

Policy Paper on the Single EU QR Code

A single EU QR code for the Single Market

The digital provision of product information has become a major undertaking under EU legislation, representing a strategic shift toward digitising the Single Market. While various regulations now permit or require digital delivery via QR codes, a critical challenge has emerged: regulatory fragmentation. Without a harmonised approach, products face a stacking effect of multiple, overlapping QR codes on a single product that undermine policy coherence, and practical implementation.

The home appliance industry advocates for a Single EU QR Code to act as the unified entry point for all legally required product information, ensuring a coherent regulatory environment, and streamlined experience for consumers.

Key Messages:

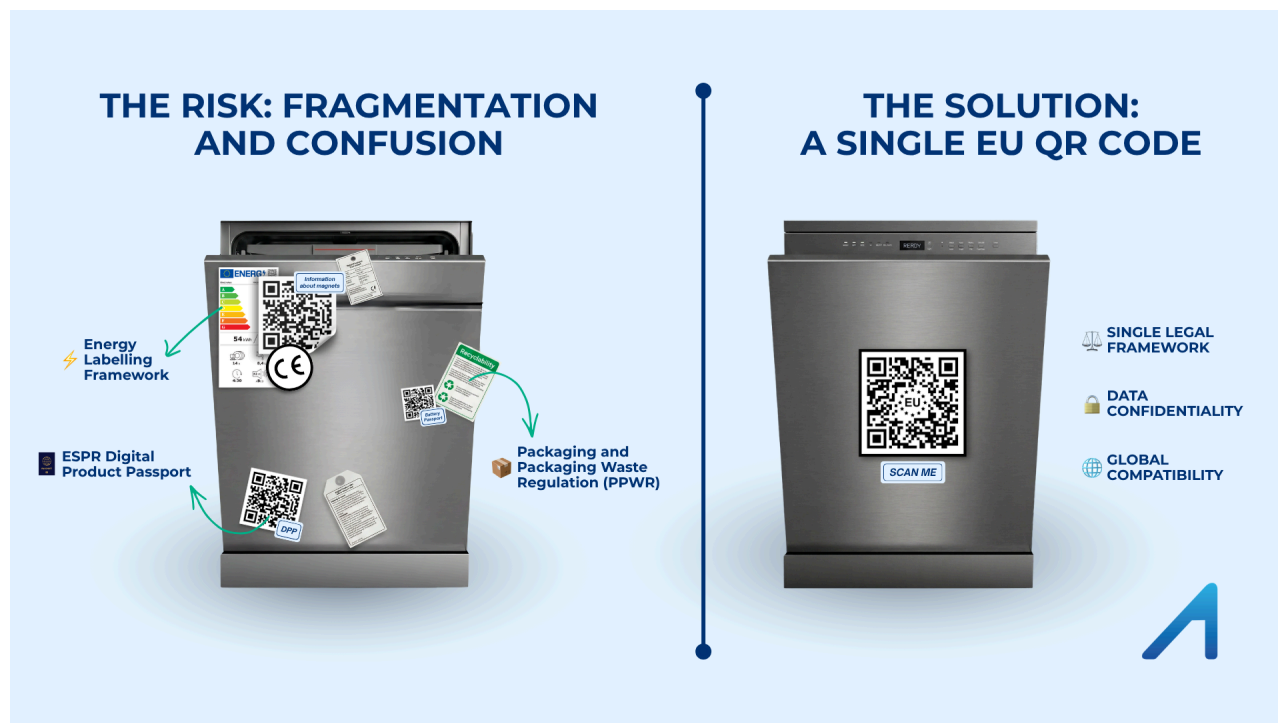
- ❖ **A Single EU QR code for all legal information requirements:** ensures that if a product is already legally required to carry a QR code, no additional carriers are added for overlapping requirements.
- ❖ **Ensure operator accountability and market surveillance:** the QR code must ensure that every product is linked to a registered responsible economic operator based in the EU, to facilitate a more effective market surveillance.
- ❖ **A Single EU QR Code should function as a harmonised access point**
- ❖ **The Single EU QR Code framework must fully protect confidential business information** and must not result in broad access to sensitive technical documentation.



1. A Single EU QR Code for the Single Market

Digital provision of product information has become a major undertaking under EU legislation. Often legislation implies that this digital information can be delivered via a QR Code. However, **we foresee a real risk that individual pieces of legislation could ask for their own, unique QR Codes.** In this case, products would be required to display multiple QR Codes, risking a stacking effect where a single product might require individual compliance labeling for the Ecodesign for Sustainable Products Regulation (ESPR), Energy Label, Digital Product Passport, batteries, packaging, critical raw materials, Declaration of Conformity and chemical reporting. This fragmentation would lead to consumer confusion and reduce the comprehension and effectiveness of the provided digital information, while increasing the operational complexity for manufacturers and weakening the agenda of digital simplification.

To safeguard the integrity of the Single Market and ensure policy coherence, a horizontal approach for the data carrier itself (the QR code) is needed, even if the specific data requirements remain on a product-by-product basis.





To avoid this risk of QR Code stacking effect, APPLiA recommends the implementation of a single EU QR code providing one consumer-facing access point through which all the EU required product information can be accessed via links to respective existing databases or websites. To ensure a pragmatic and phased rollout, the following principles are essential:

- **A Single Legal Framework:** It must be guaranteed that if a law already obliges a product to have a QR Code, any additional legal information requirements added separately cannot request another QR Code to be added to products. This must be managed within one legal framework.
- **Operator Accountability:** The designated QR Code must allow for the identification and authentication of an economic operator being based in the EU to be responsible for the product. The necessary authentication data must be generated only through a central EU registry, protected by a digital seal to prevent fraud. Such authentication must be restricted to verified companies with a legal basis in a EU Member State, ensuring every product is linked to an accountable person. The technical basis should be an electronic seal or the EU business wallet, established by the eIDAS regulation.
- **Clear Governance Rules:** The framework should clearly define who is responsible for QR code generation, maintenance, updates, and redirection logic throughout the product life cycle.
- **Data Confidentiality:** Sensitive technical and compliance-related data must be rigorously protected. The Single EU QR Code must not lead to general or unintended access to confidential business information. Access to restricted information should remain role-based, justified, and limited to what is necessary for the relevant regulatory purpose.
- **Simplifying Requirements:** The Single EU QR Code shall not add additional information requirements but reduce the number of QR codes and thus simplifying existing requirements
- **Global Compatibility:** A single QR code would allow flexibility for other regions, such as the UK and US, thus ensuring global compatibility.



1.1. Key Benefits of a Single EU QR Code

For consumers, the introduction of a single EU QR Code provides a simple and intuitive access point to all relevant product information required by EU law. By consolidating multiple sources into one entry point, it significantly reduces consumer confusion and strengthens trust in the information provided. At the same time, it ensures easier and more immediate access to relevant, accurate, and up-to-date product data.

For manufacturers, a single EU QR Code approach leads to a substantial reduction in compliance costs and administrative burden by streamlining the reporting landscape. It would be an enabler for a digital-by-default framework, easily allowing digital energy labels to be introduced as an optional alternative to paper energy labels and mandatory in-box paper manuals to be replaced with digital documentation manuals. It avoids the need to manage duplicative systems and parallel processes stemming from overlapping legislative requirements. In turn, this fosters greater legal certainty and contributes to a more harmonised and predictable regulatory environment across the Single Market.

For policymakers, this approach enhances the overall effectiveness of digital legislation by improving usability and coherence. The initiative supports the transition towards digital-by-default policies, facilitating the progressive removal of paper-based documentation. It also aligns closely with broader EU objectives of regulatory simplification and strengthening industrial competitiveness.

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ANNEX – Examples of QR Code Stacking Risks

The table below represents a **non-exhaustive list** of examples which illustrate different types of regulatory overlaps. These overlaps may result in multiple physical QR codes, multiple parallel digital obligations, or nested product- and component-level data requirements. A Single EU QR Code framework should prevent all three forms of fragmentation.

EU legislation	Legislation requiring individual QR codes and potential link with the Digital Product Passport
Energy Labelling Framework	Since March 2021, the EU has mandated that all rescaled Energy Labels must feature a scannable QR code prominently on the physical label. Instead of holding the data itself, this QR Code acts as a direct digital bridge to the EPREL database. The Requirement: A mandatory QR Code on the printed energy label that links consumers and market surveillance authorities directly to a centralised, digitally hosted product information sheet and performance metrics within the EPREL database. Specific Data Points: • Product Identity: Supplier name or trademark, and a specific model identifier. • Performance Metrics: The energy efficiency class (A to G) and absolute energy consumption (e.g., kWh per 1000 hours, per 100 cycles, or per annum, depending on the product group). • Operational Characteristics: Context-specific data such as acoustic noise emissions (and noise class), water consumption per cycle, screen resolution, or storage volume. • Digital Product Fiche: A downloadable, standardised digital document detailing all declared technical parameters. The Stacking Risk: EPREL requires manufacturers to maintain a dual-layer database entry for every single model: a <i>public-facing</i> portal (accessed via the QR Code by consumers) and a restricted <i>compliance</i> portal (containing detailed technical documentation, test reports, and calculations accessed only by market surveillance authorities). As the ESPR's DPP rolls out, manufacturers face the heavy burden of potential data overlap unless the Energy Label QR Code and future DPP QR code are one.
Digital Product	The Ecodesign for Sustainable Products Regulation (ESPR) introduces the Digital



Passport (DPP) under the Ecodesign for Sustainable Products Regulation	Product Passport to enhance transparency and circularity, by providing digital information via a data carrier. The Requirement: A mandatory QR Code on each product that links consumers and market surveillance authorities to a centralised EU DPP Registry where the DPP is registered. From the Registry, stakeholders can access the decentralised DPPs. Specific Data Points (non-exhaustive): • Instruction of use • Carbon footprint • Certificate of conformity • Composition • Disposal and Reuse options The Stacking Risk: • For products that are already legally required to display an Energy Label QR code, the introduction of a separate DPP QR code would force manufacturers to place two distinct, mandatory EU data carriers on the same appliance. • This fragmentation forces consumers to guess which code to scan for specific information, one for energy performance (EPREL) and another for sustainability (DPP), undermining the goal of digital simplification. Without a single entry point, manufacturers must manage duplicative systems, leading to increased administrative costs and a cluttered product design
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Batteries Regulation	This regulation is the first to fully implement a DPP, but with a split scope. "Full" Battery Passport: Mandatory only for EV batteries, LMT (Light Means of Transport) batteries, and industrial batteries >2kWh. It requires deep data on chemistry, carbon footprint, and health. Specific Data Points: • Carbon Footprint: Declarations on the total carbon footprint of the battery lifecycle. • Material Composition: Chemistry, hazardous substances, and critical raw materials (cobalt, lithium, nickel, etc.). • Circularity: Recycled content percentages and end-of-life information. • Performance: Rated capacity, expected durability, and state of health (SoH). The Appliance Risk (Portable Batteries): While appliances do not require a "full" battery passport, manufacturers must provide digital access (via QR Code) to information on removability, safety, and chemistry. The Stacking Risk: An appliance manufacturer may have to manage their own Appliance DPP (under ESPR) while simultaneously managing a separate data link for the portable battery inside it to satisfy specific labelling requirements of the Batteries Regulation.
Packaging and Packaging Waste Regulation (PPWR)	The PPWR introduces digital reporting to reduce packaging waste, which overlaps with the product's own data. The Requirement: Manufacturers must provide digital access to material composition (granular polymer types) and consumer sorting instructions. Specific Data Points: • Material Composition: Granular info on specific polymer types to facilitate recycling. • Recyclability: QR Code conveying "recyclability classes" (A to E). • Waste Sorting: Digital instructions on how to separate and dispose of packaging, potentially replacing physical labels. • Reuse: Tracking rotations for reusable packaging. The Stacking Risk: A product and its packaging each require separate datasets under the DPP concept. For example, a device will have a QR Code, but



	its accompanying <i>box</i> may need a distinct dataset. Without integration, a consumer who scans the product's QR Code for say, repair information, would need a <i>different</i> method to find recycling instructions for the box. The <i>packaging</i> essentially functions as a second product, each with its own compliance requirements. This lack of integration could force consumers to scan one QR Code for the product and use a different process (like consulting a physical label) for recycling the box it was shipped in.
Critical Raw Materials Act (CRMA)	The CRMA amends the ESPR to make the declaration of permanent magnets mandatory within the DPP. The Requirement: A digital declaration of the presence, weight, location, and chemical composition (e.g., Neodymium content) of magnets in motors or compressors. Specific Data Points: • Magnet Presence: Does the product contain permanent magnets? • Composition: Weight and chemical breakdown (e.g., Neodymium, Dysprosium). • Recycling Information: Instructions on how to access and remove magnets for recovery. The "Stacking" Risk: This adds a deep layer of "component-level" data (chemical analysis of a specific part) into the "product-level" passport, requiring manufacturers to map suppliers for specific magnets. A manufacturer must now trace and report on a specific sub-component (the magnet) within the motor, within the appliance, creating a nested layer of data requirements that must be maintained and updated
Declaration of Conformity (DoC)	Until now the declaration of conformity needs to be provided to enforcement authorities upon request, however for products that fall under the Radio Directive the declaration of conformity has to either be provided in paper with each unit or be available online. With the changes introduced by the Omnibus IV that is still being processed, there should be a possibility to have DoC only in electronic format. However, the possible addition of a word "<i>directly</i>" in the Parliamentary proposal on the Omnibus IV, may complicate the issue, in the worst case requiring separated QR code for the direct access to the DoC only.