what extent these indicators could be used for future statistics and analysis (based on first CSRD phase). Potentially evaluating first rough aggregates/statistics of participating countries e.g. on CO2 emissions scope 1 or energy consumption based on first available CSRD reports (input from ECCBSO & CMFB side).

[17] Comprehensive empirical analyses were not possible as intended in 2023 because of the delays in granular data/ESEF, missing national CSRD transposition and Omnibus I. Results on analysis of ERICA data underwent in the second quarter of 2026 can be found in Annex VII (to be added).

Particularly these analytical objectives were because of the Omnibus I discussion, the delay in granular data reporting (ESEF) as well as the missing transposition into national law.

8. Determine first quality tests that - based on national experience - might not be included in the foreseen ESAP in order to deliver datasets in a harmonized and standardized way
9. Report on the tasks progress of the TF

(32) Considering the objectives of the TF JECED, the Task Force was split into 5 workstreams in order to:

(1) Focus and gain efficiency: By dividing the task force into smaller, more focused groups, each workstream concentrated on specific tasks and objectives. This led to increased efficiency, as team members could work more effectively on their assigned tasks without distractions from other priorities.

(2) Specialize and take benefit from expertise: Each workstream was composed of individuals with specialized skills and expertise in their respective areas. This led to better decision-making and more innovative solutions, as team members could leverage their unique knowledge and experience to address specific challenges.

(3) Reduce complexity: When a large task force is divided into smaller workstreams, it can simplify coordination and reduce the overall administrative burden. This can free up team members to focus on their core tasks and can help to avoid unnecessary delays or bottlenecks.

(4) Improve accountability and transparency: By establishing clear workstreams and assigning specific tasks to each group, it is easier to track progress, measure performance, and assign accountability. This enhanced transparency and ensured contributions to the overall project.

(33) The TF JECED has had five workstreams[18]:

1 ECCBSO Input on ESG Reporting data & List of Environmental Indicators based on ESRS. This workstream has covered target 3.

2 Country-specific Issues of Corporate Reporting Important for Accessibility, Quality and Analysis of Sustainability Reporting Data. This workstream has covered target 4.

3 Data Accessibility and First ESG Datasets. ECCBSO and CMFB Input on Data Accessibility. This workstream has covered target 5.

4 Data Analysis and Stocktake. This workstream has covered target 2, 6 and 7.

5 Reporting and Documentation. This workstream has covered target 8.

(34) This report will go through the results of the different workstreams describing their activities and deliverables achieved.

[18] Target 1 of the TF will be covered by ECCBSO side.

3 TF JECED Working Plan

(35) A comprehensive workplan was designed to clearly define the scope, responsibilities, and expected deliverables of each workstream involved in the initiative. This workplan has played a central role in structuring the overall workflow, ensuring that all workstreams operated under a shared understanding of objectives and timelines.

(36) The workplan outlined not only the thematic focus of each workstream, but also established milestones, coordination and communication mechanisms, and interdependencies between the different areas of work in order to allow for effective collaboration. Throughout the process, the workplan allowed for flexibility and adaptation as discussions evolved. Most important, the work plan needed to be adapted with the political Omnibus I discussions and the fact that ESEF structural data will not be available for Fiscal Year 2024 reports.

(37) In summary, the development and implementation of a structured workplan have been instrumental in organizing the contributions of the various workstreams and in maintaining a clear direction across the Task Force's activities.

4 ECCBSO Input on ESG Reporting data & List of Environmental Indicators based on ESRS

4.1 Collaboration with ECCBSO-ERICA WG to identify financial metrics relevant to ESG reporting

The potential of CSRD data was assessed early in the worky by the TF JECED by comparing historical ESG metrics under the NFRD regime, leveraging the collaboration with the ECCBSO–ERICA WG. The ERICA WG maintains a harmonized dataset of financial and sustainability data for European listed groups, expanding over four years from 4 to 27 environmental indicators.

Access to ERICA microdata became a key aspect of collaboration between ERICA WG and TF JECED, in this respect the workstream confirmed that practical all ERICA environmental variables would remain accessible under CSRD reporting.

(38) As a first step, the potential of CSRD data was assessed by comparing historical ESG metrics with past financial reporting under the NFRD regime. To this end, the ECCBSO–ERICA Working Group[19] and the Joint ECCBSO–CMFB Task Force on Environmental Data (TF JECED) collaborated to align ERICA's sustainability indicators with financial statement data. The ERICA WG, which maintains a harmonised dataset of consolidated financial and sustainability data for European listed groups, contributed its expertise to help TF JECED identify financial metrics that support the interpretation and validation of ESG indicators. These metrics, regularly refined by the ERICA WG, demonstrate the interaction between sustainability variables and financial reporting indicators, ensuring consistent interpretation between the two reporting frameworks.[20]

(39) Based on this approach, Workstream 1 first identified environmental data currently collected alongside financial reports, focusing on the environmental dimension given in ERICA. ERICA WG has been collecting ESG data for European listed groups since FY 2020, ensuring quality and timeliness. Recent enhancements have included outlier lists for reanalysis and emissions intensity checks, improving the validation and consistency of environmental indicators. The ERICA WG has strengthened the integration and quality of environmental data by implementing automated validation mechanisms, moving from ad hoc reviews to a structured, recurring process similar to that used for collected IFRS financial information. The indicators and their evolution over time are mapped below.

[19] For the ECCBSO and its ERICA WG see the respective website of the ECCBSO. For the database see Connexion à BACH et ERICA.

[20] This section captures the result of Workstream 1 and was written by the following members: Jose Miguel Soares (Workstream lead), Alfredo Maldonado, Dominik Elgg, Marina Konstantakou, Margarita Skiada.

Table 4.1: Environmental Information in ERICA dataset of the ECCBSO

ERICA ENVIRONMENTAL INFORMATION

		CBSO code	2019	2020	2021	2022
1. CO2 Emissions						
1.1. Amount of CO2 emissions *(measured in Thousand Tonnes)*	CBSO-RF	3203				
1.2. Type of Emission *(0.- CO2 Equivalent (by default); 1.- CO2; 2.- No Information)*	CBSO-RF	3204				
1.3. Scope of the emission *(0.- Scope 1+2 (by default); 1.- Scope 1; 2.- Scope 1+2+3; 3.- No Information)*	CBSO-RF	3205				
1.4. Scope 2 Reporting Base (0.- *Location based; 1.- Market based; 2.- No Information*)	CBSO-RF	3206				
1.5. Additional information regarding CO2 Emissions, per scope (independently of previous scope of emission option)			2019	2020	2021	2022
1.5.1. Scope 1 (Thousand Tonnes CO2 Emissions)	CBSO-RF	32031				
1.5.2. Scope 2 (Thousand Tonnes CO2 Emissions)	CBSO-RF	32032				
1.5.3. Scope 3 (Thousand Tonnes CO2 Emissions)	CBSO-RF	32033				
2. Energy Consumption within the organization			2019	2020	2021	2022
2.1. Energy Consumption (reported value)	CBSO-RF	3207				
2.2. Energy Consumption (unit of measurement)	CBSO-RF	3208				
2.3. Energy consumption within the organization expressed in MWh (automatically calculated)	CBSO-RF	3209				
2.4. % Renewable Energy Consumption (0%-100%)	CBSO-RF	3215				
2.5. Energy intensity (energy consumption in MWh / revenue in Thousand €) (automatically calculated)	CBSO-RF	3210				
3. Water Consumption			2019	2020	2021	2022
3.1. Amount of water consumption (in m³)	CBSO-RF	3211				
4. Key Performance Indicators according to EU Taxonomy			2019	2020	2021	2022
4.1. % of Turnover KPI Taxonomy eligible (0-100)	CBSO-RF	3212				
4.2. % of Turnover KPI Taxonomy aligned (0-100)	CBSO-RF	3216				
of which, contribution to objective climate change mitigation	CBSO-RF	32161				
of which, contribution to objective climate change adaptation	CBSO-RF	32162				
4.3. % of Capital Expenditure Taxonomy eligible (0-100)	CBSO-RF	3213				
4.4. % of Capital Expenditure Taxonomy aligned (0-100)	CBSO-RF	3217				
of which, contribution to objective climate change mitigation	CBSO-RF	32171				
of which, contribution to objective climate change adaptation	CBSO-RF	32172				
4.5. % of Operating Expenditure Taxonomy eligible (0-100)	CBSO-RF	3214				
4.6. % of Operating Expenditure Taxonomy aligned (0-100)	CBSO-RF	3218				
of which, contribution to objective climate change mitigation	CBSO-RF	32181				
of which, contribution to objective climate change adaptation	CBSO-RF	32182				
5. Emmissions Allowances			2019	2020	2021	2022
5.1. Emissions Allowances (Thousand €uros)	CBSO-RF	3219				
5.2. Provisions for Emissions Allowances (Thousand €uros)	CBSO-RF	3220				

(40) Over the four years considered, the number of environmental indicators in the ERICA dataset increased from 4 to 27, covering categories such as CO2 emissions, energy consumption, water consumption, EU Taxonomy KPIs, and emissions allowances. However, not all data points were available for every listed company in the ERICA WG database. The ERICA Working Group significantly expanded and improved its ESG

data collection, especially for environmental indicators. Structural enhancements included integrating emissions data, implementing emissions intensity checks, and preparing for future alignment with ESRS requirements. These developments reflect the ERICA WG's commitment to supporting ESG-driven reporting and strengthening the foundation for more robust analyses.

(41) Access to ERICA microdata by the TF JECED has become a central aspect of the collaboration between the ERICA Working Group and the Joint ECCBSO–CMFB Task Force on Environmental Data (see also sub-section 6.2 and 6.4). As discussed in the ERICA WG, granting microdata access exclusively to experts participating in both ERICA and TF JECED was identified as a critical prerequisite, since limiting access only to dual-membership participants could prevent other specialists, who may provide substantial analytical value, from contributing effectively to the task force's objectives. This discussion reflects the broader strategic intention of aligning ERICA's harmonized financial and emerging sustainability data with the methodological and analytical needs of TF JECED, particularly in the early implementation phase of the CSRD. In this sense, the ERICA WG discussed how experts from the TF JECED that were not part of the ERICA WG could have access to the ERICA microdata. Finally, this dataset was available and for free within the Task Force.[21]

(42) Following this identification, the workstream sought to understand if the ERICA information would still be possible to obtain within the scope of CSRD. This was largely confirmed, considering that the sustainability reporting of companies covered by the CSRD must comply with ESRS, where the respective variables are included. The ERICA variables on Taxonomy Reporting are not included in ESRS as they are part of a different regulation. After this comparison the workstream turned to the full set of Environmental ESRS standards.

4.2 European Sustainability Reporting Standards (ESRS) and the resulting JECED List of Environmental Indicators relevant for statistics, credit assessment and other purposes

The European Sustainability Reporting Standards (ESRS), developed by EFRAG and adopted by the European Commission in July 2023, establish legally binding requirements for sustainability-related disclosures across environmental, social, and governance (ESG) matters. ESRS are structured into two cross-cutting standards (ESRS 1 and ESRS 2) and topical standards, e.g., on climate change, pollution, water, biodiversity, resource use, workforce, and governance). The ESRS represents a significant expansion of reporting obligations compared to the previous Non-Financial Reporting Directive (NFRD).

The workstream analyzed the ESRS framework, focusing on environmental standards and aligning them with existing ERICA indicators. The workstream elaborated a comprehensive list of environmental indicators based on ESRS disclosure requirements, including both qualitative

[21] The ERICA WG granted a temporary waiver on the term of conditions on dissemination of data for limited diffusion of ERICA microdata among ESCB and ECCBSO analysts to all TF JECED members that are not contributors to the ERICA WG for the specific purpose of the mandate of the TF JECED. This waiver is temporary for the duration of the TF JECED, as specified in its mandate. All TF JECED members that are not contributors to the ERICA WG signed a data sharing commitment document, for which they will not be able to use this microdata for any other purpose different from the ones established in the TF JECED mandate. By any concept they were able to share this data with other parties that do not belong to the TF JECED. Once the TF JECED mandate has expired, all TF JECED members that are not contributors to the ERICA WG, agree to erase all ERICA WG microdata used for the TF JECED from their personal or professional IT systems and to communicate this delete action to the ERICA WG chairperson.

and quantitative metrics, to support statistical use cases such as business decision-making, credit risk assessment, banking supervision, financial stability, and environmental statistics. This proposed set of indicators can serve as input for further work by statistical bodies.

(43) The European Sustainability Reporting Standards (ESRS) were developed by the European Financial Reporting Advisory Group (EFRAG) and adopted by the European Commission via Delegated Act[22] in July 2023. They establish requirements governing the content, structure, and presentation of sustainability-related information that in-scope undertakings must disclose in their management/sustainability reports. The ESRS specify standardized disclosures across environmental, social, and governance (ESG) matters and are designed to ensure comparability, reliability, and transparency of sustainability information within the EU regulatory framework. The standards operationalize the principle of double materiality by requiring undertakings to report both the impacts of their activities on environmental, social and governance matters, as well as the effects of sustainability-related risks and opportunities on their development, performance and financial position.

(44) Standards under the CSRD are grouped into cross-cutting standards and topical standards (Environmental (E), Social (S) and Governance (G) standards).

- **Cross-cutting standards:** the cross-cutting standards ESRS 1 and 2 apply to the sustainability matters covered by topical standards and sector-specific standards:
  - ESRS 1 – General Requirements: it defines the architecture of ESRS standards, explains drafting conventions and fundamental concepts and sets out general requirements for preparing and presenting sustainability-related information.
  - ESRS 2 – General Disclosures: it establishes disclosure requirements on the information undertakings shall provide at a general level across all material sustainability matters on the reporting areas governance, strategy, impact, risk and opportunity (IRO), and metrics and targets.
- **Topical standards:** topical standards cover a sustainability topic and are structured into topics and sub-topics

  ESRS E1 – Climate change

  ESRS E2 – Pollution

  ESRS E3 – Water

  ESRS E4 – Biodiversity and ecosystems

  ESRS E5 – Resource use and circular economy

  ESRS S1 – Own workforce

  ESRS S2 – Workers in the value chain

  ESRS S3 – Affected communities

  ESRS S4 – Consumers and end-users

  ESRS G1 – Business conduct
- **Sector-specific standards** should have also been developed, being applicable to all undertakings within a specific sector. As the Omnibus I proposal by the

22 https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32023R2772

Commission indicated deleting these sector-specific reporting requirements, the development of the standards was stopped.

(45) The ESRS is a very comprehensive legally binding structured ESG reporting system, representing a significant expansion of reporting obligations compared to the previous framework (Non-Financial Reporting Directive (NFRD)).

(46) The analysis focused on the topical environmental standards, as well as on the cross-cutting standards. Environmental standards share a common architecture, aligned with ESRS 1 and ESRS 2, based on a double materiality approach and a consistent disclosure logic covering policies, actions, targets and metrics, requiring coverage of upstream and downstream value chain. All standards combine quantitative performance indicators, narrative explanations and forward-looking transition information, although they differ in the type of environmental driver addressed, the degree of quantitative precision and spatial orientation.

(47) After conducting an extensive analysis of the published set of standards, the first conclusion reached was that most of the indicators currently compiled under ERICA WG should to be possible to compile under the CSRD framework: the first set of indicators related to “CO2 emissions” is covered by ESRS E1 – Climate Change, namely by DR E1-6 – Gross Scopes 1,2,3 and Total GHG emissions; the second set of indicators related to “Energy Consumption within the organization” is covered by ESRS E1 – Climate Change, namely by DR E1-5 – Energy consumption and mix; and the third set of indicators related to “Water Consumption” is covered by ESRS E3 – Water and Marine Resources, namely by DR E3-4 – Water consumption. Only the indicators related to “Emissions Allowances” were not covered by any standard, though in this case a different terminology is not ruled out. The set of “Key Performance Indicators according to EU Taxonomy” are not part of the CSRD but continue to be mandatory to report under the EU Taxonomy regulation (see also sub-section 4.1).

(48) As these standards represent a significant expansion in terms of sustainability reporting obligations compared to previous “non-financial reporting”, the next task developed by Workstream 1 was to propose a set of sustainability indicators - essentially environmental - that could be compiled from the disclosure requirements under the ESRS and contribute to improving knowledge about undertaking’s environmental impacts and risks. The resulting “List of Environmental Indicators based on the Delegated Act on ESRS” provides an overview of ESRS variables which are deemed relevant from a statistical user perspective, based on the typical use cases of National Statistical Institutes (NSIs) and National Central Banks (NCBs). The list could be seen as a first step to contribute to the development of a harmonized database on sustainability indicators, within the scope of the CSRD/ESRS, while ESAP and ESEF is not yet available. As mentioned before, the analysis focused on environmental standards. The proposed list is accompanied by the paragraphs related to the respective ESRS disclosure requirements, as well as explanatory comments, where necessary. Some disclosure requirements have been given different effective dates (phased-in process), meaning that certain indicators might not be possible to compile for all undertakings from the first year(s) of reporting. Data points indicating such phase-in disclosures as well as other reliefs are included in the JECED list.

Table 4.2: Number of indicators before Omnibus I changes

Subject	Proposed set of indicators
ESRS 2 - General disclosures	3 Qualitative indicators 2 Quantitative indicators
ESRS E1 - Climate Change	4 Qualitative indicators 27 Quantitative indicators
ESRS E2 - Pollution	9 Qualitative indicators 15 Quantitative indicators
ESRS E3 - Water and Marine Resources	10 Qualitative indicators 20 Quantitative indicators
ESRS E4 - Biodiversity and Ecosystems	6 Qualitative indicators 20 Quantitative indicators
ESRS E5 - Resource Use and Circular Economy	5 Qualitative indicators 36 Quantitative indicators

(49) It was decided to also include some indicators of a qualitative nature, which essentially try to reflect the existence of sustainability policies, plans, actions and targets, whose usefulness will essentially depend on their transformation into Boolean and other categorisation variables. For more details see the accompanying information in Annex I.[23]

(50) Additionally, to increase the added value of the proposed list of indicators, potential use cases were attributed according to the following classification.

- BDM Business decision making/Benchmarking
- CR Credit risk assessment (as part of Monetary policy)
- BS Banking supervision
- FS Financial stability
- ES Environmental statistics
- EA (General) Economic analysis.

For all these use categories, direct and indirect utilization is possible. ESRS sustainability statements provide important data e.g. for credit risk assessments and banking supervision, either directly or offering insights for broader qualitative or sector-specific analyses.

With regard to Environmental(-Economic) Statistics, the use depends on whether a specific statistic uses inputs from the corporate sector and whether sustainability reporting can replace or enrich existing data sources to that regards. However, a direct use case in terms

[23] Main contributors to the List of ESRS Indicators (Annex I) have been José Miguel Soares, Marina Konstantakou, Margarita Skiada, Marien Vrolijk, Santiago Martínez, Ginette Eramo, Javier González, Simon Schürz, Justus Grundmann, Dominik Elgg.

of a data source is less expected, as reporting generally will be on a consolidated level. Nevertheless, indirect usage is conceivable to assist the setting up of statistics, as well as imputation/estimation exercises and validation/plausibility checks. At the aggregate level, the data could also be used to inform sustainability indicators such as SDG 12.6.1 (Number of companies publishing sustainability reports).
See the list of indicators for further elaborations.

(51) This set of sustainability indicators proposed served as input for the work of the other work streams as indicated in subsequent sections.

4.3 Necessity to revise the List of indicators because of ESRS Revision

This sub-section covers the revision of the ESRS in 2025 and 2026. Based on the adopted simplified ESRS which entered into legal force on 10 November 2026, an updated list of almost 200 environmental indicators has been compiled and provided in Annex I.

(52) As elaborated in section 1.3, revision of the ESRS started in the first half of 2025 and was finalised in summer 2026. Thus, the list of environmental indicators had to be updated. The resulting new List of indicators is provided as an accompanying Excel file (see Annex I) with almost 200 components.

(53) From the perspective of carbon footprint indicators, the revised ESRS suggests that the following aspects deserve particular attention when using the list: (i) GHG intensity metrics are no longer required, so that intensities need to be derived by users from financial statement data (see also section 5.4); (ii) Scope 3 emissions are reported for significant categories only, with a prioritisation of data inputs and the possibility of partial estimates, which limits comparability across companies; (iii) the organisational boundary for GHG emissions follows the GHG Protocol, with Scope 1 and 2 emissions split between the consolidated group and other entities where applicable, which needs to be reconciled with the scope of consolidation; (iv) materiality now acts as a general filter for all disclosures; and (v) phase-in reliefs for anticipated financial effects (initially with qualitative information only) limit the use of the respective data points for credit risk assessment, banking supervision and financial stability purposes.

(54) Even though the disclosures associated with ESRS S1 on its own workforce are not directly covered by the mandate of TF JECED, it was considered essential to include indicators relating to the total number of employees and its disaggregation by country. They could serve as an allocation key for disaggregating some data points to the level of individual countries, naturally with the understanding that such breakdowns can only provide rough estimates.
Further, explanations in case of inconsistencies between the information published under ESRS S1 and the most representative figures in the financial statements would also be essential from a statistical perspective. See the respective S1 table in Annex I.

Table 4.3: Number of indicators after Omnibus I changes

Subject	Proposed set of indicators
ESRS 1 - General requirements	1 Qualitative indicators
ESRS 2 - General disclosures	27 Qualitative indicators 8 Quantitative indicators
ESRS E1 - Climate Change	12 Qualitative indicators 32 Quantitative indicators
ESRS E2 - Pollution	5 Qualitative indicators 12 Quantitative indicators
ESRS E3 - Water	5 Qualitative indicators 6 Quantitative indicators
ESRS E4 - Biodiversity and Ecosystems	20 Qualitative indicators 31 Quantitative indicators
ESRS E5 - Resource Use and Circular Economy	7 Qualitative indicators 25 Quantitative indicators
ESRS S1 – Own Workforce	3 Qualitative indicators 3 Quantitative indicators

4.4 VSME/VS – the voluntary standard

A Voluntary Sustainability Reporting Standard for non-listed SMEs (VSME) was developed by EFRAG providing a simplified framework to help micro-, small-, and medium-sized enterprises report ESG information that meets the needs of larger undertakings, banks, and investors while improving their sustainability management. The VSME gained political relevance under the Omnibus I proposal, eventually evolving into the Voluntary Standard (VS) being adopted as a Delegated Act, with its purpose shifting to limit CSRD reporting requests by other companies through a value chain cap.

(55) The voluntary sustainability reporting standard for non-listed SMEs[24] (VSME) is a simplified sustainability reporting framework developed by EFRAG aiming to support micro-, small- and medium-sized undertakings to provide information that will help satisfy the data needs both of larger undertakings in their value chain, banks and investors, as well as to improve the management of sustainability issues they face and contribute to a more sustainable and inclusive economy. The VSME standard should contribute to reduce reporting burden, provide a standardized ESG information set, increase comparability and transparency, among others.

[24] https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/VSME%20Standard.pdf

(56) Although the VSME was developed as separate voluntary simplified framework for non-listed SME's (finalised in December 2024), it gained political relevance in the context of the European Commission's Omnibus I proposal, which aimed to reduce regulatory burden and enhance competitiveness, as explained in section 1.1. It has transferred in the meantime as Commission Recommendation (EU) 2025/1710 of 30 July 2025.

(57) Under the Omnibus I Directive, the VSME was transposed into a Delegated Act, renaming it to Voluntary Standard (VS). Adopted in July 2026 and published in the Official Journal on 21 September 2026 (Delegated Regulation (EU) 2026/1560), it implements several categories in order that a value chain cap for CSRD reporting can apply. In this respect the purpose of the standard has changed compared to the original VSME.
The VSME and the subsequent VS focus on a limited number of decision-useful quantitative metrics, with limited mandatory narrative requirements and no complex double materiality assessment required. It was designed as a practical alternative to the full ESRS's applied under the CSRD. Considering its relevance to the scope of JECED TF, an analysis on the structure of the standard was realized, which is summarized as follows:

- The Basic Module is the target approach for smaller undertakings and constitutes a minimum requirement for other undertakings. It is designed for undertakings with limited resources, covering company general information, environmental data, workforce data and basic governance disclosures, comprising few quantitative indicators and short narrative explanations.
- There is a Comprehensive Module for larger entities facing higher ESG information requests, which includes policies and actions, climate transition considerations, value chain considerations and more detailed environmental impacts.

(58) An overview file - accompanying this report as Annex II - includes a list of indicators that could be compiled under each module of the VS.

4.5 Instances of double counting within financial and sustainability reporting data

Since statistical usage is not the primary purpose of published corporate reports under the AccDir, there is a risk of double counting when relevant corporate reporting data is used without appropriate caution. To mitigate these risks, the sub-section provides initial guidance.

(59) Double counting in financial and ESG data occurs when the same activity or effect is recorded multiple times across different metrics or reports, leading to overstated impacts and unreliable data. In financial reporting, double counting would arise when aggregating individual financial statements within economic groups, particularly for intra-group transactions. Consolidated financial statements typically eliminate such redundancies through consolidation measures, therefore those reports should be used. Sustainability reports lack generally such mechanisms, making them theoretically more prone to double counting. Exemption rules, such as those preventing multiple sustainability reports within a parent line, mitigate this issue but are not universally applicable, especially for listed parent companies. Additionally, combining individual and consolidated reports would complicate data accuracy.

(60) Certain indicators, such as Gross Scope 3 GHG emissions, are inherently susceptible to double counting due to overlapping responsibilities within value chains. For example, emissions from third-party transportation may be counted as scope 3 emissions by both

manufacturers and retailers, while also being scope 1 emissions for the transportation company. This inherent overlap in Scope 3 accounting requires careful data management to avoid aggregating emissions inaccurately across companies. Similarly, carbon credits face risks of double issuance, double use, and double claiming, which can occur when credits are mistakenly issued multiple times, sold to multiple buyers, or claimed by both the project and another entity. These issues highlight the need for careful approach when using carbon credit data. As the simplified reporting framework (reliefs, partial estimates and the value chain cap) is expected to increase the share of estimated Scope 3 data, the risk of inconsistent or overlapping Scope 3 figures across companies is likely to increase somewhat.

(61) Beyond financial statements and GHG emissions, double counting can arise from unclear boundaries between reporting indicators, inconsistent attribution across time horizons, and when reporting for overlapping frameworks like ESRS, TCFD, and GRI.

(62) To mitigate double counting risks, reporting data users should implement clear guidelines and methodologies. Separating individual reports from consolidated ones and identifying the ultimate parent company within economic groups can further reduce redundancies. For specific indicators like Scope 3 emissions, disaggregating data by impact type, timeframe, and financial category can help avoid cross-referencing the same initiative multiple times.

(63) CSRD reporting is currently implemented only for certain large, listed companies and is being modified by the Omnibus I Regulation. As a result, practical experience remains limited. Therefore, mitigation measures to address double counting risks should be further developed through a collaborative approach.

4.6 Aspects on group statistics

This sub-section gives initial guidance on group statistics, alignment in the scope of consolidation is important to ensure accuracy and consistency. Clear aggregation methods and collaborative development of guidelines are essential for improving group-level sustainability aggregates as practical experience grows.

(64) Group statistics that integrate financial and sustainability indicators provide a comprehensive view of a group's performance. To maintain accuracy in group-level analysis, it is crucial to control the scope of consolidation for financial and sustainability data. ESRS 1 emphasizes that sustainability statements should correspond to the same reporting undertaking as financial statements, ensuring consistency in data and assumptions. Material impacts, risks, and opportunities must be assessed for the entire consolidated group, regardless of legal structure, business lines, or geographic locations.

(65) Clarity in aggregation methods is essential for accurate group-level reporting. ESRS 2 requires companies to disclose whether sustainability statements are prepared on a consolidated or individual basis, consequently this data point should be used. For consolidated statements, companies must confirm whether the scope of consolidation matches that of financial statements or provide reasoning if it does not. Additionally, exemptions for individual or consolidated sustainability reporting under relevant EU directives should be assessed.
Similarly as in the case of mitigating double counting risks, specific guidelines for doing group statistics on sustainability data should be developed in a collaborative way in the next years with more practical experience from reports.

5 Leveraging on Experience from Analyses of Financial and Sustainability Reporting Data

Introductory Remarks to this Section

(66) With the introduction of the Corporate Sustainability Reporting Directive (CSRD), sustainability reporting has become an integral and specific component of the traditional corporate reporting environment. In the European Union, this is mainly regulated through the Accounting Directive (AccDir) with additional legislative rules in the Transparency Directive for entities issuing securities in an EU-regulated market. In this reporting environment, financial statements have served as the primary source of information for almost four decades.[25]

(67) Prior to CSRD, the Non-Financial Reporting Directive (NFRD) mandated non-financial reporting within the AccDir, requiring companies to disclose such information as Environmental, Social, and Governance (ESG) data. This earlier approach was largely unstandardized, and the information could be presented in a stand-alone report, separate from the main corporate reporting documents.

(68) The CSRD has embedded sustainability reporting within the management reporting framework. Traditionally, management reports discuss financial statement data alongside other textual information about a company's business activities, risk exposure and competitive position. The standardization and expansion envisaged by the CSRD therefore raised the question of which experience from traditional corporate reporting and financial statements in the EU can be leveraged for statistical analysis. This question forms the main focus of this section.

(69) Drawing on experience from financial statements is advisable for an additional reason: some ESG indicators might be combined with financial data from these reports, particularly balance sheet and income statement data. This would be most prominent for intensity indicators on energy and emission, for which turnover is usually taken as the denominator.

(70) This section discusses several key experiences relevant to statistical analysis of corporate and sustainability reports. Sub-section 5.1examines the accessibility of reports, that vary across countries, even for those that are published. Further, the categorization of companies by size (5.2) and sector (5.3) is important for analytical purposes.
The section then turns to accounting differences across countries in a more detailed way (5.4). First, differences between financial statements and sustainability reports among consolidated groups are analysed (5.4.1). In addressing further accounting rules, which are the basis for the preparation of financial statements, European companies either apply International Financial Reporting Standards (IFRS) or local Generally Accepted Accounting Principles (GAAPs). As IFRS aims to ensure uniformity worldwide through a principles-based approach, differences in its application can develop and the resulting leeway in presentation rules lead – at least partially - to variations across EU Member States (5.4.2). Furthermore, notable differences exist between local GAAPs and IFRS, as well as among local GAAPs themselves. While these differences can be manifold, this section will focus on their relevance for ESG data, primarily addressed through the comparison of IFRS and local GAAPs (5.4.3).

[25] This section captures the result of Workstream 2 and was written by the following members: Andréa Barnava, Dominik Elgg (Workstream lead), Karen De Vlaminck, Marina Konstantakou, Margarita Skiada.

Table 5.1: Overview of lessons learned from the Accounting Directive framework, particularly regarding financial statements

Topic	Related Framework(s)	Examples of Key Indicators	Lessons
Accounting framework I	IFRS vs national GAAP	Profitability, equity ratio, debts, employee figures, cashflows	Assess potential differences for comparability across countries.
Accounting framework II	Consolidated (group) versus separate reports (legal entity)	All relevant data points	There is a clear need to differentiate between the two kind of reports.
Data accessibility	ESAP, national platforms	Manyfold of datapoints in reports	Report can be public, but data extraction still necessary Be aware of: - scope of entities obliged to report - exemptions
Reporting boundary	Reporting boundary in ESRS versus scope of consolidation	All relevant data points	Be aware of: - differences between the two reports - differences over time - evaluate necessary alignments
National specifics	IFRS, national GAAP, national regulatory environments	Depending on issue	Public reports can be influenced by national specifics (among, level of detail in reports, specific macroeconomic challenges) potentially leading to reduced comparability if no alignment occurs. E.g. state interventions (e.g. healthcare clawbacks and rebates) may create country-specific presentation practices that possibly affect key financial or sustainability indicators.
Analysis of corporates by size	SME & SMC Recommendations, AccDir	Employees, turnover, assets	Stratification towards size recommended with a view on reporting obligations
Analysis of corporates by business activities	NACE Rev. 2.0 and 2.1 Further classifications	NACE divisions or groups	Use of NACE essential, high quality of codes necessary

(71) The European Sustainability Reporting Standards (ESRS) introduced with the original CSRD were designed to bring strong standardization to sustainability reporting. However, the political discussions and agreements surrounding “Omnibus I” have

weakened this improvement from a statistical perspective while helping companies in their reporting obligations. The revised ESRS introduces several “open doors” towards non-disclosure, such as the concept of fair presentation (despite the positive term), the “undue cost or effort” principle, and general reliefs due to non-materiality. This resulting leeway means that differences across countries - already observable now - may gain more importance in the coming years, e.g. depending on national standardization steps or requirements. Sub-section 5.4.4 briefly addresses the ESRS revision as well as current differences based on the first year of ESRS application.

(72) Additionally, Omnibus I has reduced the scope of mandatory reporting and aims to encourage voluntary sustainability reporting. This shift raises questions about the accessibility and qualitative aspects of such voluntary data. These questions are discussed in sub-section 5.5.

(73) An overview of the section is given in the table above. The section concludes with insights into the use of artificial intelligence (AI) when asking for specific accounting issues, particularly in relation to local GAAP 5.6. In this context, technical expertise is often required, and undifferentiated use of AI can lead to significant problems.

5.1 Accessibility of Corporate Reports stemming from the Regulations of the EU Accounting Directive and the EU Transparency Directive

Corporate reporting accessibility across EU Member States varies significantly, shaped by legal obligations and the channels through which reports are published. Listed companies often make reports available on their websites, while non-listed entities rely on national portals, which differ in organization, access conditions, and usability. A JECED questionnaire highlighted substantial heterogeneity in publication practices, with Transparency Directive (TD) portals offering advanced search tools, while Accounting Directive (AD) portals are less user-friendly and often charge fees. Timeliness of publication and sanctions for non-compliance also vary widely, impacting the availability of sustainability data. The European Single Access Point (ESAP), set to launch for users in 2027, promises to centralize and standardize corporate reporting, improving accessibility and usability. Current national systems in contrast remain difficult for accessing CSRD sustainability data, particularly for unlisted entities, due to fragmentation and complexity. While ESAP will enhance cross-border access, disparities in timeliness and consistency of reports will persist, especially for granular data.

(a) Overview of this sub-section on Accessibility

(74) Statistical analysis of corporate reporting data should generally rely on a sufficient sample of companies. As not all legal entities in the European corporate sector are required to prepare and/or publish reports, analysts should strive to include in their samples at least companies’ reporting data that is published. Consequently, an essential first step in the data collection is to determine which companies are legally obliged to prepare a report and, where publication is required, to identify the channels through which these reports can be accessed.

(75) This accessibility of regulated corporate reports varies across EU Member States. Except for companies issuing securities on an EU regulated market (hereafter referred to as “listed companies”), corporate reports required by the Accounting Directive are

usually not accessible via company websites but only through national portals or registers.[26]

(76) Even for listed companies, the Transparency Directive does not explicitly require the publication of the annual financial report on the company's website. Though the interpretation of the Directive can be understood in this way.[27] Besides this, there exist specific national portals where reports from listed companies can be accessed. These portals may differ from the ones required by the Accounting Directive.

(77) Non-financial companies are generally hesitant to make their corporate reports publicly available, particularly their financial statements. They may provide those reports on a bilateral way, e.g. based on a business-to-business relationship, which includes general supplier-customer transactions or credit provision by banks. While regulations exist for the latter, the receiving business partners are usually prohibited from redistributing the reports to other companies or institutions.

(78) Under CSRD, all companies obliged to prepare a sustainability report must also publish this report. Workstreams 2 and 3 of TF JECED have undertaken a comprehensive assessment of the accessibility of corporate reports to address the issue where to access these reports. A structured questionnaire was developed and sent to participating countries with the objective to gather detailed information on national publication requirements — distinguishing those governed by the EU Accounting Directive (AD) and the Transparency Directive (TD) — and to evaluate the extent to which existing systems support timely and effective access to sustainability disclosures.

(79) The scope of the questionnaire focused on financial statements, management reports and, particularly sustainability reports embedded within management reports according to the CSRD. Responses from ten JECED member countries provided a broad overview of current publication practices, highlighting significant heterogeneity across jurisdictions. The findings from this exercise will contribute to a clearer understanding of data availability beyond what is usually provided by private data providers.

(b) Organisation and Characteristics of National Publication Portals

Transparency Directive (TD) Portals

(80) The questionnaire results confirm that Member States use a wide range of institutional models to manage TD-related publication platforms. In practice, TD portals are organized under four principal governance arrangements: (i) national market authorities (e.g., Belgium, Portugal, Spain, Denmark), (ii) stock exchanges or related regulated entities (e.g., Finland, Greece, Luxembourg, Ireland), (iii) a specific government portal [(e.g. France)] and (iv) private companies mandated by the government (e.g., Germany, Austria, Italy with even two TD portals). This institutional diversity reflects longstanding national frameworks for financial markets and results in varying degrees of centralization and operational oversight. The lack of uniformity across TD platforms creates challenges in terms of searchability, metadata consistency and automated retrieval functionalities from a European perspective, factors that are crucial for early CSRD data collection.[28]

[26] Generally, the European regulation allows an EU Member State to require undertakings to publish their reports on the company's website in contrast to a national portal. However, this is not the case in any JECED country.

[27] Article 21 states: „The home Member State shall ensure that the issuer, or the person who has applied for admission to trading on a regulated market without the issuer's consent, discloses regulated information in a manner ensuring fast access to such information on a non-discriminatory basis and makes it available to the officially appointed mechanism referred to in paragraph 2.".

[28] An overview of TD portals in the EU can be found at a dedicated ESMA website: Databases and Registers

(81) As listed companies subject to the **Transparency Directive are typically not directly required** to provide a version of their report **in English** or any other language, such versions are typically not available on TD portals. Nonetheless, listed companies usually publish an English version of the annual financial report on their websites.

Accounting Directive (AD) Portals

(82) AD portals exhibit distinct characteristics that influence their suitability for accessing corporate reports and therefore sustainability information. They are predominantly not free of charge and generally offer limited options for mass downloading of reports. Although search functions in English are typically provided, the reports themselves are usually available only in the official languages of the respective Member States, reflecting domestic legal requirements.

(83) As noted earlier, companies not listed on a regulated market generally do not publish their annual reports on their websites in addition to the AD portal. Moreover, an English version of these reports is usually not available.

(c) Comparative Findings on Accessibility and Usability

General Accessibility Patterns

(84) The questionnaire results indicate three general models of corporate-report publication:

(i) A single unified portal for both AD and TD publications

(ii) An AD portal supplemented by one or more TD portals, which represents the most common arrangement

(iii) A theoretically strict separation between AD and TD portals, although none of the responding countries operate fully independent systems in practice.

(85) For responding countries falling into the second category, AD portals are generally associated with higher access complexity, greater administrative requirements and, in some cases, cost barriers. This structural configuration has important implications for the practical accessibility of CSRD sustainability reports at the national level.

Language, Searchability and Download Features

(86) Search functionalities vary widely. TD portals tend to offer more advanced search tools, often including full-text search and categorised metadata, whereas AD portals generally provide more basic functionalities. The lack of mass-download capabilities in most AD portals poses a limitation for statistical institutions aiming to collect sustainability data in a systematic, automated and timely manner.

(87) The predominance of national-language documents further complicates cross-country analytical work, especially in the absence of standardised machine-readable formats prior to ESAP and full ESEF/ESRS implementation.

(d) Timeliness and Sanctioning Mechanisms

Publication Timeliness

(88) Timeliness of publication represents a significant point of divergence in the availability of corporate reporting data across Member States. Listed entities are generally subject to a four-month deadline for making their annual reports publicly available. One country

(Spain) implements an accelerated requirement of two months, reflecting national regulatory priorities. In contrast, unlisted entities operate under significantly broader timeframes, ranging from five to twelve months depending on the jurisdiction, with Germany applying the longest deadline.

(89) These variations directly affect the availability of CSRD sustainability information, particularly for unlisted entities, thereby influencing the capacity of statistical users to produce timely environmental indicators.

Sanctions for Non-Compliance

(90) Sanction regimes also differ substantially in EU Member states. Some Member States impose relatively mild administrative penalties for late publication, whereas others enforce notably stricter consequences, including director liability or even deregistration of entities. This divergence reflects varying national approaches to corporate compliance enforcement and contributes to inconsistencies in the timeliness and completeness of available sustainability information.

(e) Implications for CSRD Implementation and ESAP Integration

(91) The forthcoming introduction of the European Single Access Point (ESAP) for users in July 2027 is expected to significantly improve the accessibility and standardisation of corporate reports, including sustainability disclosures.[29] However, for the initial years of CSRD reporting (covering fiscal years 2024–2025), data availability will rely heavily on existing national systems. Table 5.2 shows the availability of sustainability reports across TD portals, AD portals and the coming ESAP for companies in the first and second wave of CSRD.

(92) The questionnaire results demonstrate that while current national systems, have functioned adequately for traditional financial reporting, they are not uniformly designed to accommodate the increasing volume, complexity and standardisation requirements associated with corporate environmental data.

(93) The coming ESAP will have several main advantages:

- being a European platform offering broad access to corporate information
- having a translation and notification service, facilitating cross-border use
- providing direct and free access for members of the ESS and ESCB
- providing advanced search functionalities, including country, company size and NACE coding, and using the LEI as the main identification number.[30]
- requiring issuers to submit annual financial reports under the Transparency Directive at the same time to the ESAP collection body when disclosing information to the public (see Article 23a(1) and Article 21(1) of the Transparency Directive).

(94) In combination with the required European Single Electronic Format (ESEF)[31], company's data points will be marked up, enabling access to o granular data. However, ESEF reporting is not deemed to be implemented before fiscal year 2028.

(95) The ESAP will **offer two advantages**, which might not be obvious at first glance: First, it will enable the indirect assessment of CSRD reporting requirements based on

[29] Collection of reports started on 10 July 2026. See ESMA launches data collection under the first phase of ESAP

[30] It should be emphasized that for statistical purposes a high-qualitative identification number is important in many respects and the LEI fulfills this role. See e.g. the CMFB Opinion on the LEI of 3 May 2023 and the Recommendation of the European Systemic Risk Board of 24 September 2020 on identifying legal entities.

[31] As required in Article 29d of the AccDir. With this project, ESMA is also doing a pioneering engagement regarding data availability.

publications within ESAP. In this context, it is likely that a list of companies can be easily compiled ex post after publication, at least for those companies adhering to the relevant rules.
Secondly, with such a list available, datasets that do not differentiate between unpublished and published data could be split into respective two segments, facilitating data sharing of the public items.

Table 5.2: Timeline regarding Accessibility of CSRD Sustainability Reports from 1st and 2nd CSRD wave companies

When?	Which companies?	National TD Portals	National AD Portals*	ESAP
October 2026	Introductory note: CSRD transposition has been lagging in several EU Member States. Consequently, in some countries NFRD rules still apply for FY 2024 and 2025 with voluntary ESRS application possible.			
by end of April 2025 (the latest)	1st CSRD reports (FY starting 01/01/2024) l_PIEs being part of part of 1st CSRD wave, timeliness generally within 4 months	l_PIEs	l_PIEs	
during 2025 & early 2026	Further CSRD reports of 1st wave should be published: a. l_PIEs with FY starting later than 01/01/ 2024 (timeliness generally within 4 months) b. o_PIEs (not being l_PIEs, timeliness depending on rules in EU member state, up to 1 year)	l_PIEs	l_PIEs o_PIEs	
by end of April 2026	2nd CSRD reports (FY 2025) of l_PIEs (FY starting 01/01/2025)	l_PIEs	l_PIEs	
10 July 2026	**ESAP collection has started, though no access for users.**			
during 2026 & early 2027	a. Further FY 2025 reports of l_PIEs (FY starting later than 01/01/2025) b. Further FY 2025 reports of o_PIEs	l_PIEs	l_PIEs o_PIEs	
by end of April 2027	3rd CSRD reports (FY starting 01/01/2026) of l_PIEs*	l_PIEs	l_PIEs	
May - 10 July 2027	Further CSRD reports from l_PIEs & o_PIEs depending on FY and publication date	l_PIEs	l_PIEs o_PIEs	
10 July 2027 („at the latest“)	**ESAP 1st phase: all sustainability reports collected since 10 July 2026 based on TD should be available (with large quantities download service from the beginning).**			
ongoing	CSRD reports from l_PIEs, o_PIEs	l_PIEs	l_PIEs o_PIEs	l_PIEs
10 January 2028	**ESAP 2nd phase: including sustainability reports published based on AD**			
ongoing	Ongoing CSRD reports from l_PIEs & o_PIEs **additionally:** first reports of CSRD entities in “second wave” (non PIEs and having >1000 avg. employees & > 450€ turnover, FY starting 01/01/2027), timeliness depending on rules in EU member state, up to 1 year)	l_PIEs	l_PIEs o_PIEs 2nd wave	l_PIEs o_PIEs 2nd wave
10 July 2028	**ESAP: “Machine translation” and “Notification service” available**			
ongoing	CSRD reports from l_PIEs, o_PIEs, 2nd wave companies	l_PIEs	l_PIEs o_PIEs 2nd wave	l_PIEs o_PIEs 2nd wave

Abbreviations & Notes
l_PIEs = listed Public Interest Entities, being issuers with securities listed on an EU regulated market.
o_PIEs = other Public Interest Entities i.e. non-listed banks and non-listed insurers.
TD = Transparency Directive, AD = Accounting Directive
* If TD portal is separate from AD Portal: l_PIEs usually also need to publish reports at AD portal with access on those portals being usually more complex.

(f) Summary of the findings on Corporate Reporting Accessibility

(96) The results of the questionnaire on publication highlight significant fragmentation in the accessibility of corporate reports across EU Member States, even for listed companies. This has direct implications for the availability of CSRD sustainability reports for users in the years preceding the launch of ESAP's first phase. Particularly for reports from unlisted entities, differences in portal organisation, access conditions, search functionalities, language availability, publication deadlines and sanction regimes collectively shape the complexity of accessing early CSRD reports at the national level.

(97) These findings underline the importance of ESMA's efforts towards the European Single Access Portal (ESAP), which will provide a centralised access point for mandatory CSRD reports, supported by common search functionalities and, at a later stage, a translation service while granting priority access to ESS and ESCB members. Nevertheless, the ESAP will not change differences in European countries towards timeliness of the reports for unlisted entities and the consistency of sustainability reports for all entities. For listed entities, ensuring timely and efficient access to CSRD reports during the pre-ESAP period will be critical for enabling robust environmental analysis. It is important to note that regarding granular data, ESAP will not include this requirement, only through the ESEF obligation single data points will be available. However, the respective Delegated Regulation still needs to be adopted.

5.2 Differentiating Size Categories: Recommendations for extending existing approaches to integrate into Sustainability Analysis

The sub-section discusses the importance of size categorization in corporate analysis. It emphasizes the need to reconsider traditional size classifications in light of the integration of ESG data into corporate reporting and the expanding scope of EU regulations such as the CSRD and CSDDD. Further, a new size class — Small Mid-Cap Enterprises (SMC) — has been introduced as a political recommendation by the EU Commission. The proposed JECED categorization incorporates SMCs and divides the remaining large entities into three distinct tiers, each reflecting specific regulatory obligations. This JECED categorization is applied to approximately 1,000 listed entities from the ERICA database, revealing a different perspective compared to traditional classifications and highlighting the unique features when analyzing listed entities.

(a) Objective

(98) Size categories are important for corporate analysis because they provide a framework for understanding and comparing companies based on their scale, resources, market influence, and operational complexity. By categorizing companies into size groups, financial health, competitive positioning, growth potential, and risk profile or the corporate sector can be better assessed, also from a regulatory perspective.

(99) The introduction of ESG data points into the corporate reporting environment - through the extension of a sustainability report in the traditional management report that accompanies financial statements - requires a reconsideration of established size categorization for the respective granular data. While there are various categorizations by statistical users of company reporting data throughout the EU, the analysis of financial statement data with a size perspective often relies on the EU Recommendation 2003/361/EC of 6 May 2003 concerning the definition of micro, small and medium-sized

enterprises (SME), having gained already before high attention in economic discussion. The necessity of a reconsideration on size classes has become even clearer with the political Omnibus discussions in 2025, where the scope of the CSRD was significantly reduced to strengthen European competitiveness. Within less than 4 years, the perspective on which reporting obligations should be laid down on “large” undertakings and groups has changed dramatically. This change in perception has been accompanied with the proposal on the political level of a new size class; the European Commission’s Omnibus IV introduced a Commission Recommendation (EU) 2025/1099 on the definition of small mid-cap enterprises (SMC).[32]

(100) For this reasoning this section addresses the classification of companies by size for the purpose of statistical analysis of sustainability data, particularly including entities under the CSRD scope and those outside where voluntary reporting is encouraged. The classification presented below is an enhancement of the two EU Recommendations using the thresholds therein related to the average number of employees, net turnover and balance sheet total. In this respect it must be stressed that the EU Recommendations are different when compared to the size categories in the EU Accounting Directive (AccDir) which steer the level of EU reporting requirements.[33] The herein given choice in favour of the EU Recommendations is based on the stability of the SME Recommendation compared to the AccDir which supports time-series analysis, as well as the broader and comprehensive user scope of SME and SMC Recommendation.[34]

(101) Because of the significant reduction of the CSRD scope, in the following, large entities are proposed to be split into three sub-categories, reflecting distinct regulatory obligations under CSRD and CSDDD. This split is consequently targeting sustainability analysis. The largest size class typically includes multinational groups. For separation, the thresholds of the EU CSDDD Directive are taken, which requires on those largest companies a specific due diligence framework.

(102) Consequently, the proposal in this section offers a comparative foundation for identifying SMEs, SMCs and additionally gives a sub-categorization of remaining large entities. With the post-Omnibus-CSRD applicability it can be used in the statistical treatment of entities across all EU Member States.

(b) Size Categories, Thresholds for Determination and Specific Rules

(103) Generally, three quantitative dimensions are identified as the core determinants of company size:

(i) the average number of employees,

(ii) net turnover, and

(iii) balance sheet total (often labelled total assets)

(104) For each criterion, the specific definition should follow the EU Accounting Directive usually being implemented in EU Member states national GAAPs. When calculating the balance sheet total, Article 3 No. 11 of the AccDir shall apply, which implies that only

32 See the following links for the EU Recommendations: EUR-Lex - 32003H0361 - EN - EUR-Lex and EUR-Lex - 32025H1099 - EN - EUR-Lex. Commission Recommendation 2003/361/EC constitutes a general, non-binding framework for the definition of micro, small and medium-sized enterprises in EU law, whereas Directive 2013/34/EU establishes a legally binding and autonomous classification for financial reporting purposes.

33 See the following link for consolidated version of the AccDir: EUR-Lex - 02013L0034-20240528 - EN - EUR-Lex.

34 This is supported by the long-term experience at ECCBSO level, where the SME Recommendation is at least partially applied. In ECCBSO WG, comparative statistics is given with a longer time horizon, though because of this not all variables, e.g. employment figures, are available with sufficient quality. See e.g. BACH User Guide Summary 2026, page 18.

assets are used for determining the balance sheet total.[35] For net turnover, the definition in Article 2 No. 5 shall apply.

(105) The categorization is illustrated in the following Table 5.3.

Table 5.3: Recommended Size Categories and respective Quantitative Thresholds

Main Category	Sub-Category	CSRD Reporting	Average Number of Employees	Net Turn-over (EUR million)*	Balance Sheet Total (EUR million)*
SMEs	Microenterprises	Voluntary	< 10	≤ 2	≤ 2
	Small enter-prises		< 50	≤ 10	≤ 10
	Medium-sized enterprises		< 250	≤ 50	≤ 43
Small Mid-Caps	–		< 750	≤ 150	≤ 129
Large enter-prises	Large Tier 3: no CSRD reporting		≤ 1,000	≤ 450	(not used)
	Large Tier 2: CSRD reporting	Manda-tory**	> 1,000	> 450	(not used)
	Large Tier 1: CSRD reporting + CSDDD		> 5,000	> 1,500	(not used)

* Thresholds on net turnover and balance sheet total might change over time because of inflation adjustments. Additionally, the turnover threshold differentiating the three tiers on Large enterprises could be sensible for further simplifications changes. See also considerations in this sub-section.

** Mandatory if no exemption applies, e.g. in case of group reporting of a parent entity.

(106) The following rules need to be followed when applying the proposed categorization:

(a) For the first four main categories, Micro, Small, Medium-sized and Small Mid Cap, follow the respective EU Com Recommendations, i.e. the thresholds of the AccDir thresholds are not relevant.[36]

For SMEs and SMCs determination, follow the AND/OR usage as in the Recommendations: E.g. SMCs are entities - which employ fewer than 750 persons AND which have an annual net turnover not exceeding EUR 150 million - OR - which employ fewer than 750 persons AND which have an annual balance sheet total not exceeding EUR 129 million, being at the same time no SME.

(b) For the remaining large undertakings or groups, differentiation in sub-categories should be considered. The Large Tier 3 sub-category includes companies with no CSRD reporting obligation and no CSDDD duties.[37] Entities with CSRD reporting obligations and no CSDDD

[35] E.g. 'Deficits not covered by equity' should not enter the quantitative figure of balance sheet total.

[36] The new Voluntary Standard (see Annex II) establishes a threshold of "10 employees or less" to separate undertakings in their disclosures covered by the value chain cap. This approach was not included in the above recommendation, as it would have led to a considerable increased complexity.

[37] Naturally this implies that SMEs and SMCs are not included in class Large Tier 3.

duties belong to Large Tier 2. The remaining, very large entities are categorized as Large Tier 1.

Tier 2 enterprises are consequently undertakings or groups with more than 1,000 employees AND a net annual turnover exceeding EUR 450 million while Tier 3 enterprises are undertakings or groups with more than 5,000 employees AND a net annual turnover exceeding EUR 1,500 million.

(107) The following further guidance is important for size categorization:

- If a legal entity belongs to a group, the consolidated group values shall apply.
- The size categorization should also be applied when companies provide voluntary information. For example, when a group within an EU Member State belongs to a broader non-EU country group, such as headed by a Swiss mother company. In such cases, the EU partial group may be small enough to fall below the CSRD size threshold and therefore has no CSRD obligation (e.g. in Lg1), but the mother company provides a voluntary consolidated report. The size should be determined according to the figures of the ultimate Swiss mother, which could be Lg2 or Lg3. The question of whether a reporting duty exists is independent of this, generally this is an important characteristic data point and is included in the List of Indicators (see Workstream 1 results).
- The application of this categorization proposal depends on the general data availability of the relevant variables in a dataset. Amendments must be made if some of the variables are not available.
- Further, pragmatic solutions should be applied in cases of missing values in single company entries. E.g. if no net turnover is given - which might often be the case when using published data for SMEs - or even no balance sheet total is given for a company, the use of employee figures alone is considered sufficient.
- Cases where no employee figures are available are even more difficult because of the central relevance of this variable and flexibility would be particularly necessary. Missing values could be a case for a few entities or even on a large-scale basis in a dataset:
  (i) A small number of employees, even on a consolidated basis, can be typical for specific sectors. In such cases reporting companies might opt – despite the general obligation - for no or vague disclosure, as they consider the employee number as non-material.
  (ii) In some datasets, the variable might not be filled for a significant part of companies.
  Both cases are unfortunate, given the importance of employee figures for stratification.
  Pragmatic options in such cases could include:
  - Referring to historical values, if available. However, historical values should not go too far into the past, and it may be advisable to check whether the respective companies have undergone any organizational changes during the period in question.
  - Linking to alternative data sources, such as those provided by national employment agencies, if available. Nevertheless, even if such data exists, legal restrictions may prevent establishing such a link.
  - Estimating missing values or at least providing a plausible range. These estimates could be based on other variables within the financial statements. Estimated values may be ideally flagged and distinguished from reported

disclosures.

If flagging of the variable is not possible, estimates or pragmatic, plausible values towards the respective analytical purposes could be used as well.

Despite these proposed solutions, some may not produce satisfactory results when confronted with missing employee data because of resource restrictions.

- If net turnover is only given for a period of less than a year (because of a change in the fiscal year of a company), an extrapolation to a full year is appropriate. The use of the average employee figure for the shorter period is acceptable.
- When doing analysis over a long period or an alignment on time series is important, discounting based on inflation rates is recommended.[38]
- A similar approach is recommended when doing analysis with company data in a currency other than Euro.
- As the EU Recommendations are preferred over the approach used in the AccDir, Article 3 of the Accounting Directive which requires that at least two out of three criteria be met over two consecutive years for size reclassification, is not relevant. In the same line, EU Member States' decisions to vary thresholds on turnover and balance sheet total, as allowed in the AccDir for differentiating small and medium-sized entities, are not relevant in the proposed classification.

(c) Considerations on the proposed Size Categorization and Thresholds

(108) This orientation on reporting/duties thresholds along the sub-categories of "Large" entities could be problematic if EU policy makers decide to adjust them further in the coming years. Further, turnover and balance sheet total values are dependent on inflation, while this would have an impact on all size categories. The Omnibus 1 results require the EU Commission to periodically amend the respective thresholds.[39] Thus, a periodic review of the proposed thresholds in this sub-section is recommended.

(109) Given this, this size proposal ensures legal consistency, analytical clarity and operational feasibility for sustainability analysis as well as traditional financial statement analysis supporting stratification, aggregation, quality assessments and economic research.

(110) In this respect the JECED size framework was applied to the ERICA dataset of the ECCBSO, which covers ~ 1.000 groups with securities on an EU regulated market for 8 countries p.a. As Figure 5.1 illustrates, a surprising result emerges. Contrary to traditional size distributions — where smaller companies are more numerous — most ERICA companies, with some national deviations, fall into the highest size category. In this respect it is not unexpected that SMEs show only minor counts, as taking aside the capital orientation – they would not even be obliged to report on a consolidated basis. Astonishing are rather the counts from SMCs upwards. This outcome highlights the unique characteristics of listed non-financial entities in Europe.[40]

(111) Applying the JECED size classes to ERICA also revealed a further insight: some companies in sectors where it is typical having very low employee figures, have fallen out of the CSRD with Omnibus I. Though from a sustainability perspective of their business they would be rather relevant. Those companies could tend to provide

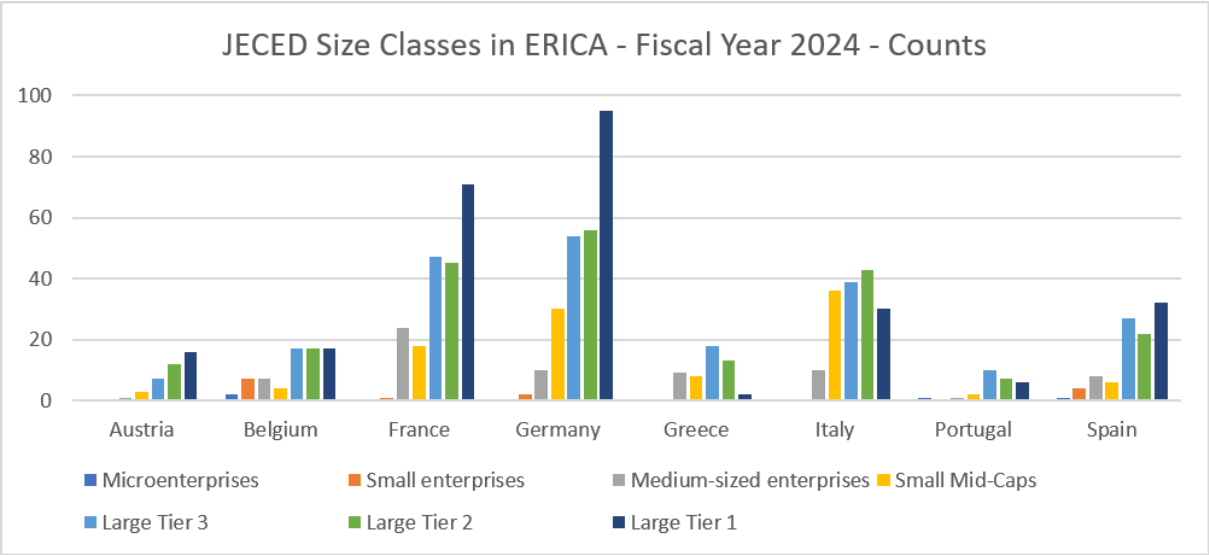
[38] As used in the approaches of ECCBSO working groups. E.g. see Financial Statement Analysis Working Group, Financing Costs of Non-Financial Corporations in European Countries: A Statistical Analysis based on Accounting Data (2025), Annex II slide 17 and BACH User Guide Summary 2026, page 18.

[39] See replaced Article 3, paragraph 13 of the AccDir by Directive (EU) 2026/470.

[40] One should emphasize that with the JECED size classes it is possible to receive a general picture of the entities to report under CSRD. However, the detailed numbers should not be taken without considerations that potential exemption options might apply in a country.

sustainable data on a voluntary basis. Though the question is how standardized those will be ultimately.

Figure 5.1: Applying JECED size classes on ERICA data



5.3 Categorization for differentiating by Sector: Recommendation for using existing NACE Classification for Sustainability Analysis

The sub-section outlines the use of the NACE classification system for categorizing companies by sector in the context of sustainability data analysis, particularly for corporate reports under the CSRD framework. NACE (Rev. 2.1) is proposed as the preferred framework due to its widespread use across European statistics and its compatibility with existing economic and financial datasets. Guidance is provided for assigning NACE codes, emphasizing the distinction between legal entities and consolidated group data, the use of value-added as the primary determinant of main activity, and alternative metrics like net turnover or employee numbers when value-added data is unavailable. Additional sector coding may be required for sustainability-specific analyses, such as assessing environmental risks. At least 2-digit NACE coding is recommended for meaningful categorization, with further granularity depending on data availability. Finally, the categorization of main sectors as used in the ECCBSO framework is provided.

(a) Objective and Choice of underlying conceptual NACE Framework

(112) This section addresses the classification of companies by sector for the purpose of statistical analysis of sustainability data provided through corporate reports, either obliged by the CSRD or provided voluntary as encouraged through the European Commission's Omnibus I decision in 2025. Prior to the Omnibus proposals, the CSRD included the need of ESRS sector standards, which implied a specific ESRS sector categorization. With the deletion of sector standards from the CSRD, a proposed ESRS sector categorization is also given up. Consequently, there is no need considering a categorization stemming from corporate reporting regulations, and common statistical approaches are first choice.

(113) The NACE classification of economic activities is used for a wide variety of European statistics in the economic, social, environmental, and agricultural domains.[41] For corporate reporting data, this systematic is preferable for analytical purposes in contrast to the European System of Accounts used for national accounts.[42] This approach ensures coherence with similar statistical frameworks used across the ESS and ESCB and enables integration of CSRD data with established economic and financial datasets.

(114) As CSRD started to be available with fiscal year 2024, while many companies only need to start reporting for fiscal year 2027, the new version - NACE Rev. 2.1 – should be applied. In the following section, guidance for classifying enterprises as well as the use of NACE levels for analysis will be provided. This sub-chapter concludes with some considerations based on the use of financial statements in statistical analysis.

(b) Guidance for Categorizing Enterprises into NACE activities with a focus on Corporate Reporting Data

(115) Generally, the principles and rules of the NACE Rev. 2.1 should be adhered to. If available, typical at NSIs, variables from statistical datasets should be used. However, this is not always available, legal restrictions might apply or no NACE codes on a consolidated level are available. In this respect the following guidance is given:

(116) JECED Recommendations for determining NACE activities for companies:

- It is essential to differentiate between a group and a legal entity with regard to the underlying report, i.e. if the relevant data points included in a report are on a consolidated basis, a consolidated NACE code should be used. This is particularly relevant for companies being a “head office" of a group. While for the legal entity the code “70.10” of Section N is relevant, for consolidated data the respective main activity must be coded.
- While NACE coding usually refers to the main activity, particularly with a view on consolidated data, it is important to take note that additional NACE codes could be relevant for analysis.
- As prescribed by NACE, the main activity as primary code should be determined by the concept of Value Added. This should also be followed for sustainability analysis. However, Value Added for a company’s activities is often not available, thus net turnover or the number of employees can serve as substitute for determining the main activity of an entity or a group. Further, unless high-quality codes based on value added (e.g. from NSIs datasets) are available, the use of financial statements and management report information is generally recommended for the determination of NACE codes, as with them respective conclusions for value added could be extracted.
- For sustainability analysis, further sector coding might become relevant, which could be independent from the concept of value added as primary variable for sector determination, e.g. when assessing the impact of a company’s polluting or biodiversity risks. In this respect, the sector information disclosed by a company according to ESRS 2 (SBM-1) should be considered, see the respective entry in the List of ESRS Indicators (Annex I) developed by Workstream 1.
- Regarding the detail of level coding (i.e. 1 to 4 digits, sections, divisions, groups and classes), at least a 2-digit coding is recommended to make appropriate

41 NACE was chosen in 1970 as abbreviation for “Nomenclature statistique des activités économiques dans la Communauté Européenne”.

42 NACE classification has much more details in the non-financial sector. The most recent versions, NACE Rev. 2.1 and the classification included in ESA 2010 are generally independent from each other, naturally overlaps occur.

categorizations in a second step.
Coding usually depends on resources and sources of the necessary information. Thus, depending on national availability, more than 2 digits can be held in a database or a dataset.

- For coding insurance and financial entities, an alignment with ESA 2010 sectors from other databases is generally recommended.

(117) JECED Recommendations for aggregating sectors for sustainability analysis:
If no own experience for sector categorization is available, it is recommended to follow the approach of ECCBSO's ERICA WG – elaborated together with the WG on Risk assessment - because of their experience in the analysis of consolidated financial statement data[43] as illustrated in Table 5.4:

Table 5.4: Sector Categories used in the ERICA WG of the ECCBSO in cooperation with the WG on Risk Assessment

BY BROAD SECTOR OF ACTIVITY	
LABEL	**NACE DIVISION**
Industry	01,02,03,07,08,09,10,11,12,13,14,15,16,17,18,20, 21,22,23,24,25,26,27,28,29,30,31,32,33
Energy	05,06,19,35,36
Construction	41,42,43
Services	37,38,39,45,46,47,49,50,51,52,53,55,56,58,59,60, 61,62,63,68,69,70,71,72,73,74,75,77,78,79,80,81, 82,85,86,87,88,90,91,92,93,94,95,96

BY DETAILED SECTOR OF ACTIVITY	
LABEL	**NACE DIVISION**
Chemicals	20,21,22,23
Construction	41,42,43
Energy	05,06,19,35,36
Food products	01,02,10,11,12
Information and communication	58,59,60,61,62,63
Machinery and equipment	28
Metal products, computer, electronic and optical products/equipment	24,25,26,27
Other manufacturing	03,07,08,09,13,14,15,16,17,18,31,32,33
Other services	37,38,39,55,56,69,70,71,72,73,74,75,77,78,79, 80,81,82,85,86,87,88,90,91,92,93,94,95,96
Real estate	68
Retail trade	45,47
Transportation and storage	49,50,51,52,53
Vehicle manufacturing	29,30
Wholesale	46

[43] E.g. for statistical analyzes like aggregates or averages. See Annex A in the Annual report of ERICA WG: Definition of the branches of activities (including 2 digits NACE), page 32: ERICA2024_AnnualReport_F1_1.pdf as well as ERICA User Guide Summary, February 2026, page 18, available at the BACH-ERICA database website: Connexion à BACH et ERICA

(c) Considerations on the proposed Sector Categorization

(118) The proposed approach highlights the importance of distinguishing between consolidated group data and legal-entity-level data when assigning sector classifications. This distinction is particularly relevant in the context of CSRD, where sustainability reporting will probably occur mainly at the group level.

(119) In combination with the size classification framework, the sector approach forms a core building block for harmonized CSRD data analysis. Similar to size classes, a review of the proposed categorization is recommended once more experience with CSRD-ESRS data points is available.

5.4 Accounting Differences potentially relevant to future Sustainability Reporting Data and its respective Analysis

This section focuses on differences in accounting rules across EU Member States including IFRS as well as national specifics resulting to practical differences in reporting that appear to be relevant for sustainability data.

The following sub-sections explore key challenges and observations related to the alignment of financial and sustainability reporting frameworks, focusing on differences in consolidation scope, accounting practices, and the evolving regulatory landscape under CSRD and ESRS. Sustainability reports follow a "reporting boundary" concept, which aligns with financial statements' "scope of consolidation" but may diverge in some cases.

Accounting differences between IFRS and national GAAPs might set hurdles for sustainability analysis. IFRS's principles-based approach allows flexibility but can lead to national variations in presentation, impacting financial ratios and sustainability indicators. Specific examples include revenue definitions, long-term contract accounting, and treatment of subsidies, all of which influence metrics like GHG emissions intensity. National practices, such as Greece's clawbacks and rebates in healthcare, illustrate how state interventions can create unique presentation patterns. The ESRS revisions under Omnibus I introduce relief mechanisms which risk increasing heterogeneity across entities and jurisdictions.

Overall, the text underscores the need for expert judgment, structured templates, and continued monitoring to ensure sustainability analysis.

5.4.1 "Scope of Consolidation" in Financial Statements versus "Reporting Boundaries" in the Sustainability Report

(120) As most sustainability reports are expected to be on a **consolidated basis**, a key issue is **which entities** are **included by the reporting "mother" company in its group report**. Regarding financial statements the term "scope of consolidation" is used, sustainability reporting the term "reporting boundary". While both reporting systems aim to provide a group-wide perspective, the difference in terminology already indicates potential differences affecting potentially ratio calculations and key performance indicators.

(121) **Financial reporting** has a long-established tradition of consolidation based on the **control concept**. Under IFRS, consolidated financial statements comprise the parent entity and all subsidiaries under its control.

However, certain subsidiaries may be excluded from consolidation due to materiality

considerations or practical constraints. Associates and joint ventures are not fully consolidated but accounted for using the equity method under IFRS. Under some national GAAPs, a choice may exist between proportionate consolidation and the equity method. In other instances, financial investments may be carried at historical cost.

(122) For the **Reporting Boundary** in **sustainability reports**, the relevant, revised ESRS 1 generally **follows the scope applied in financial statements**. Nevertheless, specific adjustments may be required. If subsidiaries excluded from financial consolidation due to immateriality have material sustainability impacts, their inclusion in sustainability reporting may become necessary under CSRD requirements. In such cases, data availability may pose significant practical challenges.

(123) Furthermore, non-controlled entities such as **associates and joint ventures** require particular **attention** in sustainability reporting, especially **regarding greenhouse gas (GHG) Scope 3 emissions**. These entities may also be relevant in broader value chain disclosures, similar to suppliers or customers of the group.

(124) The revised ESRSs introduce a **relief for acquisitions and disposals** (ESRS 1, section 5.4 para. 75-76), in case of an acquisition, an entity may defer the inclusion of the subsidiary or business in the materiality assessment and in the sustainability statement to the subsequent reporting period. If an entity misses control over a subsidiary or business in the reporting period, it may adjust the scope from the beginning of the current reporting period.

(125) Differences between consolidation scope and sustainability reporting boundaries can materially affect the computation of financial-sustainability ratios. Particular attention should be given to:

- Delayed consolidation options under revised ESRS, this could have a significant impact when using data from both reports in an analysis.
- Treatment of financially insignificant subsidiaries that may nevertheless have material sustainability impacts (and vice versa).
- GHG Scope 3 reporting.

(126) Although full misalignment between financial and sustainability reporting boundaries may not be widespread in practice, observed differences could impair comparability in cross-entity or cross-country statistical analysis.

5.4.2 Accounting Choices in IFRSs/IASs and Potential Differences in Application across EU Member States

(a) Introduction: Options within IFRS and Country-Specific Reporting Issues

(127) Accounting options are generally welcomed by preparers but reduce comparability for users. IFRS provides comparatively few explicit choices, which supports comparability.

(128) Explicit options typically arise:

- Upon first-time adoption of IFRS.
- During voluntary early adoption of new standards.
- In areas requiring estimation, for which professional judgement is unavoidable.

(129) Because IFRS follows a principles-based approach, it does not regulate every conceivable business transaction in detail. Consequently, national practices may evolve, leading to differences in presentation and interpretation even where recognition

and measurement principles are aligned.
Particularly with regard to the presentation of financial statements, IFRS allow some freedom as described in the following sub-section.

(b) Presentation Differences

(130) **IAS 1 allows general flexibility** in the **presentation of primary financial statements**. Items may be adjusted or combined if an entity decides to be appropriate or omitted if not significant. This flexibility impairs comparability, particularly in cross-border analyses if national practices evolve.

(131) The **introduction of the new IFRS 18** - applicable from FY 2027 - is **expected to improve presentation structure**, though it will not fully eliminate comparability challenges.

(132) In contrast, the **EU Accounting Directive prescribes stricter** balance sheet and income statement **formats**, safeguarding comparability across Member States in this respect.

(133) Regarding the presentation of the **statement of profit and loss**, entities may present it **either by nature or by function**. The two formats differ in various aspects. This option is also permitted under the EU Accounting Directive and remains under IFRS 18. Sectoral or national tendencies may influence the chosen format.

(134) Similarly, with regard to **other comprehensive income**, companies may present a single statement, or within a two separate statement approach.

(135) Regarding **cash flow statements**, companies in Europe generally apply the indirect method, with the exception of Portuguese companies frequently applying the direct method (generally more difficult to set up but being more informative).

(136) **Certain gains and losses**, particularly those **from equity-method investments** (associates and joint ventures, representing the investor's share of the investee's net income or loss) are placed in practice differently in the statement of profit and loss. While it can be found in the financial result, many groups report them also within the operating result to reflect the strategic, operational nature of these investments. Though the new IFRS 18 should give more guidance in presenting these elements. The practical impact needs to be seen.

(137) Under IAS 19 (revised 2011), **defined benefit costs** are divided into service cost, net interest and remeasurements. While IAS 19 prescribes that net interest must be presented within the income statement, it does not specify the specific place in the profit and loss account. This creates room for differing (national) practices which can significantly affect the composition of operating versus financial results and hence financial ratios.

(138) For the **accounting for subsidies**, IFRS allows **two approaches**: a gross presentation showing assets and liabilities separately; or netting amounts against related assets. National tendencies may exist here, although no statistical evidence is available.

(c) Principles-Based Approach of IFRS and Country-Specific Applications

(139) IFRS follow generally a principles-based approach which centres in broad guidelines, objectives, and conceptual frameworks rather than detailed, prescriptive rules. This approach requires professional judgment by accountants to apply standards to the economic substance of transactions and gives flexibility across global markets. It includes the notion of Substance Over Form giving a focus on the economic reality of a

transaction rather than its legal form. IFRS standards are rather high-level providing general guidelines that apply to a wide range of circumstances, reducing the need for constant updates for new types of transactions.

(140) The principles-based nature of IFRS enhances flexibility but may result in national practices.

(141) One example in this respect is the practical application of the control concept for consolidation (see also section 5.4.1). It requires significant professional judgement by accountants. Depending on the set-up of the national accounting profession differences in interpretation across jurisdictions may exist.

Clawbacks and Rebates

(142) A further example of the influence of principle-based approach while missing detailed requirements is the accounting treatment of clawbacks and rebates in the Greek healthcare system.

(143) The case of clawbacks and rebates demonstrates that a significant state intervention can lead to specific national presentation issues.

(144) In the Greek healthcare system, mandatory clawbacks and rebates are state-imposed cost-containment mechanisms applied to private healthcare providers dealing with the National Organization for the Provision of Health Services (EOPYY).

- *Clawbacks arise when actual healthcare expenditure exceeds predefined public budgets and are calculated retrospectively.*
- *Rebates constitute mandatory price reductions applied to invoiced services.*

(145) Both mechanisms are economically significant. In the case analysed, approximately 10% of revenues were concerned.

(146) Specific amounts are deducted directly from revenues and trade receivables, including year-end estimates where necessary. From a recognition and measurement perspective, this treatment is conceptually consistent with IFRS principles on variable consideration and revenue measurement.

(147) As IFRS does not provide detailed guidance on presentation of this state-imposed mechanisms. a specific presentation practices was chosen. Though the choice affects the operating margin, revenue-based ratios, and sustainability intensity indicators (e.g. CO_2 per revenue).

(148) The case illustrates a broader advisory point: Without constituting deviations from IFRS principles as recognition and valuation remain conceptually aligned, presentation may differ due to lack of detailed guidance. In this respect significant state interventions may not create conceptual accounting divergences, but they can generate country- (or entity-) specific presentation patterns, influencing financial statement analysis and potentially impairing cross-country comparability. Users might not comprehend totally the entity situation at first glance or could make mistakes in cross-country comparisons.

5.4.3 Accounting Differences in national GAAPs based on the EU Accounting Directive and their distinctions from IFRS

(149) By nature national or local GAAPS can differ from each other and also with regard to IFRS, raising issues on comparability of reported data. This sub-section presents selected examples, an overview can be found in Table 5.5.

(a) Differences with Relevance to GHG Emissions Intensity: Definition of Revenues

(150) Revenue constitutes a central denominator not only in financial ratios but also in a number of sustainability indicators, in particular GHG emissions intensity metrics. Consequently, differences in the legal definition and practical determination of revenue may directly influence the analytical outcomes derived from sustainability data.

(151) The EU Accounting Directive defines "net turnover" as the amounts derived from the sale of products and the provision of services after deducting sales rebates and value added tax and other taxes directly linked to turnover.[44] Unlike the predecessor Directive (78/660/EEC), the current definition no longer explicitly refers to revenues arising from "ordinary activities." The removal of this qualifier has broadened the interpretative scope of revenue in certain Member States.[45]

Table 5.5: IFRS versus National GAAP: Examples for Accounting Differences Affecting Sustainability Analysis

Accounting Topic	IFRS Treatment	National GAAP Example	Potential Impact on Sustainability Analysis
Revenue definition	„Narrow" (only referring to ordinary activities)	„Broad" (beyond ordinary activities)	Intensity figures like GHG Emission intensity (CO_2 / Revenue)
Long-term contracts	Percentage-of-completion	Completed contract possible	Revenue timing, impact on intensity figures, impact on tangible assets
Leasing accounting	IFRS 16 (on-balance sheet)	Operating leasing possible (off-balance sheet)	Impact on tangible assets
Goodwill	Impairment	Amortisation	Asset and profitability indicators (if those enter sustainability analysis)

(152) In contrast, IFRS 15 defines revenue as income arising in the course of an entity's ordinary activities. This conceptual anchoring to ordinary activities may, depending on national transposition and practice, result in narrower revenue recognition under IFRS compared to certain national GAAPs based on the Directive.

(153) The presentation material indicates that, in practice, differences exist across Member States. France appears to apply a narrower interpretation, while Belgium, Germany and Greece may follow a broader approach. Examples mentioned include group allocations for intra-group services (e.g. costs for accounting, IT, research and development, HR or legal services), canteen revenues, or revenues from training services. Whether such items qualify as revenue may differ depending on the applicable accounting framework.

(154) While the quantitative magnitude of these differences is difficult to assess and depends heavily on the entity's business model, the analytical implication is evident: where revenue is defined more broadly, emissions intensity ratios (e.g. CO_2 per revenue) may

[44] For non-financial entities, see Article 2, No. 5 of the AccDir.

[45] While for European business statistics, net turnover consists of all income arising during the reference period in the course of **ordinary activities** of the statistical unit, and is presented net of all price reductions, discounts and rebates granted by it (except for NACE 64, 65 and some activities of NACE 66). See Annex IV Definitions of concepts and variables of Commission Implementing Regulation (EU) 2020/1197(EUR-Lex - 02020R1197-20260305 - EN - EUR-Lex).

appear more favourable, all else equal. Conversely, narrower revenue definitions may lead to comparatively higher intensity indicators.

(155) It should also be noted that the revenue definition under the Directive generally applies to specific legal forms covered by its scope. It remains unclear whether similar interpretative differences would arise for entities outside its scope that report sustainability information voluntarily. However, based on the presentation material, no indication of structurally significant additional divergences has been identified.

(156) From an advisory perspective, this issue illustrates that even subtle definitional variations at national level may affect the comparability of sustainability metrics derived from financial statement data.

(b) Differences with Relevance to GHG Emissions Intensity: Revenue Determination for Long-Term Contracts

(157) The accounting treatment of long-term contracts represents another area where divergences between IFRS and national GAAPs may influence revenue recognition and, by extension, sustainability intensity indicators.

(158) Two fundamentally different approaches are acknowledged in accounting:

1. The completed contract method, under which revenue is recognised only upon completion of the contract, reflecting a stronger adherence to the prudence principle.
2. The percentage-of-completion method, under which revenue is recognised progressively as performance obligations are fulfilled.

(159) IFRS 15 introduced in 2018 a structured five-step model for revenue determination based on an asset-liability approach. In substance, this framework aligns with the percentage-of-completion logic for long-term contracts, provided performance obligations are satisfied over time.

(160) Under national GAAPs based on the EU Accounting Directive, however, practices differ. The presentation indicates that Germany predominantly applies the completed contract method, whereas Belgium, France and Greece predominantly apply percentage-of-completion.

(161) The economic consequences of these divergent approaches can be substantial. Under the completed contract method, revenue and profit recognition are deferred, potentially leading to lower reported revenue during the construction or production phase and a concentration of revenue upon completion. Under percentage-of-completion, revenue is distributed more evenly over the contract period.

(162) For sustainability analysis, particularly when calculating emissions intensity metrics, these timing differences may materially distort comparability for entities which operate significantly in long-term contracts. An entity applying the completed contract method may report lower revenue in interim periods while incurring production-related emissions, resulting in temporarily elevated emissions intensity ratios. Conversely, an entity applying percentage-of-completion may show a smoother alignment between revenue and production activity.

(163) The magnitude of such differences is inherently case-specific and depends on sectoral exposure to long-term contracts, notably in manufacturing and construction. Within the TF JECED it was not possible to assess additional Member States.

(c) Further Local GAAP and IFRS Differences

(164) Beyond revenue definition and long-term contract accounting, additional differences between IFRS and national GAAPs may influence financial data that serve as inputs for sustainability analysis:

- Leasing: IFRS 16 introduced a comprehensive right-of-use model that brings most leases onto the balance sheet. National GAAPs do not necessarily incorporate an equivalent approach, potentially leading to lower reported assets and liabilities under local GAAP compared to IFRS. Such differences may affect asset-based sustainability ratios.
- Goodwill accounting: Under IFRS, goodwill is subject to impairment testing, whereas under many national GAAPs it is amortized over time. This leads to different profit profiles and potentially different equity levels over the life of an acquisition.
- Accounting for subsidies: Divergent treatments may affect the presentation of income and assets, with implications for performance measures.
- Equity impact of accounting rules and the role of the Prudence principle: Variations in the application of prudence across national GAAPs may influence valuation approaches and income recognition patterns.
- Impairment of financial instruments and trade credits: Differences in recognition and measurement approaches may influence asset values and profitability.

(165) While not all of these differences are directly linked to sustainability metrics, they may indirectly affect key denominators (revenue, assets, equity) used in sustainability ratio calculations. Moreover, differences in leasing and asset recognition may affect indicators related to capital intensity or resource efficiency.

5.4.4 Lessons Learned from Accounting Differences, Omnibus I Developments (including ESRS Revisions) and Fiscal Year 2024 Experience, overall conclusions

(a) Conclusions from Accounting Differences

(166) The analysis of accounting differences across IFRS and national GAAPs leads to several general observations relevant for sustainability reporting and statistical comparability.

(167) First, from a statistical and analytical perspective, presentation matters. Divergent presentation practices, even if conceptually compliant, may lead to differences in financial ratios and sustainability indicators (see also sub section 5.4.4 b) for potential impact of ESRS revision).

(168) Second, the IFRS principles-based framework, having advantages on the one side, but can lead to potential differences, particularly in presentation. National GAAPs based on the EU Accounting Directive are broadly aligned in conceptual terms but allow also for meaningful practical divergences. These divergences may be more pronounced in specific technical areas. From an advisory standpoint, this reinforces the need for expert judgment and understanding of different accounting frameworks.

(169) In this respect significant national specificities — e.g. where state intervention exists — may lead to issues in comparability issues across countries.

(170) With regard to sustainability reporting, a similar dynamic as in financial statements may develop. Environmental, social and governance matters can be linked to national

legislation, public policy instruments and sector-specific regulation (e.g. climate policy, biodiversity protection, waste management, social security frameworks). As a result, the impact of such national frameworks may influence how sustainability-related effects are presented and structured in corporate reports.

(171) Consequently, expert judgment is necessary in the usage of corporate reporting data. This also highlights that structured and standardised presentation formats are essential for ensuring statistical usability. In this context, templates and implementation examples developed by EFRAG, as well as taxonomy work undertaken in connection with ESRS XBRL reporting, become crucial instruments for safeguarding comparability across Member States. Those works should be supported.

(b) Expected Impact of ESRS Revision

(172) The Omnibus I developments and subsequent ESRS revisions introduce a series of relief mechanisms intended to reduce reporting burden for companies. While these adjustments may reduce complexity, they also introduce potential comparability challenges from a user perspective.

(173) The revised framework places emphasis on the concept of “fair presentation”. Though this is generally an acceptable concept, it may allow also for quantitative data points deviations where companies consider alternative presentation more appropriate. In addition, the introduced “undue cost or effort” principle permits omission or simplification of certain disclosures where obtaining the information would be excessively burdensome. Furthermore, disclosures are limited to material information, including material impacts, risks and opportunities (IROs), with corresponding implications for data point reporting.

(174) From a preparer’s perspective, these provisions represent flexibility and burden reduction. From a user and statistical perspective, however, they may create divergence across entities and jurisdictions. From an entity’s perspective smaller or insignificant data points, no longer be disclosed could be potentially relevant for aggregated statistical analysis. Analysts for which comparability across companies is important, may face increased uncertainty where omissions are justified on materiality or cost grounds.

(175) With the Omnibus I changes companies may increasingly introduce graphical presentations rather than structured tabular formats. Where legends, references to ESRS datapoints, or clear taxonomy alignment are missing, comparability across entities may weaken. Presentation style itself might evolve into a country-specific practice, with some jurisdictions favouring textual narrative and others structured tables.

(176) In addition, assurance practices may develop differently across Member States, potentially reinforcing national divergence.

(177) Preliminary observations therefore suggest that the relief-oriented direction of the ESRS revision may, unless counterbalanced by strong implementation guidance, increase the risk of cross-country heterogeneity in sustainability disclosures.

(c) Observations from Fiscal Year 2024 Reports

(178) The first disclosures under CSRD/ESRS, published in the context of the ongoing Omnibus I discussions, provided initial empirical insights.

(179) An assessment of approximately 40 listed entities across seven EU Member States reveals several patterns. Some entities were not formally obliged to apply ESRS but

nevertheless adopted them fully or partially, while others limited their reporting scope. Differences were observed in materiality assessments, disclosure depth and thematic coverage across entities and jurisdictions.

(180) First of all, sustainability reporting changed in 2024 notably, becoming more standardized and more compliance-oriented. Particularly with regard to GHG Emission Scope 3 reporting, the disclosure in tables improved public corporate reporting from a statistical perspective. The data was also better accessible as the place where to find the information is fixed: a company's management report.

(181) No significant divergence was observed between the scope of financial consolidation and the sustainability reporting boundary in the examined sample. This constitutes a further positive finding with respect to structural alignment between financial and sustainability reporting.

(182) Some differences remain evident. Report length appears strongly dependent on the country of the reporting entity.[46] Assurance practices also vary across Member States. These patterns suggest that national reporting culture and supervisory environment continue to play an important role even under a harmonised regulatory framework.

(183) Given that these findings relate to the first year of implementation and were observed in the midst of regulatory revisions, it is likely that national reporting characteristics may persist or even intensify once the revised ESRS become fully applicable.

(184) Altogether, fiscal year 2024 experience suggests the necessity of continued monitoring. The degree to which revised ESRS disclosures will converge or more diverge remains an empirical question. Systematic observation over the coming years will be required to assess whether comparability objectives are achieved in substance.

5.5 Lessons learned from Voluntary Reporting within the EU Accounting Directive

The Omnibus I Directive represents a significant adjustment to the European sustainability reporting framework, with a stronger emphasis on reducing administrative burdens and improving the competitiveness of European enterprises. A central element of this approach is the increased reliance on voluntary sustainability reporting through a future Voluntary Standard (VS), to replace mandatory reporting requirements for a substantial number of undertakings.

From the perspective of statistical and other public authorities, this development raises important questions concerning the future availability, quality, comparability, and accessibility of sustainability-related information. Historical evidence from financial and corporate reporting indicates that voluntary disclosure mechanisms typically achieve meaningful participation only where strong economic or regulatory incentives exist. Moreover, information reported voluntarily is frequently unavailable for public statistical use because it remains confined to bilateral business relationships.

The evidence reviewed suggests that voluntary sustainability reporting is unlikely to compensate for the reduction in data availability introduced by Omnibus I. Consequently,

[46] Maximilian Müller, Professor at University of Cologne, found that 20% of differences in report length could be explained by country (more e.g. than size or sector of reporting entities, in a sample of 500+ first year CSRD reports): see Müller, Maximilian, post at Linkedin: (24) Posten | LinkedIn (last access 23 June 2026). For country-specific norms or practices in assurance reports, see Przybilla/Müller (2025), slide 11.

significant data gaps may emerge, creating challenges for statistical analysis towards policy advice, economic analysis, and risk assessment.

(a) The Nature and Economics of Voluntary Reporting

(185) Voluntary reporting differs fundamentally from mandatory reporting because participation depends entirely on the reporting decisions of individual undertakings. Preparing reliable sustainability disclosures requires investments in governance structures, data collection systems, internal controls, expertise, and, potentially, assurance processes. In the absence of legal obligations, companies are generally unlikely to incur these costs unless a clear benefit can be identified.

(186) Historically, voluntary reporting has been driven by specific incentives, including:

- Access to financing and international capital markets;
- Improved credit assessment outcomes;
- Investor expectations and reputational considerations;
- Participation in international value chains;
- Alignment with parent-company reporting requirements;
- Preparation for public listings or capital market transactions.

(187) The existence and strength of these incentives largely determine whether voluntary reporting frameworks achieve meaningful participation.

(188) From a statistical perspective, accessibility is equally important. Even where companies voluntarily produce sustainability information, such information may remain available only through private exchanges with banks, investors, parent companies, or rating agencies. Consequently, the existence of voluntary reporting does not automatically result in publicly accessible information suitable for statistical purposes.

(189) Table 5.6 gives examples of voluntary reporting and shows its impact on data availability.

Table 5.6: Examples of voluntary reporting and impact on data availability

Voluntary Reporting Example	Motivation	Coverage	Usefulness for Statistics
IFRS adoption by non-listed groups	Investor and public transparency	Medium	Limited
NYSE dual reporting (1990s)	Capital markets	Narrow	None
Credit assessment reporting	Financing access	Bilateral	Depending: if credit assessment by national central bank, data provision can be very useful if credit assessment by banks: reporting could be triggered by specific credit laws, usually no transition of data to NCBs or NSIs if assessment by private companies: provision of data voluntarily, usually no transition of data to NCBs or NSIs, in exceptional cases reporting data could be bought from private data provider
Early ESRS adoption in EU members with missing CSRD transition	ESG transparency	Emerging	Resulting data limited due to consequent ESRS revision. Motivation of companies might have been supported by other factors.

(b) Evidence of Successful Voluntary Reporting

(190) Historical experience demonstrates that voluntary reporting can succeed under specific circumstances. One important example concerns access to financing. During the 1990s, many European companies voluntarily adopted international accounting frameworks, including IAS and US GAAP, in order to attract international investors and lenders before IFRS became mandatory. Similarly, companies preparing for IPOs often adopt enhanced reporting practices voluntarily to support transparency, valuation, and investor confidence.

(191) Membership in multinational corporate groups has also proven to be a significant driver. Subsidiaries frequently apply reporting standards exceeding local legal requirements to facilitate group consolidation and maintain consistency across jurisdictions.

(192) In addition, financial institutions may request information beyond statutory requirements for credit assessment purposes, thereby encouraging more extensive reporting by companies. Similarly, if a national central bank has an internal credit assessment system in place, the availability of reporting data by non-financial entities is usually greater and include more details than what is published.
Likewise, private rating agencies typically require financial statements as a prerequisite for issuing a rating. In some cases, these agencies also reserve the right to use this data for additional purposes.

(193) These examples demonstrate that voluntary reporting can occur when clear economic incentives are present. However, the examples in the previous paragraph also show that when information is exchanged through private channels, it usually remains unavailable to public authorities.

(c) Limitations of Voluntary Reporting

(194) Despite examples of successful implementation, broader evidence indicates important limitations. First, voluntary reporting remains highly dependent on exceptional circumstances. Where financing needs, international business exposure, or group reporting requirements are absent, undertakings generally demonstrate limited willingness to disclose additional information.

(195) Second, many examples of voluntary reporting involve information exchanged exclusively between companies and specific stakeholders. Although information may exist, it is often inaccessible to statistical institutions and therefore has limited value for public policy purposes.

(196) Third, voluntary reporting is susceptible to self-selection bias. Companies with stronger sustainability performance may be more inclined to disclose information, while companies facing sustainability challenges may choose not to report. This can reduce representativeness and distort aggregate indicators.[47]

(197) Fourth, voluntary disclosure may increase the risk of selective reporting and greenwashing. In the absence of comprehensive requirements and robust oversight, companies may emphasise favourable information while omitting less favourable indicators, thereby reducing the reliability of available data.

(d) Evidence from Financial Reporting and Disclosure Practices

(198) Experiences from financial reporting provide additional insight into likely behaviour under voluntary sustainability reporting frameworks. The voluntary adoption of IFRS by non-listed entities remains uneven across Europe. While some countries, such as Greece, demonstrate relatively high adoption rates, many non-listed entities in Germany, Belgium, and France continue to apply national accounting standards. Similarly, voluntary application of IFRS to separate financial statements remains limited and highly dependent on national legal frameworks.

(199) The experience with IFRS for SMEs is particularly informative. Across Europe, voluntary adoption has generally remained very limited, demonstrating that the existence of a reporting standard alone is insufficient to generate widespread participation.

(200) Additional evidence can be derived from disclosure exemptions available under the EU Accounting Directive. Although undertakings are often permitted to publish information beyond minimum legal requirements, national experience consistently indicates that companies rarely provide more information to the public than required by law, even when this information is internally available.[48] This tendency appears especially pronounced among smaller entities, which frequently prioritise administrative simplicity and cost reduction.

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[47] For the self-selection bias and the risk of selective reporting and greenwashing, see also the ECB Opinion on Omnibus I: EUR-Lex - 52025AB0010 - EN - EUR-Lex.

[48] E.g. Providing turnover by medium-sized undertakings; providing profit and loss figures by small undertakings; "Publishing" instead of "Filing" by micro undertakings; publication of separate financial statements by undertakings with legal form in Annex II of EU Accounting Directive when consolidated financial statements by a parent is published, publication of consolidated financial statements by parent undertakings representing a small group; Publication of financial statements when not required at all, e.g. for legal forms not in Annex I of the AccDir.

(201) Overall, these experiences suggest that voluntary disclosure frameworks tend to achieve only limited participation unless supported by compelling incentives.

(e) Emerging Trends Following Omnibus I

(202) Recent observations indicate that reporting behaviour has already begun to respond to political discussions surrounding Omnibus I. Evidence from several Member States suggests that some undertakings have reduced voluntary sustainability disclosures in anticipation of future reporting relief. Similarly, certain public authorities have adjusted their approaches in line with anticipated regulatory developments before formal implementation. These developments demonstrate that companies respond rapidly to changes in perceived regulatory expectations. Consequently, reductions in mandatory reporting requirements may result not only in lower mandatory reporting coverage but also in declining levels of voluntary disclosure.

(f) Implications for Statistical Authorities and Central Banks

(203) The findings have naturally implications for statistical institutions and central banks when they rely on public reports (particularly on the non financial sector).

(204) A reduction in mandatory reporting coverage is likely to create significant data gaps. Voluntary reporting is unlikely to compensate fully for the resulting loss of information, while voluntary disclosures that do occur may remain inaccessible because they are exchanged through private channels.

(205) Furthermore, self-selection effects and reporting biases may reduce the representativeness of available information, complicating the production of harmonised and comparable sustainability statistics or studies.

5.6 Experience in the Use of AI for Specific Accounting Aspects Based on the EU Accounting Directive

Using AI for specific accounting aspects, e.g. prompts for exact definitions of accounting terms like net turnover, is of limited reliability as a pilot study illustrates. While AI proved efficient in mapping legal frameworks and providing coherent responses, limitations such as paraphrasing, outdated references, and variability across jurisdictions were noted. AI can by far not replace expert validation. AI should serve as a supportive tool, with experts ensuring accuracy and comparability, particularly across country levels.

(206) Building on the analytical work carried out on accessibility and comparability of reporting information, this section presents a structured reflection on the experience gained from testing Artificial Intelligence (AI) tools in addressing specific accounting questions derived from the EU Accounting Directive. The objective of this exercise was practical: to assess whether AI can reliably support the identification of precise legal definitions, original-language quotations, and corresponding references in national accounting frameworks, with a particular focus on a concept that is central to statistical and sustainability analysis, “net turnover”.

(207) The exercise was inspired by the findings on variations in the definition of revenue in local GAAPs (see sub-section 5.4.3). A targeted pilot exercise was conducted to systematically compare AI-generated responses across multiple jurisdictions and at two different points in time. The tool tested was ChatGPT (version 5.2), and the findings presented below are specific to this tool and model version; other AI systems may

produce different results. The question examined was deliberately narrow and technical, namely, to provide the exact legal quotation of the definition of "net turnover" (or its national equivalent) in the original language, together with the precise legal reference and an English translation. A standardised prompt was used across all jurisdictions, specifying the target language, the link to the EU Accounting Directive, and requesting a verbatim quotation together with a legal reference and an English translation — a formulation that proved to be a methodological good practice. The comparative assessment gives rise to four principal findings. Given the limited number of jurisdictions covered, these findings are intended as illustrative rather than representative of the full diversity of EU Member States.

(208) The first finding is that AI-generated responses constitute an efficient and often well-structured starting point. In several instances, the models correctly identified the relevant national legal act and provided a coherent description of the concept. Moreover, the comparison over time indicates that performance has improved in a number of jurisdictions, particularly with regard to identifying the correct legislative framework and offering clearer translations. In certain cases, the AI demonstrated a capacity for substantive legal reasoning — for instance, correctly identifying that no standalone national definition exists for a given concept and appropriately referring back to the EU Accounting Directive as the binding source.

(209) A second finding is that, despite the aforementioned improvements, the exercise revealed recurring limitations. Some quotations were paraphrased rather than verbatim. In other cases, the referenced article number was incorrect, outdated, or attributed to the wrong legislative instrument. These errors broadly fall into the following categories: paraphrasing instead of verbatim quotation; incorrect or obsolete legal reference; incorrect location within the legal structure; and failure to account for recent legislative amendments. This last category reflects a structural limitation of AI models, whose training data has a fixed cut-off date: recent legislative changes may therefore not be reflected in the responses, irrespective of the quality of the prompt. These inaccuracies, while sometimes subtle, are material in a legal and statistical context. Where definitions such as turnover may be used as denominators for analytical indicators or to assess size thresholds, precision of legal source and wording is essential. Furthermore, improvement over time is not necessarily monotonic: model updates do not uniformly improve legal precision across all jurisdictions, which reinforces the need for systematic expert validation regardless of the model version used.

(210) A third finding is that the pilot confirms that the underlying legal architecture differs across Member States. The notion of "net turnover" is not implemented uniformly: in certain jurisdictions, the definition is explicitly set out in national accounting legislation; in others, it reflects the wording of the EU Accounting Directive more indirectly or is embedded within presentation rules rather than in a standalone definitional article. Artificial Intelligence systems do not always distinguish clearly between Directive-level wording and its national transposition, which can lead to incorrect attribution of legal origin.

(211) A fourth finding is that the overall reliability of AI-generated results varies across jurisdictions and model versions, in ways that are not always predictable. This variability is itself an argument for a structured validation process, since the user cannot easily anticipate which outputs are accurate and which require correction without independent verification.

(212) In light of these findings, it is recommended that AI should be positioned as a supporting methodological instrument rather than as an autonomous source of legal authority. A

proportionate validation framework could therefore provide for: (i) the use of AI for the initial mapping and drafting of candidate responses; (ii) the systematic verification of all verbatim quotations against the official legal text; (iii) confirmation of the precise legal reference and its current validity; and (iv) concise country-level annotations clarifying whether the relevant definition derives directly from the EU Accounting Directive or from national implementing provisions. Such an approach would allow the efficiency gains offered by AI to be retained, while ensuring legal robustness, accuracy and comparability of outputs.

Conclusion on the use of AI on accounting specific issues

(213) The experience derived from this pilot exercise confirms that AI-generated answers constitute a useful point of departure and have demonstrably improved in accuracy as the underlying models evolve. Nevertheless, they cannot be relied upon in isolation for the provision of precise legal definitions and authoritative references. The analysis illustrates that even a seemingly straightforward concept such as "net turnover" is subject to differing legal treatments across jurisdictions. While certain Member States rely directly on the terminology of the EU Accounting Directive, others incorporate the concept indirectly within national accounting legislation or through embedded presentation and classification rules.

(214) Accordingly, expert judgement at country level remains indispensable to identify the correct legal sources, ensure that references are current and valid, verify the accuracy of verbatim quotations, and mitigate the risk of misinterpretation. AI should therefore be positioned as an enabling instrument — enhancing efficiency, scope and preliminary analysis — while ultimate responsibility for legal accuracy and interpretative coherence properly rests with subject-matter experts. Future iterations of this exercise could usefully extend the scope to other key accounting concepts relevant to statistical and sustainability analysis, in order to assess whether the findings observed for net turnover are broadly representative.

6 Data Accessibility and First ESG Datasets. Input from ECCBSO and CMFB

The sections outline the TF efforts to enhance data accessibility and management, focusing on sustainability and financial data. The work stream developed a secure data-sharing procedure for ESG data through a centralized repository, enabling efficient collaboration, transparency, and data security.

The ERICA Working Group, under ECCBSO, curates a database of IFRS-compliant financial and ESG data for European non-financial corporations. Despite its high-quality, standardized data, access is restricted to contributors, limiting analytical depth for non-contributors like TF JECED. To address this, a temporary waiver was granted, allowing controlled microdata access exclusively for TF JECED's mandate, with strict confidentiality rules.

The workstream also assessed ERICA's ESG dataset, noting its comprehensive coverage of listed groups but limited representation of non-ERICA countries. While external ESG providers were considered, their licensing restrictions, estimated indicators, and lack of alignment with ERICA's standards led the workstream to rely solely on ERICA for consistency and cost efficiency.

(215) Data accessibility refers to how easily users can find, access, understand, and use data. It includes formats, standards, and interfaces, and is key for transparency in corporate reporting. Workstream 3 has worked to improve data management, break data silos, and ensure secure and accessible data.[49]

6.1 Develop a Data Sharing Procedure for ESG Data – Data Repository

(216) Organizations today handle large volumes of data, making efficient data management essential for decision-making and competitiveness. A data repository provides a centralized system for storing, organizing, and accessing this information, offering significant operational advantages. Workstream 3 therefore explored how to create a secure and compliant data-sharing procedure for sustainability data as part of the TF JECED's workplan.

(217) TF JECED, composed of experts from multiple institutions, identified the need for a unified repository to support its work. Such a platform would store all documents, datasets, and resources required by the task force, ensuring coherence and efficiency. Workstream 3 concluded that a repository would be essential for uploading, downloading, and managing all information shared within the group.

The repository supports:

1. **Centralized management** which ensures that all members work with the same, most up-to-date data. This reduces errors, prevents inconsistencies, and supports timely decision-making by simplifying retrieval and eliminating fragmented data sources. **Improved collaboration**, enabling shared access, real-time editing, and version control.

[49] This section captures the result of Workstream 3 and was written by the following members: Alfredo Maldonado (Workstream 3 lead), Javier González, Santiago Martínez.

2. **Enhanced collaboration**. A shared platform enables members to exchange documents, work simultaneously, and rely on version control systems that prevent duplication and outdated files. Change logs and access records also reinforce transparency and help maintain data integrity across the task force.

3. **Transparency and accountability** through logs and audit trails. Audit trails show who accessed or modified documents, fostering trust among members. Furthermore, data security is significantly improved through access controls, encryption, backup systems, and monitoring tools designed to detect suspicious activity and protect sensitive information.

4. **Data security**, with access controls, encryption, and backups. A repository strengthens data protection by allowing strict access controls so that only authorized users can view or modify sensitive information. This safeguards both the integrity and confidentiality of the data through robust security mechanisms such as permissions management, encryption, and intrusion detection systems. In addition, centralized repositories typically include backup and recovery capabilities to prevent data loss from system failures or other disruptions. They also allow continuous monitoring of access patterns, helping detect unusual or suspicious activity. This enhances an organization's ability to respond quickly to potential security threats, ensuring a more resilient and secure data environment.

5. **Efficiency**, reducing redundancies and streamlining workflows.

6. **Data redundancies,** ensuring a single, authoritative version of each data element.

7. **Knowledge management**, preserving documentation and best practices. A repository preserves all knowledge and insights generated during the task force's work, ensuring that best practices and lessons learned are documented for future reference and for onboarding new members. This accumulated knowledge strengthens future task forces by providing a clear record of what has been effective and what challenges have arisen. Overall, a repository is an essential tool, offering centralized information management, improved collaboration, better accountability and transparency, stronger data security, and greater efficiency in workflows. By consolidating data and reducing redundancy, it ensures that information remains accessible, consistent, and reliable. By using a centralized repository, the task force was able to streamline data management, enhance productivity, and operate more effectively, while also benefiting from improved data integrity, scalability, and regulatory compliance.

(218) In this context, Banco de España, as participant of the TF JECED, created a dedicated NetBox-based repository for TF JECED, following a strategic agreement with NetBox to strengthen data governance and infrastructure management. The system enhances documentation, organization, and secure access to key information, fully complying with Eurosystem confidentiality and encryption requirements. This repository enables the task force to operate more effectively and meet its objectives with higher efficiency, consistency, and security.

6.2 Assess Accessibility of Financial and ESG Data from ERICA

(219) The ERICA Working Group (WG), created in 2008 under the ECCBSO, brings together experts from European central banks to analyse the impact of IFRS on the accounting of non-financial groups and on CBSO databases. The group developed standardized IFRS-compliant formats using the IASB-XBRL taxonomy and created the ERICA

database, which contains consolidated financial information for listed European non-financial corporations going back to 2005. In 2019, the WG expanded the database to include non-financial (sustainability-related) information.

(220) The ERICA database compiles annual IFRS consolidated statements sourced from publicly available reports. CBSO specialists manually transform the data to a harmonized European format, and national central banks validate it using a shared digital platform with standardized quality checks. This rigorous process ensures high-quality, comparable data used by central banks to monitor the financial health and performance of major European non-financial groups.

(221) Since 2020, the ERICA WG has also developed ESG indicators aligned with the European Sustainability Reporting Standards (ESRS), ensuring standardized and comparable sustainability data. Although access is generally limited to ECCBSO members or requires formal requests, ERICA represents a key source of financial and ESG information across eight European countries, Finland additionally joined the WG recently. Although this database does not cover all EU countries, ERICA is offering an existing structural setting for data sharing, with ERICA countries representing 86% of the Euro area and 72% of the EU in terms of GDP. Its standardized database provides valuable, consistent inputs for initiatives such as TF JECED, which benefits from ERICA's structured financial and non-financial data.

6.3 Identified Barriers to Data Access and Proposed Solutions

(222) The ERICA Working Group manually curates its dataset, which ensures high-quality information but can slow updates and introduce some interpretation bias. To mitigate this, experts have developed extensive validation rules that help maintain accuracy and consistency despite the manual nature of the process. The data remains a reliable and standardized source for analytical work within the participating institutions.

(223) Access to ERICA data is **restricted**. The WG applies strict data-diffusion rules that limit microdata access to contributors only. This means that institutions or analysts not involved in supplying data to the ERICA database cannot view microdata. As a result, TF JECED participants who are not ERICA contributors would normally be unable to use the microdata required to meet their mandate, relying instead on aggregated data, which would limit analytical depth.

(224) Given these restrictions, Workstream 3 sought a **solution** that would allow all TF JECED members to access ERICA microdata. EU legislation supports data sharing within the ESCB while ensuring confidentiality, enabling a compliant framework for cooperation. Based on this, the ECCBSO and ERICA WG proposed **a temporary waiver** allowing limited microdata sharing exclusively for the TF JECED mandate.

(225) To solve this, ERICA WG granted:

1. A **temporary waiver** allowing microdata sharing with TF JECED members solely for the project's mandate. This temporary solution enabled full access for all TF members and may serve as a model for future European cooperation requiring controlled access to microdata. Because ERICA microdata access is restricted, TF JECED members who are not ERICA contributors would normally lack access
2. **A data-sharing commitment** prohibiting other uses or dissemination, restricting the use and sharing of the microdata.
3. An **obligation** to erase all microdata once the mandate ends.

4. This arrangement ensures microdata **access** while respecting **confidentiality** rules.

6.4 Assess Quality, Accessibility, and Completeness of ERICA ESG Dataset

(226) The ERICA dataset is highly comprehensive, although it does not cover the entire population of European non-financial groups. Its approximately 1,000 listed groups each year provide a solid representation of national stock market compositions. Because many of the largest groups are multinationals, their performance may not accurately reflect the economic situation of their home countries. Within Workstream 3, this limitation prompted discussions on whether collaboration with external ESG data providers could help expand geographic and thematic coverage.

(227) Workstream 3 evaluated the possibility of integrating third-party ESG data to complement ERICA, especially for countries involved in TF JECED but not represented in the ERICA WG. Some ERICA members could also enlarge the dataset by contributing additional groups. However, the task force examined the feasibility and implications of these options before making a decision.

(228) During these assessments, several limitations of external ESG providers became evident. Licensing restrictions could prevent full access for all TF JECED participants, some providers relied on estimated rather than reported indicators—unlike ERICA's use of company sustainability reports—and delays in external reporting could hinder timely analysis. Moreover, third-party datasets often lacked full coverage of the Workstream 1 indicator set.

(229) Using ERICA exclusively offers clear advantages. The database ensures regulatory compliance, follows IFRS standards, and guarantees consistency across countries—critical for cross-border financial analysis. Its standardized structure also supports strong comparability and reliability, reinforcing its value as a trusted European data source for TF JECED.

(230) Additionally, ERICA provides detailed financial metrics—profitability, capital structure, debt—and ESG data, enabling robust benchmarking and sectoral analysis. ERA produces publications using the full dataset, adding analytical depth. Keeping data within a European system strengthens sovereignty and security while reducing the risk associated with third-party handling of sensitive information.

(231) Cost efficiency is another advantage: unlike external providers that require expensive subscriptions, ERICA is more economical for organizations requiring recurrent access. Considering all these factors, Workstream 3 concluded that relying solely on ERICA avoids the complexity, extra workload, and data-integration challenges that would arise from mixing multiple sources.

(232) Workstream 3 also explored complementary public datasets to fill ESRS areas not covered by ERICA. One example was the E-PRTR (European Pollutant Release and Transfer Register). However, the task force concluded that E-PRTR data could not be meaningfully linked to ERICA's consolidated group-level information. Therefore, incorporating that dataset would not add analytical value and was ultimately discarded as an option.

6.5 Produce First ESG Datasets and Quality Assurance

(233) Once the ERICA Working Group authorized the sharing of microdata with the TF JECED, it prepared a dataset containing the sustainability information available in ERICA and tailored it to the indicators developed by Workstream 3. This dataset was then shared with Workstream 4 through the NetBox platform so the task force could begin its analysis.

(234) To guarantee accuracy and consistency, the ERICA WG applies a multi-layered quality-assurance framework. This includes automated validation rules that check completeness, formatting, and logical consistency—such as verifying that Scope 1 plus Scope 2 emissions do not exceed total emissions—and cross-checks against financial data to detect anomalies.

(235) Quality control also relies on peer review among participating CBSOs, who examine each other's extraction and transformation processes to ensure methodological alignment. Each ESG indicator is supported by detailed metadata describing its source, calculation method, and disclosure year, enhancing transparency. Pilot testing with users such as researchers and policymakers further helps refine the indicators and quality procedures.

(236) A first ESG dataset was prepared and shared via NetBox. Quality assurance included:

1. Automated validation rules.
2. Peer review among CBSOs.
3. Metadata documentation.
4. Pilot testing and feedback.

(237) Workstream 4 would assess whether additional validation rules should be added beyond those already included in the ERICA dataset. This continued refinement aims to strengthen the reliability, comparability, and usefulness of the ESG data for the TF JECED's broader analytical work.

7 Data Analysis and Stocktake

7.1 CMFB Survey

This sub-section covers the results of the CMFB survey as requested in the JECED mandate in order to gain an overview on national and international ESG-data-related activities of official data producers.

(238) As part of its mandate, the Workstream designed, launched, and analysed a CMFB questionnaire on economic and environmental data to assess current practices, data availability, and future needs related to environmental-economic statistics. The questionnaire was presented to the ESF in January 2025 and disseminated broadly to EU National Central Banks (NCBs) and National Statistical Institutes (NSIs), with responses received from the ECB, Eurostat, 22 NCBs, and 18 NSIs. The survey focused on mandatory and voluntary reporting areas, existing data gaps, and the alignment of national practices with ongoing EU and international statistical and regulatory developments, including environmental accounts, sustainable finance, and climate-related statistics.[50]

(239) The results highlighted both strengths and gaps in the current statistical framework. While core environmental domains such as air emissions, energy, material flows, and environmental taxes are largely covered through existing mandatory reporting, several emerging areas such as biodiversity, ecosystem services, sustainable finance, and climate change mitigation and adaptation require further methodological development and coordination.

(240) Importantly, around 70% of respondents expressed a clear willingness for enhanced cooperation, underlining the value of continued collaboration between NSIs and NCBs.

(241) Based on these findings, Workstream 4 concluded that structured cooperation, methodological harmonization, and monitoring of national CSRD transition and data availability are essential next steps.

7.2 Scope of 1st CSRD Wave

This sub-section covers the results on the companies within the 1st CSRD wave, which also have been obliged to report under the NFRD directive. The difficulties obtaining a respective list of companies are explored. Altogether the analysis show once more the advantages of the coming ESAP.

(242) An empirical assessment of how many German entities fall under the first CSRD wave provided an insight into the expectations of first CSRD reports. Approximately 520 German groups or companies would belong to the 1st wave, roughly half of them would be non-financial entities, about 40% credit institutions, the remaining would be other financial entities.

(243) For obtaining the list several steps were necessary, partly doing manual work. In this respect the findings emphasized the advantages of the coming European Single Access Point (see also the section 5.1 on report accessibility).

[50] This section captures the result of Workstream 4 and was written by the following members: Ville Tolkki (Workstream lead), Dominik Elgg, Stijn Ferrari, Alfredo Maldonado.

7.3 Omnibus I Impact

This sub-section covers the analysis on the impact of Omnibus I proposal on the scope of entities. The significant overall reduction is confirmed. An analysis of CERVED shows that this implies that relevant companies currently assessed as having high/very high exposure to physical risks, transition risk and CO2 emission intensity would be excluded.

(244) An empirical assessment of Italian companies gave an indication how the first proposal of the EU Omnibus I proposal by the EU Commission[51] would substantially reshape the estimated perimeter of companies falling under the CSRD, using firm-level data from the Italian Central Balance Sheet Office (Cerved). The comparison of the reporting population before and after Omnibus I (as proposed by the EU Com) shows that the number of in-scope companies would sharply decline by roughly 90% (from 10,581 to 1,300) and by around 40% in terms of total assets.

(245) The reduction in the scope of companies required to prepare sustainability reports would result in a significant number of firms no longer being subject to mandatory disclosure. This means a relevant reduction of companies currently assessed as having high/very high exposure to physical risks, transition risk and CO2 emission intensity.

(246) As a consequence, the availability of granular, comparable and decision-useful information on these companies would be significantly reduced. This could weaken the capacity of stakeholders to effectively monitor the evolution of both physical and transition risks, particularly in sectors where exposure is already material.

(247) In addition, reduced reporting would limit visibility on the mitigation measures, adaptation strategies and transition plans implemented by companies, which are essential elements to assess the evolution of their risk profile over time.

(248) From a broader perspective, a reduction in the reporting perimeter could therefore undermine transparency on the environmental risk profile of a relevant share of the corporate sector, potentially affecting the ability of financial institutions, supervisors and other stakeholders to adequately assess, monitor and manage climate-related risks.

(249) These findings were supported by estimates for German companies, where ~80% of companies fall out of the CSRD scope (2nd wave).

(250) The final Omnibus I compromise as agreed in December 2025 will even reduce more the scope of CSRD companies. In addition to this reduction in the number of reporting companies, the revised ESRS adopted by the Commission in July 2026 reduce the number of mandatory data points per company. Combined, both effects imply that carbon footprint and other environmental indicators based on CSRD data will be narrower in terms of both the companies covered and the data points available, increasing the need for estimation for non-reporting companies.

7.4 AI-tools

This sub-section covers experiments exploring the feasibility of using AI-based tools to automate the extraction of structured environmental data from corporate sustainability reports, including table extraction, assessment of ESRS data points in FY 2024 disclosures, and the

[51] See section 1.3. The proposal introduced significantly higher quantitative thresholds for the CSRD scope: companies with more than 1,000 employees and at least EUR 50 million in net turnover would remain subject to mandatory reporting.

transformation of PDF sustainability reports into auditable firm-level microdata, highlighting both the potential and limitations of AI tools.

(251) As part of Workstream 4, several methodological experiments were presented to assess the feasibility of using AI-based tools to automate the extraction of structured environmental data from corporate sustainability reports.

(252) First, an exploratory study carried out during an internship at **INSEE** tested different approaches for extracting tables from CSRD/NFRD reports. Initial attempts relied on web-scraping XHTML reports but proved insufficient due to heterogeneous formatting practices. The work therefore shifted to a PDF-based extraction strategy, focusing on a single indicator (Scope 1 emissions) and combining keyword-based page filtering with automated table extraction using the *markerpdf* Python package. Tests on French companies' reports for 2023 and 2024 showed a marked improvement in identifying relevant tables, partly reflecting increased harmonisation under the CSRD. While table extraction was largely successful, significant challenges remained in transforming heterogeneous tables into a consistent database, notably with respect to unit extraction and label harmonisation.

(253) Second, Workstream 4 assessed the availability, consistency and practical usability of selected ESRS data points in first-wave CSRD reports through a structured review of FY 2024 annual and sustainability reports from 41 large European non-financial companies. The analysis combined AI tools for initial screening and navigation with systematic manual validation of disclosures, with particular emphasis on important as well as complex ESRS data points based on the List of Environmental Indicators. The assessment documented coverage rates of ESRS data points, identified recurring data gaps and quality issues, and evaluated the strengths and limitations of different AI tools. Overall, the results showed that AI tools are useful for first-layer screening and orientation but must be complemented by mandatory (human) checks to ensure accurate and reliable ESRS data collection.

(254) Third, Workstream 4 investigated the feasibility of transforming publicly available sustainability reports in PDF format into auditable, firm-level microdata. This work examined key challenges in extracting emissions and revenue figures from heterogeneous corporate disclosures, including non-standard page structures, complex tables and inconsistent terminology. As presented by the Bank of Finland, the approach combined large language models with visual–language models to review reports page by page, extract textual and visual information, index numerical values, and assign confidence scores to candidate extractions. The investigation illustrated both the current capabilities of large language models and their potential for systematic analysis of the reliability of sustainability reporting.

7.5 ERICA Analysis, among availability and consistency of ERICA emissions data

This sub-section covers a structured comparison of ERICA Greenhouse Gas (GHG) emissions data with Institutional Shareholder Services (ISS) data, using identifier-based matching to assess availability and consistency of emissions. It also refers to Annex VII with further analysis.

(255) Workstream 4 carried out a structured comparison of **ERICA Greenhouse Gas** (GHG) emissions data with a commercial dataset from Institutional Shareholder Services (ISS),

applying a stepwise identifier-based matching methodology. The analysis assessed the availability and consistency of **Scope 1 emissions** in ERICA over the period 2020–2024, with **Scope 2 emissions** additionally included for the year 2024.

(256) The work comprised two main analytical checks: an availability assessment based on the number of reporting firms, and a consistency analysis comparing overlapping values across the two data sources. This analysis complements the data quality checks already embedded in the ERICA framework. The findings were discussed within the ECCBSO/ERICA Working Group and led to several data corrections by ERICA compilers (while ISS data provider was not approached). Overall, these checks contribute to the **assessment of ERICA data availability, coverage, and coherence**, supporting ongoing Workstream 4 work on data quality and comparability.

(257) Within the specific sub- “Subgroup on ERICA Data Analysis – TF JECED” further analysis on the current ERICA data was carried out. Generally this analysis has had to be delayed because of Omnibus I and the missing delayed ESRS granular data based on ESEF. Results will be added in a subsequent step in Annex VII. Further updates could be integrated after summer 2026.

8 Reporting of intermediate results

(258) The stocktaking results on environmental data - see section 7.1 – as well as the work programme of the TF JECED were presented at the European Statistical Forum in January 2025.

(259) The final stocktaking results have been circulated by CMFB Secretariate in May 2025.

(260) Regular updates of the TF JECEDs ongoing work were presented at the following CMFB meetings:

- CMFB Plenary June 2024
- CMFB Executive Board Meeting October 2024
- CMFB Plenary June 2024
- CMFB Executive Board Meeting October 2025
- CMFB Executive Board Meeting April 2026
- CMFB Plenary July 2026

(261) Regular updates of the TF have also been presented at the following ECCBSO meetings:

- ECCBSO Chairpersons meeting March 2024
- ECCBSO Chairpersons meeting June 2024
- 46th ECCBSO Plenary October 2024 in Madrid
- ECCBSO Chairpersons meeting February 2025
- ECCBSO Chairpersons meeting May 2025
- 47th ECCBSO Plenary October 2025 in Munich
- ECCBSO Chairpersons meeting March 2026
- ECCBSO Chairpersons meeting June 2026
- 48th ECCBSO Plenary September 2026 in Helsinki

(262) The TF concludes with this report.

9 More detailed suggestions for Follow-up on CSRD reporting data

(263) The main recommendations are given in the Executive Summary of this report. The following section offers additional detailed suggestions that could be executed in the ERICA WG.

- Identification of the approximately 10–20 most relevant data points from the List of Indicators particularly regarding carbon footprint indicators. These data points should include GHG emissions (Scope 1, location- and market-based Scope 2, Scope 3 by significant category), transition plans, targets, and energy consumption. Evaluate these data points using published CSRD reports from FY 2024 until FY 2026. Pay particular attention to the extraction of elements from narrative disclosures, especially transition plan information. Coordinate with users where such extraction is important, for example, the Working Group RA of ECCBSO. Assess fallback estimation methods where data points are not reported.
- Inclusion of "EU Taxonomy reporting" in the list of Indicators and assess the availability of granular data for this category.
- Assessing size and sector recommendations using reporting data from recent years in more detail to confirm their continued relevance.
- Evaluating whether country-specific differences will emerge with the revised ESRS standards, focusing on the approximately 10–20 most relevant data points.
- Assessing the extent of voluntary reporting available, for example, through credit risk assessment, once the Omnibus I voluntary standard is implemented.
- Examining whether differences arise between the scope of consolidation and reporting boundaries in CSRD reports.
- Although the Omnibus I Directive has entered into force, there are ongoing political discussions regarding further initiatives to reduce the reporting burden. It is important to continue monitoring the legal framework in this respect. This includes, in particular, the implementation of the revised ESRS and the VS adopted by the Commission in July 2026, the review clauses of the Omnibus I Directive and the planned simplification of the EU Taxonomy, as well as their impact on the ability to produce carbon footprint and other environmental indicators.
- Analysis of AI tools and encourage collaboration between AI projects across CMFB members, thereby assessing whether data points from the List of Indicators can be extracted using these tools. Sharing knowledge about specific reporting issues in this respect.
- Monitoring which companies may be included in the remaining CSRD waves following the changes introduced by Omnibus I. Thereby assessing whether reports from companies outside an EU Member State may be relevant due to their consolidated approach. Use ESRS S1 information from the List of Indicators for this assessment.
- Observation of the use of CSRD exemptions, including the impact of new exemptions introduced by Omnibus I.

References

Links included in the following references are as of 18 June 2026 if not otherwise stated.

i. Legal texts

Regarding Corporate Reporting

Accounting Directive (consolidated version):

- EUR-Lex - 02013L0034-20260318 - EN - EUR-Lex

CSRD (consolidated version)

- EUR-Lex - 02022L2464-20260318 - EN - EUR-Lex

ESRS (consolidated version)

- EUR-Lex - 02023R2772-20250101 - EN - EUR-Lex

Omnibus I Directive

- Directive - EU - 2026/470 - EN - EUR-Lex

ESAP (consolidated version) and accompanying implementing texts

- EUR-Lex - 02023R2859-20240725 - EN - EUR-Lex
- Regulation - EU - 2023/2869 - EN - EUR-Lex
- Directive - EU - 2023/2864 - EN - EUR-Lex
- Implementing regulation - EU - 2025/1338 - EN - EUR-Lex
- Implementing regulation - EU - 2025/1339 - EN - EUR-Lex

ESEF (consolidated version)

- EUR-Lex - 02019R0815-20260407 - EN - EUR-Lex

Transparency Directive (consolidated version)

- EUR-Lex - 02004L0109-20240109 - EN - EUR-Lex

EU Green Deal

- EUR-Lex - 52019DC0640 - EN - EUR-Lex

IFRS Regulation and accompanying standards (consolidated versions)

- EUR-Lex - 02002R1606-20080410 - EN - EUR-Lex

- EUR-Lex - 02023R1803-20250730 - EN - EUR-Lex

CSDDD

- EUR-Lex - 02024L1760-20260318 - EN - EUR-Lex

SME and SMC Recommendations

- EUR-Lex - 32003H0361 - EN - EUR-Lex
- EUR-Lex - 32025H1099 - EN - EUR-Lex

Connected legal texts for EU statistics:

- On European statistics:
  Regulation - 223/2009 - EN - EUR-Lex
- Concerning the collection of statistical information by the ECB:
  Council Regulation 2533/98
- On open data and the re-use of public sector information:
  Directive - 2019/1024 - EN - psi directive - EUR-Lex
- Accompanying implementing text: list of specific high-value datasets:
  Implementing regulation - 2023/138 - EN - EUR-Lex

ii. Links relevant to ESS and ESCB statistics, as well as links to relevant institutions or initiatives

Eurostat - Environmental statistics

- Overview - Environment - Eurostat

European System of Central banks (ESCB) - Statistical indicators by the Statistics Committee Expert Group on Climate Change

- Overview site at ECB: Climate change, nature degradation and the ECB
- Climate change-related indicators
- *Climate change related statistical indicators*, Statistical Paper Series 48, April 2024.

European Central Bank, opinions and staff papers on CSRD and ESRS

- ECB Opinion on CSRD of 7 September 2021: EUR-Lex - 52021AB0027 - EN - EUR-Lex
- ECB Opinion on Omnibus 1, 8 May 2025: EUR-Lex - 52025AB0010 - EN - EUR-Lex
- ECB staff opinion on the first set of European Sustainability Reporting Standards
- ECB staff opinion on the revised European Sustainability Reporting Standards (ESRS)

Website of DG FISMA of the EU Commission

- Company reporting - Finance - European Commission

EFRAG:

- Europe's Voice in Corporate Reporting | EFRAG
- EFRAG Knowledge Hub: Home | EFRAG Knowledge Hub

Network of Central Banks and Supervisors for Greening the Financial System (NGFS)

- Welcome to the NGFS website | Network for Greening the Financial System

GHG Protocol (based on partnership between World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD))

- Homepage | GHG Protocol
- Corporate Standard | GHG Protocol
- PCAF. *The Global GHG Accounting and Reporting Standard Part A: Financed Emissions*. Third Edition, December 2025.

G20 DGI

- G20 Data Gaps Initiative

TCPI Centre

- Home - Transition Pathway Initiative

Global Reporting Initiative

- GRI - Home

ISSB

- IFRS - International Sustainability Standards Board

Platform on Sustainable Finance (advisory group for EU Commission)

- Platform on Sustainable Finance - Finance - European Commission

German banking site with variables for credit assessment,

- ESG regulation: banks and insurers offer guidance on data re... | Association of German Banks

SRN Platform (academic project with extraction of granular data point using AI)

- SRN | Sustainability Reporting Navigator
- Home - TRR 266 Accounting for Transparency

CASI

- Carbon Accounting Standards Initiative

Legal Entity Identifier

- 2023-06-03 - CMFB opinion on the LEI.pdf
- Recommendation of the European Systemic Risk Board on identifying legal entities (ESRB/2020/12)
- The benefits of the Legal Entity Identifier for monitoring systemic risk (Occasional Paper Series, No 18 / September 2021)
- Home – GLEIF

iii. Scholarly and further sources

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Robert G. Eccles, Michael P. Krzus, and Sydney Ribot (2010), The Integrated Reporting Movement: Meaning, Momentum, Motives, and Materiality.

Hagemeier, L., & Müller, M. A. (2026). Demand for sustainability disclosures: evidence from web-tracking data of CSRD reports. Accounting and Business Research, 56(3), 365–397. https://doi.org/10.1080/00014788.2026.2631933

Robert Kaplan and Karthik Ramanna (2021), Accounting for Climate Change: The First Rigorous Approach to ESG Reporting, Harvard Business Review 99, no. 6, November–December, pp. 120 – 131. Available at https://hbr.org/2021/11/accounting-for-climate-change, last accessed 22.01.2025.

Andreas Rasche, Mikkel Morsing, and others (2022), Corporate Sustainability Reporting and Its Implications for Stakeholder Accountability: A Systematic Review of the Literature, Journal of Business Ethics

Irving Fisher Committee on Central Bank Statistics (IFC) (2024), Empowering carbon accounting: from data to action, by A. Alfieri, L. Holloway, U. von Kalckreuth, S. Moll, C. Schmieder, B. Tissot, IFC Report No 16, 31. Oct 2024. Available at https://www.bis.org/ifc/publ/ifc_report_16.pdf.

Irving Fisher Committee on Central Bank Statistics (2025), IFC Bulletin No 65: **New insights from financial statements**

Köhler-Geib, Fritzi (2025), Emission data – a mission for statistics. Opening address at the 2025 conference of the European Statistical Forum, 16.01.2025 in Brussels. Available at https://www.bundesbank.de/en/press/speeches/emission-data-a-mission-for-statistics-941768

Maza, Luis Ángel (2022), An estimation of the carbon footprint in Spanish credit institutions' business lending portfolio – Experimental statistics for credit institutions in Spain. 11th Biennial IFC Conference on "Post-pandemic landscape for central bank statistics" BIS Basel, 25-26 August 2022. Available at https://www.bis.org/ifc/publ/ifcb58_19.pdf.

Constantin Przybilla and Maximilian Müller (2025), Assurance of First Wave CSRD Sustainability Statements: Insights from 600+ Reports on Assurance and Reporting Quality accessible through sustainability Reporting Navigator, https://www.srnav.com/insights/assurance-of-first-wave-csrd-sustainability-statements.

von Kalckreuth, Ulf (2022), Product carbon contents – an encompassing and market based information system, Latin American Journal of Central Banking, https://doi.org/10.1016/j.latcb.2025.10017, August 2025, in press, accessible online. A prior version was published under the title 'Pulling ourselves up by our bootstraps: the greenhouse gas value of products, enterprises and industries.' Deutsche Bundesbank Discussion paper 23/2022, July 2022

——— (2024), Harnessing the power of Input-Output analysis for sustainability, IFC Working Papers No 24, 13 December 2024. Available at https://www.bis.org/ifc/publ/ifcwork24.htm

——— (2026), Measuring the carbon footprints of portfolios: Emission intensities and financed emissions indicators from Multi-Regional IO and Air Emission Accounts data. Paper presented at the Sustainable and Impact Investments International Conference, 9th Edition, in Hamburg, Germany on 23.01.26.

Annex I: List of Environmental Indicators based on the Delegated Act on ESRS

See corresponding separate Excel file.

Annex II: List of Environmental Indicators based on the Sustainability reporting standard for voluntary use (Voluntary Standard, VS)

See corresponding Excel file.

Annex III: The political Omnibus I initiative towards CSRD simplification and its main impact on data availability

1. The **CSRD** received **strong support from the beginning 2021 until the end of 2023** by politicians, users, auditors and standard setters. Only partial criticism was expressed by the corporate sector. Many large listed European groups assisted in setting up the new ESRS. The intention was to bring sustainability reporting on par with financial reporting. However, a **contrary movement** started in the **first half of 2024**. Transposition by EU Member States were required until July 2024, many countries did not change their respective legislation on time. Even as of January 31 2026 transposition was missing in DE, ES, LU, MT, NL, PT (+ IS).

2. After the election of the EU Parliament in June 2024, **criticism intensified**, highlighting issues related to European competitiveness. Furthermore, the necessary **update** to the **ESEF** legislation was **not carried out**. In October 2024, the president of the EU Commission announced a revision of the CSRD together with the Corporate Sustainability Due Diligence Directive (CSDDD). The CSDDD, only enacted into European law six months earlier, introduced due diligence obligations for larger multinational entities that go beyond mere reporting requirements. The scope of companies was insofar significantly smaller than the one of the CSRD.

3. On 26 February 2025, the European Commission published its "**Omnibus I**" proposal, the first of a series of initiatives - also called Omnibuses with unofficial numbering - for **regulatory simplifications on sustainability** aimed at enhancing EU competitiveness in a constantly changing geopolitical framework. Omnibus I has itself been a package with a particular focus on CSRD and CSDDD. One key element was the proposal of a delay in the implementation timelines for the second and third CSRD waves and the initial application of CSDDD, referred to as the "Stop the Clock" (COM(2025) 80 final, Proposed Directive). Additionally, significant changes were proposed to the scope and content of CSRD reporting and CSDDD requirements, labelled as "Content" or "Substance" (COM(2025) 81 final, Proposed Directive). The package also introduced amendments to Article 8 disclosures under the Taxonomy Delegated Acts.

4. The **"Stop the Clock"** proposal moved swiftly through the legislative process and was already in force by late spring 2025 (EU - 2025/794). Under the revised timeline, CSRD **wave 2 was postponed from FY 2025 to FY 2027**, and Wave 3 from FY 2026 to FY 2028 (while the "Content" proposal suggested abandoning these waves entirely). For CSDDD, the timeline was delayed by one year. "Stop the Clock" requires transposition into national law in cases where CSRD has already been transposed.

5. The **"Content" or "Substance"** text proposed significant changes to the scope of the directive. One of the main impacts was the **reduction of companies** with a reporting obligation, limiting it to undertakings or groups with more than 1,000 average employees. This adjustment effectively would have removed **approximately 80%** of EU entities from the scope, even including a narrowing of the companies previously defined under the NFRD. Additionally, it was proposed to eliminate the third CSRD wave entirely, which would have applied to listed SMEs as well as non-complex credit institutions and insurance companies.

6. As a second main simplification step, the first set of **ESRSs were to be revised**. Key proposed changes were prioritizing quantitative data points over narrative text, removing those deemed least critical and introducing more flexibility for undertakings that remain subject to the CSRD scope. EFRAG was tasked by EU Com to deliver a Technical Advice

for revised ESRS.[52] Main simplification levers have been, Simplify Double Materiality Assessment, Better readability and conciseness of the sustainability statements; Eliminate overlaps between general disclosures and topical standards; Improve understandability, clarity and accessibility of the amended standards, Introduce several burden-reduction reliefs, Enhance interoperability with global reporting standards.

7. The final **Technical Advice by EFRAG** to the EU Com resulted in a reduction of more than 70% of ESRS data points. The extent of reductions varied substantially across topics. E.g. ESRS 2 – General Disclosure retains generally core undertaking information on impact, risks and opportunities, though it simplifies and allows flexibility in several approaches (see section 5.4.4). Regarding ESRS E1 – Climate Change, core emissions data to be reported remains robust. However, **presentation requirements were stripped** and the disclosure of intensity metrics dropped. The disclosure on anticipated financial effects has been generally kept by EFRAG but simplified.

8. Besides the general ESRS revision, EU Com published a „**quick fix of ESRS**“ with regard to staged requirements for 2nd year of application based on the first set of ESRS. In principle, the implementation of these staged requirements depend now on the forthcoming Delegated Act.

9. EFRAG submitted its Technical Advice to the European Commission on 30 November 2025 including a quantitative data point on “**Anticipated financial effects**”, which has been under substantial discussions even at the beginning of 2026, though the respective rules have been kept in the draft Delegated Act of May 2026 and in the adopted **Delegated Act published in the Official Journal of the European Union on 21 September 2026 (Delegated Regulation (EU) 2026/1563 amending Delegated Regulation (EU) 2023/2772)**. It has entered into legal force on 10 November 2026. For a better understanding of the revised ESRS, as part of the Implementation Guidance documents, EFRAG Secretariat released in August 2026 a **draft updated List of Datapoints** for Revised ESRS for public consultation. The final list is expected to be published by the end of 2026.

10. The substance proposal also introduced notable changes regarding assurance and sector-specific standards. **Limited assurance will remain the standard**, with **no** regulatory **shift** towards **reasonable assurance**. The European Commission will be authorized to issue targeted assurance guidelines by 2026 to provide some clarity and direction.

11. Additionally, the original plan to develop **sector-specific ESRS** has been **abandoned**. This decision implies not only the elimination of sector-specific reporting but also the removal of the intended "ESRS Sector" categorization, which was originally designed to align with the NACE classification system. A public disclosure of a company of its relevant sectors following a NACE-based classification would have been valuable from a statistical perspective.

12. The role of **voluntary reporting** is set to be significantly encouraged by Omnibus I, with the current ESRS VSME (Voluntary Standard for Small and Medium-Sized Entities) standard expected to be transposed into a delegated act and a "value chain cap" building up on this regulation. Key aspects include:

    - Voluntary Nature: Reporting remains non-mandatory.

[52] For this a first call for input was made in April/May 2025, followed by a consultation in August/September 2025. The ECCBSO participated in these two consultations.

- Limitations on requests: Other entities cannot demand more information than what is outlined in the VSME standard, except for additional details that are "commonly shared between undertakings in the sector concerned" (the "value chain cap").
- Management Report Flexibility: The current VSME standard does not mandate the inclusion of sustainability information in the management report (only "may").

EFRAG's VSME standard has been acknowledged by the EU Com as a recommendation (Commission Recommendation (EU) 2025/1710 of 30 July 2025 on a voluntary sustainability reporting standard for small and medium-sized undertakings). On 6 May 2026 the EU Commission has published a Draft Delegated Act making several revisions to the standard, renaming it to **Voluntary Standard (VS)** and implementing several categories in order that the value chain cap can apply. Though, the value chain cap should only apply to information gathering carried out for the purpose of reporting sustainability information, it should not affect other requirements e.g. information gathering carried out for risk management (see recital 12 of the Omnibus I Directive). In this respect the Draft Delegated Act differs from the Recommendation as in the later the "… Commission has recommended that financial institutions, financial market participants, insurance undertakings and credit institutions, where they need sustainability information from SMEs, should limit as far as possible their requests for such information to the information provided pursuant to the voluntary sustainability reporting standard…".
The VS was finally adopted in July 2026 with almost no changes and published on 21 September 2026 (Delegated Regulation (EU) 2026/1560).

13. The **European Single Electronic Format (ESEF)** continues to play a role in ensuring digital reporting, as outlined in Article 29d of the Accounting Directive. Key points include the marking-up requirement though it will be only necessary once a delegated act is adopted. As a result, the timing for its first mandatory usage is likely to be at the end of the 2020s. A new Member State Option has been introduced, seemingly designed to address legal concerns, particularly in Germany, by offering additional flexibility for member states.
The timing of ESEF application for sustainability reports remains unclear, as the relevant regulation is not in sight. In autumn 2026. ESMA announced a new consultation paper for Q1 2027. Prior to this, the corresponding ESRS XBRL Taxonomy for the Revised ESRS needs to be developed. EFRAG launched a public consultation in this respect on 17 September 2026.

14. The **ESAP** remains governed by Article 33a of the Accounting Directive, with no changes to this article. However, its provision is indirectly regulated through Articles 19a and 29a, which define the scope of undertakings and groups under the CSRD. This means the scope is aligned, any reduction by the CSRD will also affect ESAP and entities excluded from the CSRD scope will not have their financial statements alone available through ESAP. This means for entities removed from the scope, financial statements will only be accessible via national publication requirements, rather than through ESAP (see sub-section 5.1). This is an unfortunate limitation as reduction diminishes ESAP's potential as a centralized access point for financial information.

15. **EU Taxonomy Reporting** – being regulatorily outside of the CSRD and therefore also in JECED, was also simplified (OpEx partially voluntary).

16. Regarding **third-country undertakings reporting**, the so called CSRD 4th wave handled in Article 40a, was also adjusted. The start for these, special groups of legal entities, is for fiscal years beginning 01 January 2028. In July 2026, EFRAG launched a

public consultation on an exposure draft referring to “European Sustainability Reporting Standards for certain non-EU undertakings (ESRS-40a ED)”. It shall be developed as technical advice to the European Commission under Article 40a of the Accounting Directive.

As the underlying reporting framework is new and poses still several substantial questions (e.g. how will entities be combined; what is turnover in EU?), this wave has been kept outside of JECED because of resource restrictions.

Positions on 2nd CSRD wave scope in the course of the legislative process

17. The legislative process for **Wave 2 companies** has seen **significant debate** over the scope of companies required to report. Under the current CSRD legislation, the scope includes parent undertakings of large groups and large standalone undertakings, as defined in Articles 19a and 29a of the Accounting Directive, covering approximately 50,000 European companies. However, the European Commission proposed narrowing the scope to undertakings and groups with more than 1,000 average employees, which would exclude around 80% of EU entities from mandatory reporting requirements.

18. The **European Central Bank (ECB) raised concerns** about the risks of voluntary reporting, including self-selection bias and greenwashing. In its opinion issued on May 8, 2025, the ECB suggested lowering the threshold to undertakings with more than 500 average employees, while introducing simplified standards for entities with 500 to 1,000 employees. This approach would have reduced the scope by only 60%, compared to the Commission's proposal.

19. Meanwhile, the **EU Council** adopted a position requiring undertakings to meet both a threshold of more than 1,000 average employees and €450 million in turnover, which would result in approximately 90% of companies leaving the scope. The Council also introduced a review clause to consider future extensions of the scope.

20. The **European Parliament (EP)** initially debated even stricter reductions in scope, with proposals in the JURI committee suggesting thresholds of more than 3,000 employees and €450 million in turnover, which would exclude over 95% of companies. However, after negotiations, JURI agreed to align with the Council's position. This position failed to gain EP approval in October 2025, leading to a highly debated parliament threshold of more than 1,750 employees and €450 million turnover in November 2025, which would reduce the scope by approximately 92%.

21. The **final outcome of trilogue negotiations** ultimately adopted the Council's position, resulting in an estimated 90% reduction in the scope of mandatory reporting. In some EU Member states only a handful of companies remain. The legislative process highlighted the tension between reducing the compliance burden for companies and ensuring robust sustainability reporting. While the narrowing of the scope aims to simplify requirements for smaller entities, it raises concerns about the effectiveness of the CSRD in promoting transparency and accountability across the EU. The inclusion of review clauses suggests that the scope may be revisited in the future as the impact of these changes becomes clearer.

Further aspects

22. The trilogue negotiations on the **CSDDD** resulted in a compromise that narrowed the scope to companies with more than 5,000 average employees and €1,500 million in net turnover. The final agreement also reduced the obligations for companies, including less stringent requirements to prepare and act on transition plans, a more flexible approach

to due diligence, and limitations on civil liability, which will now only apply at the national level.

23. The **final Omnibus I also introduced refinements** to the role of the Voluntary Standard and clarified details of the "value chain cap". Additionally, a "Digital one-stop-shop" initiative was established, providing companies with free access to templates, guidelines, and relevant information to streamline compliance and enhance accessibility to reporting tools. This measure aims to support smaller entities in navigating sustainability reporting requirements while promoting transparency and efficiency. Further exemptions were also introduced, e.g. for parent undertakings that are financial holding undertakings whose subsidiary undertakings' business models and operations are independent of one another (see new para. 7a of Article 29a of the AccDir).

24. The **Omnibus I Directive entered into force on 18 March 2026 (EU 2026/470)** (in the EU Legal Journal it was published on 24 February 2026). Member States need to transpose the directive into national law to comply with CSRD by 19 March 2027; the revised rules will apply as from 1 January 2027.

25. Within the Omnibus IV initiative: new size category "**Small Mid Caps**" was introduced (see section 5.2) with specific simplifications on such entities.

26. Regarding **preliminary conclusions on data availability** in the future, data sources are expected to remain diverse, including officially disclosed data, credit analysis data, voluntarily provided data, and purchased data, with providers typically emphasizing benefits while downplaying limitations. Altogether, the reduction in the CSRD scope will restrict data accessibility for a wide variety of users, raising concerns about data protection. Thus, collaboration between institutions remains essential.
    Challenges such as missing values for certain variables, difficulties in linking datasets, and biases that may only become evident over time can be anticipated.

Annex IV: Abbreviations

Abbrevi-ation	Meaning
AccDir	Accounting Directive
AR	Application Requirement (within ESRS)
BP	Basis for preparation (within an ESRS)
CMFB	Committee on Monetary, Financial and Balance of Payments Statistics
CSRD	Corporate Sustainability Reporting Directive
CSDDD	Corporate Sustainability Due Diligence Directive
DGI	Data Gap Initiative
DP	Data point (in ESRS)
DR	Disclosure Requirement (within ESRS)
ECCBSO	European Committee of Central Balance Sheet Data Offices
EFRAG	European Financial Reporting Advisory Group
ESAP	European Single Access Point
ESEF	European Single Electronic Format (includes XBRL tagging)
ESG	Environment, Social, Governance
ESRS	European Sustainability Reporting Standard
EUID	European Unique Identifier
FY	Fiscal Year
GAAP	Generally Accepted Accounting Principles
GHG	Greenhouse Gas

Abbrevi-ation	Meaning
GRI	Global Reporting Initiative
IFRS	International Financial Reporting Standard
IG	Implementation Guidance
IAS	International Accounting Standard
IRO	Impacts, risks and opportunities (within ESRS standards)
ISSB	International Sustainability Standards Board
JECED	Joint ECCBSO-CMFB Task Force on Environmental Data based on CSRD
LEI	Legal Entity Identifier
l_PIEs	Public Interest Entities being listed on an EU regulated market
NACE	Classification of economic activities in the EU (Nomenclature statistique des activités économiques dans la Communauté européenne)
NFRD	Non-Financial Reporting Directive
o_PIEs	Other Public Interest Entities not being l_PIEs
Rec	Recommendation
SBM	Strategy and Business Model (within ESRS)
TD	Transparency Directive
VS	Voluntary Standard
VSME	Voluntary Standard for SMEs
XBRL	eXtensible Business Reporting Language (iXBRL, Inline XBRL)

The underlining format is not part of the name. It shall help in understanding what stand behinds the name.

Annex V: Members of the Joint CMFB – ECCBSO Task Force on Environmental Data based on CSRD (JECED)

Name	Institution	Country	Role
Alfredo Maldonado	Banco de España	Spain	Co-Chair & Workstream 3 lead
Ville Tolkki	Suomen Pankki	Finland	Co-Chair & Workstream 4 lead
Dominik Elgg	Deutsche Bundesbank	Germany	Workstream 2 lead
José Miguel Soares	Banco de Portugal	Portugal	Workstream 1 lead
Karen de Vlaminck	National Bank of Belgium	Belgium	Member
Stijn Ferrari	National Bank of Belgium	Belgium	Member
Cecilie Durhuus Kristensen	Danmarks Nationalbank	Denmark	Member
Nicolai Ladefoged Riis	Danmarks Nationalbank	Denmark	Member
Sandrine Duchen	INSEE	France	Member
Christine Chambaz	INSEE	France	Member
Gerard Moreau	INSEE	France	Member
Mhenni Ben Yaala	INSEE	France	Member
Sylvain Larrieu	INSEE	France	Member
Andréa Barnava	Banque de France	France	Member
Eliott Stubss	Banque de France	France	Member
Clemence Charaval	Banque de France	France	Member
Louis Charlot	Banque de France	France	Member
David Nefzi	Banque de France	France	Member
Simon Schürz	Statistisches Bundesamt	Germany	Member
Justus Grundmann	Deutsche Bundesbank	Germany	Member
Marina Konstantakou	Bank of Greece	Greece	Member
Margarita Skiada	Bank of Greece	Greece	Member
Laura Bartiloro	Banca d'Italia	Italy	Member
Magnani Maurizio	Banca d'Italia	Italy	Member
Ginette Eramo	Banca d'Italia	Italy	Member
Letizia Sampoli	Cerved	Italy	Member
Zivile Dumbauskiene	Lietuvos Bankas	Lithuania	Member
Viktorija Nikitine	Lietuvos Bankas	Lithuania	Member
Ivete Gomes Ferreira	Banque Centrale du Luxembourg	Luxembourg	Member
Marien Vrolijk	Centraal Bureau voor de Statistiek	Netherlands	Member
Jose Antonio Fuentes	INE	Spain	Member
Ana Solera	INE	Spain	Member
Javier González	Banco de España	Spain	Member
Santiago Martínez	Banco de España	Spain	Member
Robert Kichner	Deutsche Bundesbank	Germany	CMFB Sponsor
Elina Somervuori	Statistics Finland	Finland	CMFB Sponsor -2024
Alfredo Cristobal	Instituto Nacional de Estadística	Spain	CMFB Sponsor 2025-
Valentin Ivanov	Eurostat	Europe	Co-Secretary
Gabor Vincze	European Central Bank	Europe	Co-Secretary
Francoise Rani Chhay	European Central Bank	Europe	Co-Secretary
Kristiana Nikoletta Konti	European Central Bank	Europe	Co-Secretary
Petra Sneijers	Eurostat	Europe	Observer

Annex VI: Mandate of JECED TF

Mandate for the
Joint ECCBSO-CMFB Task Force on Environmental Data based on CSRD (JECED)

10 January 2024

Sustainability, in particular climate change information, has been gaining overwhelming importance from a political, economical and monetary policy perspective. Thus, an urgent need for statistical indicators on climate issues has been addressed by several initiatives with active participation of NSIs and NCBs:

- As underlined in the ECB's monetary policy strategy statement[53] addressing climate change is a global challenge and a policy priority for the EU. Within its mandate, the Governing Council is committed to ensuring that the Eurosystem fully takes into account, in line with the EU's climate goals and objectives, the implications of climate change and the carbon transition for monetary policy and central banking.
- G20 Data Gap Initiatives (DGI) Recommendations in the area of climate change;[54]
- The UN initiative for a Global Set of Climate Change Statistics and Indicators.[55]

With the new Corporate Sustainability Reporting Directive (CSRD), European legislation aims at standardizing to a much higher extent public corporate sustainability reporting, making this data also suitable for investors, political decision makers, consumers, and official statistics.

In this light, the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB)[56] and the European Committee of Central Balance Sheet Data Offices (ECCBSO)[57] decided to set up a Joint ECCBSO-CMFB Task Force on Environmental Data based on CSRD (JECED) with a focus on the first phase of CSRD implementation of non-financial entities. The Task Force will help in paving the way for a consistent approach from micro data to macroeconomic indicators. Further, the knowledge on the characteristics of public CSRD environment information from enterprises is important in order to prevent double reporting by regulatory reporting requirements.

Background

The new Corporate Sustainability Reporting Directive (CSRD, Directive 2022/2464 of December 14, 2022) has been in force at European level since January 2023. From the fiscal year 2024 on, the European Union will standardize corporate sustainability reporting. This will make corporate reporting much more suitable for statistical purposes. The CSRD seeks to align sustainability information with financial information and addresses user's information needs, such as the investor's community and other stakeholders, by aiming to provide access to more standardized, reliable and comparable data.

53 https://www.ecb.europa.eu/home/search/review/html/ecb.strategyreview_monpol_strategy_statement.en.html
54 See e.g. DGI-3 Recommendations III.1-7: G20 DGI Recommendations (imf.org).
55 See e.g. the information provided of the UN Statistics Division at: UNSD — Environment Statistics.
56 At its meeting on 29-30 June 2023.
57 At its meeting on 19-20 October 2023.

The CSRD also mandates a process of assurance by an independent third party for the information to be published. It will establish common reporting standards for the EU known as the European Sustainability Reporting Standards (ESRS).

Additionally, the new Directive requires a materiality analysis of ESG issues from both the financial and non-financial impact (in their dimensions social and environment) perspectives (double materiality perspective). This aims to ensure that the disclosed information is reliable, comparable, relevant on the groups' sustainable practices and measuring their effect on various stakeholders.

While the foundation of the European Single Access Point (ESAP), where ESG data should be easily available for statistical institutions in the EU with priority access (NSIs and NCBs), has been announced already[58], this data access point will not be generally available before 2027[59]. With the obligation to publish corporate sustainability reports in the European Single Electronic Format (ESEF), ESG microdata will be available and structured thanks to an ESMA/EFRAG taxonomy. However, data accessibility in EU member states need to be organised outside the ESAP for the first years of CSRD/ESRS disclosure to make available of sustainability data since the beginning.

Here, the role of European NCBs (and the ECB) and NSIs with significant balance sheet databases on non-financial entities, organised in the European Committee of Central Balance Sheet Data Offices (ECCBSO) could be important. In particular, the ECCBSO's ERICA (European Records of IFRS Consolidated Accounts) WG turns crucial to transitorily overcome the drawback of a missing European common data accessibility point. ERICA WG is already collecting ESG data (based on the Global Reporting Initiative (GRI) standard for European listed groups since 2020) in a sorted (data points and disclosures), efficient, timely, good quality and recurrent basis. The CMFB could provide expertise in determining the need of official statistics, e.g. (existing and new potential) ESG indicators, focussing strongly on the environmental dimension. The development of the relevant datasets could be prioritized when collecting data by the ECCBSO Working Group.

In addition, there is currently no comprehensive overview about national and international ESG data related activities of official data producers. The Task Force should undertake a stocktaking with the focus on coming CSRD data to fill this gap.

Structure of the TF JECED, deliverables and schedule

The Task Force will:

a) be co-chaired by Alfredo Maldonado (ECCBSO side) and Ville Tolkki (CMFB side);
b) rely on co-secretariates by ECB and Eurostat;
c) consist of experts from members of the CMFB (NSIs, NCBs, ECB, Eurostat) and the ERICA WG (experts from National Central Banks contributing to this WG);
d) collaborate with the relevant structures of the ESS, ESCB and ECCBSO

58 See the relevant communication of the European Commission: Capital markets union: Commission adopts package to ensure better data access and revamped investment rules (europa.eu).
The preliminary compromise text can be accessed here: EN-06-B (003).pdf (europa.eu).

59 The European Council expects ESAP to be available from summer 2027 and being gradually phased in to allow for a robust implementation. See: Easy access to corporate information for investors: Provisional agreement reached on the European Single Access Point (ESAP) - Consilium (europa.eu).

e) contact EFRAG, IASB and other experts on ESG, on ESEF/XBRL and other digital standards if necessary;
f) seek input and feedback from other experts in the field of climate related risks and sustainable finance if necessary;
g) take into account ongoing legal developments (mainly input from ECCBSO side);
h) conduct a stocktaking exercises on national and international ESG-data-related activities of official data producers (based on a short questionnaire to be agreed by CMFB Executive Body and ECCBSO WG Chairpersons taking related initiatives, e.g. IFC, and results of existing stocktaking exercises into account, avoiding any duplication of work);
i) analyze entities of the first CSRD phase in more depth, sorting variables (which required in the first year?, which depending on employee threshold?, keeping an eye on the ESRS materiality assessment) (ECCBSO side), determine which variables and perimeter are important for official statistics (main input from CMFB side), all with a strong focus on environmental variables;
j) provide specifics of financial reporting data also applicable to ESG reporting and thus important for data quality (e.g., specifics of group statistics, avoiding double counting) (mainly input from ECCBSO side);
k) document main country-specific issues of corporate reporting important for data accessibility and quality (mainly input from ECCBSO side);
l) evaluate data accessibility (input from ECCBSO & CMFB side), potentially providing 1st ESG datasets with main variables of main groups (ECCBSO side);
m) report the progress in 2024 to CMFB (June), ECCBSO (October) and the planned European Statistical Forum Conference (December 11-12, 2024); present a second progress report in June/October 2025;
n) prepare a final report in January 2026 for the CMFB and ECCBSO.

Depending on the progress, the Task Force may need to determine a prioritization of the following items:

o) undertaking analysis and studies on environmental information and the definition of the ESRS data that could be collected for the abovementioned purpose;
p) determining first quality tests that - based on national experience - might not be included in the foreseen ESAP in order to deliver datasets in a harmonized and standardized way;
q) analyzing and reporting on the use of ESG indicators and how this information could have potential impacts on aggregated information and to what extent these indicators could be used for future statistics and analysis (based on first CSRD phase);
r) potentially evaluating first rough aggregates/statistics of participating countries e.g. on CO_2 emissions scope 1 or energy consumption based on first available CSRD reports (input from ECCBSO & CMFB side).

The Task Force will generally meet virtually. One physical meeting per year may be suitable for deepening or finalizing discussions (to be decided by the TF co-chairs after consulting TF members).

After the final report, the CMFB and ECCBSO may decide to set a second phase of the TF to work on further aspects as part of sustainability reporting (e.g. extension to large unlisted entities in the second phase of the CSRD which would result in a considerable increase of micro data, listed SMEs, non-EU-entities and quality of the data available given specific quality tests) and the respective data assessment.

The tentative Pipeline Calendar is as follows:

2023 MANDATE	2024 CONCEPTUAL PHASE	2025 - early 2026 GOAL
Finalizing the Mandate	a) Available variables b) Data Needs c) Progress Report to CMFB, ECCBSO, and ESF Conference	a) First Data Collection, Quality Assessment and Sharing b) Final Report to CMFB and ECCBSO with preliminary conclusions

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The mandate of Task Force was prolonged over January 2026 in June 2025 by the CMFB Plenary to incorporate the Omnibus I political changes in the final report.

Annex VII: Report on the ERICA Data Analysis (initial findings on ESG data)

Introduction: ERICA as a source for ESG data analysis

While awaiting the first reports under the Corporate Sustainability Reporting Directive (CSRD), TF JECED leveraged existing data sources within the ERICA WG of the ECCBSO to explore how currently available corporate sustainability data can already support statistical analysis. The objective was twofold: first, to establish initial benchmark expectations for the type of data that will become available under CSRD; and second, to assess the feasibility of providing participating countries with a European, centralised database on granular corporate sustainability data.

ERICA is a dataset containing consolidated financial information on around 1,000 listed European non-financial groups in nine countries, developed within the ECCBSO framework. Since 2020, the ERICA WG has progressively expanded its collection of non-financial data, covering key environmental variables such as greenhouse gas emissions, energy consumption, water consumption and EU taxonomy KPIs. ERICA has acted as a pioneer in the identification and collection of sustainability data for the main European non-financial groups, undertaking this work prior to the development of the European Sustainability Reporting Standards (ESRS). Despite this early stage of development, a number of ERICA's indicators have subsequently been incorporated into the ESRS framework, highlighting the forward-looking nature and relevance of its methodological approach. Because the data are manually curated and validated by participating national central banks, ERICA offers a useful starting point for testing analytical methods, identifying data-quality issues and anticipating the statistical challenges that may arise once CSRD disclosures become available at scale.

At the same time, ERICA remains more limited in scope than the future expected CSRD/ESRS data environment. The available ERICA indicators cover a compact subset of the broader ESRS disclosure requirements, and coverage varies so far over time and across indicators, sectors[60], countries and firm size classes[61]. The analysis presented below should therefore be understood as exploratory. Its main purpose is not to provide definitive conclusions on corporate environmental performance, but to assess the analytical potential of existing ESG data, identify methodological caveats and develop the foundations of a structured approach that can later be applied to CSRD data.

Analytical scope and approach

The analysis focuses on a limited set of environmental indicators available in ERICA: Scope 1 emissions, energy consumption and water consumption. For these indicators, the focus is on both coverage and firm-level intensity measures. Coverage is analysed to assess the extent

[60] At this stage, the analysis relies on ERICA's broad sector classification, which distinguishes four sectors: Construction, Energy, Industry and Services. A more detailed classification, developed by the ECCBSO WG on Risk Assessment, is also available and further disaggregates Services into five sub-sectors, including Real Estate and Transportation and Storage, and Industry into six divisions, including Chemicals and Vehicle Manufacturing.

[61] According to the current ERICA size classification, see ERICA2024_AnnualReport_F1_2.pdf, Table 1 page 9. See also section 5.2 of the main report on the proposed JECED size categorization.

to which ERICA can support cross-country and cross-sector statistical work. Intensity measures are used to compare firms of different sizes by relating environmental variables to revenue, for example tonnes of CO2e per million euro of revenue for Scope 1 emissions, MWh per million euro of revenue for energy consumption, and cubic metre per million euro of revenue for water consumption.

Data coverage is also assessed for Scope 2 and Scope 3 emissions, as this remains informative for assessing data availability, but these indicators are not retained for the subsequent intensity and trend analysis. Their interpretation requires additional information on reporting methods, reporting boundaries and the consistency of value-chain coverage, as discussed separately below.

Prior to the analysis, several data-preparation steps were applied to ensure that the results were meaningful and internally coherent. These included format harmonisation for selected variables, such as the conversion of energy consumption to MWh, and a review of potential outliers. This was done through an initial visual screening to identify the most evident cases, followed by a more systematic review by inspecting the upper tail of the distribution of firm-level intensity measures, including the top 1% of observations. Additional values that appeared implausible during the analysis were also flagged. Observations labelled as outliers were excluded from the analytical calculations by replacing them with blank values in the final dataset.

Outlier identification necessarily involves some judgement, especially in the absence of fixed numerical thresholds. To reduce subjectivity, three guiding criteria were applied. First, values were assessed for plausibility, including potential typing errors, misplaced decimal separators or confusion in units of measurement. Second, values were checked for coherence with other firm-level information, such as revenue, firm size or sectoral characteristics. Third, their potential to distort the analysis was considered, since some unusual values may be visible but not materially affect the results. The approach was deliberately prudent: a value was labelled as an outlier only when there were indications that it was likely to be erroneous or would materially distort the analysis. Unusually high or low values were not removed solely because they were extreme, as they may reflect genuine firm characteristics.

Despite pre-cleaning of the data, the empirical discussion relies mainly on percentiles of the firm-level distribution of the intensity measures, rather than totals or averages. This choice is motivated by the strong heterogeneity across firms, sectors and size classes, as well as by the potential presence of remaining outliers and data-quality issues. The median is used as the main statistic because it provides a robust measure of the typical firm. Higher percentiles, especially the 75th percentile, are used selectively to show heterogeneity and to assess whether developments among firms with higher intensities differ from those observed for the median firm.

Where relevant, the analysis also compares full-sample results with balanced and rolling balanced samples. This distinction is important because changes in the intensity measures over time may reflect genuine within-firm changes in intensity measures, but also shifts in the

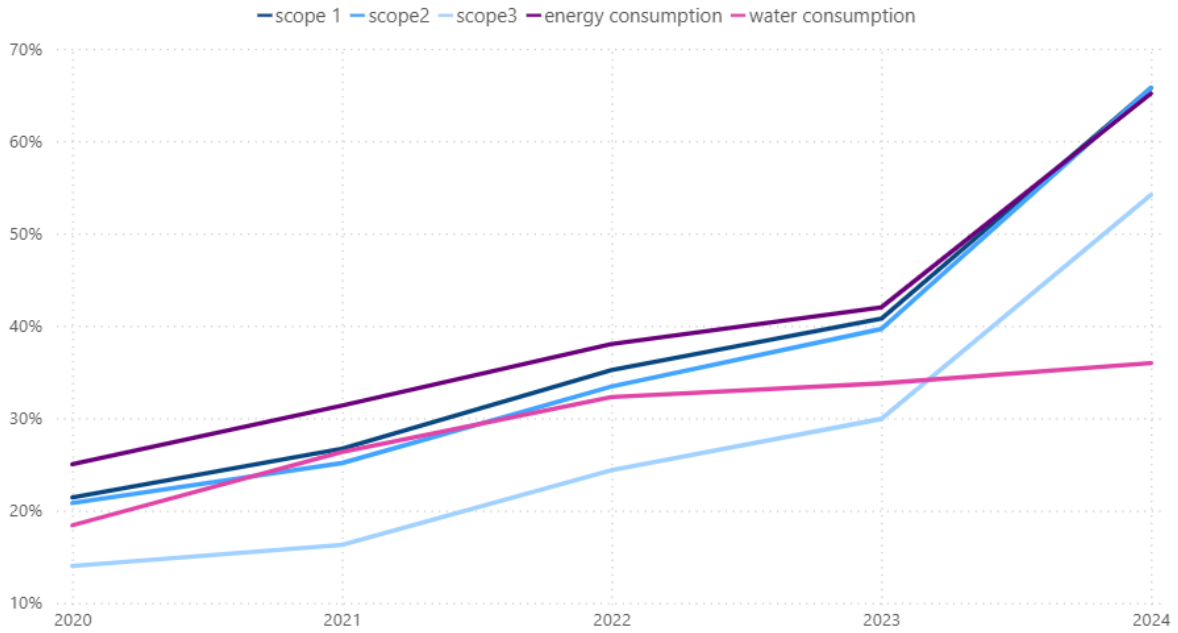
composition of the observed sample. A balanced sample follows the same firms over the full period, while a rolling balanced sample compares firms that are observed in two consecutive years. The latter approach retains more observations while still helping to distinguish within-firm changes from sample-composition effects.

Common findings across indicators

Coverage increases over time, especially in 2024

Indicator coverage increases over time for the ESG indicators under consideration. This pattern is visible across indicators, firm size classes and sectors, and suggests that the availability of corporate sustainability data in ERICA has improved gradually since 2020. The increase is particularly pronounced in 2024 for almost all indicators, size categories and sectors. Water consumption is a notable exception, as its coverage does not increase to the same extent as for the other indicators analysed here. Unfortunately, it is not possible at this stage to conclude whether the general increase in coverage reflects more extensive firm-level reporting, improved data collection by the ERICA WG, or a combination of both.

Chart 1 Coverage of ESG indicators in ERICA

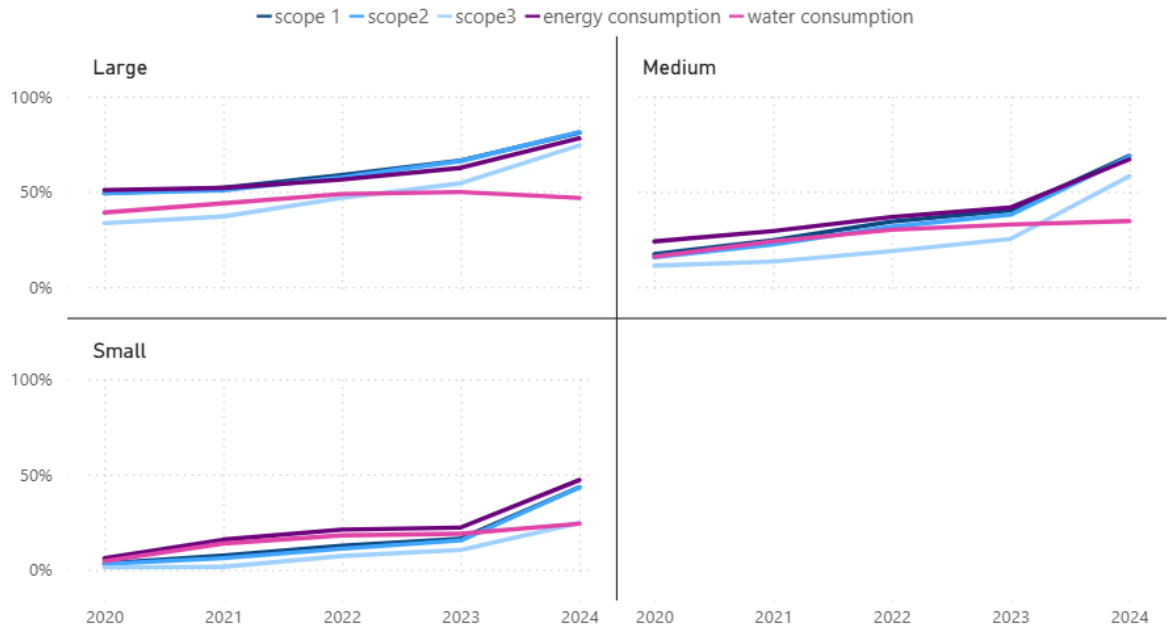


Source: ERICA, TF JECED calculations

Coverage increases with firm size

Across indicators, coverage tends to increase with firm size. Large firms consistently show the highest coverage, while small firms show the lowest coverage. This pattern is consistent with expectations, as larger firms are more likely to have established reporting systems and are more frequently subject to sustainability reporting requirements or market pressure. It also implies that early ERICA-based analysis may be more representative for larger corporations than for the full population of firms.

Chart 2 Coverage of ESG indicators in ERICA by firm size classification

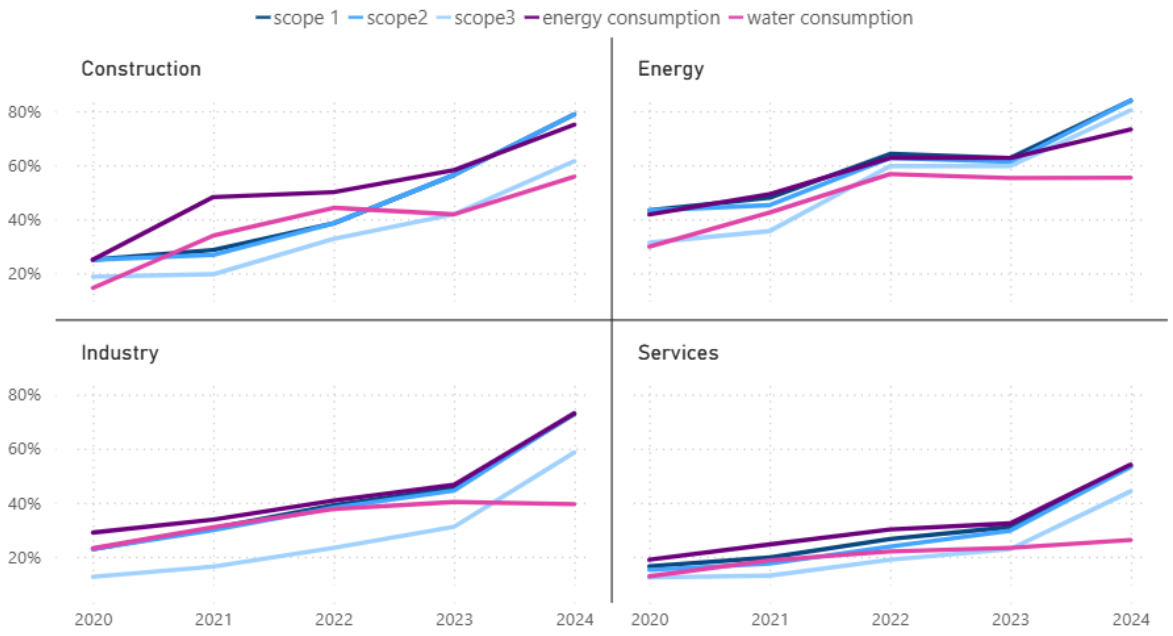


Source: ERICA, TF JECED calculations

Sectoral differences partly reflect sample composition

Coverage also differs by sector. The Services sector generally shows lower ESG indicator coverage, which partly reflects the fact that it contains a relatively larger share of small firms. By contrast, the Energy sector often shows relatively high coverage, although the number of firms with observed ESG data in Energy and Construction is relatively limited. Industry and Services account for the largest number of observations in absolute terms and contribute most to the rise in number of observations.

Chart 3 Coverage of ESG indicators in ERICA by sector classification



Source: ERICA, TF JECED calculations

Sample composition matters for interpretation

The common implication is that changes in ESG indicators over time should not automatically be interpreted as changes in firm behaviour. They may also reflect changes in the composition of firms with observed data. For this reason, the indicator-specific sections below distinguish, where relevant, between the full sample, a balanced sample and rolling balanced samples. Comparing results across indicators can help assess whether observed trends reflect common firm-level developments or indicator-specific data and sample effects.

Indicator-specific findings

Scope 1 emissions

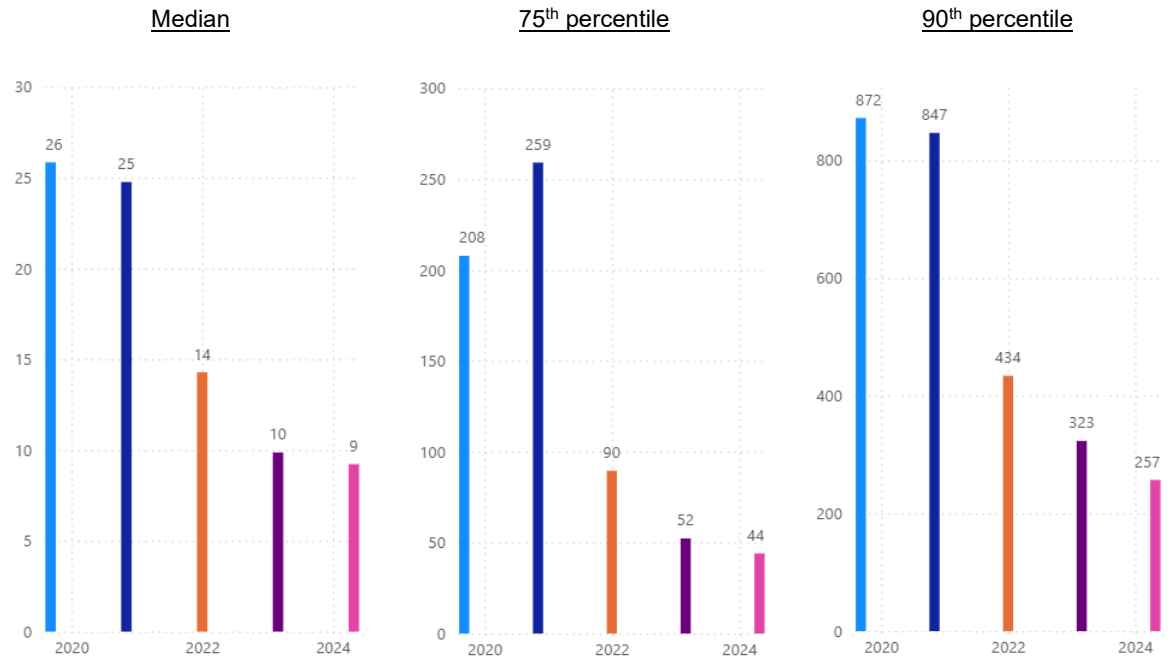
Scope 1 emissions are retained as the main greenhouse gas emissions indicator in this version of the analysis because they are conceptually more directly attributable to the reporting firm than Scope 2 and Scope 3 emissions. They capture direct greenhouse gas emissions from sources owned or controlled by the company and are therefore less affected by choices regarding electricity procurement methods or value-chain boundary definitions. This makes Scope 1 better suited for an initial exploratory assessment of emission intensities in ERICA.

Scope 1 emissions are observed in the ERICA dataset for 188 firms in 2020 and 408 firms in 2024. Of these, 149 firms have Scope 1 emissions in all years over the period 2020-2024. The

distribution of Scope 1 emission intensities, measured as tonnes of CO2e per million euro of revenue, suggests that intensities generally decrease over time, at least from 2021 onwards. This pattern is visible in the median and is also apparent when looking at higher percentiles. The different percentiles also show the large dispersion across firms in the distribution of Scope 1 intensities.

Chart 4 Evolution of Scope 1 emission intensities

(in tonnes of CO2e per million euro)

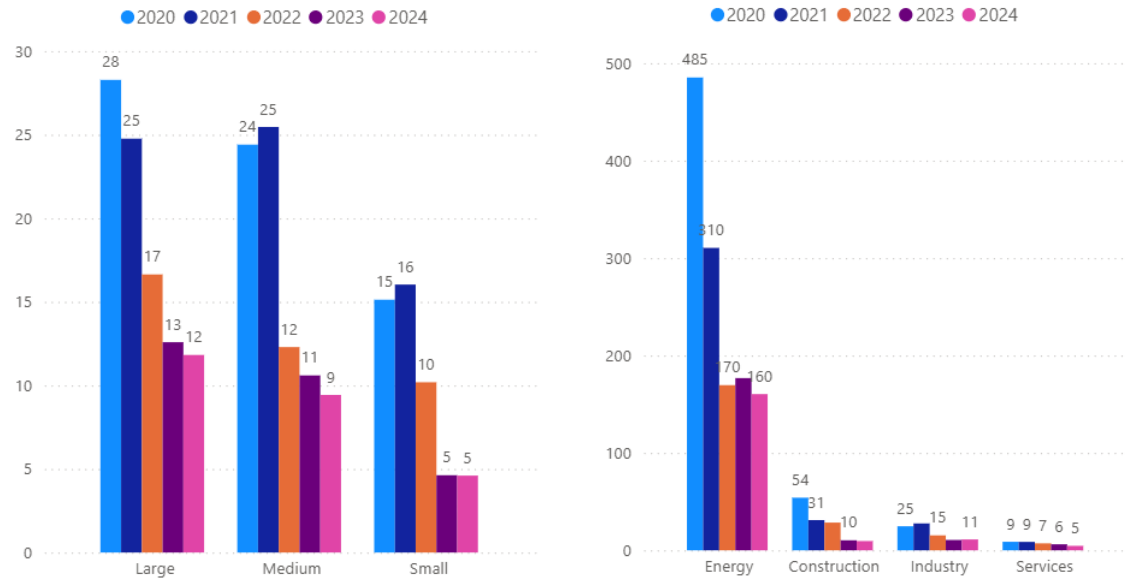


Source: ERICA, TF JECED calculations

Across size classes, Scope 1 emission intensities tend to increase with firm size, especially when focusing on higher percentiles. Across sectors, intensities are highest in the Energy sector. However, the upper tail of the distribution is volatile, and high-intensity firms can affect the ranking of sectors, particularly when higher percentiles are used. This supports the decision to use the median as the main reference statistic while retaining higher percentiles to illustrate heterogeneity.

Chart 5 Evolution of median Scope 1 emission intensities by size and sector classification

(in tonnes of CO2e per million euro)



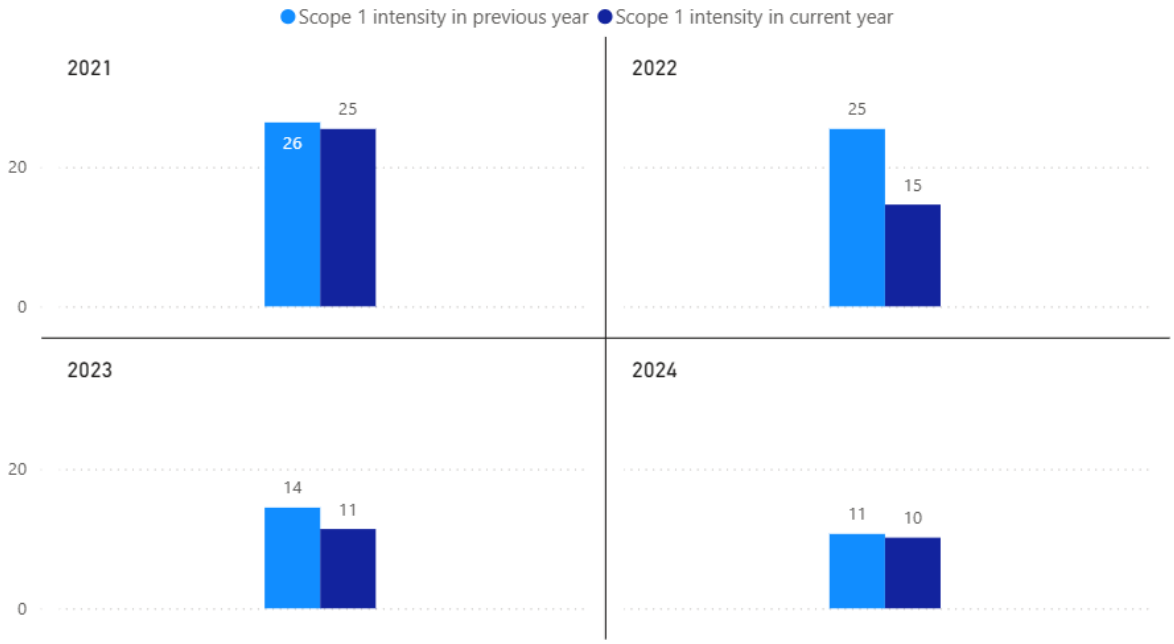
Source: ERICA, TF JECED calculations

One possible interpretation of the decline in Scope 1 emission intensities is that firms in the sample became more carbon efficient over time. However, this conclusion requires caution because the observed pattern could also be influenced by changes in sample composition, for example if high-intensity firms leave the sample or if lower-intensity firms are added over time.

The balanced sample of 149 firms shows that firms observed throughout the full period decreased their Scope 1 emission intensities over time. This suggests that the declining pattern is not solely driven by changes in the set of reporting firms. However, the balanced sample excludes a substantial number of firms, especially because Scope 1 coverage increases strongly over the period. A rolling balanced sample therefore provides a complementary view by comparing firms observed in both years of each consecutive year pair.

Chart 6 Evolution of median Scope 1 emission intensities in a rolling balanced sample

(in tonnes of CO2e per million euro)



Source: ERICA, TF JECED calculations

Notes: Each quadrant compares the median Scope 1 emission intensity in the previous year (light blue) to the median Scope 1 emission intensity in the current year (dark blue) for a subset of firms that are present in both the current and previous year.

The rolling balanced sample confirms the conclusion of the balanced sample analysis. Firms observed in consecutive years generally reduce their Scope 1 intensity, especially between 2021 and 2022. At the same time, sample-composition effects appear to have only a relatively minor impact on the distribution of Scope 1 emission intensities. This strengthens the interpretation that the decline in Scope 1 intensities reflects, at least partly, within-firm changes rather than only changes in sample composition.

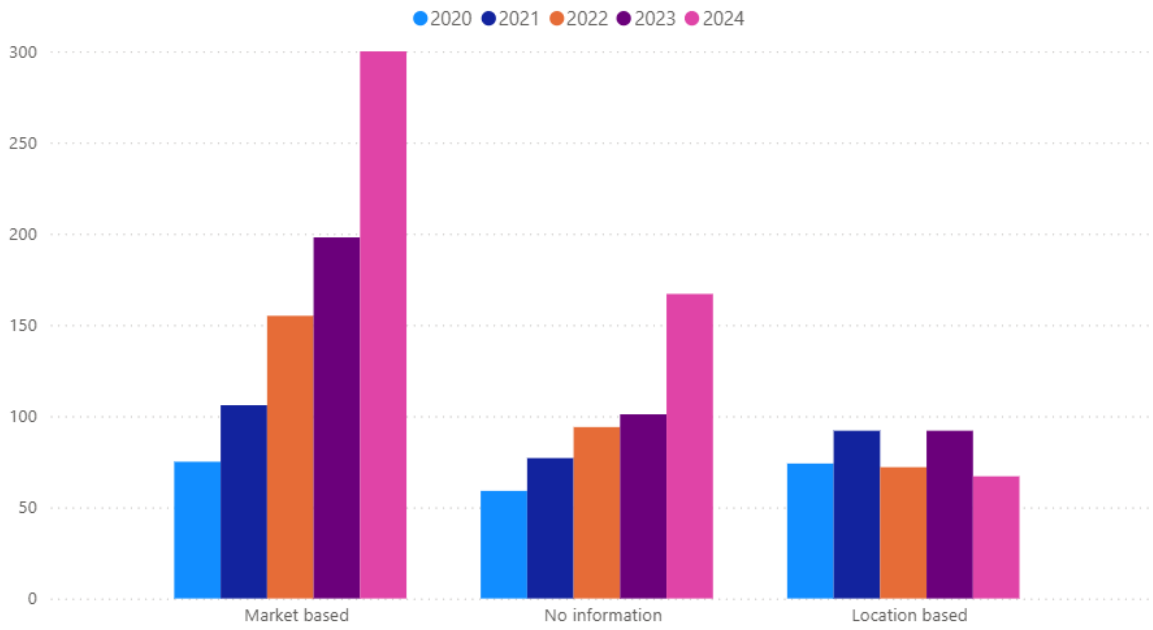
Why Scope 2 and Scope 3 emissions are not retained for trend analysis

In contrast to Scope 1 emissions, indirect emissions (Scope 2 and Scope 3) are not retained for intensity and trend analysis at this stage. This does not mean that they are less important. On the contrary, they are essential for a comprehensive assessment of corporate climate impact. However, they require additional refinement in the ERICA dataset before their levels and trends can be interpreted in a comparable way across firms, sectors and time.

For Scope 2 emissions, the main issue is the distinction between location-based and market-based reporting. Firms may report one or both measures, and a substantial part of the available Scope 2 data in ERICA is not clearly specified as either location-based or market-based. The data also suggest that either reporting practices or ERICA collection practices may have shifted

over time, with market-based figures becoming increasingly prevalent in the dataset. Combining all Scope 2 observations into a single indicator would therefore risk mixing conceptually different measures and could lead to misleading conclusions about trends.

Chart 7 Number of firms by Scope 2 classification



Source: ERICA

For Scope 3 emissions, interpretation is primarily affected by the reporting boundary. Scope 3 covers emissions across the value chain, but firms may report different subsets of upstream and downstream emissions. Some firms may include both upstream and downstream emissions, while others may report only selected categories. Because ERICA does not currently distinguish these boundaries in sufficient detail, differences in Scope 3 intensities may reflect differences in reporting scope rather than differences in actual value-chain emissions.

For these reasons, Scope 2 and Scope 3 emissions should be analysed separately in a next step, using a dedicated methodology that distinguishes reporting methods and reporting boundaries. This future work should assess whether location-based and market-based Scope 2 emissions can be treated separately, whether unspecified Scope 2 figures can be classified, and whether Scope 3 data can be grouped by comparable value-chain coverage.

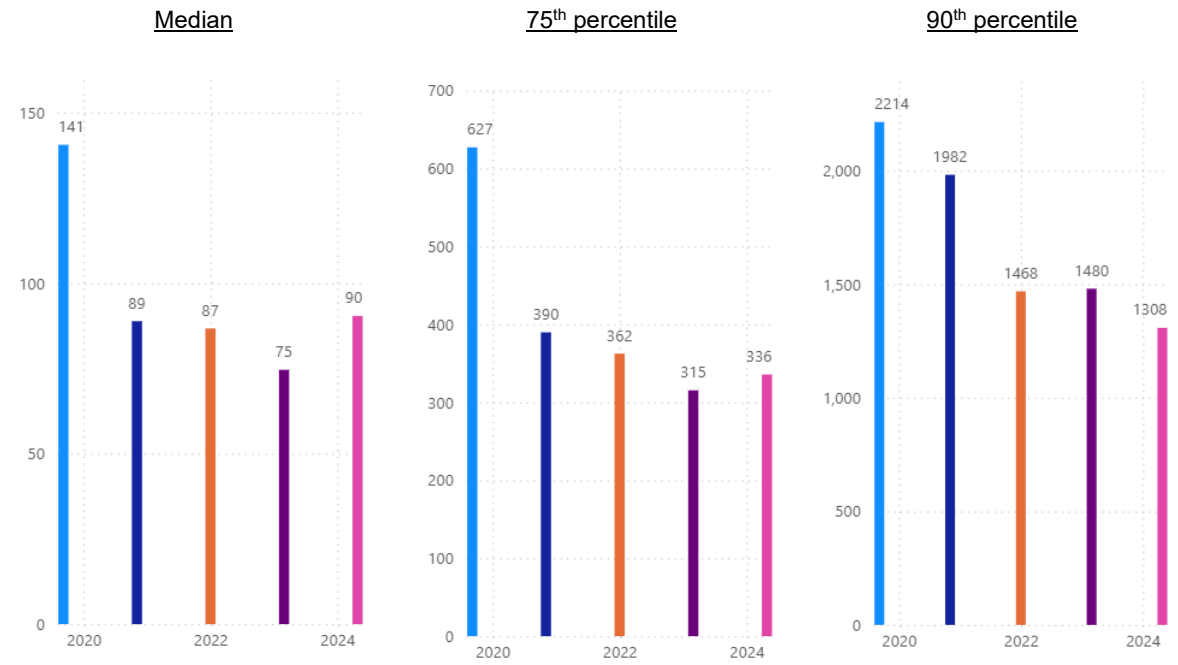
Energy consumption

Energy consumption is a key environmental indicator, as it is closely linked to a firm's greenhouse gas emissions. The ERICA database contains information on this variable for 250 firms in 2020 and 529 firms in 2024. Of these, 175 have energy consumption in all years over the period 2020-2024. Energy consumption intensities, measured as MWh per million euro of

revenue, decrease substantially in 2021 and remain broadly stable afterwards, with a slightly more pronounced downward trend for the higher percentiles.

Chart 8 Evolution of energy consumption intensities

(in MWh per million euro)

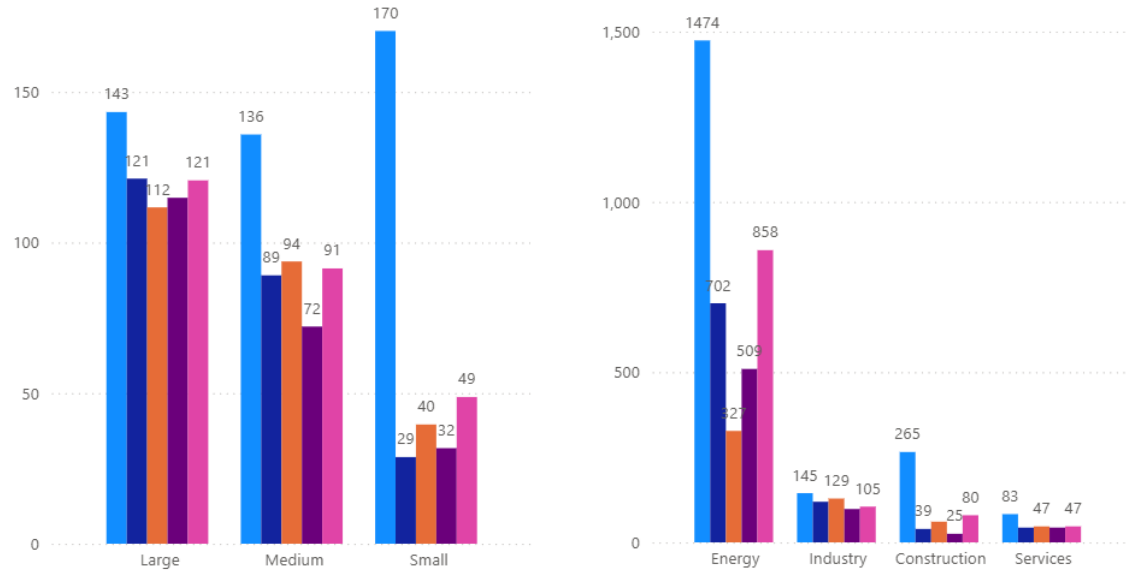


Source: ERICA, TF JECED calculations

This evolution is visible across size classes, and energy intensity tends to increase with firm size. At sector level, the Energy sector is the most energy intensive, as expected. These patterns are somewhat more pronounced for higher percentiles.

Chart 9 Evolution of median energy consumption intensities by size and sector classification

(in MWh per million euro)

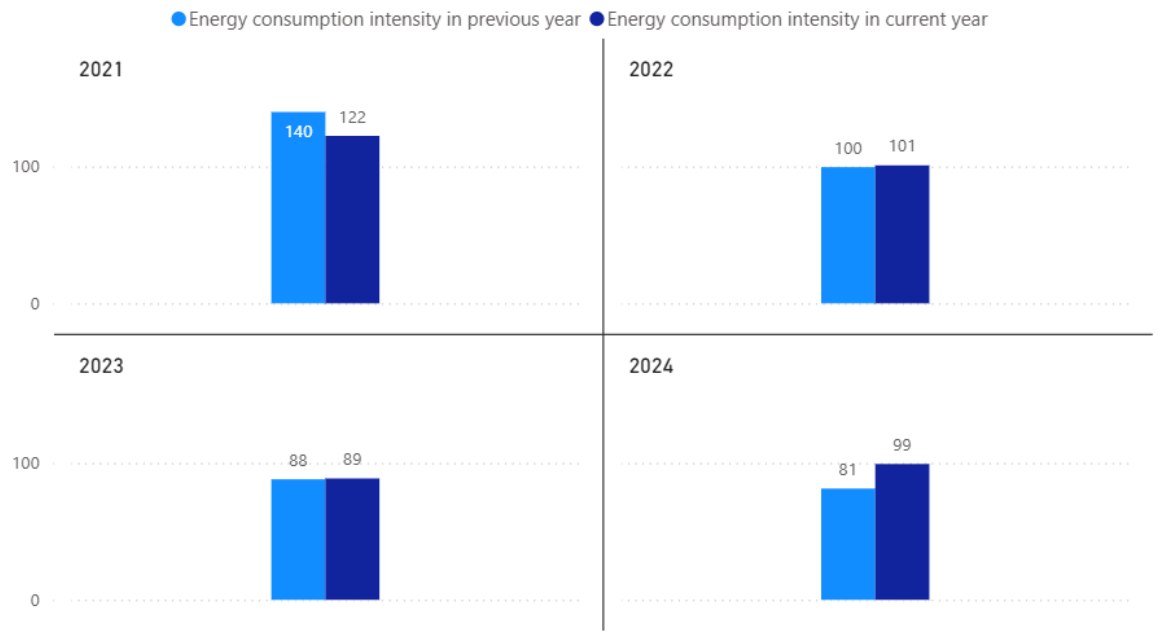


Source: ERICA, TF JECED calculations

When interpreting the evolution of energy consumption intensities, the results indicate that sample-composition effects play an important role, while firms that remain in the sample show more limited reductions after the initial decline. The balanced sample of 175 firms suggests that the strong decline between 2020 and 2021 is largely related to changes in sample composition. This is broadly supported by the rolling balanced sample analysis, although part of the drop also reflects lower intensities among firms observed in both 2020 and 2021.

Chart 10 Evolution of median energy consumption intensities in a rolling balanced sample

(in MWh per million euro)



Source: ERICA, TF JECED calculations

Notes: Each quadrant compares the median energy consumption intensity in the previous year (light blue) to the median energy consumption intensity in the current year (dark blue) for a subset of firms that are present in both the current and previous year.

Firms in the balanced sample show declining energy consumption intensities in later years, but the pattern differs from the full sample. The rolling balanced sample analysis points to declines in median energy intensity over 2021-2023 being mainly related to sample-composition changes. For the higher percentiles, there is also evidence of within-firm declines in energy consumption intensities in 2022, while subsequent declines appear mainly attributable to changes in sample composition.

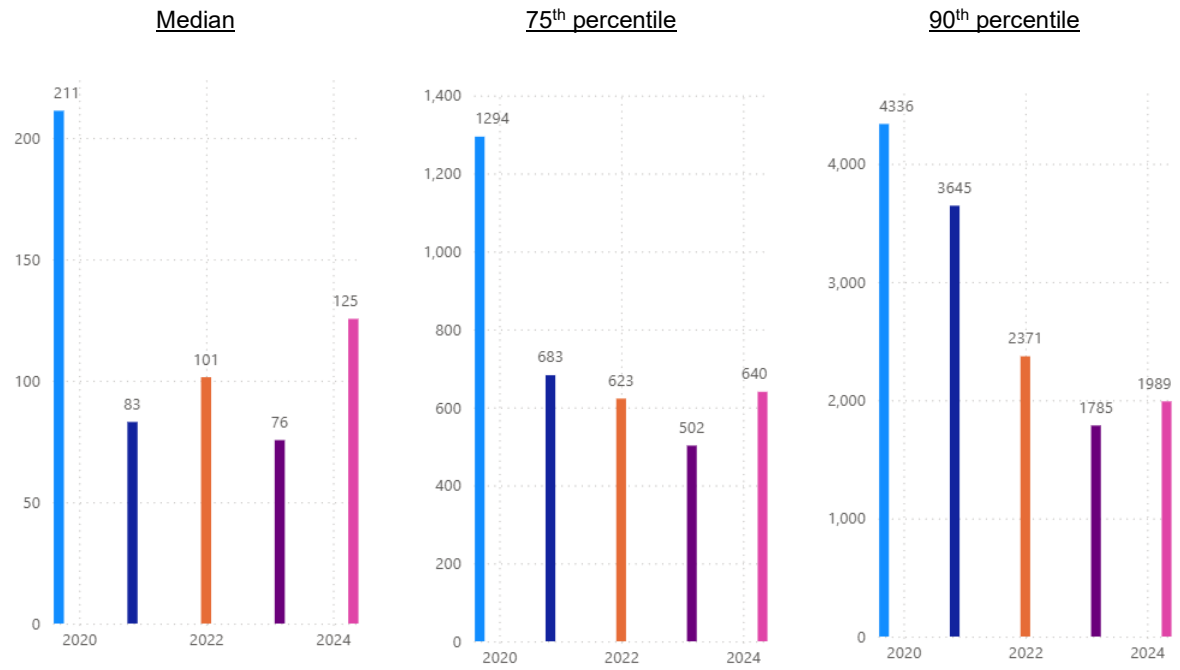
Water consumption

Water consumption provides insight into another important dimension of corporate environmental performance, although its interpretation requires particular caution because reported values may reflect differences in activity type, sectoral context and reporting scope. Like for the other ESG indicators, its coverage in the ERICA database increases over time (from 183 firms in 2020 to 292 firms in 2024), although the number of firms with observed water consumption declines somewhat in the final year. The balanced sample consists of 91 firms.

Water consumption intensities, measured as cubic metres per million euro of revenue, decrease strongly in 2021, similarly to energy consumption intensities, but then increase again or remain broadly stable afterwards. For firms with the highest water consumption intensities, the decline over time is more gradual.

Chart 11 Evolution of water consumption intensities

(in cubic metres per million euro)

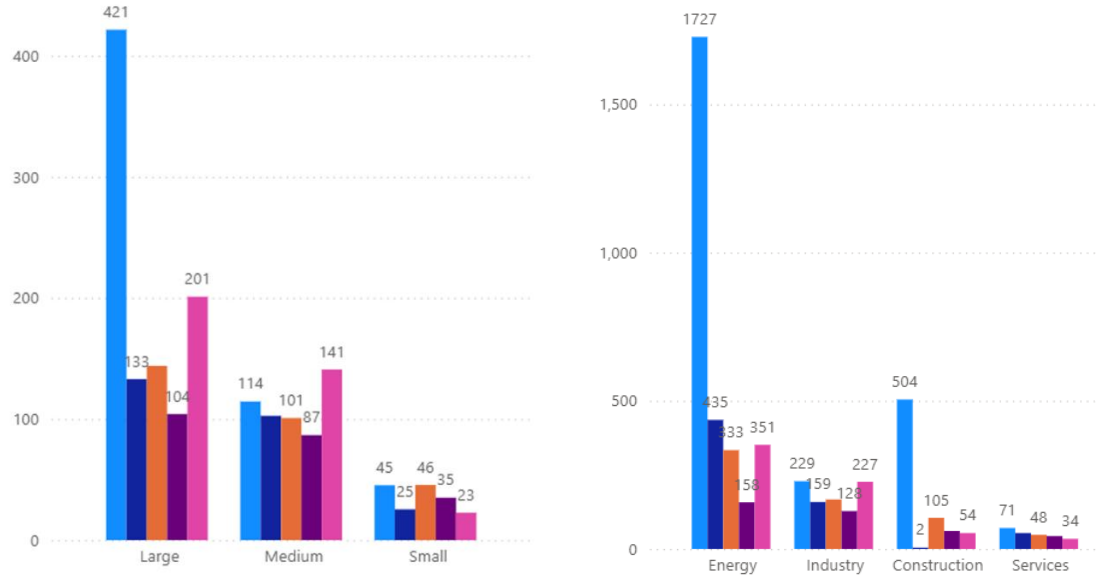


Source: ERICA, TF JECED calculations

Across size classes, the strong decrease in median water consumption intensities in 2021 appears to be driven mainly by large firms, and water intensity tends to increase with firm size. At sector level, the Energy sector shows relatively high water consumption intensities, followed by Industry, although the very high value observed for Energy in 2020 stands out across percentiles.

Chart 12 Evolution of median water consumption intensities by size and sector classification

(in cubic metres per million euro)

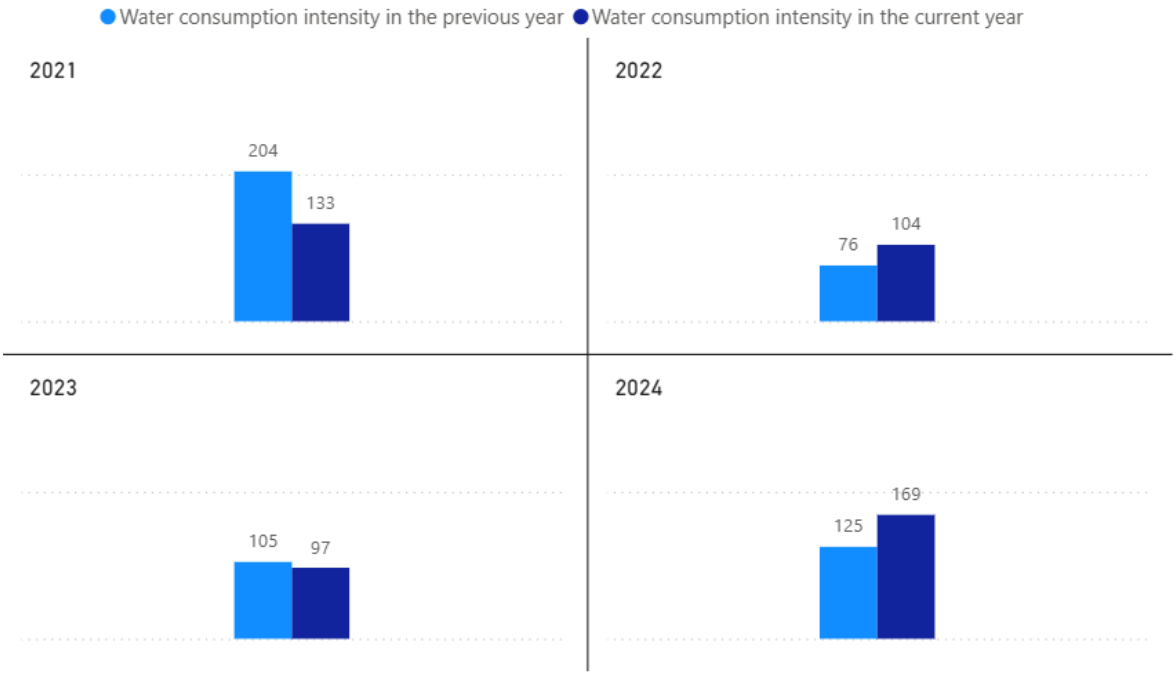


Source: ERICA, TF JECED calculations

The balanced sample of 91 firms shows a different pattern from the full sample. Median water consumption intensities rise in the first years and then decline from 2022 onwards, while for higher percentiles the intensities decrease over almost the entire sample period. This suggests that the full-sample pattern is partly affected by changes in the firms observed over time.

Chart 13 Evolution of median water consumption intensities in a rolling balanced sample

(in cubic metres per million euro)



Source: ERICA, TF JECED calculations

Notes: Each quadrant compares the median water consumption intensity in the previous year (light blue) to the median water consumption intensity in the current year (dark blue) for a subset of firms that are present in both the current and previous year.

Indeed, the rolling balanced sample confirms that sample-composition changes matter for water consumption. Apart from 2021, firms observed in consecutive years contribute little to decreases in median water intensity. For higher percentiles, the downward trend reflects a combination of within-firm declines and changes in the observed sample. The increase in 2024 observed across percentiles also appears to be influenced by both mechanisms.

Concluding Remarks

The initial ERICA analysis shows that existing corporate ESG data can already support meaningful exploratory statistical work. Coverage is improving and the dataset makes it possible to study firm-level environmental intensities across time, sectors and size classes. By enabling this type of analysis before CSRD data become available at scale, ERICA provides both an evidence base and a methodological testing environment for the more comprehensive ESG data landscape expected under CSRD, ESAP and ESEF.

The results from this testing environment also highlight the conditions needed to interpret such data reliably. The analysis confirms the importance of robust statistical methods, careful interpretation and sufficiently detailed data collection. Indicator distributions are highly heterogeneous, potential outliers remain relevant, and changes over time may reflect both within-firm developments and sample-composition effects. In addition, differences in reporting

boundaries, reporting methods and underlying definitions need to be captured more systematically to ensure that indicators can be interpreted consistently across firms, sectors and time.

These methodological lessons are also relevant for cross-indicator analysis. Scope 1 emissions, energy consumption and water consumption share common features, including improving coverage and strong firm-level heterogeneity, but their trend dynamics differ. This underlines the need to assess whether movements across indicators are consistent, whether they reflect within-firm developments or sample-composition effects, and how environmental indicators co-move over time. As data coverage improves, more advanced panel or econometric analysis could help examine these relationships more systematically, including links with sector and firm characteristics, financial statement data or variables from other statistical datasets.

These conclusions provide significant statistical value; however, their added value could be further enhanced through broader country coverage. Expanding the geographical scope of the analysis would strengthen the representativeness of the results and increase their relevance from a European perspective. If additional countries were to contribute data to the ERICA dataset, overall coverage would improve substantially. This would enable a more accurate and comprehensive assessment of ESG indicator levels across Europe, offering a more robust and representative picture of sustainability performance among European non-financial groups.

In this context, closer cooperation and the pooling of efforts between the European Statistical System (ESS) and the European System of Central Banks (ESCB) within the ERICA framework would be of crucial importance. Such collaboration would significantly strengthen the capacity to produce high-quality data and robust statistical analyses, thereby supporting European institutions in their strategic decision-making processes and ultimately contributing to outcomes that benefit European citizens.