

PERSPECTIVES — AUGUST 18, 2026

The Digital Product Passport Begins with the Product



David Uricoli

Partner, Gherzi Americas

The EU is leading the development of Digital Product Passports (DPPs), and U.S. apparel companies selling into the EU will have to comply. The United States currently has no comparable Federal DPP program or implementation date. EU textile rules are expected in late 2027, with compliance unlikely before 2029.

SOURCE · DIGITAL PRODUCT PASSPORT TIMELINE

The European Union's Digital Product Passport (DPP) is frequently presented as a technology project: choose a platform, collect information from brands and suppliers, and attach a digital identifier to the product.

That description risks putting the technology before the compliance system.

After 30 years of working in compliance, I believe the central DPP question is not which platform stores the information or which electronic device

carries it. The central question is: Where did the information originate, and what evidence establishes that it is accurate?

For apparel, textiles, and footwear, the answer should begin with records already fundamental to responsible product development and manufacturing: the bill of materials, product specification, approved supplier records, purchase and production documentation, testing, certifications, and traceability records.

What the EU Has Actually Established

The Digital Product Passport is part of the EU's Ecodesign for Sustainable Products Regulation, or ESPR. The regulation establishes a framework for imposing product-specific performance and information requirements intended to improve durability, repairability, recyclability, resource efficiency, and other sustainability characteristics.

The ESPR is already in force, but that does not mean every DPP requirement for textiles has been finalized.

Textiles, particularly apparel and footwear, are priorities in the European Commission's 2025–2030 ESPR working plan. The Commission must still develop a textile-specific delegated act defining the applicable requirements, data fields, methods, implementation schedule, data carrier, level of identification, and access rights.

It is therefore premature to state that every garment must already disclose a fixed list containing carbon footprint, water consumption, energy use, chemical information, durability, and recyclability. These are plausible subjects under the ESPR framework, but the final textile requirements and the methods by which compliance must be demonstrated will be determined through the delegated-act process.

What the regulation does make clear is that DPP data must be "accurate, complete and up to date." It also requires the system to use open, interoperable standards and avoid dependence on a single technology provider. The applicable delegated act will determine whether the passport identifies a product model, production batch, or individual item.

SOURCE · REGULATION (EU) 2024/1781, ARTICLES 9–11

Where did the information originate, and what evidence establishes that it is accurate?

The BOM Should Be the Data Backbone

The bill of materials is the logical foundation of a textile DPP because it defines what the manufacturer intended to place in the product.

A properly controlled apparel BOM can identify the shell fabric, lining, interlining, thread, zipper, buttons, labels, trims, coatings, adhesives, packaging, and other components. The product specification connects those materials to

construction, dimensions, performance requirements, colorways, approved sources, and manufacturing instructions.

These are not merely administrative documents. They form part of the product's technical identity.

However, a BOM records the approved product formulation; it does not necessarily prove what was physically used in every production run. That distinction is critical.

An accurate DPP should connect three separate layers of evidence:

01 Product definition: The approved BOM, specification, artwork, material standards, and changing history establish what the product is supposed to contain.	02 Production and chain of custody: Purchase orders, invoices, transaction certificates, lot and batch records, facility records, production reports, and shipping documentation establish where the materials came from and how they moved through the supply chain.	03 Verification: Fiber testing, chemical testing, certification records, audit evidence, mass-balance documentation where permitted, and validated environmental calculations support the specific claims being made.
--	---	---

The DPP should be the controlled digital output of this compliance structure. It should not become a separate questionnaire populated from memory, estimates, marketing copy, or unverified supplier declarations.

Traceability Is Necessary, but It Is Not Verification by Itself

Traceability and verification are often treated as interchangeable. They are not.

Traceability identifies the participants, facilities, materials, transactions, and production stages associated with a product. Verification determines whether the associated information and claims are sufficiently supported.

A traceability system may show that cotton passed from a farm through a gin, spinner, mill, dyehouse, and garment factory. That chain is valuable, but it does not automatically prove that the cotton is organic, that a recycled-content percentage is accurate, or that restricted chemicals were not used.

Those conclusions require supporting evidence appropriate to the claim. Depending on the claim, that evidence might include a recognized certificate, transaction documentation, laboratory analysis, production reconciliation, chemical inventory records, or calculations made under a prescribed methodology.

The strength of the DPP will therefore depend less on the quantity of information collected than on the relationship between each disclosed claim and its underlying evidence.

Technology Cannot Authenticate Weak Source Data

A QR code, RFID device, or NFC tag can provide access to information. None of them can make the information come true.

Technology vendors play a useful role in managing identifiers, permissions, interoperability, data exchange, and long-term access. But the platform is not the original source of product truth. If inaccurate information enters a sophisticated system, the result is still inaccurate information only distributed more efficiently.

The ESPR appropriately requires open and interoperable formats without vendor lock-in. It also establishes an EU DPP Registry, which became operational in July 2026. The Registry stores unique identifiers and associated metadata, while the substantive passport data remains decentralized. It should not be described as a single EU database containing every detail about every product.

SOURCE · EUROPEAN COMMISSION DPP REGISTRY ANNOUNCEMENT

If inaccurate information enters a sophisticated system, the result is still inaccurate information only distributed more efficiently.

Nor does the regulation require suppliers to use a named commercial platform. Companies may use service providers, industry systems, or their own compatible infrastructure, provided the resulting DPP meets the applicable legal and technical requirements.

Why a QR Code Is the Practical Starting Point for Garments

A panelist I recently heard discussed placing memory chips in garments. For most ordinary apparel, that approach raises practical questions throughout the product's life and afterlife.

A chip may create cost, durability, privacy-perception, repair, sorting, and recycling concerns. It may be damaged by washing, heat, alterations, or prolonged wear. If incorporated into a label or component, it may be removed before the garment reaches resale, reuse, or recycling. Adding an electronic component to a product intended for circular recovery may also complicate material processing unless the component can be easily identified and removed.

For most garments, a durable QR code is likely to be the simplest and most accessible option. Consumers and downstream operators can read it with commonly available devices, and it does not require a powered electronic component inside the garment.

A QR code is not perfect. Printed carriers can fade, labels can be cut out, and URLs or databases can cease functioning. For that reason, durability, placement, persistent identifiers, backup arrangements, and long-term data availability matter as much as the choice of carrier itself.

The ESPR does not yet prescribe QR codes for all textiles. It allows different forms of machine-readable data carriers and leaves the final selection and placement to product-specific legislation. Nevertheless, the regulation itself identifies QR codes and digital watermarks as examples of accessible carriers, making a durable QR label a practical basis for preparation.

Building a Defensible DPP

Brands and suppliers should prepare now, but preparation should begin with data governance rather than mass data collection.

Companies should determine which system controls the approved BOM and specification, who can authorize changes, how material and facility identifiers are assigned, and how production records are reconciled to the finished product. Each sustainability claim should be mapped to its evidence, evidence owner, validation method, expiration date, and appropriate disclosure level.

This work should also distinguish measured information from calculated information and calculated information from estimates. A product carbon footprint, for example, is not ordinarily found directly in a BOM. The BOM supplies essential inputs, but the result requires activity data, defined boundaries, emission factors, allocation rules, and an accepted calculation method. The passport should not present those different forms of information as if they carried the same degree of certainty.

Access must also be considered. Consumers, customs authorities, market-surveillance authorities, recyclers, repairers, and supply-chain partners do not necessarily need access to the same data. The ESPR anticipates differentiated access rights, which will be specified at product-group level.

The Real Objective

The DPP should not become another marketing page or a digital collection of supplier assertions. Its purpose is to make legally relevant product

information accessible, interoperable, and usable across the product's life cycle.

For textiles, an authentic DPP must be built outward from the approved product record and backward through verified supply-chain evidence. The BOM and specification define the product. Traceability links the product to its materials, transactions, facilities, and production history. Testing, certifications, reconciliation, and documented methodologies substantiate the claims. The digital carrier then provides controlled access to that information.

The QR code or chip is only the doorway. The real value and the real compliance risk lie in the evidence behind it.

David Uricoli is a Partner at Gherzi Americas, with more than 35 years in ESG, social compliance, due diligence, and responsible sourcing, building stronger programs that protect the environment and support workers across global supply chains.

CONTACT d.uricoli@gherzi.com