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How NFC can help Consumer Packaged Goods companies grow their business

Bridging the physical and digital world

The Consumer Packaged Goods (CPG) industry is a highly competitive market, with multiple players and very price-sensitive consumers, who are becoming more concerned about their health and lifestyle, and want to help protect the environment. Digital technologies offer new opportunities for companies to create direct-to-customer communications. Making product packaging smarter using NFC is a means for CPG companies to foster consumer engagement and set themselves apart from competition.

A DIGITAL SHIFT

What are the benefits of using NFC technology?

NFC (Near Field Communication) is a wireless connectivity technology based on RFID (Radio Frequency Identification) enabling contactless communication between a reader and a tag. A tag is a small electronic component which adds wireless connectivity to physical objects, such as consumer packaged goods, including food, beverages, household products and more.

Adding an NFC tag to an object connects it to the digital world.

Implementing NFC allows consumer goods brands to track their products around the world, ensure quality and safety, and create a direct two-way communication channel with consumers via their smartphone, used as an NFC reader.

How does it work?

The NFC tag embeds several advanced features including a unique identifier (UID) and a user memory, which allows a company to embed useful information for customers, such as a web link with product information.

For example, a website URL can be configured into the tag, and by simply “tapping” the NFC-enabled object with their smartphone (bringing the mobile phone and the tag in close proximity to allow the tag to be read), end users can find out more about their product of interest. NFC can help CPG companies establish a direct relationship with their customers.

Specifically designed to enable these applications, ST offers the ST25 Tag IC product line, available now.

90%

of smartphone owners use their phones while in-store(*)

(*) Source: NFC Forum white paper, 2018, accessible here

The benefits of intelligent packaging

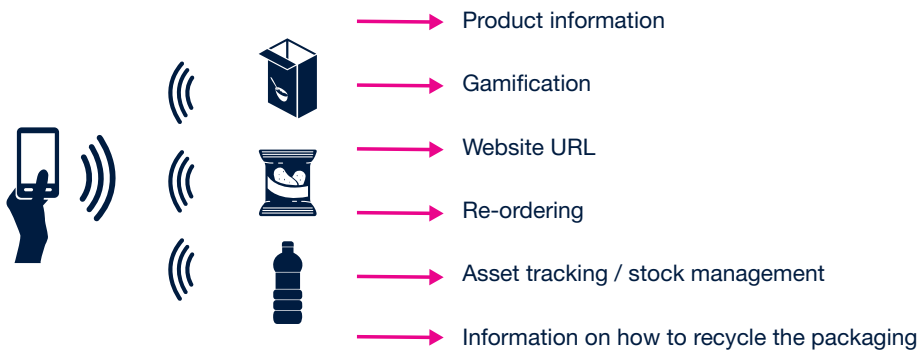
On top of security it delivers, NFC technology offers many other advantages to CPG brands, as the same NFC tag can be used for several use cases.

Use case 1: traceability

A company can use NFC technology to verify that the goods equipped with an NFC tag have followed the entire supply chain flows as expected, thanks to NFC readers in warehouses that can track each item individually.

Use case 2: consumer engagement

NFC tags can also be used to help end consumers find out more on the brand's products, before and after purchase. By using their NFC-enabled smartphone to read the NFC tag, consumers can access more information on the brand, its products, its origin, and any available product discounts for example.



ONE TAG. MULTIPLE APPLICATIONS

Track & Trace

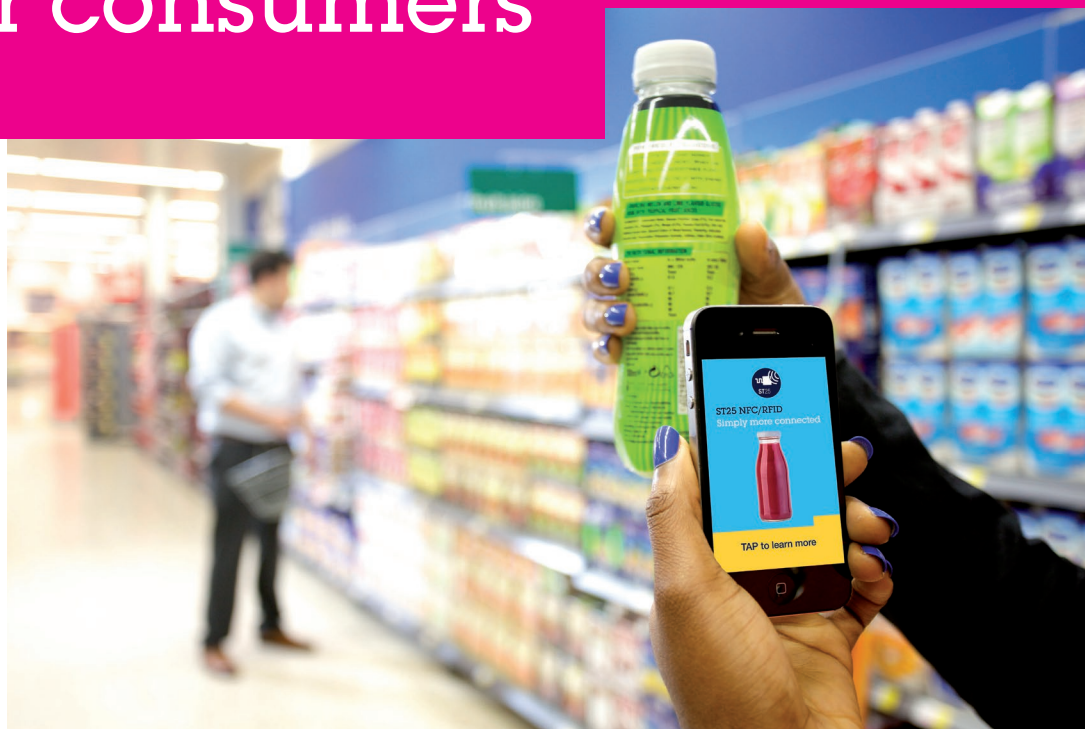
Thanks to their unique identifier (UID) coupled with other information coming from the tag (e.g.: timestamp, etc), the goods can be geolocated by anyone using an NFC reader or an NFC-compatible mobile phone everywhere and all along the supply chain, from production to store.

By setting several check points throughout the supply chain, stock management can be improved, and the status of each tagged item can be easily accessed and updated by the supplier of the goods.

The NFC tag's small form factor allows it to be hidden when necessary, depending on what the NFC tag will be used for. If the supplier wants to use the tag for traceability purposes, the tag can be fully integrated into the goods and be made invisible to the outside world.

However, if the tag embeds multiple application possibilities, such as traceability and consumer engagement, its location on the goods must be clearly indicated so that consumers can easily find the tag in order to read it and access the information it contains.

A two-way communication channel between brands and their consumers



Tap & Link

NFC technology delivers the benefits of digital marketing to physical products.

Secure and ready-to-use, NFC tags can easily be configured with personalized content (product composition, origin and more) which consumers can access by simply tapping the tag with their smartphone.

The information stored in the tag must follow a specific format that can be read by an NFC-enabled mobile phone (NDEF format).

Consequently, any NFC mobile phone can interact with a product featuring an NFC tag.

The so-called “Tap & Link” approach allows the brand to create a unique and direct relationship with the consumer by sharing information about the product, but also about the brand itself.

NFC tags can make Consumer Packaged Goods smarter and promote consumer engagement.

These small, robust, and water-resistant tags are ideal for everyday products that are not usually handled carefully, and can be used to embed product information that consumers can access by tapping the tag with their NFC-enabled mobile phone, without needing a specific app.

Compagnies can measure how many times an NFC tag was read and track the online behavior of the customers who have accessed the URL via the NFC tag.

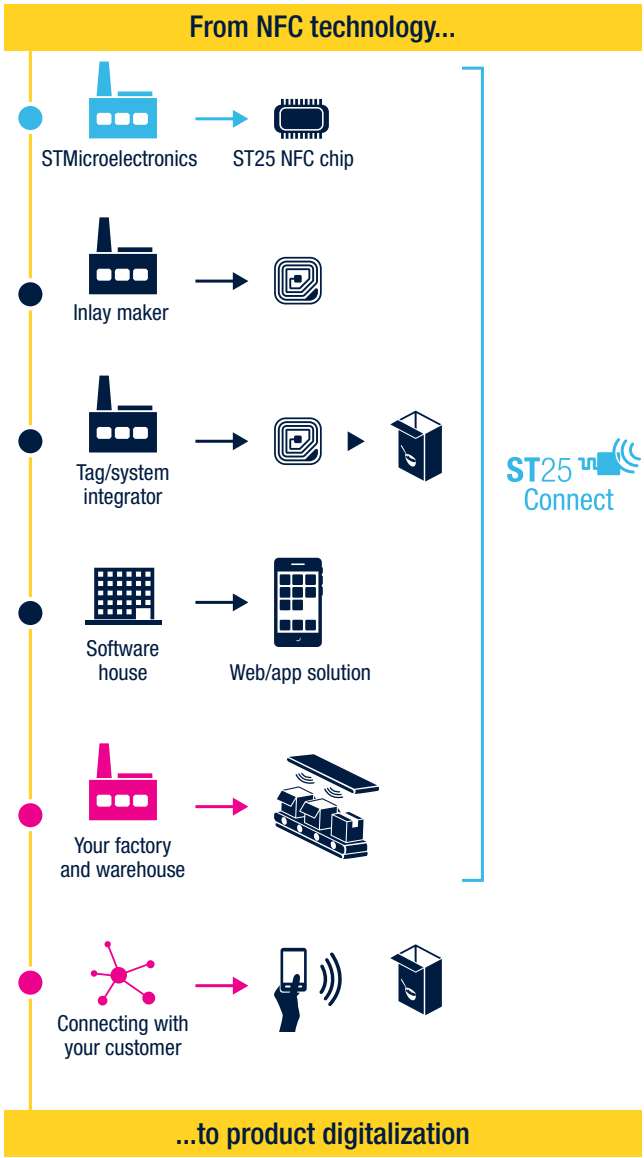
ST offers a wide range of ST25 tags which are certified by the NFC Forum and fully support the NDEF functionality, thereby ensuring interoperability with NFC-compatible smartphones.

ST25Connect program
Helping brands grow their business with NFC

In practice, the successful integration of NFC technology in consumer products involves multiple stakeholders and requires technical expertise, time, and resources, especially if you are new to NFC technology.

The ST25Connect program is a service provided by ST to ensure the best product integration and implementation of NFC technologies.

With ST25Connect, you can benefit from ST's technological expertise and our network of trusted partners. In direct contact with ST's experts, you will be provided with personalized advice and the NFC technology you need to grow your business.



ST provides semiconductor technologies and supports companies in the implementation of NFC technology.

With over 20 years of experience in the design of NFC readers and tags and an active member of organizations like the ISO and the NFC Forum, ST has strong expertise in NFC technology, and will create a complete and customized solution addressing your needs and challenges.

Leveraging our network of recognized partners, ST's team of NFC experts will help you break down barriers to NFC adoption. Depending on your needs, requirements, and location, we will suggest the ideal business partners (inlay makers, tag integrators, certified laboratories, etc) for your project.

Once we have defined together how your company can benefit from NFC technology, we will provide a customized solution, based on ST's portfolio of ST25 NFC readers and tags.

ST25 Connect

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