GS1 in Europe

One QR on-pack, infinite possibilities

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The objective of this paper is to provide an overview of the current European Union legislation on sustainability and digitalisation that impacts the communication of product information to consumers. It highlights key regulations and explains how these measures promote sustainable consumption, enhance transparency and support the transition to a circular economy.

The document explores the benefits of using digital labelling with QR codes powered by GS1 to share product information and the importance of adopting “one single QR code” to keep consumers informed and protected, enhance regulatory compliance and streamline point-of-sale operations.

EU regulations and production information for the consumer

The European Union has implemented several legislative measures to promote sustainability and digitalisation. These measures have a significant impact on the amount of product information that needs to be shared with consumers. Key regulations include the Ecodesign for Sustainable Products Regulation, the Regulation on Empowering Consumers for the Green Transition, and the Packaging and Packaging Waste Regulation (PPWR). They aim to ensure products are more energy-efficient, durable, repairable and recyclable, while providing consumers with transparent and comprehensive information to support sustainable consumption and the transition to a circular economy.

The Ecodesign for Sustainable Products Regulation enhances product sustainability by setting design requirements and introducing the Digital Product Passport to provide detailed sustainability information.

The Regulation on Empowering Consumers for the Green Transition mandates clear and accurate information about the environmental impact of products, enhancing consumer rights and promoting a circular economy by ensuring products are designed to last longer and be repairable.

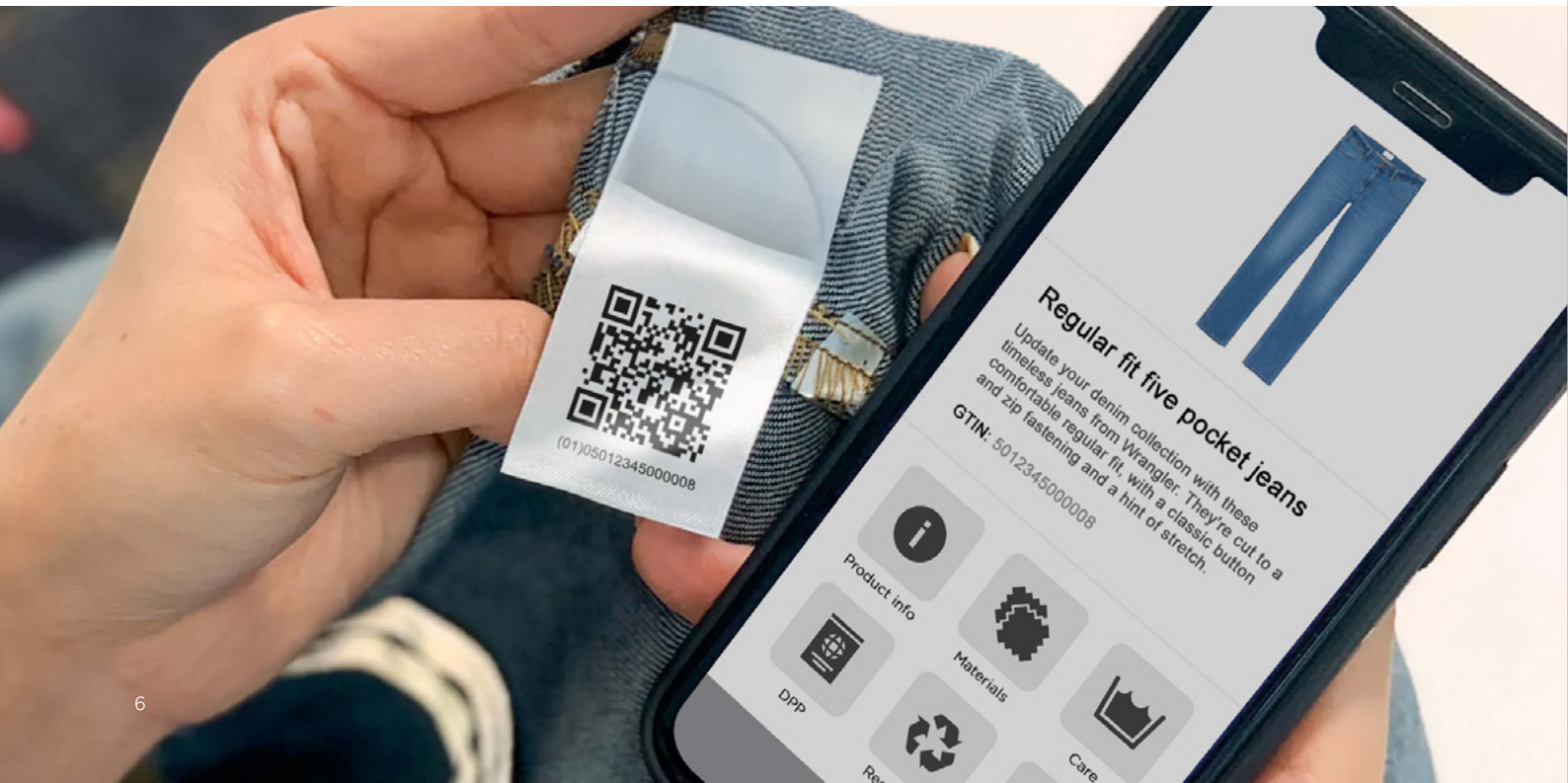
The Packaging and Packaging Waste Regulation addresses the environmental impact of packaging by promoting the prevention, reuse, recycling and recovery of packaging waste. The revised regulation, part of the European Green Deal, aims to make all packaging reusable or recyclable by 2030 and includes measures to reduce over-packaging and increase the use of recycled content. By the end of 2024, EU countries had to establish producer responsibility schemes for all packaging, further supporting the EU's sustainability goals.

Product information and digital labelling

These legislative measures set new requirements for the information that businesses must share with their consumers. Companies are now required to include detailed sustainability information on product labels and digital platforms. This includes data on energy efficiency, material composition, recyclability, and the presence of hazardous substances. The goal is to ensure transparency and enable consumers to make environmentally conscious purchasing decisions.

The Digital Product Passport represents a major advancement in how product information is communicated. By providing a comprehensive overview of a product's environmental impact, it empowers consumers to choose products that align with their values and sustainability goals.

In addition to these regulations, other forthcoming EU directives will also require the communication of data to consumers, further emphasising the importance of digital labelling. Digital labelling, such as QR codes, will play a crucial role in providing consumers with easy access to comprehensive product information, ensuring transparency and supporting informed decision-making. This approach aligns with the EU's broader objectives of enhancing consumer protection, promoting sustainability and facilitating the transition to a circular economy.



Benefits of QR codes and digital labelling for sharing product information

From consumers and regulators to brand owners and retailers, everyone wants to know more about the products they buy, sell or consume. However, space on-pack is finite, meaning there will always be a limit to the amount of information physical labels can carry.

QR codes powered by GS1 have been identified by industry as the solution to this problem, allowing businesses to connect their products' unique identity to multiple online sources of enriched, real-time content, enabling capabilities far beyond what a standard barcode can offer today.

Convenience

QR codes provide a quick and easy way for consumers to access detailed product information. By simply scanning the code with their smartphones, consumers can instantly view key information such as ingredients, usage instructions, sustainability data, and more.

Space efficiency

Physical packaging often has limited space. QR codes allow manufacturers to provide extensive information without the risk of cluttering. This is particularly useful for products with complex information requirements.

Cost effective

Implementing QR codes is relatively inexpensive compared to printing extensive information on packaging. It also reduces the need for additional printed materials, which can be costly and environmentally unfriendly.

Dynamic updates

Information accessed via QR codes can be updated in real-time. This means that any changes in product information, such as new sustainability certifications or updated usage instructions, can be communicated immediately, without needing to produce new packaging.

Enhanced consumer engagement

QR codes can link to interactive content, such as videos, tutorials, or augmented reality experiences that enhance the consumer's engagement with the product and brand.

QR codes powered by GS1 have the potential to shape the future of industry. They will transform consumer engagement, enhance Environmental, Social, and Governance (ESG) reporting at both a product and a company level, and improve traceability and transparency up and down the value chain.

GS1 ambition 2027: QR codes powered by GS1 at the point of sale

GS1 ambition 2027 is a global, industry-wide initiative aimed at transitioning from traditional linear barcodes to more advanced two-dimensional barcodes, such as QR codes powered by GS1, at retail points of sale by the end of 2027. This transition is driven by the growing demand for product information transparency, traceability and authentication.

QR codes not only hold significantly more data than linear barcodes, they can also be scanned by smartphones. This allows them to provide consumers with instant access to detailed information such as nutritional content, allergens, sustainability data, and more. Their enhanced capability also supports improved inventory management, better recall readiness and greater brand trust.

Retailers are preparing their point-of-sale systems to read both linear barcodes and QR codes, ensuring a smooth transition and enabling a single scan to meet both supply chain needs and evolving consumer and regulatory requirements.

“One QR code fits all”

Having a single QR code on product packaging is essential for ensuring seamless and efficient consumer experiences and supply chain operations.

Multiple QR codes are to be avoided for the following reasons:

Consumer confusion

Having multiple QR codes on a single product can be confusing for consumers. They may not know which code to scan for the information they need, leading to frustration and a poor user experience.

Cluttered packaging

Multiple QR codes can make packaging look cluttered and unappealing. This can detract from the product’s visual appeal and potentially impact sales

Increased costs

Each QR code may need to be linked to a different database or information source, increasing the complexity and cost of managing these codes. This can be particularly burdensome for smaller companies with limited resources.

Regulatory compliance

Ensuring that each QR code complies with different regulatory requirements can be challenging. Companies need to ensure that the information provided through each code meets the specific requirements set by the relevant regulation.

Transitioning to QR codes at point of sale

With QR codes set to replace traditional barcodes at point-of-sale operations by 2027, having multiple QR codes on packaging could complicate this transition. Retailers and consumers will need to adapt to scanning QR codes for both product information and purchase transactions. Multiple QR codes could lead to confusion and inefficiencies for both business operators and consumers.

In summary

While QR codes offer numerous benefits for sharing product information a unified, more integrated approach where a single QR code provides access to all relevant information will be more effective and user-friendly.

This would streamline the consumer experience, reduce packaging clutter, simplify regulatory compliance and facilitate a smooth transition to QR codes at point-of-sale operations.

By adopting a single QR code powered by GS1 on the packaging, companies can better support the EU's sustainability and digitalisation goals, ultimately contributing to a more transparent and sustainable market.

About GS1 in Europe

GS1 in Europe is a non-profit organisation uniting 49 member countries and representing over 500,000 companies across Europe. As part of the global GS1 network, we provide a system of internationally recognised standards that enable seamless identification of products, locations, entities, and assets. Our mission is to create a common language for business, fostering efficiency, transparency, and innovation across industries. Together, we drive collaboration and support businesses in Europe.

Do you need help?

GS1 in Europe Member Organisations can support you further in implementing GS1 standards.

Connect with your local GS1 Member Organisation through **gs1.eu/gs1-in-europe-member-organisations**

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