# /Improving **product marking**

# How consumer goods manufacturers benefit from 2D codes

Today, many manufacturers already mark their products with codes to coordinate logistics and warehousing. QR codes are also popular to provide general information about the product and brand. In addition, the classic barcode is the standard code for checkouts. With the introduction of batch-specific 2D codes in the retail sector, packages only require one code. In fact, if this code is generated in line with batch-specific information, the entire supply chain up to the end consumer can access the same digital image of the product.



### **Clear inventory**

The use of 2D codes, which include best before date and batch number, will significantly improve manufacturers' inventory management. The digital image of the products makes it possible for manufacturers to retrieve up-to-date information about the best before date and the remaining shelf life of the products. This real-time data allows manufacturers to manage inventory easier and ensure that products are sold within their optimal shelf life, which results in less wastage. Consequently, the introduction of this technology will make inventory management more efficient and will save costs for manufacturers.



#### **Falsification prevention**

As soon as the 2D code on the packaging is standard, manufacturers will be able to add a serial number to its content. This will allow product authentication, which is especially important in industries where falsification is an issue. By scanning the code, consumers will be able to verify the product's origin and quality, which boosts their trust in the brand.



#### **Transparency creates trust**

Consumers can easily access detailed and specific product information using the code. In addition to batch number and expiry date, this might also include the production date and quality control data. Information about the origin of the raw materials of a batch is particularly interesting for Fairtrade and organic products. You can also list ingredients, nutritional information and allergens online to complement the statutory information and update them on a batch-specific basis. This level of detail allows consumers to make informed decisions about the products they purchase, creating greater confidence in the manufacturer's brand.





#### Customer loyalty

Manufacturers use web-enabled codes to offer exclusive promotions on specific batches. This targeted approach promotes brand loyalty and encourages repeat purchases. Thanks to this flexibility, digital content also provides customers with seasonal recipe suggestions. For perishable goods, the manufacturer may also inform consumers of recommended storage conditions and consumption times. Manufacturers then analyze this consumer interaction with the codes to gain insights into customer behavior and better target their audience.



#### Easier recall campaigns thanks to traceability in the supply chain

In the event of a recall action, the manufacturer immediately informs all relevant market players. Using this information, the manufacturer ensures that the products concerned are removed from the shelves and consumers are informed immediately. Recalled products are sorted out when scanned at the next point in the supply chain – at the latest at the checkout. This greatly reduces the risk for consumers and protects the brand image. If the production time is included in the code, such actions become even more precise.



#### Packaging optimization

By connecting to the digital world, packaging becomes interactive. Manufacturers can update content dynamically, ensuring that product information remains relevant and current throughout the product's lifecycle. As code usage increases, manufacturers are gradually moving to reduce preprinted information and provide it digitally instead. 2D codes are also very compact and can store a lot of information in a small space, which improves flexibility in packaging design.

#### **Digital Link**

The basis for these functions is a so-called 'Digital Link', the successor to the classic barcode.



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