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GS1 Standards

Corporate Sustainability Reporting Directive (CSRD) & GS1 Standards

A collaborative approach to corporate ESG activities



Document Summary

Document Item	Current Value
Document Name	Corporate Sustainability Reporting Directive & GS1 Standards
Document Date	March 2026
Document Version	1.1
Document Status	Approved
Document Description	The GS1 white paper 'Corporate Sustainability Reporting Directive & GS1 Standards' provides an overview of the EU's Corporate Sustainability Reporting Directive (CSRD) and its importance for companies. It outlines the requirements for sustainability reporting, including environmental, social and governance (ESG) aspects, and emphasises the need for standardised and reliable data collection and reporting. The document highlights the role of GS1 standards as a common framework for efficient and accurate data exchange across the value chain.

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1 Management summary

The Corporate Sustainability Reporting Directive (CSRD) is a central component of the EU's strategy to promote transparency and comparability of sustainability information. It builds on the Non-Financial Reporting Directive (NFRD). This includes comprehensive reports on a variety of ESG factors such as greenhouse gas emissions, energy consumption, water usage, social and employee matters, human rights and issues of corruption and bribery.

Recent regulatory developments, including the CSRD under the Omnibus package and revisions to the European Sustainability Reporting Standards (ESRS), highlight that CSRD implementation continues to evolve. While the overall framework is established, companies must remain adaptable as data requirements and practical application are further clarified.

Nevertheless, standardisation, prioritised data points and a common data understanding across the value chain remain essential. This White Paper addresses these developments while continuing to emphasise the need for a consistent and interoperable data foundation.

A key aspect of the CSRD remains effective data exchange along the whole value chain. Companies must not only collect and manage data within their own organisation but also integrate information from their suppliers and other partners to obtain a complete picture of their sustainability performance. This involves implementing robust data collection processes, ensuring the accuracy and reliability of reported data through internal and external audits, and continuously improving data collection and reporting processes. The Omnibus value-chain cap introduces a more proportionate approach concerning data from smaller value-chain partners in the regulatory context.

Data exchange across company boundaries is crucial to support ESG and set targets. GS1 standards, as global standards, support efficient and secure identification, capture and sharing of information. They provide a common language and framework for accurate and efficient data exchange along the value chain. This includes the key requirement of developing a shared understanding of methodology and communication to ensure that data exchange in the value chain is as efficient and accurate as possible. By using GS1 standards, companies can improve the accuracy of their data, strengthen collaboration with their partners and ensure that their sustainability reports meet the requirements of the CSRD.

Another crucial requirement for the future implementation of data points with GS1 standards is ensuring scalability and leveraging synergy effects between regulatory requirements. Beyond the CSRD, various regulations under the EU Green Deal umbrella require data to be exchanged across the value chain. GS1 standards allow these data points to comply with multiple regulations simultaneously. The advantage is that data is generated once in a standardised format, exchanged once for multiple purposes, and can be utilised for multiple regulations. Based on that interoperable approach, it is possible for companies to maximise synergies and reduce excessive effort for companies that are subject to the reporting requirements.

An evaluation framework with criteria to create a common understanding and prioritisation of the data points discussed in this White Paper to be exchanged between different value chain partners has been further developed.

The purpose of this White Paper is to provide an overview of the regulatory background and to illustrate the connection between GS1 standards and the CSRD. Given ongoing regulatory developments, this White Paper will be updated as further regulatory guidance becomes available. The practical implementation and standardisation of the identified data points will be addressed in dedicated follow-up documents.

2 Introduction: sustainability regulations in the European Union

The European Union's (EU) Green Deal, launched in December 2019, is the EU's roadmap to make its economy circular and climate-neutral by 2050. It aims to transform the EU into a modern, resource-efficient and competitive economy, ensuring no net emissions of greenhouse gases by 2050, economic growth decoupled from resource use, and no person or place left behind. This ambitious plan encompasses a wide range of regulations, such as the Corporate Sustainability Reporting Directive (CSRD), which standardises sustainability reporting, the EU Taxonomy, defining what qualifies as environmentally sustainable economic activity and the Corporate Sustainability Due Diligence Directive (CSDDD) which requires companies to identify, prevent and address adverse human rights and environmental impacts across their value chains. Further key initiatives include the EU Deforestation Regulation (EUDR), the Ecodesign for Sustainable Products Regulation (ESPR) and the Packaging and Packaging Waste Regulation (PPWR), together covering climate action, sustainable industry and the transition to a circular economy.¹

The EU Commission has initiated an Omnibus package to revise several Green Deal regulations, aimed to reduce red tape while maintaining the EU's sustainability objectives. This initiative seeks to streamline reporting requirements across various regulations, e.g.: the CSRD, CSDDD and EU Taxonomy and introduces targeted simplifications and synergies to reduce administrative burdens. While the legal framework has been formally adopted, its practical application will depend on national transposition and forthcoming delegated and implementing acts, which require ongoing monitoring.

Against this broader regulatory backdrop, the CSRD plays a particularly central role. As a core element influenced by the Omnibus package, it remains a key component of the EU Green Deal. Accordingly, this White Paper focuses primarily on the CSRD as the main regulatory reference.

3 Corporate Sustainability Reporting Directive (CSRD)

3.1 Overview

The CSRD derives from the EU's efforts to encourage companies to be transparent about their environmental impact and sustainability practices, thereby also contributing to the EU's climate goals. This directive mandates detailed sustainability reporting on environmental, social and governance (ESG) aspects, ensuring that companies provide comprehensive and reliable information about their sustainability performance.

By standardising sustainability reporting, the CSRD aims to provide investors and stakeholders with comparable and reliable data, fostering a more sustainable and resilient economy. The CSRD not only aligns with the objectives of the Green Deal but also supports the EU's broader goals of promoting sustainable finance and responsible business conduct. It underscores the EU's commitment to integrating sustainability into the core of corporate strategy and decision-making, ensuring that businesses contribute to the transition towards a greener and more inclusive future.

The CSRD builds upon the Non-Financial Reporting Directive (NFRD). It aims to improve the former NFRD reporting by providing clearer and more consistent standards. The directive requires companies to report on their sustainability performance in a manner that is comparable, reliable and easily accessible to stakeholders.

The primary objective of the CSRD is to improve the quality and comparability of sustainability information disclosed by companies as well as to enhance transparency and accountability in corporate sustainability practices. This includes detailed reporting on a wide range of ESG factors,

¹ Further developments are expected within the European legal framework. This leads to the fact that this guideline needs to be regularly reviewed and, if necessary, updated.

such as greenhouse gas emissions, energy consumption, water usage, social and employee matters, human rights, anti-corruption, and bribery issues. The CSRD mandates a comprehensive overview of a company's entire value chain, requiring reporting on both upstream and downstream activities. Consequently, the value chain plays a crucial role in meeting CSRD requirements. For instance, companies need to make reasonable efforts to exchange primary data with suppliers, ensuring accurate reporting.

Companies are required to integrate sustainability reporting into their management reports and have the information audited by an independent assurance services provider. The CSRD also introduces digital tagging of reported information to facilitate its accessibility and usability. Compliance with the CSRD will be monitored by national competent authorities, ensuring that companies adhere to the reporting standards and contribute to the EU's sustainability objectives.

3.2 Implementation

Since the CSRD is a European Directive, it must be transposed into national law. This means that the regulatory setup may vary between different EU Member States, particularly with regard to timing and national implementation details. As of now, not all Member States have completed the transposition process, so its final form remains uncertain. However, following the adoption of the Omnibus package, the scope of application and key quantitative thresholds of the CSRD are now clearly defined at EU level.

CSRD reporting applies to EU undertakings that meet both of the following criteria:

- more than 1,000 employees, and
- more than €450 million in net annual turnover.

In addition, the Omnibus package has introduced several further adjustments to the CSRD, notably the discontinuing mandatory sector-specific reporting standards in favour of a more simplified, sector-agnostic approach.

While the CSRD encompasses various requirements for corporate sustainability reporting, the European Sustainability Reporting Standards (ESRS) play a crucial role in defining the specific disclosure expectations and ensuring consistency across companies. The European Financial Reporting Advisory Group (EFRAG) has been mandated by the EU Commission as technical advisor for the development and revision of the ESRS and therefore plays a central role in the operationalisation of the CSRD.

The ESRS provide a comprehensive framework for companies to disclose their sustainability practices across the ESG areas. However, early implementation experience has shown that parts of the ESRS were perceived by companies as highly complex, insufficiently clear and leaving considerable room for interpretation.

In response, and following the adoption of the Omnibus package, the European Commission has initiated a revision of the ESRS with the objective of simplification, increased clarity and improved usability. Revised ESRS are currently expected to be adopted through a Delegated Act in the course of 2026. Until then, companies should closely monitor regulatory developments and forthcoming guidance.

While the content and level of detail of the ESRS are currently subject to revision, the overall structure remains unchanged and continues to be organised into 12 standards, two cross-cutting and ten topical standards, ensuring that sustainability reporting is both comprehensive and focused.



Figure 1: Overview of ESRS (European Sustainability Reporting Standards)

The ESRS framework includes two cross-cutting standards, ESRS 1 and ESRS 2, which apply across all topical standards and establish the general requirements and disclosure expectations for companies. ESRS 1 outlines core principles such as double materiality, value chain integration and boundary setting. ESRS 2 focuses on general disclosures related to governance, strategy, impact management, and metrics and targets. Beyond these, there are ten topical standards that address specific aspects of ESG reporting, such as climate change, pollution, biodiversity and ecosystems, own workforce and business conduct.

Conducting a double materiality assessment is mandatory under the CSRD. Companies reporting on sustainability must evaluate the relevance of a sustainability matter from two perspectives: impact materiality and financial materiality. Impact materiality, also known as the inside-out view, considers how organisations affect people and the environment. Financial materiality, or the outside-in view, examines how sustainability-related developments and events create new risks and opportunities for organisations. From a double materiality perspective, a sustainability matter can be material from either an impact or financial point of view, or both. This process involves evaluating sustainability issues based on their impacts, risks and opportunities (IROs). It begins with creating a CSRD-aligned list of potentially relevant sustainability topics, which could affect an organisation or be impacted by it. For each topic on the list, the potential impacts (positive and negative), risks and opportunities must be identified. Next, both the impact materiality and financial materiality of all topics need to be assessed. Finally, a threshold for what is considered material should be set, ensuring that both impact and financial materiality are considered.

Once the material IROs have been identified, companies develop targeted measures to address them as part of their sustainability strategy. These measures may include initiatives to mitigate negative impacts, capitalise on opportunities and manage risks effectively. As a result, companies must disclose not only the metrics and targets set for each sustainability measure, but also a comprehensive sustainability strategy. This strategy should outline their long-term goals, targets and action plans for achieving these goals. By integrating the findings of the double materiality analysis into their strategic planning, companies can enhance their sustainability performance, ensure compliance with regulatory requirements and meet stakeholder expectations.

Importantly, under the CSRD, companies are required to only report on the data points that have been identified as material through this process, ensuring that their sustainability reports are focused and relevant. This approach not only supports transparency and accountability but also drives long-term value creation and resilience.

This enhanced transparency is expected to drive greater corporate responsibility by improving the compatibility and reliability of sustainability data (see Figure 2). This, in turn, encourages

companies to integrate sustainability considerations more consistently into their strategic and operational decisions. Ultimately, the widespread availability of reliable sustainability data will foster a more sustainable and resilient market, aligning economic activities with the broader goals of environmental protection and social responsibility.

The CSRD sets a new benchmark for a significant number of companies across the EU, mandating comprehensive reporting on their climate and environmental impacts (see References – *European Commission*). Companies need to be compliant with CSRD legislation, otherwise their local authorities could take measures to force them to comply, which could even lead to severe penalties.

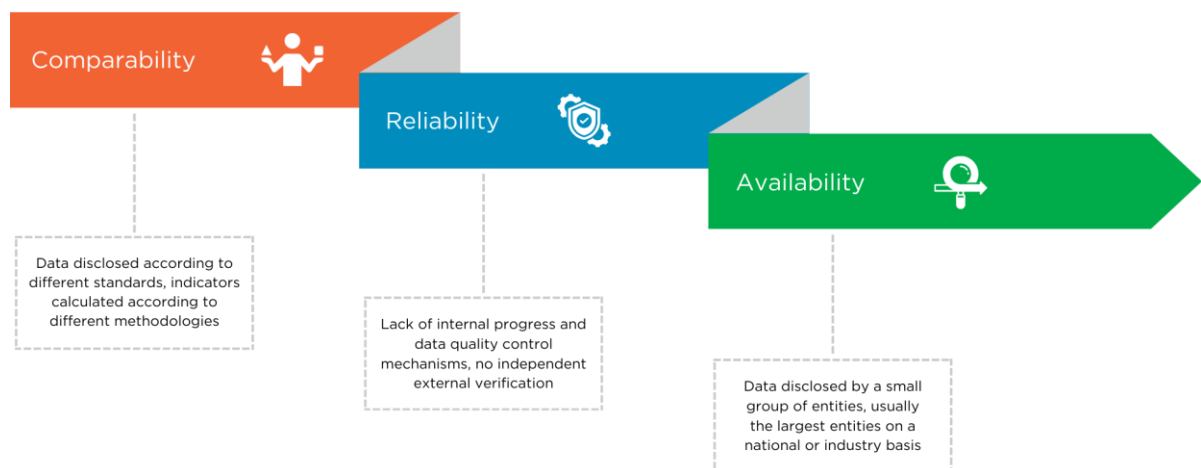


Figure 2: The way forward with CSRD

While CSRD reporting obligations formally apply only to companies within scope, the requirements nevertheless have a significant effect along the value chain. In-scope companies depend on sustainability information from suppliers and other business partners to fulfil their own reporting obligations, particularly in relation to material impacts, risks and opportunities identified through the double materiality assessment. This creates a so-called trickle-down effect, whereby companies that are not themselves subject to CSRD reporting may still be asked to provide sustainability-related data as part of their customers’ reporting processes.

With the Omnibus package a new value chain cap was introduced to support a proportionate approach to such value-chain data requests. Under this cap, smaller value-chain partners may limit the information they provide to what is included in the forthcoming Voluntary Sustainability Reporting Standard for SMEs (VSME), which establishes a voluntary, standardised reporting framework. The VSME enables smaller companies to respond to sustainability data requests in a structured and consistent manner without being subject to full CSRD reporting obligations. The VSME follows a modular structure aligned with ESRS principles, focusing on a limited set of proportionate core disclosures for SMEs.

4 CSRD and GS1 Standards

Having established a clear understanding of the relevance and activities needed to meet the requirements, it is now important to understand where GS1 standards can add value for companies in the context of the CSRD and ESG. While recent regulatory developments have streamlined the CSRD framework, the underlying need for reliable, standardised sustainability data across value chains remains. GS1 standards therefore continue to play a key role in enabling efficient, comparable and scalable ESG data exchange in practice.

4.1 Data handling, gathering and processing needs

The results of the double materiality analysis determine which topics are included in the sustainability reports according to the ESRS. It should be noted that the ESRS and the resulting data points leave a lot of room for interpretation. While the process is specific to each company, it is also expected that there will be similarities in double materiality within an industry sector such as the FMCG industry. Based on the outcomes of the analysis, a company needs to define and report a sustainability strategy including targets, metrics and action plans related to ESG topics, as well as the relevant measures and actions.

To develop ESG targets and fulfil relevant reporting obligations, companies must consider not only their own production and services, but also their entire value chain. While companies often already hold quite a lot of the necessary data within their own organisation, which needs to be collected and managed regularly, they also rely on information from their value chain to publish reliable and comprehensive sustainability data. This can be the case for information on manufacturing or other life cycle phases, both at the product level and the company level. This means that companies need to collect and integrate data from various actors along the value chain to obtain a complete picture of their sustainability performance – upstream and downstream.

Gathering data to also track progress towards achieving the set targets on a regular basis is a key element of the CSRD.

Collecting and integrating necessary data from various actors along the value chain is a complex process. While data exchange is essential for companies to comply with the directive, it is not a direct regulatory requirement of the CSRD. Instead, it arises from the need for corporate responsibility within the value chain, to foster sustainable and future-oriented business practices efficiently and cost-effectively. A company needs to make reasonable efforts to exchange the necessary information with the respective value chain, allowing the incorporation of primary data and avoiding reliance on secondary data.

Therefore, companies as operators must ensure that the data included in their sustainability reports is accurate, reliable and verifiable.

This involves:

- **Data collection:** Implementing robust data collection processes to gather relevant information from across the whole value chain.
- **Data verification:** Establishing robust internal control mechanisms to ensure the accuracy and completeness of reported data. This includes regular internal audits and data validation processes. Additionally, having external auditors or verification bodies audit the reported data further enhances the credibility and reliability of the information.
- **Continuous improvement:** Regularly reviewing and updating data collection and reporting processes to enhance data quality and reliability.

To effectively track and report on relevant ESG targets and strategies, companies must gather and manage a substantial amount of data.

4.2 Benefits of using GS1 Standards for the implementation of ESG strategies

The required transparency can be achieved in a more effective and efficient way if companies work together. Only through collaboration with suppliers and other partners will companies ensure and maintain high data quality.

Especially when it comes to product-related information, a common approach for data capturing, transfer and data calculation in value chains is needed. In this context, ESRS requirements need to be interpreted uniformly across companies. For the information to be meaningful, standardised definitions, measurement and calculation procedures are also required to ensure comparability. The inclusion of data from the value chain and cooperation with suppliers are key, as well as the basis for contributing to and achieving a company's ESG strategies and objectives.

GS1 standards form the basis for this and help as a common language in the value chain. GS1 standards enable data exchange across company boundaries. Due to the large amount of data, a

high degree of digitalisation and automation is needed to support compliance and efficiency in value chains.

Effective ESG data management is therefore crucial for fulfilling the requirements of the CSRD, and GS1 standards can significantly help in this process by providing a common language and framework for accurate and efficient data exchange across the value chain:

- ✓ **Efficient data sharing:** GS1 standards facilitate the seamless exchange of data between trading partners, ensuring that all parties have access to the same accurate and up-to-date information. This also includes the need for standardised data attributes and code lists, which improve collaboration and help companies meet the reporting requirements of the CSRD.
- ✓ **Improved data accuracy:** By using GS1 standards, companies can reduce the risk of errors and ensure that their data is accurate and reliable. This is crucial for producing credible sustainability reports.
- ✓ **Operational efficiency:** GS1 standards streamline data capture and sharing processes, reducing the administrative burden on companies and allowing them to focus on their core business activities.

Using GS1 standards provides a viable and foundational approach to addressing this complexity, emphasising the necessity of collaborative efforts. This not only helps companies in the implementation of the CSRD process but also supports their broader sustainability targets. GS1 standards can form the basis for enabling data exchange and influence the process of accomplishing sustainability targets, demonstrating that this can only be achieved through cooperation and collaboration in the value chain. In this way, a long-term increase in sustainability performance within companies can be organised more effectively.

5 Impact of collaboration based on GS1 Standards

Achieving environmental, social and governance (ESG) targets requires a collaborative working model involving various actors in the value chain, including suppliers, brand owners and retailers. Collaborative efforts and co-development are indispensable. Each actor plays a crucial role in ensuring that sustainability goals are met, and the use of GS1 standards facilitates this process by enabling seamless data exchange and enhancing transparency.

Roles of different actors in an FMCG value chain

- **Supplier:** Suppliers are responsible for producing raw materials and components that are used for manufacturing the finished goods.
- **Brand owner:** Brand owners, or manufacturers, are responsible for transforming raw materials into finished products.
- **Retailer:** Retailers are responsible for delivering finished products to consumers.



Figure 3: Simplified value chain with different actors

Cross-company data exchange with GS1 Standards

Effective cross-company data exchange is essential for achieving ESG targets. It ensures that all actors in the value chain have access to accurate and up-to-date information about the sustainability attributes of products. This transparency enables better decision-making, enhances accountability and fosters trust among stakeholders.

- ✓ **Transparency:** Sharing data across companies ensures that all actors are aware of the sustainability practices and performance of their partners. This transparency helps identify areas for improvement.
- ✓ **Accountability:** Cross-company data exchange holds each actor accountable for their sustainability practices. It ensures that suppliers, brand owners and retailers are all working towards a common ESG transformation.
- ✓ **Efficiency:** Efficient data exchange reduces duplication of efforts and streamlines processes, making it easier to track and report on sustainability metrics.

GS1 standards are the most widely used system of business standards in the world, creating a common language to identify, capture and share product data and ensuring that information is accessible, accurate and easy to understand (see Figure 4):

1. **Identify:** GS1 ID keys enable organisations to assign standard identifiers to products, documents, physical locations and more. Because GS1 ID keys are globally unique, they can be shared between organisations, increasing value chain visibility for trading partners. For instance, the Global Trade Item Number (GTIN) can be used by a company to uniquely identify its trade items. Similarly, the Global Location Number (GLN) can be used to uniquely identify locations and entities within the supply chain, both physical and non-physical, such as legal and operational offices, internal departments, warehouses, distribution centres, retail stores, and more.
 2. **Capture:** These keys can be represented in data carriers, such as linear barcodes, 2D barcodes (e.g. QR Code powered by GS1 DataMatrix) or EPC/RFID tags, to enable automatic data capture.
 3. **Share:** They may also be used in electronic communications, improving speed and accuracy when sharing master data, transaction data and visibility data. By capturing data at product level or at the level of individual warehouses, sites or other operational locations, organisations can aggregate this information to calculate overall values, improving the accuracy and completeness of the data shared across the value chain. Master data in cross-company data exchange – both at product and company level – is best practice to promote a collaborative approach and holistic ESG alignment on the market.
- **Global Data Synchronisation Network (GDSN):** GDSN is a network of interoperable data pools that enables companies to share standardised product data, including clear definitions on attributes, with their trading partners. The GDSN standard provides a detailed data model describing product-related information and its logistic hierarchy (e.g. consumer unit, case, pallet), including clear definitions of attributes and related technical information. Additionally, the standard defines the technical mechanisms used to exchange this information between trading partners. However, while GDSN is specifically designed to support the exchange of product data, it may not necessarily be the most suitable mechanism for managing or exchanging information at the corporate level, which may require different data models or interoperability approaches.
 - **Web Vocabulary:** The GS1 Web Vocabulary (WebVoc) collects terms defined in various GS1 standards and data systems and made available for general use following Linked Data principles. It is an external extension to schema.org that allows further details about products, assets, organisations and other entities to be expressed using Linked Data technology. GS1 WebVoc supports interoperable, machine-readable sustainability data and enables scalable digital reporting and data reuse across systems. In addition to supporting product-related data, WebVoc could also facilitate the sharing and interoperability of information at the corporate level, complementing existing GS1 data exchange frameworks such as GDSN, which primarily supports the exchange of standardised product data between trading partners.

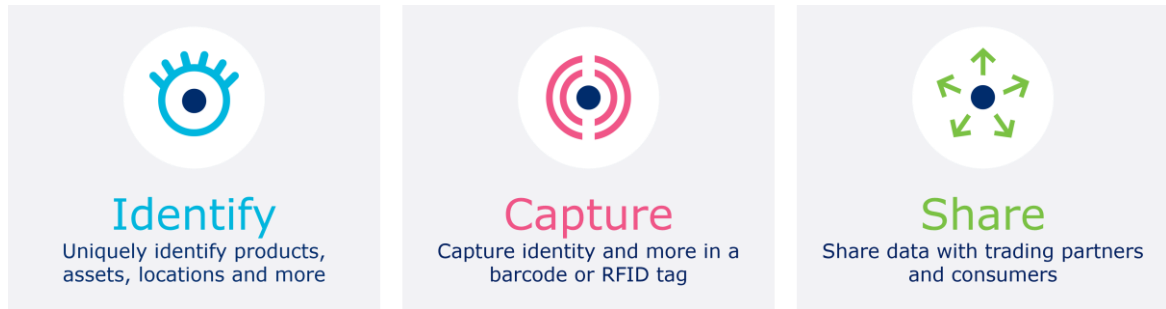


Figure 4: Three dimensions of GS1 standards

This collaborative approach is crucial, bridging the gap between legal requirements and the need to manage them efficiently throughout the entire value chain. It is a good way to meet CSRD requirements efficiently – the foundation to overcoming environmental and social challenges and deriving value from sustainability. By ensuring that accurate and comprehensive information is shared across the value chain, companies can drive innovation in sustainability practices and enhance their operational efficiency. Additionally, this transparency builds trust with consumers and other stakeholders, demonstrating a commitment to responsible and ethical business practices.

6 Identification of key data points for data exchange

The overarching trigger for data points to be exchanged across companies on the basis of GS1 standards is the regulatory framework described in Section 3.

- Step 1: Companies individually assess the double materiality of a potential data point, based on the EFRAG list:

Determination of the totality of all possible data points to be reported within the CSRD using the publicly available list of data points and guidelines to support the implementation of the ESRS publicly provided by EFRAG.

- Step 2: The industry sector decides on the qualification of data points for the active and efficient management of the strategic ESG orientation of the FMCG industry:

Data points that are relevant for cross-company data transfer. Especially those that are relevant due to a complexity measured by:

- number of regulations and their respective synergy potential
- number of methods concerned
- dependencies on existing standards
- international compatibility
- strategic relevance/value added.

Data points that have an overlap in the materiality of many stakeholders.

Data points that can be structured in the context of GS1 standards.

- Step 3: The appropriate GS1 standard in which the data point can then be exchanged depends in turn on the characteristics and requirements of the individual data point.

It depends on the compatibility with GS1 standards (technical structurability) and the degree of standardisation maturity, indicating the extent of preparatory work already completed. A key requirement is to maximise the use of existing methods and standards in the development of attributes and code lists.

In addition, the differentiation between product level (master data/transactional data) and company level is important for the respective GS1 standards mapping.

It is therefore a multi-stage process that ultimately makes a data point relevant for cross-company data exchange along the value chain.

Previously included data points related to transport packaging under ESRS E5 are currently deprioritised, as there is no explicit ESRS disclosure requirement and no meaningful product-level allocation. Therefore, they should not be included in the prioritized data-point list.

In practice, GS1 standards such as GDSN and the GS1 Web Vocabulary support the consistent exchange of product-level and sustainability-related data across the value chain. While GDSN enables structured and standardised master data sharing between trading partners, GS1 Web Vocabulary supports machine-readable, interoperable sustainability information for digital applications and future-oriented reporting use cases.

The need to share information in value chains based on common data points using the GS1 standards is therefore not a direct regulatory requirement of the CSRD, but a consequence (business requirement) of the need to take on corporate responsibility and thus to shape sustainable business in a future-oriented and efficient (cost-reducing) manner.

6.1 List of identified key data points

Using the initial prioritisation and reference points, the data points in the following list have been identified as important and relevant for data exchange across the value chain. The level of data exchange can differ and change depending on the availability of sustainability data and the alignment between industry partners. This assessment is based on the ESRS as currently applicable at the time of writing. While draft proposals and consultation documents for potential amendments and simplifications of the ESRS already exist, these have not yet been formally adopted. This selection is preliminary and is intended to evolve over time in line with emerging requirements and practical implementation experience. Nonetheless an indicative assessment on possible implications was done based on the EFRAG Simplified Draft ESRS of November 2025. The following lists differentiate between data points mapped at product and company level:

Key data points for data exchange at product level

Data point no.	ESRS	Data point name	Data point short name	Definition	Indicative assessment of possible changes based on the EFRAG Simplified Draft ESRS of November 2025
1	ESRS E1: Climate change	GHG emissions – by country, operating segments, economic activity, subsidiary, GHG category or source type	Product carbon footprint	Disaggregated GHG emissions per product as product carbon footprint (PCF) of its respective Scope 1, 2 and 3 GHG emissions (cradle to gate when leaving the company). For the PCF, CO ₂ eq per kg shall be used as the common unit of measurement.	The draft focuses on gross Scope 1–3 GHG emissions; GHG disaggregation remains possible under AR 25. A product-level, cradle-to-gate Product Carbon Footprint (PCF) is relevant e.g. either as part of Scope 3.1 or as a separate breakdown.
2	ESRS E5: Resource use and circular economy	Weight of products and technical and biological materials used during the reporting period	Weight of products and product packaging, differentiating between technical and biological materials	Overall total product weight and packaging weight, differentiating between technical and biological materials. Technical materials are generally not biodegradable and include all materials used in a technical process that are not of biological origin (e.g. metals, plastics). Biological materials are derived from, or produced by, biological organisms like plants, animals, bacteria, fungi and other life forms. These are also called biologically derived materials (e.g. wood, cotton, natural fibres and other organic materials).	Draft E5-4 no longer requires reporting the total weight of all products or of technical/biological materials; instead, the focus shifts to key materials, their total weight, and the associated breakdown. However, this still requires an appropriate underlying dataset to support item-level assessment.

Data point no.	ESRS	Data point name	Data point short name	Definition	Indicative assessment of possible changes based on the EFRAG Simplified Draft ESRS of November 2025
3	ESRS E5: Resource use and circular economy	Percentage of biological materials (product and product packaging)	Percentage of biological materials used in products and product packaging	The percentage of biological materials (and biofuels used for non-energy purposes) used to manufacture the undertaking's products (including packaging) that is sustainably sourced, with information on the certification scheme used and on the application of the cascading principle. The declaration should refer to the actual certified portion and not an extension to the entire product (if the entire product is not certified). Any other interpretation is then up to the specific reporting company.	The draft removes the explicit data point on sustainably sourced biological materials, including certification and the cascading principle. Instead, AR 1 for para. 13(a) (b) points to the following distinction/description: "if the distinction between technical material and biological material is a driver of impacts, risks or opportunities, the undertaking shall describe it accordingly."
4	ESRS E5: Resource use and circular economy	Weight of secondary reused or recycled components, secondary intermediary products and secondary materials used to manufacture the undertaking's products and services (product and product packaging)	Weight of secondary reused or recycled components, products and materials in products and product packaging	Absolute weight of secondary reused or recycled components, secondary intermediary products and secondary materials used to manufacture the undertaking's products and its packaging.	The separate weight of reused or recycled components is likely removed as a redundant data point; instead, Draft E5-4 asks for "secondary resources" either by weight or as a percentage of key materials. Here, too, an appropriate underlying dataset is needed to support item-level assessment.
5	ESRS E5: Resource use and circular economy	Recyclable content in product packaging	Rate of recyclable content in product packaging	Rate of recyclable content in the product, defined as a numerator divided by the total weight of the product in the denominator. Recyclable content means the ability of materials to be collected, sorted and reused through appropriate processes to make product packaging.	The data point remains in place but its wording has been revised. Instead of "recyclable content in product packaging," Draft E5-5 requires the "designed recyclability rate" for key products and their packaging.

Data point no.	ESRS	Data point name	Data point short name	Definition	Indicative assessment of possible changes based on the EFRAG Simplified Draft ESRS of November 2025
6	ESRS E2: Pollution	Amount of generated or used substances of concern during production or that are procured	Substances of concern	<p>Total amounts of substances of concern that leave the undertaking's facilities as products, or as part of products or services split into main hazard classes of substances of concern. As 'substance of concern', the following is defined:</p> <ul style="list-style-type: none"> i. meets the criteria laid down in Article 57 and is identified in accordance with Article 59(1) of Regulation (EC) No 1907/2006 of the European Parliament and of the Council (35); ii. is classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council (36) iii. negatively affects the reuse and recycling of materials in the product in which it is present, as defined in relevant Union product-specific ecodesign requirements. 	<p>The data point is now structured with much stronger role-specific differentiation. Draft E2-5 distinguishes, among other things, between manufacturers/importers, users, and articles. In the FMCG context, substances of concern are expected to be significantly less relevant for reporting.</p>
7	ESRS E2: Pollution	Microplastics generated or used	Microplastics	<p>Microplastics generated or used, that leave the undertaking's facilities as products, or as part of products or services. As 'microplastics' all synthetic polymer particles under 5 millimetres that are organic, insoluble and difficult to degrade are defined (based on ECHA/EU Commission).</p>	<p>The data point is clarified and partly expanded. Draft E2 distinguishes between primary and secondary microplastics; primary microplastics must be quantified, while secondary microplastics are disclosed separately and, where applicable, described qualitatively. Where products contain microplastics, primary microplastic can be particularly relevant for the FMCG sector.</p>

Data point no.	ESRS	Data point name	Data point short name	Definition	Indicative assessment of possible changes based on the EFRAG Simplified Draft ESRS of November 2025
8	ESRS E5: Resource use and circular economy	Expected durability of the products placed on the market, in relation to the industry average for each product group	Expected product durability	The expected durability of the product in relation to the industry average for each product group. Durability is defined as the ability of a product, component or material to remain functional and relevant when used as intended.	The data point remains in the current draft, albeit in a revised form. The comparison with the industry average by product group has been removed; instead, Draft E5-5 requires qualitative or quantitative disclosures on the expected durability of the key products, making a respective data basis relevant.
9	ESRS E5: Resource use and circular economy	Repairability of products	Product repairability	Repairability of the product means one or more actions carried out to return a defective product or waste to a condition where it fulfils its intended purpose, using an established rating system, where possible.	Instead of using an established repairability rating "where possible," Draft E5-5 requires qualitative or quantitative disclosures on how repairable the key products are.

Key data points for data exchange at company level

Data point no.	ESRS	Data point name	Data point short name	Definition	Indicative assessment of possible changes based on the EFRAG Simplified Draft ESRS of November 2025
10	ESRS S2: Workers in the value chain	Undertaking has supplier code of conduct	Supplier code of conduct	The undertaking shall state whether it has a supplier code of conduct.	No significant change to the core data point expected.
11	ESRS E1: Climate change	Science-based GHG emission reduction target	GHG emission reduction target	Indication whether the GHG emission reduction targets are science-based and compatible with limiting global warming to 1.5° C, as well as which framework and methodology has been used to determine these targets, including whether they are derived using a sectoral decarbonisation pathway and if they are externally assured.	Partially adjusted: the statement on science-based/1.5°C-compatible GHG targets and the methodology used remains unchanged. However, the explicit reference to external assurance was deleted from this data point in the November 2025 draft.

6.2 Potential of further selected data points examples

In the following, individual data points from the above list have been selected to illustrate the essential content and the necessary procedures for data exchange:

Data point no. 1: Product carbon footprint

- Context:** Companies are required to calculate and disclose their greenhouse gas emissions at company level, referred to as the Corporate Carbon Footprint (CCF). This disaggregation can be by country, operating segments, economic activity, subsidiary, greenhouse gas type or source type. Under ESRS E1-6, the gross Scope 1, 2 and 3 emissions need to be disclosed, with scope 3 covering indirect emissions across the entire value chain. As value chains involve multiple actors, a company's Scope 1 and 2 emissions typically constitute Scope 3 emissions for upstream or downstream partners. This interdependence makes consistent data disaggregation and exchange essential. The link between CCF and Product Carbon Footprint (PCF) is established by breaking down company-level emissions to the product level, including life-cycle stages. In particular, Scope 3 Category 3.1 *Purchased goods and services* (according to Greenhouse Gas Protocol) provides the key connection between corporate reporting and product-level carbon data along the value chain.
- Benefits for the value chain:** Reporting on the carbon footprint of products and standardising data exchange improves data quality, transparency, regulatory compliance and cost efficiency. A well-documented PCF enables companies to optimise product design and processes, yielding market and reputational benefits while aligning with global sustainability goals.
- Examples of strategies, measures and actions:** To enhance sustainability, the strategy involves establishing effective communication within the value chain to facilitate the necessary data exchange, particularly for capturing and reporting the PCF. This is supported by implementing robust data management systems for capturing, monitoring and reporting ESG data. Additionally, sustainability strategies and actions are regularly reviewed and updated based on reporting outcomes and stakeholder feedback, ensuring continuous improvement in environmental performance.
- Data collection and process design:** Companies need to collect data on greenhouse gas emissions, including the PCF, from their upstream value chain to ensure a complete and accurate calculation of their Scope 3 emissions. This comprehensive data collection is crucial for accurate reporting and effective sustainability management. The PCFs of the upstream value chain are incorporated into the corporate carbon footprint (CCF) of the reporting company, specifically in Scope 3.1 Purchased Goods and Services.
- ESRS Draft:** Based on the EFRAG draft amendments of November 2025, ESRS E1 would continue to centre primarily on the disclosure of gross Scope 1, 2 and 3 GHG emissions and their related targets. Significant Scope 3 categories continue to include purchased goods and services, which means that the main reporting anchor for upstream product-related emissions remains within Scope 3, while further GHG disaggregation is still possible under AR 25. Accordingly, a cradle-to-gate PCF would remain highly relevant as an operational data set especially for Scope 3.1 and value-chain data exchange, but, as an inference from the current draft wording, it would be more likely to serve as a voluntary breakdown or supporting methodology rather than as a separately prescribed ESRS E1 datapoint.
- Exemplary synergies for reporting / Connection to other regulations:**

EU Taxonomy Regulation, Ecodesign Sustainable Product Regulation (ESPR), Carbon Border Adjustment Mechanism (CBAM), Corporate Sustainability Due Diligence Directive (CSDDD), Empowering Consumers Directive (EmpCo)
- GS1 standards:** [Link to GS1 Navigator](#), Further guidance is provided in the [GDSN Implementation Guideline for exchanging Carbon Footprint Data](#), which describes the relevant data model within GDSN. This guideline will be updated to reflect on adaptations.

Data point no. 4: Weight of secondary reused or recycled components, products and materials in products and product packaging

- **Context:** Companies need to report the weight of secondary reused or recycled components, products and materials used in their products and product packaging. This metric helps in assessing the extent to which companies are incorporating circular economy principles by reusing and recycling materials, thereby reducing waste and conserving resources.
- **Benefits for the value chain:** Reporting the weight of secondary reused or recycled materials enhances transparency and supports the transition to a circular economy. It helps companies to reduce their environmental impact, lower raw material costs and improve resource efficiency. Additionally, it can lead to enhanced brand reputation, regulatory compliance and alignment with consumer demand for sustainable products.
- **Examples of strategies, measures and actions:** To increase the use of secondary reused or recycled materials, companies can implement the following strategies:
 - Product redesign: Redesign products and packaging to maximise the use of secondary materials without compromising quality or performance.
 - Material recovery programmes: Establish programmes to recover and recycle materials from end-of-life products and packaging.
 - Supplier partnerships: Collaborate with suppliers to source high-quality recycled materials and ensure their consistent availability.
- **Data collection and process design:** Companies need to collect data on the weight of secondary reused or recycled components, products and materials used in their products and packaging. This involves tracking the sourcing, usage and recycling of these materials throughout the value chain. Accurate data collection is essential for reporting and for making informed decisions about material selection and product design. The weight of secondary materials used should be integrated into the overall sustainability reporting framework, contributing to the company's environmental performance metrics.
- **ESRS Draft:** Based on the EFRAG draft amendments of November 2025, this datapoint would likely no longer be retained in its current, separate form. In the 2023 ESRS E5, undertakings had to disclose the weight, in absolute value and percentage, of secondary reused or recycled components, secondary intermediary products and secondary materials used to manufacture products and services, including packaging. By contrast, Draft E5-4 shifts the focus to resource inflows and requires disclosure of secondary resources used, expressed either in weight or as a percentage of the total weight of key materials. This introduced the new concept of "key materials" which needs to be judged on an individual level. At the same time, the underlying operational need for sufficiently granular item- or material-level data remains: companies would still need a robust dataset to identify relevant key materials, determine the share of secondary resources within them, and support consistent assessment at product or packaging level.
- **Exemplary synergies for reporting / Connection to other regulations:**

EU Taxonomy Regulation, Ecodesign Sustainable Product Regulation (ESPR), Packaging and Packaging Waste Regulation (PPWR)
- **GS1 standards (packaging):** [Link to GS1 Navigator](#)

Data point no. 7: Microplastics

- Context:** Companies need to report, where pollution is material, the amount of microplastics generated or used by the undertaking under ESRS E2-4. The objective of this disclosure is to provide an understanding of the emissions that the undertaking generates to air, water and soil in its own operations, as well as its generation and use of microplastics. The application requirements clarify that the disclosure covers microplastics generated or used during production processes or procured by the undertaking and leaving its facilities as emissions, as products, or as part of products or services. This includes both unintentionally generated microplastics, for example from wear and tear, and intentionally manufactured microplastics added to products for specific purposes.
- Benefits for the value chain:** Reporting on microplastics improves transparency on a relevant pollution sub-topic and supports a more consistent understanding of where pollution-related impacts arise across operations and the value chain. The ESRS require undertakings to consider pollution-related impacts, risks and opportunities in their own operations and upstream and downstream value chain, and to screen sites and business activities accordingly. As an inference from these requirements, microplastics reporting can help identify hotspots, improve dialogue with suppliers and customers on product composition and process emissions, and support the management of environmental and potential human-health-related impacts associated with microplastics.
- Examples of strategies, measures and actions:** To address microplastics, companies can implement pollution-related policies, actions and targets in line with ESRS E2. Relevant measures can include avoiding pollution at source, substituting or phasing out problematic materials or compounds, reducing releases through process improvements, and applying control measures where pollution occurs. In practice, this can include product redesign to avoid intentionally added microplastics, process and equipment improvements to reduce emissions, filtration or capture measures, supplier engagement, and site-level action plans where relevant.
- Data collection and process design:** Companies need to establish data collection processes that enable them to quantify the microplastics generated or used and to explain the basis of reporting. ESRS E2 requires undertakings to describe changes over time, the measurement methodologies applied, and the processes used to collect data for pollution-related accounting and reporting, including the type of data needed and the information sources. For microplastics specifically, the underlying dataset should capture generated, used or procured microplastics that leave the undertaking's facilities as emissions, products, or as part of products or services.
- ESRS Draft:** Based on the EFRAG draft amendments of November 2025, this datapoint would not be removed, but rather clarified and partly expanded. Draft ESRS E2-4 now distinguishes explicitly between primary and secondary microplastics. For primary microplastics, undertakings are required to disclose the amounts manufactured or used in their products and, separately, the amounts directly released into the environment, presented in relevant mass units. Secondary microplastics, by contrast, are disclosed separately. The Basis for Conclusions explains that this split was introduced to improve clarity and to separate secondary microplastics from primary ones at disclosure-requirement level. For companies whose products contain microplastics, this means that an underlying product-level dataset remains necessary to identify where intentional primary microplastics are present, quantify them consistently, and distinguish them from secondary microplastics arising from the breakdown of larger plastic items over the product life cycle.
- Exemplary synergies for reporting / Connection to other regulations:**
Ecodesign Sustainable Product Regulation (ESPR), Packaging and Packaging Waste Regulation (PPWR), Empowering Consumers Directive (EmpCo)
- GS1 standards (packaging):** [Link to GS1 Navigator](#)

GS1 standards continue to ensure scalability and enable synergies across regulatory requirements, even under the revised CSRD framework introduced by the Omnibus package and while the ESRS remain in draft and subject to change.

GS1 standards ensure scalability and leverage synergy effects between different regulatory requirements. Beyond the CSRD, various regulations under the EU Green Deal umbrella require data to be exchanged across the value chain. GS1 standards allow these data points to comply with multiple regulations simultaneously. The advantage is that data is generated once in a standardised format, exchanged once for multiple purposes and can be utilised for multiple regulations. This interoperable “collect once – use many times” approach enables companies to maximise synergies and minimise administrative burden, even in a context of evolving regulatory requirements.

The above examples clearly show the efficiency potential associated with GS1 standards. For this reason, the further development of GS1 standards is a prerequisite for active and efficient ESG management – the key success factor to support the transformation to a circular economy and climate neutrality.

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Glossary

Term	Definition
AR – Application Requirement (ESRS)	Binding application guidelines within the ESRS that explain how individual disclosure requirements are to be implemented.
Assurance	Independent verification of sustainability information by external assurance providers to ensure accuracy, completeness and reliability.
CBAM – Carbon Border Adjustment Mechanism	EU instrument designed to price carbon emissions of certain imported goods to prevent carbon leakage and ensure a level playing field.
CCF – Corporate Carbon Footprint	Total greenhouse gas emissions of an organisation across all relevant Scope 1, 2 and 3 categories.
Circular Economy	Economic model focused on resource efficiency, reuse, repair and recycling to minimize waste and environmental impact.
CO ₂ eq – Carbon Dioxide Equivalent	Metric used to express the climate impact of different greenhouse gases based on their global warming potential.
CSRD – Corporate Sustainability Reporting Directive	EU directive introducing mandatory sustainability reporting requirements to improve transparency, comparability and reliability of sustainability information.
CSDDD – Corporate Sustainability Due Diligence Directive	EU directive setting corporate due diligence obligations regarding human rights and environmental impacts along the value chain.
Digital Tagging	Digital labelling of reported sustainability information to enable accessibility, comparability and machine readability.
Double Materiality Assessment	Assessment process used by companies to determine material sustainability topics by evaluating their impacts on people and the environment (inside-out) as well as financial risks and opportunities for the undertaking (outside-in).
DPP – Digital Product Passport	Digital tool providing structured product-related information across the full product lifecycle, supporting transparency and regulatory compliance.
EFRAG – European Financial Reporting Advisory Group	EU advisory body responsible for developing and updating the European Sustainability Reporting Standards (ESRS).
EmpCo – Empowering Consumers Directive	EU directive aimed at strengthening consumer information and preventing misleading environmental claims.
EPC – Electronic Product Code	GS1 standard used in RFID systems to uniquely identify physical objects and enable automated data capture.
ESG – Environmental, Social and Governance	Framework covering environmental, social and governance factors used to assess corporate sustainability performance.
ESPR – Ecodesign for Sustainable Products Regulation	EU regulation setting ecodesign-based sustainability and information requirements for products placed on the EU market across their lifecycle.

Term	Definition
ESRS – European Sustainability Reporting Standards	Mandatory reporting standards specifying disclosure requirements under the CSRD.
EU Taxonomy	EU classification system defining environmentally sustainable economic activities.
EUDR – EU Deforestation Regulation	EU regulation aiming to prevent deforestation and forest degradation in supply chains.
FMCG – Fast-Moving Consumer Goods sector	Consumer products that are sold quickly and at relatively low cost, typically characterized by high volumes and short product lifecycles.
GDSN – Global Data Synchronization Network	GS1-based network of interoperable data pools enabling standardised exchange of product master data between trading partners.
GHG – Greenhouse Gases	Gases such as CO ₂ , methane or nitrous oxide that contribute to climate change.
GLN – Global Location Number	GS1 identification key used to identify legal entities, physical locations or functional entities.
GS1 Standards	Globally recognized standards enabling identification, data capture and data sharing across value chains.
GTIN – Global Trade Item Number	GS1 identification key used to uniquely identify trade items and products.
Identify – Capture – Share	Three dimensions of GS1 standards covering identification of objects, data capture and data exchange.
IROs – Impacts, Risks and Opportunities	Elements assessed within the double materiality process to identify material sustainability topics.
Key materials	Materials identified as particularly relevant under ESRS E5 drafts, forming the basis for resource-related disclosures; concept subject to further regulatory clarification.
Linked Data	Data published in a structured, machine-readable format using web standards to enable interoperability and reuse across systems.
Master Data	Core, relatively stable data describing products, companies or locations.
Microplastics	Synthetic polymer particles smaller than 5 mm that persist in the environment.
NFRD – Non-Financial Reporting Directive	Predecessor directive to the CSRD governing non-financial reporting in the EU.
Omnibus Package	EU initiative aimed at simplifying and aligning sustainability-related regulatory requirements under the European Green Deal.
PCF – Product Carbon Footprint	Total greenhouse gas emissions associated with a product across defined lifecycle stages, expressed in CO ₂ eq (CO ₂ equivalent).
PPWR – Packaging and Packaging Waste Regulation	EU regulation setting binding sustainability, design and waste-reduction requirements for packaging placed on the EU market.

Term	Definition
Primary data / Secondary data	Primary data originates directly from operational processes; secondary data is estimated or derived from external sources.
RFID – Radio Frequency Identification	Technology enabling automatic identification and data capture using radio waves.
Scope 1, 2, 3	Categories used to classify direct and indirect greenhouse gas emissions according to the GHG Protocol.
Substances of Concern	Chemical substances with hazardous properties that may negatively affect health, the environment or recycling processes.
Trickle-down effect	Transmission of sustainability data requests from CSRD in-scope companies to suppliers and business partners.
Upstream / Downstream	Stages of the value chain occurring before (upstream) or after (downstream) a company’s own operations.
Value Chain	All activities and actors involved in the creation, use and end-of-life of a product or service.
VSME – Voluntary Sustainability Reporting Standard for SMEs	Voluntary and proportionate sustainability reporting standard designed for small and medium-sized enterprises.
Web Vocabulary (GS1 Web Vocabulary)	GS1 linked-data vocabulary enabling interoperable, machine-readable product and sustainability information.

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