GS1 in Europe

The Global Language of Business

GS1 support for Construction Products Regulation (CPR-2024)

A Position Paper on the use of GS1 standards and services as a tool to help companies address regulation more efficiently

Contents

1. Background

The construction industry stands in front of a huge need for change, adapting the ways of working to our modernised, digital and fast changing world where the demand for increased regulatory declarations and traceability is imperative. The underlying reasons are connected to the safety of construction product use but also to facilitate the shift from linear to circular value chains and to improve the competitiveness of the European construction industry, based on conversations with industry representatives. The Construction Products Regulation 2024 works to enable greater traceability, advanced digitalisation, sustainability and remove obstacles to trade between EU Member States. It went into force January 7, 2025, and will be phased in to enable companies to adapt to the new requirements.

1.1 Traceability and standardisation - key enabler for the construction industry

Traceability and standardisation are essential components to enable compliance with the European Union's regulations addressing sustainability and human safety. It also enables new business models like resale and reuse of goods.

For the construction industry, data management, product identification, data capturing, data sharing, traceability enable compliance with the Construction Products Regulation (CPR) 2024 by supporting key obligations such as the Declaration of Performance and Conformity (DoPC), declaration of products' life-cycle environmental performance, and the Digital Product Passport (DPP) introduced by the Ecodesign for Sustainable Products Regulation (ESPR). The DPP, when introduced will enhance transparency and traceability, relying on a seamless flow of verifiable and up-to-date information from all actors in the value chain based on open standards. Achieving value chain traceability requires standardisation of data, data sharing, and processing across value chains, which necessitates a rethink of operations within the construction and related industries.

Standardisation is fundamental to CPR-2024, creating a harmonised and reliable market for construction products within the European Union. Through standardisation consistent assessment of construction products, their qualities, and performance can be realised, serving as the basis for CE-marking via harmonised Technical Specifications. Data standardisation also facilitates the implementation of the DPP and ensuring reliable methods to assess and declare environmental sustainability.

1.2 Sustainability Regulations in the European Union

The European Union (EU) has been actively advancing its sustainability agenda through initiatives like the European Green Deal, so well-known in the last political term, aiming for climate neutrality by 2050. Several legislative directives and regulations are being rolled out to increase transparency across value chains, help modernise and ensure the competitiveness of the European Union.

Key legislations such as Corporate Sustainability Reporting Directive (CSRD), Regulation on Deforestation-Free Products (EUDR), Ecodesign for Sustainable Products Regulation (ESPR) and Packaging and Packaging Waste Regulation (PPWR) all work to foster such environment across Member States of the EU. More specifically for the construction industry, an updated version of the Construction Products Regulation (CPR) has been finalised, integrating sustainability aspects and requirement on transparency and traceability throughout the value chain.

CPR-2024 enables Member States to introduce incentives based on product performance and environmental labelling and seeks to avoid double assessment of environmental and safety aspects covered by other EU regulations and directives.

1.3 The Construction Products Regulation (CPR)

The European Commission launch of the updated Construction Products Regulation (CPR) aims to harmonise the conditions for assessing and declaring the performance and conformity (environmental sustainability and safety) of construction products. This to enable EU harmonised zone where construction products can be moved seamlessly across Member States.

Businesses, particularly manufacturers, will be required to prepare a Declaration of Performance and Conformity (DoPC) that includes the essential characteristics of their products and their compliance with applicable requirements. They will affix the CE marking to their products and ensure the constancy of performance and conformity. Furthermore, manufacturers will need to provide general product information, instructions for use, and safety information.

The CPR-2024 entered into force 7 January 2025 and will become applicable from 8 January 2026. However, the obligations primarily apply to products covered by harmonised technical specifications (hTS) that become mandatory under CPR-2024 or for products with a European Technical Assessment (ETA) requested under CPR-2024. Existing harmonised standards under CPR-2011 will continue to apply until new hTS are published which will be sequentially available dependent on the product family.

2. Construction Products Regulation (CPR)

The Construction Products Regulation (CPR) 2024 represents a comprehensive modernisation of the regulatory framework for construction products, with a stronger focus on sustainability, digitalisation, and increased transparency. Companies in the construction sector need to learn about the new requirements and adapt their processes to ensure compliance and benefit from the opportunities the digitalisation of the value chain may bring.

2.1 Scope of the Regulation

The Construction Products Regulation (CPR) 2024, effective from 8 January 2026, replaces CPR-2011. It aims to create a common legal framework for the free movement of construction products within the European Union, ensuring uniformity, reliability, and transparency of product information for a safer, more sustainable, and competitive construction sector.

CPR-2024 meets the demand for increased transparency and reliability similar to the ESPR, but with focus on construction products e.g., a window or a package of bricks and their characteristics related to Basic Requirements for Construction Works (BRCW), as well as new requirements in environmental sustainability and digitalisation.

The regulation includes a wide range of products for construction, including used and remanufactured items. The regulation does not apply to for example lifts or escalators and their components, see Article 2 and Article 11 (Regulation (EU) 2024/3110) for more information on scope. CPR was developed in line with ESPR and in case of conflict for construction products the CPR prevails (Article 12). Additionally, further information and questions can be found on the EU official Journal.

2.2 Due Diligence Requirements for manufacturer

To comply with the regulation, manufacturers need to undertake several important actions (see illustration 1). These obligations mainly apply to construction products covered by a harmonised Technical Specification (hTS) according to CPR-2024 or for which a European Technical Assessment (ETA) has been issued in accordance with CPR-2024 and the manufacturer wishes to affix the CE marking.

Below in Illustraion 1 is an overview of the actions required for the manufacture of construction products covered by a harmonised Technical Specification (hTS).

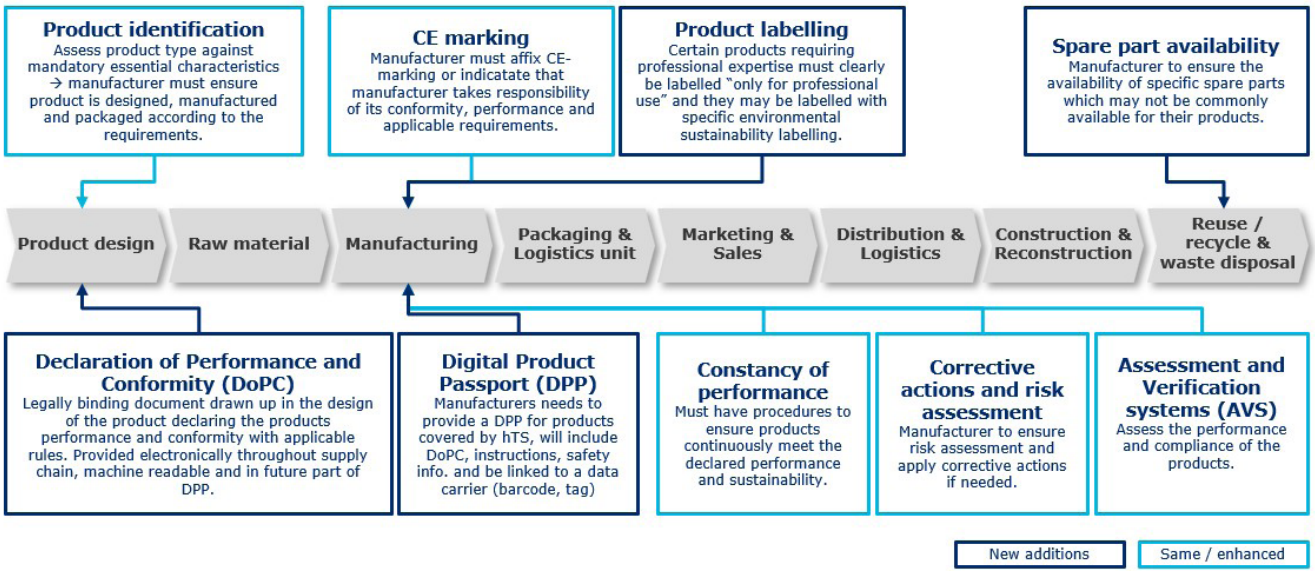


Illustration 1: Illustrates the different actions the manufacturer needs to take and be aware of to comply with CPR – for full guide of requirements read CPR guide for manufacturers.

2.3 New additions from CPR-2011 to CPR-2024 for manufacturers

The new additions for manufacturers with CPR-2024 covers:

- Declaration of Performance and Conformity
- Environmental Sustainability
- Digital Product Passport
- Product Labelling – CE marking, Professional use and Environmental sustainability
- Spare part availability

The following sections provide a detailed overview of the main additions, outlining their implications and the actions required from manufacturers.

Declaration of Performance and Conformity (DoPC) Article 13 & 15 (Regulation (EU) 2024/3110): Before placing the product on the market, the manufacturer must prepare a declaration of performance and conformity. It is a document that summarises a construction product's performance and its conformity with applicable rules and requirements. A legally binding document where the manufacturer assumes responsibility for their product. The DoPC serves as the basis for the CE marking, and no mark other than the CE marking may be affixed to the document. The manufacturer must provide the DoPC electronically, easily accessible, machine-readable and clearly linked to the product. In the future, it will be part of the Digital Product Passport (DPP). See illustration 2 below to understand the type of information required in the document.

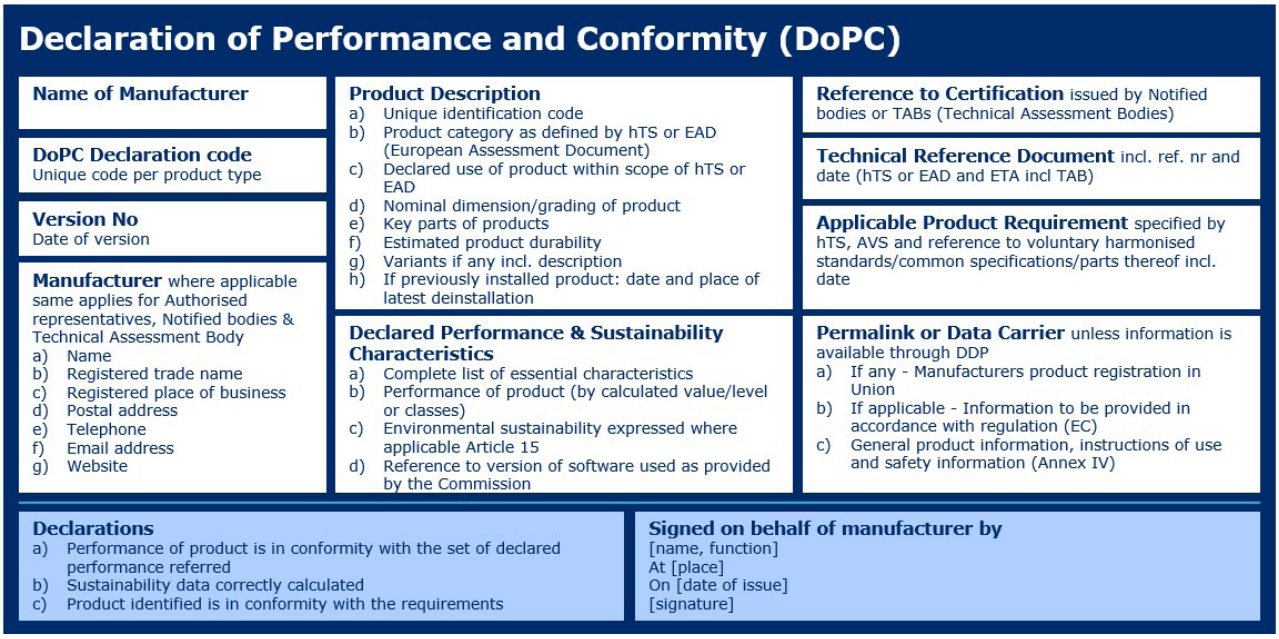


Illustration 2: Illustrates the information required in the Documentation of Performance and Conformity (DoPC), terminology refers to and can be found in Annex V, Regulation (EU) 2024/3110.

Environmental Sustainability: Manufacturers will gradually declare their products' life cycle environmental performance for predefined environmental essential characteristics (see illustration 3) in the DoPC. When calculating the environmental performance of a products' life cycle for reused/ remanufactured products, the events occurring before the latest deinstallation do not need to be included. There is potential for new products to specify the remanufacturing capability to be specified for production, packaging and handling over the lifecycle in the declaration of performance of conformity. Depending on the product category, environmental sustainability labelling may also become mandatory.

Illustration 3: Illustrates the predetermined essential characteristics which will be gradually required to declare – Annex II, Regulation (EU) 2024/3110.

Digital Product Passport (DPP): Within 18 months following the entry into force of the relevant delegated acts, manufacturers will be required to provide a Digital Product Passport (DPP) for products covered by harmonised technical specifications according to CPR-2024. The DPP will include the DoPC, instructions, and safety information, that will be linked via a data carrier (e.g., barcode, tag) with the aim of ensuring that the information is available and traceable throughout the value chain in a digitalised manner. The overarching framework of the DPP has been established through the Ecodesign for Sustainable Product Regulation.

Product Labelling:

- CE marking shall only be affixed for products where a DoPC has been performed and indicates the product has undergone an assessment of its essential characteristics in accordance with CPR-2024 applicable requirements.

- Certain products requiring professional expertise for use must be clearly labelled with "Only for professional use".

- For some products categories, especially for consumer products, the European Commission may establish specific environmental sustainability labelling which shall be based on the product's assessed performance.

From a GS1 perspective, GS1 identifiers encoded in GS1 Digital Link URIs within data carriers (barcode, tag) will give access to the regulated data using smart device scanning without additional software and using the parsed GS1 identifier to support data sharing and back-up data sharing.

Spare part availability: For some product categories the European Commission may adopt delegated acts which will require manufacturers to ensure availability of spare parts on the market for commodities which are not commonly available. The purpose of this is to ensure the durability of the products and promote circularity where products are repaired and maintained instead of being discarded. When such delegating act is applied the manufacturer needs to ensure spare parts over a period of 10 years after the last product of the respective type has been placed on the market, if nothing else stated.

2.4 Obligations of other operators beyond manufacturers

All economic operators are required to ensure compliance with CPR-2024, cooperate with authorities, and provide supplier and customer details when requested. They should retain key documents for 10 years (unless stored in the DPP), offer channels to report incidents, and promptly notify authorities of risks from non-compliant products. CPR also details specific obligations for the different operators which are not manufacturers:

- **Authorised representatives**, appointed by non-EU manufacturers, must hold a mandate to retain the DoPC and technical documentation, assist authorities, report non-compliance or risks, and verify CE marking, labelling, and required product information. They may not be tasked with creating the technical documentation.
- **Importers** may only place products on the market that comply with CPR 2024 (Article 24, Regulation (EU) 2024/3110). They must ensure the manufacturer has met all requirements, including conformity, CE marking, technical documentation, the DoPC, and relevant product information. Importers must also display their own contact details on the product, avoid marketing non-compliant items, and report any risks to both the manufacturer and authorities.
- **Distributors** must act with due diligence, ensuring products have the CE marking, required labels, and are accompanied by the DoPC, safety and usage information, and a unique ID code. They must verify importer details (if applicable), provide the DPP when required, inform customers before purchase, maintain compliance during storage and transport, take corrective action if needed, and promptly report any risks to authorities.
- **Notified bodies** are authorised by the EU Member States to the EU Commission to secure that construction products live up the requirement from the CPR-2024. They are responsible for performance assessment, verification and validation of environmental sustainability calculations in accordance with the Regulation and have a key role in the Assessment and Verification Systems (AVS).
- **Suppliers** are the legal persons/companies which provides raw materials, intermediate products or used products to manufacturer or another economic operator. The supplier is responsible for providing information necessary about the product to the manufacturer including for example information about previous use of products and process for deinstalling it.

3. Challenges in addressing the Regulation

Construction companies recognise that complying with the new Construction Products Regulation (CPR) presents significant challenges, mirroring those seen across other sectors adapting to European Green Deal legislation.

Lack of Traceability across the value chain
One of the primary challenges expressed in conversations with industry representatives is ensuring traceability across the entire value chain. Traceability is essential for compliance with CPR, as it underpins several key obligations such as the DoPC, the declaration of products' life-cycle environmental performance, and the introduction of the DPP. Achieving traceability along the value chain requires standardisation of data, data sharing, and processing across value chains, which requires a significant rethink of operations within the construction industry. Although data may be digitalised between two parties like the raw material supplier and the manufacturer or retailer, the ability to trace data often ends there. It then becomes a manual process between the distributer and the constructor, hindering traceability throughout the entire value chain.

Need for Technical Advancement and Awareness
Although understanding of the regulatory requirements for construction products is relatively high due to CPR-2011, manufacturers face significant barriers in gathering, processing and distributing the necessary data to ensure it is digitally accessible to other actors, such as distributors and constructers. For example, some construction industry actors have indicated that their technical backlog is so extensive that they will only be able to begin addressing CPR in 2027. This underscores the disparity in readiness and the significant need for upskilling and investment in understanding the data, its processing, and the consumption of data to meet the new requirements.

Size and type of Company matters
The differences in the type and size of companies in the construction industry create fragmentation. Larger companies have the financial resources to adapt, while smaller ones may struggle. Awareness of the regulation varies, with some companies being well-informed and others not. This inconsistency can hinder compliance with the CPR. Additionally, calculating performance and conformity for products like concrete, which are affected by transport conditions, presents a challenge. Overall, these factors contribute to a complex and fragmented landscape that complicates compliance efforts in alignment with CPR-2024.

Reluctance to adoption
According to industry representatives, the construction industry has a legacy of data and information being siloed between actors. Although the new regulatory requirement aims at breaking these barriers to create transparency and trust in the data presented, some actors may not want to adapt to the changes required which could be rooted in the lack of understanding of the benefits it can enable (see section 4). Furthermore, the changes in regulatory requirement like e.g., the Omnibus – where timeline and scope may be decreased to ensure compliance against CSRD and CSDDD, has led to a "wait and see" approach among some companies. This is particularly evident in countries like Norway and Switzerland, where the regulation does not directly apply, emphasised by industry representatives. This attitude can delay proactive measures and compliance efforts, further complicating the industry's ability to adapt to the new regulation.

4. Values generated by adhering to the requirements

While the challenges of complying with the CPR are clear, industry representatives also highlight several opportunities particularly the value gained from transitioning from manual data handling to product-level digitalisation.

Increased visibility across the value chain
By digitalising the product data, its performance and conformity companies will gain visibility across the value chain enabling information on individual products to be efficiently shared and easily accessible throughout the product lifetime. This will enable more efficient decision making, quality assurance but also the green transition and possibility to reuse and recycle product when being deinstalled from e.g., a building.

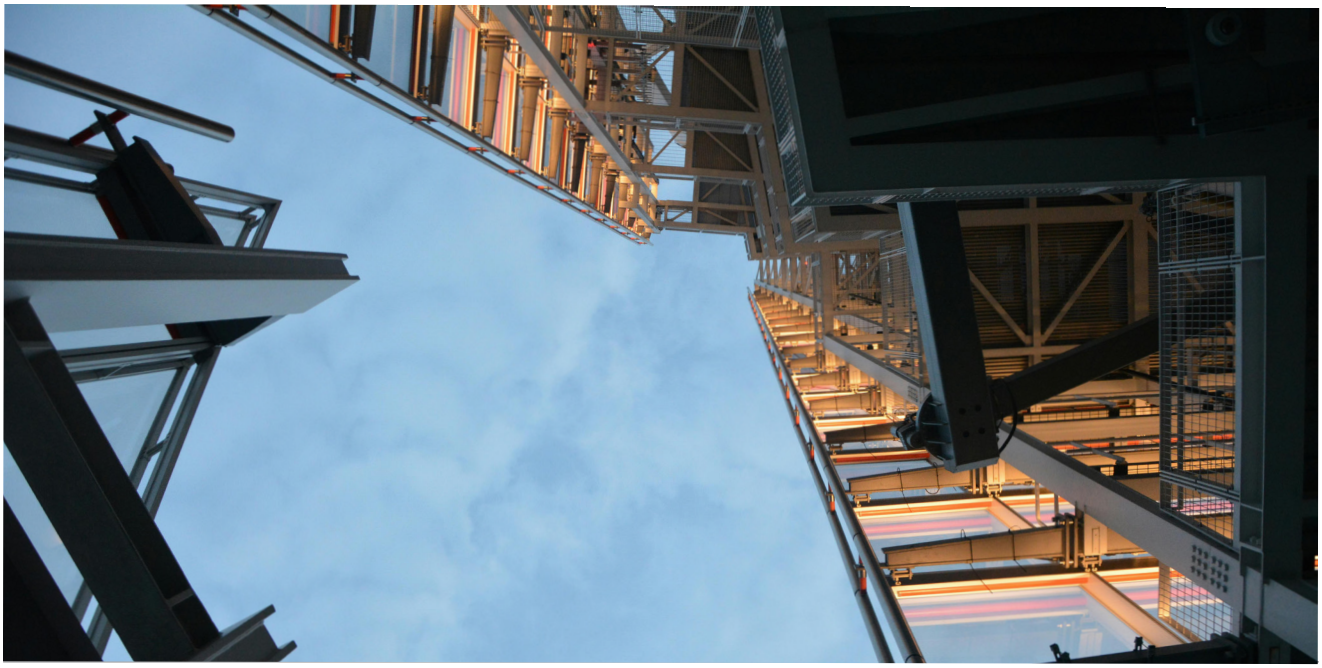
Transparency enables increased trust and demand
Increased trust between manufacturer, distributor, constructer and other actors may be strengthened due to increased transparency and data quality and accuracy of the commodities and production and its origin. With increased transparency, clearer asks and demands will be enabled as the information is directly tied to the construction product.

Facilitated Market Access
As the CPR aims at harmonising the European Union to a single market where products can easily be traded amongst member states, adhering to the regulatory requirement set out by the CPR should facilitate the access to the EU market, reducing costs and accelerating time-to-market for construction products.

Increased operational efficiency
Operations will become more streamlined, such as in manufacturing efficiency, supply chain and logistics, and process optimisation. Access to reliable digital data will enhance data quality and accuracy, enabling more informed decisions throughout the value chain.

Improved asset management
Understanding the products, their functions, and properties used in construction, such as when building an apartment complex, is crucial for ensuring regulatory compliance, especially when a substance or product is identified as harmful. The product information required from CPR will therefore facilitate the process of removing harmful products from construction but also improve maintenance based on knowledge of each product's actual performance. Lastly the enhanced knowledge of products will enable predictive maintenance cycles and lower operational failures and costs, which could be detrimental to both business and brand.

Consumer safety
Construction Products Regulation (CPR) enables verification that the correct product is installed at the correct location at the instance level. This can prevent the installation of recalled products and increase the ability to stop counterfeit products from entering the value chain through real-time verification for all stakeholders.



5. How GS1 standards and services can help

Meeting the data requirements of CPR-2024 such as detailed information on product performance and conformity can seem daunting. This data, including the Declaration of Performance and Conformity and CE marking, must be accessible across the value chain, requiring straightforward solutions for sharing and affixing information. By leveraging existing standards and services, companies can reduce complexity and streamline compliance. GS1, for example, offers internationally recognised, interoperable services for identification and traceability that support a smoother transition toward CPR-2024 adoption.

5.1 Identifying the manufacturer and product origin

One of the key criteria to ensure compliance with regulation is to be able to trace the relevant products and its components back to its origin and identifying the manufacturer responsible for its production. By requiring that the manufacturer identify themselves (legal entity) and their location with unique identifiers like Global Location Number (GLN) (see illustration 4), actors across the value chain like, distributors, notified bodies and importers can easily understand who has been responsible for producing the product and/or its components and physical/digital location in a standardised way. In a similar manner, distributors, notified bodies and importers can use the same method of identification, allowing for a coherent approach to the identification of parties and locations.

Manufacturers, distributors and importers must also be able to prove the declared performance and conformity of the products they are supplying including for example information such as trade name and a unique identifier for a product, batch of a product or an instance of a product, i.e a serialised product. The GS1 Global Trade Item Number (GTIN) (see illustration 4) is a globally unique and traceable identity that is already today being used in many industries globally for the identification of products, batches of products and instances of products. The GTIN can be associated with necessary functional properties, thereby distinguish one product from another.

5.2 Sharing Required data across value chain

Once a construction product is manufactured, the information about the Declaration of Performance (DoP) and CE marking must be provided digitally. This ensures that all actors across the supply chain have access to relevant data about the product, including general information, performance, and conformity. The information manufacturers need to share throughout the value chain is known as traceability data. This type of data relates to a specific traceability event, such as a production batch or shipment, and typically includes master data about products and locations, along with event-specific details like production time, quantity, and batch information of the products involved. To identify logistics units, such as a case, parcel or pallet the Serial Shipping Container Code (SSCC) can be utilized which follows and tracks a logistic unit from the manufacturer to the end consumer.

The GS1 Registry Platform (GRP) (see illustration 4) is a global registry of GTINs and GLNs that can be used to share enough master data about products and locations to support validation of the identifiers used for them. By registering and making their GLNs and GTINs searchable on GRP, suppliers can allow actors across the value chain to verify authenticity of the GLNs/GTINs and access information about them and their products. The GRP also provides an opportunity to register links to additional product- or location/entity data stored in the suppliers' own repositories. There is growing interest for making available master data using more recent GS1 standards such as the GS1 Web Vocabulary and the Global Data Model (GDM). These two, combined with the GS1 Registry Platform's linking feature, offers a modern, flexible methodology by which master data about products and locations can be easily accessed in a scalable manner, no matter where that data is being authoritatively stored or kept.

When sharing batch-specific data, such as the time of production, companies will be dependent on utilising standards for visibility event data. Visibility event data are records of the completion of business process steps. Each visibility event captures what objects participated in the process, when the process took place, where the objects were and will be onwards, and why. The GS1 EPCIS (see illustration 4) standard enables disparate applications to create and share visibility event data, both within and across companies. Data can then be made available via GRP and the extended product information.

Illustration 4: Selection of GS1 standards and services

Verifying data and ensuring compliance through DPP eco-system

With the help of standardised ways of identifying, collecting, and sharing data it will be easier and more efficient for actors to trace commodities and products throughout the value chain. One of the key challenges that remains will be to verify that commodities were compliant to begin with. Once Digital Products Passport is realised, actors along the value chain can get the information required to understand the products performance and conformity in a standardised and trusted manner. GS1 can provide identification standards, e.g. the GTIN, for products which allows for verification throughout the value chain. It can also be encoded into a barcode and if associated with a permanent http-link like the GS1 Digital Link, function as the bridge to data about the product, e.g. the DoPC, general information, safety information, spare parts information, installation instructions and much more.

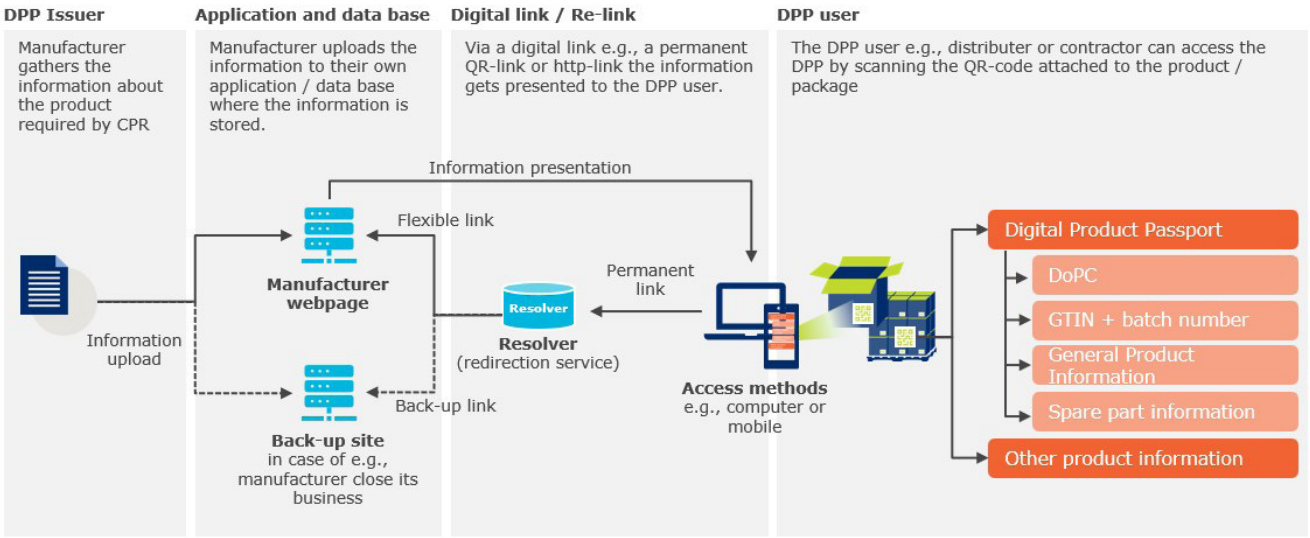


Illustration 5: Example of a possible DPP system, how the manufacturer shares DPP and the user gets hold of necessary information

Various vendors offer different solutions to address information needs related to traceability and different regulatory requirement. No matter how companies decide to address these challenges, interoperability between different solutions will be a key to efficiently comply with regulations especially relating to the DPP. Company systems and applications that have certified compliance with relevant standards are much more likely to support a high level of interoperability for the exchange of traceability data which in the end means time and resources saved for all actors involved across the value chain.

6. Getting started with GS1 standards and services

In the context of the Construction Products Regulation (CPR), companies can leverage GS1 standards and services to enhance value chain transparency. Key steps include adopting standards-based product, location, educating suppliers about standardised data models, and utilising services like the GS1 Registry Platform.

Initial steps towards addressing CPR
To start working towards end-to-end transparency with GS1 standards and services there are a few steps companies can take:

1. Obtain a GS1 Company Prefix (GCP) license:

- Start by licensing a GS1 Company Prefix. This prefix allows you to utilise GS1 standards for identifying, labelling, and sharing data about products, locations, and packages.
- The GCP serves as the foundation for creating unique numbers that enable QR code generation.

2. Generate Identifiers:

- Once your company has licensed a GCP, you can begin assigning specific identifiers:
  - GLN (Global Location Number): Used to identify locations (such as warehouses, stores, or facilities).
  - GTIN (Global Trade Item Number): Used to identify products.

3. Use Online Services from GS1 Member Organisations:

- Access easy-to-use online services such as MyProducts and MyPlaces (names of these services may vary between GS1 Member Organisations).
- These services allow you to create and manage identifiers efficiently and make the information available in the GS1 Registry Platform.

4. Promote Standardisation:

- Ensure that all actors in your value chain (including suppliers, manufacturers, and distributors) follow GS1 standards.
- Educate them about the benefits of standardised identifiers and a common data sharing standard.

5. Leverage GRP Services:

- When all value chain actors adhere to GS1 standards:
  - Utlilise the GS1 Registry Platform (GRP) to share core master data about products, business entities and locations.
  - Make products and locations searchable and verifiable globally through web services.

Long-term vision for achieving end-to-end traceability
The data accessible through these solutions can guide your path toward CPR compliance. However, to efficiently meet future demands, the capture and sharing of product and location data throughout the value chain journey will become essential.

Standards like EPCIS enable capturing key data elements - such as who (GLN), where (GLN), when, what (GTIN + batch and quantity), and why (e.g., manufacturing or shipping) - at critical value chain points such as harvesting, batch mixing, ingredient production, packing, and shipping. Allowing companies to achieve end-to-end traceability without compromising existing systems or external solutions and lets data sharing remain technology-agnostic.

Getting started on the journey toward end-to-end traceability is, however, a more extended process. GS1 TraceWay is a step-by-step approach to design and implement traceability systems where GS1 offers practical details about key aspects of traceability implementation, regardless of the drivers and technologies involved.

About this paper

This position paper is based on the Construction Products Regulation 2024 (Regulation (EU) 2024/3110), interviews with selected industry representatives across Europe, Construction Product Europe's "Navigating the construction product regulation – a guide for manufacturers" and the services and solutions GS1 provides.

Further questions regarding the Construction Products Regulation 2024

For additional inquiries related to the Construction Products Regulation (CPR), we encourage reaching out to local GS1 Member Organisations and relevant authorities within each country. They can provide specific guidance and address any further questions.

About GS1

GS1 is a global organisation with 120 national member organisations. We provide a common digital language for businesses through unique identification, proper labelling, and automatic data sharing for products, locations, and other physical objects. With the help of GS1, companies can improve efficiency, safety, sustainability, and traceability.

GS1 is:

Industry-neutral and not-for-profit, where any profits are reinvested in the business. User-driven, open and collaborative, where GS1 standards are developed in collaboration and are open and inclusive for all companies.