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Markem-Imaje launches CoLOS 2D Activate and CoLOS 2D Engage to boost food traceability and product transparency

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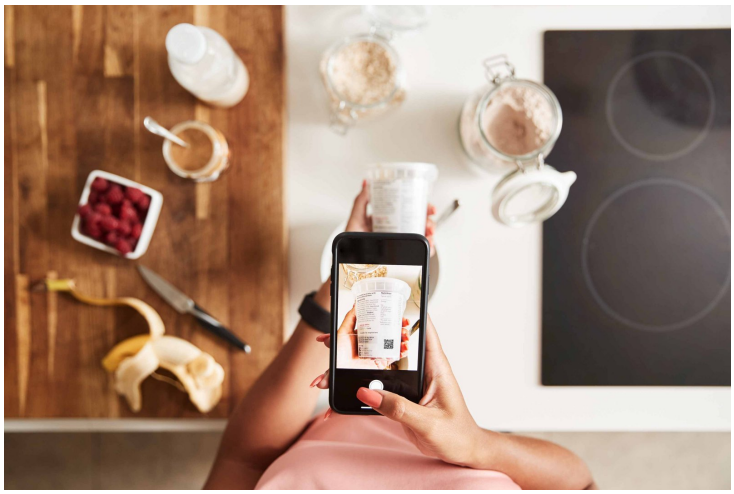
New software and an advisory offering enable manufacturers to assess readiness for emerging regulations, deploy compliant GS1 Digital Link QR codes and transform packaging into a connected digital communication channel



Markem-Imaje today announced the launch of CoLOS 2D Activate and CoLOS 2D Engage, supported by Markem-Imaje's expert consulting services, providing manufacturers with a complete solution to prepare for GS1 Sunrise 2027, meet evolving regulatory and retailer requirements and unlock the full value of connected packaging. CoLOS 2D Activate and CoLOS 2D Engage are Software-as-a-Service (SaaS) enterprise solutions that enable global CPG and FMCG brands to create, organise, activate and manage static and dynamic GS1 Digital Link QR codes. The platform allows manufacturers to deploy compliant 2D codes while delivering personalised consumer experiences, collecting valuable first-party insights and supporting future digital product initiatives.

Complementing the software platform, Markem-Imaje's implementation experts provide manufacturers with a structured assessment of their production environment, coding processes and operational readiness. The service includes a full-day on-site review followed by practical recommendations to help manufacturers identify gaps, prioritise investments and develop a clear roadmap for implementing GS1 Digital Link QR codes.

"Our new CoLOS 2D Activate and CoLOS 2D Engage solutions enable brands to transform QR codes from a compliance requirement into powerful digital experiences that deliver real value to consumers," said Viktor Hermansson, Global Marketing Director at Markem-Imaje. "With GS1 Digital Link, a single QR code can support retail checkout, supply chain visibility, regulatory transparency and personalised consumer engagement. Combined with Markem-Imaje's expert consulting services, manufacturers now have a complete pathway to assess their readiness, implement compliant 2D codes and unlock the full potential of connected packaging."

Assessing readiness before implementation

With retailers around the world preparing for the transition to GS1 Digital Link QR codes, manufacturers need a practical implementation strategy that minimises disruption while protecting production performance.

Markem-Imaje's implementation experts work with manufacturers to evaluate existing operations, identify potential challenges and build a phased roadmap for successful deployment. The assessment provides independent recommendations covering production equipment, software infrastructure, data management and coding processes, helping manufacturers confidently prepare for the transition to connected packaging.

From production line to consumer engagement

Unlike traditional static QR codes, dynamic GS1 Digital Link QR codes transform packaging into an intelligent communication channel between brands and consumers. Page content can adapt based on location, language, time or stage of the customer journey. For example, a consumer scanning a product in a retail store may receive promotional offers, while scanning the same product at home can provide recipes, usage instructions, complementary product recommendations or sustainability information. At the same time, manufacturers can capture valuable scan analytics to better understand consumer engagement.

By integrating production and product data from CoLOS, ERP systems, CRM platforms and loyalty or coupon programmes through APIs, brands can deliver contextual and personalised digital experiences while maintaining a single source of truth for product information.

Turning every product into a connected digital experience

CoLOS 2D Activate gives manufacturers full control of GS1 Digital Link QR codes after printing through digital content management, URL destination management, scan data analytics and enterprise data integration. CoLOS 2D Engage enables marketing teams to design, publish and manage personalised consumer experiences through an intuitive drag-and-drop interface. Brands can quickly build mobile landing pages, web forms, contests, gamification campaigns and multilingual experiences that evolve throughout a product's lifecycle. The platform also provides detailed analytics showing how consumers interact with products across locations and over time.

These insights help companies better understand product interactions before and after purchase, deliver relevant content at the right moment and strengthen consumer relationships. Connected packaging initiatives can often achieve engagement rates significantly higher than many traditional digital marketing channels.

Managing the complete lifecycle of GS1 Digital Link QR codes

Markem-Imaje's CoLOS software enables manufacturers to manage the complete lifecycle of GS1 Digital Link QR codes before, during and after production.

Key capabilities include:

Automated generation of compliant static or dynamic GS1 Digital Link QR codes aligned with SKU and GTIN data.

Management of Digital Link QR codes, associated digital content and reporting for products active throughout the supply chain.

Integration with production systems to embed dynamic product and manufacturing data, including GTIN, lot number, best-before date, serial number and manufacturing facility information, enabling point-of-sale scanning as well as a broad range of consumer engagement applications.

Packaging integrity controls and vision inspection to ensure barcode quality and error-free coding operations.

Automated synchronisation with ERP and other business systems to eliminate manual data entry and maintain a single source of truth for product data.

Centralised management of QR code inventory, URL destination settings and digital product experiences.

Together, these capabilities help manufacturers ensure barcode quality for point-of-sale and supply chain scanning while supporting traceability, regulatory transparency and connected product experiences.

Supporting evolving regulatory and transparency requirements

Beyond consumer engagement, the platform supports a wide range of business-critical applications, including regulatory compliance, supply chain visibility, traceability and brand protection. By linking production data to a product's digital identity, brands can provide access to detailed product information, including lot status, recall notifications, nutrition information and sustainability data.

This capability is becoming increasingly important as manufacturers prepare for evolving requirements including the European Digital Product Passport (DPP), the U.S. Food Safety Modernization Act (FSMA), the EU Packaging and Packaging Waste Regulation (PPWR), local regulations in Southeast Asia and other initiatives that require improved product data accessibility, such as GS1 Sunrise 2027. Supporting both pre-print and inline printing environments, CoLOS 2D Activate and CoLOS 2D Engage enable manufacturers to launch pilot projects or scale to enterprise-wide deployment of GS1 Digital Link QR codes. Combined with Markem-Imaje's expert consulting services, the platform provides a practical, end-to-end solution that supports manufacturers from readiness assessment through implementation and ongoing optimisation.

A single platform for connected packaging

The CoLOS platform serves as a single source of truth for production, product and packaging data, helping manufacturers streamline operations, reduce complexity and manage connected packaging from production through consumer engagement. By combining software, hardware, services and industry expertise, Markem-Imaje enables manufacturers to confidently navigate the industry's transition to connected products.