



Digital product passports and the new EU eco-design rules: why action can't wait

The European Union is initiating a significant transformation in product regulation through the introduction of the Ecodesign for Sustainable Products Regulation (ESPR) and digital product passports (DPP). These measures will redefine how products are designed, produced, marketed and managed over their entire lifecycle. For businesses targeting the EU market, these changes are more than regulatory challenges—they are critical strategic priorities requiring urgent focus. Simply put, time is running out, as products designed today will need to comply with these new regulations when they are released.

1. Understanding the ESPR and the digital product passport

The ESPR lays down the EU's most comprehensive framework yet for mandatory sustainability and circularity requirements, expanding well beyond previous rules that largely targeted energy-related products. Its ambition is clear: make sustainable products the standard across Europe, supporting the EU's targets concerning climate neutrality, efficient resource use and a circular economy.

Central to the ESPR is the digital product passport – a digital record, typically accessed by QR code or similar, that carries essential information about a product's sustainability credentials, composition and lifecycle.

The DPP follows the product wherever it goes, providing transparency and traceability for everyone from manufacturers and importers to consumers, repairers and recyclers.

Together, ESPR and the DPP are designed to make information accessible, empower smarter choices, and encourage more sustainable, innovative product development and business modes.

Our ESPR and DPP readiness assessment will help you plan your product lifecycle and, most importantly, avoid supply chain disruptions.

2. Why these changes matter

These ESPR and DPP aren't minor updates – they signal a real turning point in the way products will be regulated across Europe:

Wide-reaching scope:

The ESPR will apply to nearly all physical goods sold in the EU, including imports, components and intermediaries. Both European and overseas companies will need to comply to have their products on the market.

Holistic requirements:

The regulation will introduce binding rules on durability, repairability, upgradability, recyclability, recycled content and more. It will also require information on substances of concern and environmental and carbon footprints.

Digital traceability:

Through the DPP, product data can be shared easily throughout the value chain, supporting compliance, market checks and new circular business models.



Market gatekeeper: Non-compliance will mean that products simply cannot be sold in the EU. Preparation for ESPR and DPP isn't optional – it's the price of market entry.

3. The product life cycle: why early action matters

Bringing a new product to market is a lengthy, complex process. The choices made during the early design and planning stages will determine whether products launched in the next two to five years are compliant. These new requirements will influence every stage of the product lifecycle:

- **Design and development:** Sustainability and data requirements must be built from the outset, which will shape material selection, design for longevity and repair, and data collection methods.
- **Sourcing and manufacturing:** Supply chains must be ready to provide the necessary data and meet higher standards for materials and processes. Non-compliance will cause interruptions.
- **Market launch and aftercare:** Products must be accompanied by a DPP and meet all eco-design standards to be sold in the EU. After-sales services such as repair and recycling will also be transformed.

Delaying adaptation could lead to costly re-designs, disruption in supply chains and lost access to the EU market. Early action is essential to ensuring that product portfolios are future-proof and competitive.

4. What should companies do to prepare?

1	2	3	4	5
Review product portfolios Identify which products will be affected and assess where gaps exist in compliance.	Redesign for compliance Embed requirements for durability, repairability, recyclability and circularity in product development processes.	Strengthen data capabilities Build systems to digitally collect, manage and share product data throughout the value chain.	Engage with partners Work closely with suppliers, logistics providers and downstream partners to ensure that data is available and compliance maintained through products' lifecycles.	Stay informed Keep up to date with sector-specific developments, key deadlines and consultation opportunities to anticipate and help shape requirements.

5. Strategic risks and opportunities

Competitive edge

Early adopters can position themselves as leaders in sustainability solutions, tap into green public procurement and meet growing consumer demands for responsible products.

Risk reduction

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6. How PwC can support your journey

At PwC, we're equipped to guide companies through the ESPR and DPP transition:

Regulatory insights

We'll help you to interpret what ESPR and DPP mean for your products and business model, and most importantly, how they will affect your supply chain.

Readiness assessment

We'll help you to set up an AI-powered process on a web-based collaborative platform to assess the readiness of your product categories.

Compliance planning

Our experts can craft tailored roadmaps for compliance, ranging from product redesign to data and supply chain management.

Digital enablement

We can help you to implement the digital infrastructure necessary for DPP readiness, including data capture, management and sharing.

PwC can help you to transform ESPR and DPP from obligations into opportunities for innovation and growth.

PwC and our collaboration partners can assist you in developing a tailored proof of concept, enabling you to experience first hand whether the benefits of blockchain for DPP and ESPR compliance outweigh the barriers to adoption.

Should you consider blockchain for ESPR and DPP?

Blockchain isn't mandatory, but it's a strong option for DPP and ESPR because it can ensure reliable, transparent and efficient product data management along complex global supply chains:

- **Traceability and transparency:** Blockchain creates a tamper-proof, shared record of a product's journey – from raw materials to recycling.
- **Data integrity and trust:** Information stored on blockchain allows multiple parties (manufacturers, suppliers, recyclers) to share and access product data securely, even if they don't fully trust each other.
- **Automation and efficiency:** Smart contracts can automate compliance checks and updates, reducing manual work and errors.
- **Circular economy support:** Blockchain can log repairs, upgrades and recycling, helping companies to prove their compliance with ESPR's requirement for durability, repairability and recyclability.

Conclusion: Don't wait, start today

ESPR and the digital product passport are set to reshape the landscape for manufacturers, importers and retailers in the EU. These are not just box-ticking exercises – they are powerful drivers of innovation, transparency and sustainable growth. Businesses designing products for the EU must take action now to secure future compliance and competitive advantage. Early engagement, careful planning, and investment in digital and design capabilities will turn regulatory change into business opportunities.

To explore how your business can get ahead of ESPR and DPP requirements – and make compliance your competitive edge – contact PwC today.

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