

How ENSESO and AKD help companies prepare for the new regulation in time

AKD has recognised the importance of security, authentication and legal validity in this process and has established a partnership with ENSESO, a Croatian technology company specialising in the development of advanced software solutions that connect business processes, regulatory requirements and product data throughout their entire life cycle, and which has also developed the sunrise2027.ai platform. This platform enables the automated collection of product data, integration with existing business systems and the generation of Digital Product Passports compliant with European standards.

As the national trust service provider and a leading institution in the field of digital identification, electronic signatures and secure data management systems, AKD uses its expertise and infrastructure to ensure the digital reliability of the entire system. Drawing on its experience in developing eidentities and solutions of strategic importance for the public and private sectors, AKD contributes to the secure and transparent implementation of Digital Product Passports, which are set to become a cornerstone of the circular and sustainable economy of the future.



For more information on DPP preparation and cooperation opportunities:
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Digital Product Passport: FROM OBLIGATION TO OPPORTUNITY



The digital product passport is becoming a new standard on the European market. The time to prepare is now. Companies that manage data in time, adapt their systems and establish trusted partnerships will be ready to use DPP as a competitive advantage, not just a regulatory obligation. DPP requires quality data, technical interoperability, a high level of security and full compliance with European regulations. In this context, AKD and ENSESO solutions combine data management, regulatory compliance and reliable digital infrastructure and, consequently, offer a complete solution - from secure identity management and signing to a harmonized platform for generating and managing digital product passports.



What is a Digital Product Passport (DPP)

A Digital Product Passport (DPP) is a standardised, digital set of structured, machine-readable data about a product and its value chain throughout its entire life cycle. It covers key information on the materials, origin, manufacturing, use, maintenance and end-of-life treatment of the product, thereby ensuring greater transparency, traceability and the ability to assess environmental impacts.

The DPP is an integral and mandatory element of the Ecodesign for Sustainable Products Regulation (ESPR) and one of the key instruments of the European Union's Circular Economy Action Plan. The passport is linked to a unique product identifier (e.g. a QR code), is based on open and internationally harmonised standards, and enables differentiated levels of data access for consumers, economic operators and competent authorities.

Which products and industries does it apply to?

The Digital Product Passport is being introduced in a targeted way, in those sectors where the impact on the environment, resources and consumer safety is greatest and the need for transparency is most pronounced. In the first wave, it focuses on industries that place large volumes of products on the market, with complex composition and long or high-risk life cycles. For batteries, the obligation to use Digital Product Passports starts in 2027, while for other priority categories a phased introduction is planned by the end of this decade.

This specifically includes:

- manufacturers of batteries (especially industrial batteries and batteries for electric vehicles), with the obligation starting in 2027
- the textile industry, with a focus on clothing and footwear, for which mandatory application is expected after 2027
- construction materials and products integrated into buildings and infrastructure, with gradual introduction during the second half of the decade
- electronic and ICT products (from household electronics to IT equipment), with planned deadlines for application after 2027
- the automotive sector and related components, in line with future implementing acts
- sectors such as iron and steel, aluminium, rubber (vehicle tyres), detergents, paints, lubricants and chemicals, which will be phased in successively, depending on the EU's circular economy priorities

The regulation scope does not only apply to manufacturers, but also to importers, distributors and retailers who place these products on the European Union market, with a gradual extension to additional categories in line with further implementing acts and updated timelines adopted by the European Commission.

Benefits of Digital Product Passports

Digital Product Passports are not only a compliance tool, but also a powerful instrument for creating added value for all actors in the value chain. They help manufacturers and retailers demonstrate compliance, track products and develop circular business models (service, repair, return, recycling) more easily. Simultaneously, they enable consumers to make more informed choices based on reliable data on product composition, origin and environmental impact.

DPP in action

A Digital Product Passport is linked to a specific product through a unique identifier - most commonly a QR code, NFC tag or RFID technology. By scanning this identifier, the user can access structured, machine-readable data via a mobile device or business system, organised according to open standards and globally harmonised norms as required by regulation. Depending on the user profile (consumer, manufacturer, regulator), different levels of access are enabled - from basic information for end users to detailed technical and regulatory data for businesses and competent authorities.

How to prepare

1. Map your existing data. Analyse what product information you already have, including composition, suppliers and technical specifications, and identify any missing data.
2. Establish data governance. DPP requires continuous collection and updating of information throughout the entire product life cycle, so it is crucial to have a system that supports this process.
3. Ensure security and legal validity. Trust in the data is based on its authenticity, immutability and legal recognition within the EU.
4. Choose how you will label products. The document identifies QR codes, NFC tags and RFID technology as the main options for accessing the digital passport.
5. Connect DPP with your business processes. Integration with ERP, production and inventory and warehouse management reduces costs and operational complexity.
6. Assess whether you fall under a mandatory industry. Among the first sectors are batteries, textiles, electronics, construction materials, children's toys and the automotive industry.
7. Use the regulation strategically. DPP can become a tool for market differentiation, not just a regulatory obligation.