



The new EU sustainability textile strategy

The EU Digital Product Passport and what it means for apparel and textile industries in 2022 - 2023



Key takeaways

- The Digital Product Passport is a European Union (EU) mandatory requirement to create a “digital product passport to electronically register, process and share product-related information amongst supply chain businesses, authorities and consumers.”
- Textiles are at the top of the list to be regulated by the Digital Product Passport (DPP) regulations, along with industrial batteries and consumer electronics.
- All entities (economic operators) placing products on the EU market will be subject to this regulation – including non-EU companies.
- Textile and apparel brands, retailers, manufacturers, marketplaces and more should adopt a readiness mindset by beginning their product and location identification processes now.
- GS1 is a trusted partner for the apparel and textile industries to provide persistent, interoperable identification, reliable data carriers and product master data standards.

Introduction

The European Commission (EC) released its new sustainable textile strategy in March 2022 laying the foundation and strategic direction for the Digital Product Passport, which will be the subject of ongoing legislation in the next four years. If we look to the future, in Europe, every textile product placed on the EU market will be accompanied by a collection of mandatory data that relates to the product’s lifecycle (from raw materials to the consumer, and back into recycled materials).

All textile and apparel products manufactured in or placed on the EU - including those exported to the EU - will be subject to the Digital Product Passport regulations.

This document is specifically aimed at addressing key concerns and topics related to the Digital Product Passport in the textile and apparel industries.



Digital Product Passport basics

What exactly is the Digital Product Passport?

- The EU Digital Product Passport (DPP) is a mandatory electronic record to be fully required by 2030, designed under the EU Green Deal legislation, specifically the EU Strategy for Sustainable Textiles and Ecodesign, a part of the European Commission's **Ecodesign for Sustainable Products Regulation**.
- The goal of the DPP is to enable "Clear, structured and accessible information on the environmental sustainability characteristics of products" (EU Strategy for Sustainable and Circular Textiles, EC Communications, 2.4).
- Basic product data requirements to be included in the DPP will be decided by EU legislation by the end of 2023. More specific requirements will be revealed in several pieces of legislation between 2023 and 2027. Textile and apparel companies can use this period of time to prepare for the full DPP requirements.
- The entire textile Digital Product Passport legislative release period will be expected to conclude by 2030, when all textile products (and their components) manufactured in or placed on the EU market will have all requirements in place to enable Digital Product Passports.

The entire Digital Product Passport legislative release period will be expected to conclude by 2030 - meaning, at that point, all products on the EU market, except food, feed and medicinal products will have all requirements in place to enable Digital Product Passports.



Where does my company fit in?

Who does the legislation apply to?

- Every entity that will manufacture products (or place products) in the EU market for the first time is responsible for the creation and maintenance of the DPP. This entity will have the obligation starting from a precise date that will be disclosed in 2023.
- Importers and marketplaces can also fall into this definition.
- Critically this includes goods exported to the EU – therefore apparel and textile stakeholders across North America, LATAM, MEMA and Asia-Pacific should consider themselves as constituents of this legislation, not just European retailers and brand owners.
- Finished textile goods are in scope but raw materials, chemical substances of high concern and components of the finished products will also need to be identified and disclosed at a level of granularity which is yet to be determined.



Why has the EC focused communications and strategies on textiles specifically?

Apparel and textile industries are one of three sectors first addressed by this legislation, also including industrial batteries and consumer electronics. The production and consumption of textile products continue to grow and so does their impact on water, energy consumption and on the environment. The numbers below, **compiled by Interreg Europe**, tell us a compelling story:

- Global textiles production almost doubled between 2000 and 2015.
- The consumption of clothing and footwear is expected to increase by 63% by 2030, from 62 million tonnes now to 102 million tonnes in 2030.
- In the EU, the consumption of textiles, most of which are imported, now accounts for, on average, the 4th highest negative impact on the environment and climate and the 3rd highest for water and land use from a global life cycle perspective.
- 5.8 million tonnes of textiles are discarded every year in the EU, approximately 11kg person, and every second somewhere in the world a truckload of textiles is landfilled or incinerated.

What exactly is the anticipated scope of this legislation for the apparel and textiles industries?

The scope of this European Commission legislation extends beyond the borders of the EU. To imagine the impact on the EU alone, consider the context:

- The EU clothing and textile sectors comprise 160.000 companies and employ 1.5 million people, generating a turnover of €162 billion in 2019.
- 2/3 of EU apparel is imported from extra-EU states, with Asian countries comprising the top 3 exporters (Eurostat 2022).

GS1's role: facilitating data transparency and interoperability

Where does GS1 fit in for apparel and textile?

GS1 is an instrumental partner for textile manufacturers, brand owners, marketplaces, retailers and consumers and more. We help this ecosystem of stakeholders to identify products, link those products to their DPP and to share master product data and event data all along the supply chain. Our standards and services empower all parties in the textile supply chain to identify, capture and share key data that will help determine a product's sustainability credentials. In cooperation with industry associations, GS1 can enable textile and apparel industry actors to adopt a readiness mindset and plan for this industry wide change with the following standards-based identifiers and carriers:

IDENTIFY

- Unique identity of your products: The Global Trade Identification Number (GTIN) Management Standard equips businesses with a firm basis for even more granular unique, persistent and interoperable identification. Doing this allows industry to share the right data from a variety of stakeholders, at the right level of granularity, to support an efficient ecosystem of digitally-accessible identity for your products.
- Unique identity of parties and locations: Adopting the GS1 Global Location Number (GLN) can help your organization answer the "who" (party identification) and "where" (location identification) with your textile supply chain partners to implement better traceability for all elements of your textile products. GLNs can be used to identify primary producers (raw cotton farms), processing facilities (facilities that transform the aforementioned raw cotton into fabric material), warehouses (where a resulting cotton t-shirt could be stored prior to departure to retail partner), and more.



CAPTURE

- Persistent product identity: Data carriers such as 2D barcodes and RFID tags and the use of the GS1 Digital Link syntax will allow companies to automatically connect unique product identification (whether at a batch/lot or instance level) on the physical item to the mandated Digital Product Passport data for consumers, trading partners and regulators.
- Leveraging existing technologies: Since products must be identifiable across their entire circular lifecycle and by different stakeholders, the choice of data carrier is foundational. Recent improvements allow RFID tags to be embedded in products, and this offers another reason to consider this technology for circular economy purposes in combination with 2D barcodes. What is essential to ensure is the link between a unique identifier carried in a barcode and/or RFID tag to the related information stored in databases.

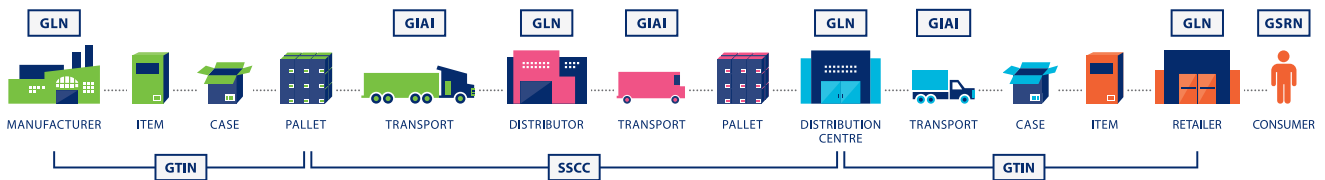
SHARE

- Master data sharing: Use the Global Data Model (link) to structure essential master data about your products and to share it in ways that your trading partners and consumers will understand.
- Traceability and visibility data sharing: Utilising GS1's EPCIS standard to capture snapshots of movements and process steps along the entire supply chain, from upstream manufacturing of raw materials to point-of-sale and beyond.
- Connecting to other sources of data: The GS1 Registries allow brand owners to register the location of a wide array of links to other sources of data, allowing your globally-unique identity to be connected to significant additional online resources that can be shared as part of a DPP.

GS1 published a cross-sector standard to capture snapshots of movements and process steps along the entire supply chain, from upstream manufacturing of raw materials to point-of-sale and beyond. data architecture description that outlines basic principles about how to meet the DPP requirements through use of GS1 standards, which you can find here. This puts into perspective some of the main challenges. This puts into perspective some of the main challenges including granularity of identification, upstream issues, B2C environments and post-consumption consumer behaviour, all of which will need to be sorted out together with the industries that need to comply with DPP regulation.

IDENTIFY: GS1 Standards for Identification

GLN Global Location Number **GTIN** Global Trade Item Number **SSCC** Serial Shipping Container Code **GIAI** Global Individual Asset Identifier **GSRN** Global Service Relation Number



CAPTURE: GS1 Standards for Barcodes & EPC/RFID

GS1 BARCODES

GS1 EPC/RFID



SHARE: GS1 Standards for Data Exchange

MASTER DATA Global Data Synchronisation Network (GDSN) **TRANSACTIONAL DATA** eCom (EDI) **EVENT DATA** EPC Information Services (EPCIS)



DPP and you: what to know now

Key questions for establishing your DPP readiness as of 2022 - 2023:

- Are your EU market-listed products registered with a persistent, unique identifier such as a GTIN when they leave the supplier?
- What traceability systems do you already have in place to collect data on product movements (from upstream through your finished goods/distribution processes)? For example, are you already using EPCIS?
- Are your upstream partners identified with GLNs or similar unique identifiers for locations or legal entities?

Reaching out to your **GS1 Member Organisation**: what can retailers, brands and manufacturers do now to prepare for this new regulatory landscape?

- Enable persistent, unique identification of your products.
 - The GS1 Global Trade Item Number (GTIN) can be used by companies to provide unique, persistent identification for their products. It can be encoded in 2D barcodes, EPC/RFID tags, electronic messages, and RFID tags, carried in electronic messages and more.
 - Review your GTIN coverage for your current assortment of products.
 - Compare and contrast with your projected wholesale orders and merchandising plans for upcoming years with EU retail partners.
- Consider the correct level of granularity of product identification. GTIN numbers can be grouped under a single Global Model Number (GMN). Conversely, they can be qualified

by batch/lot numbers, Consumer Product Variants and, if needs be, you might need to consider.

- Identify the entities and locations in your supply chain for traceability purposes.
 - The GLN can provide persistent identification for legal entities (i.e., businesses or their subsidiaries) as well as locations (everything ranging from individual shelves to warehouses).
- Determine how easily identifiable your manufacturing plants are for the purposes of interoperable communication with other stakeholders.
 - Cross check the location of your manufacturing plants by country to find out where key upstream partners are located.
 - Reach out to your **GS1 Member Organisation** to learn more about GLN assignment.
- 2D Barcodes and GS1 Digital Link.
 - Explore 2D options for your products by exploring the **2D Migration Program at GS1**.
 - Learn more about RFID and the way it can be used in addition to 2D barcodes to efficiently improve traceability and supply-chain management (**GS1 Global Office RFID page**)
 - Learn more about GS1 Digital Link and your products' data via the **Global Office Digital Link page**.

Suggested reading

- **EU Strategy for Sustainable and Circular Textiles**
- **UNECE Traceability Guidelines for Garment & Footwear**
- **GS1 In Europe Proposed Architecture and Principles for Digital Product Passports**
- **Deloitte and GS1 in Europe report**

Questions about the Digital Product Passport in apparel and textile?

Contact your local GS1 Member Organisation to help you with your questions.

<https://www.gs1.org/contact>

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