

GS1 Digital Link

Consumer Trust

Closer Consumer Interaction with Digital Receipts



Executive summary

Conditions for digitalizing receipt management in the Swedish retail industry have never been more favorable. Digital receipts enable greater flexibility in communication between producer, buyer and consumer than printed receipts. An example is the ability to carry out targeted recalls directly to consumers instead of via media or a company website, as is common practice.

Using GS1 Digital Link, also known as the smart QR code, suppliers enable traceability from production all the way to the consumer. In collaboration with GS1, Findity and Kivra have created a solution for digital receipts and targeted recalls.

The digital twin

A way of looking at information about products is the concept of the digital twin. This means that each physical product or object has a corresponding digital representation stored somewhere in the digital world. The digital twin may contain basic product attributes, but also user instructions, warranties, and dynamic data such as traceability information, recall status, and more.

GS1 Digital Link enables a seamless connection from a product to its digital twin. This is done by encoding the product's globally unique GS1 identifier in the web address of the digital twin. The web address is then entered into a QR code or other data carrier that can be scanned by smart phones as well as by regular scanners in store checkouts.



The GS1 Digital Link standard is already in place and several initiatives and pilot projects are already in progress.

“Only Denmark ranked ahead of Sweden in 2018’s survey of digital maturity among EU countries. Swedes are avid users of digital services and rank at the very top when it comes to listening to music and watching films on the internet. The conditions are right: expansion of 4G networks and a high proportion of households outfitted with ultra-fast broadband internet.”

Computer Sweden

Digital receipts

A new communication channel

Four billion paper receipts are printed in Sweden every year, consuming around 50,000 trees. Digital receipts, besides being more environmentally friendly, offer many benefits.

For consumers, digital receipts mean that the receipt is always available. For retailers, digital receipts mean safer and more effective processes like returns.

Digital receipts also allow receipts to be used as a new communication channel – one that can be used by retailers or other parties for marketing or to communicate with customers. For the Swedish market, Kivra provides this possibility by allowing users to have digital receipts delivered to their digital mailboxes.

Besides offering a new communication channel, the digital receipt can be used with the new smart QR code (GS1 Digital Link) to create a tailored customer experience. The smart QR code contains specific product and purchase information that is transmitted from producer to retailer, and finally to the consumer via the digital receipt.

The idea is that suppliers eventually will replace their current barcodes with GS1 Digital Link, and consumers will receive digital receipts instead of printed ones. This will allow consumers access to:

- Product and nutritional information
- Product images
- Databases (for example, FASS and The Swedish National Food Agency (Livsmedelsverket))
- Instructions, user manuals, recipes, etc.
- Video clips (for example, tutorials or advertising)
- Warranteer registration
- Discount offers
- Online customer reviews
- Traceability information (useful for product recalls, among other things)

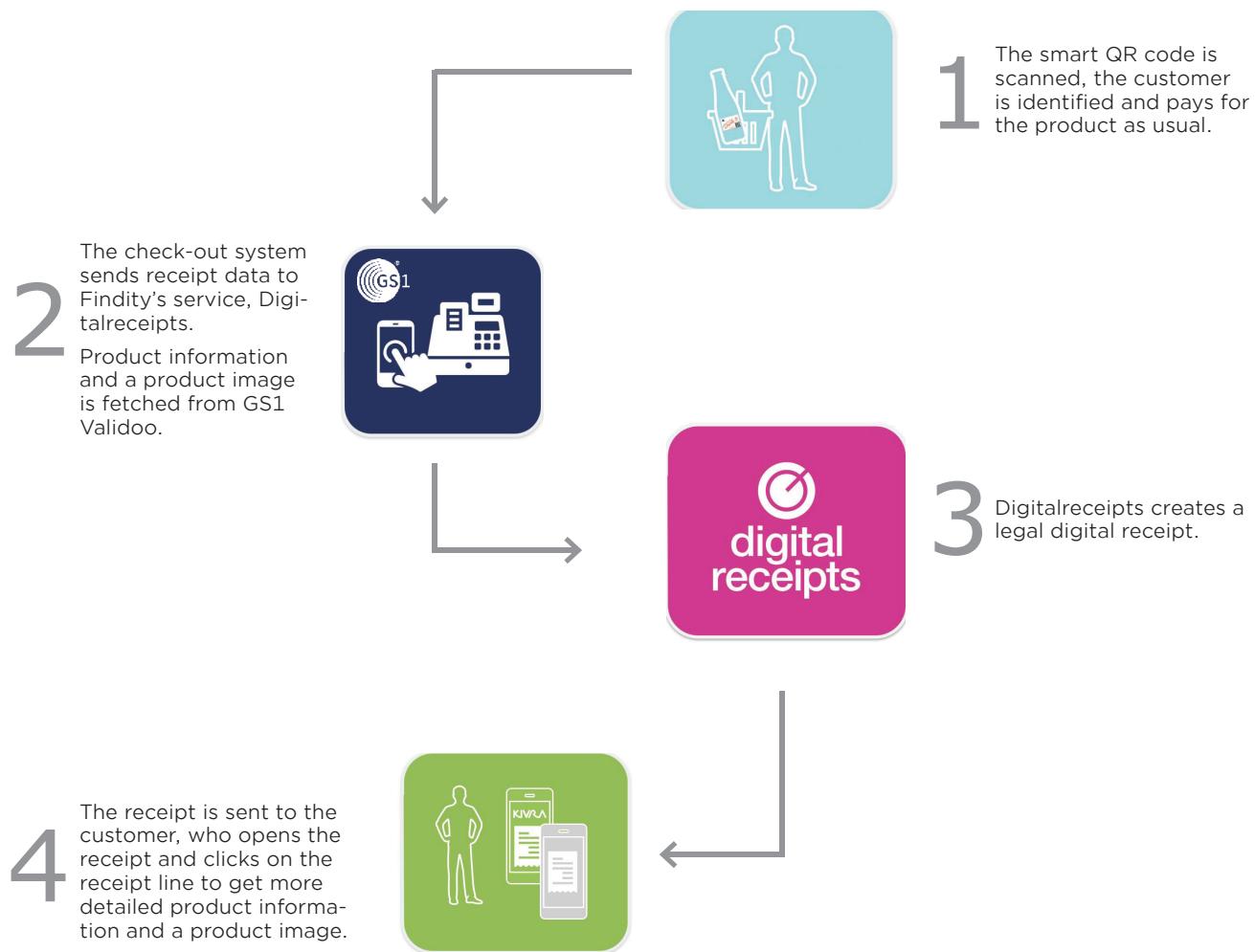
... and much more.



Digital receipts

A new communication channel for millions of Swedes.

The digital receipt - how it works



Traceability for consumers

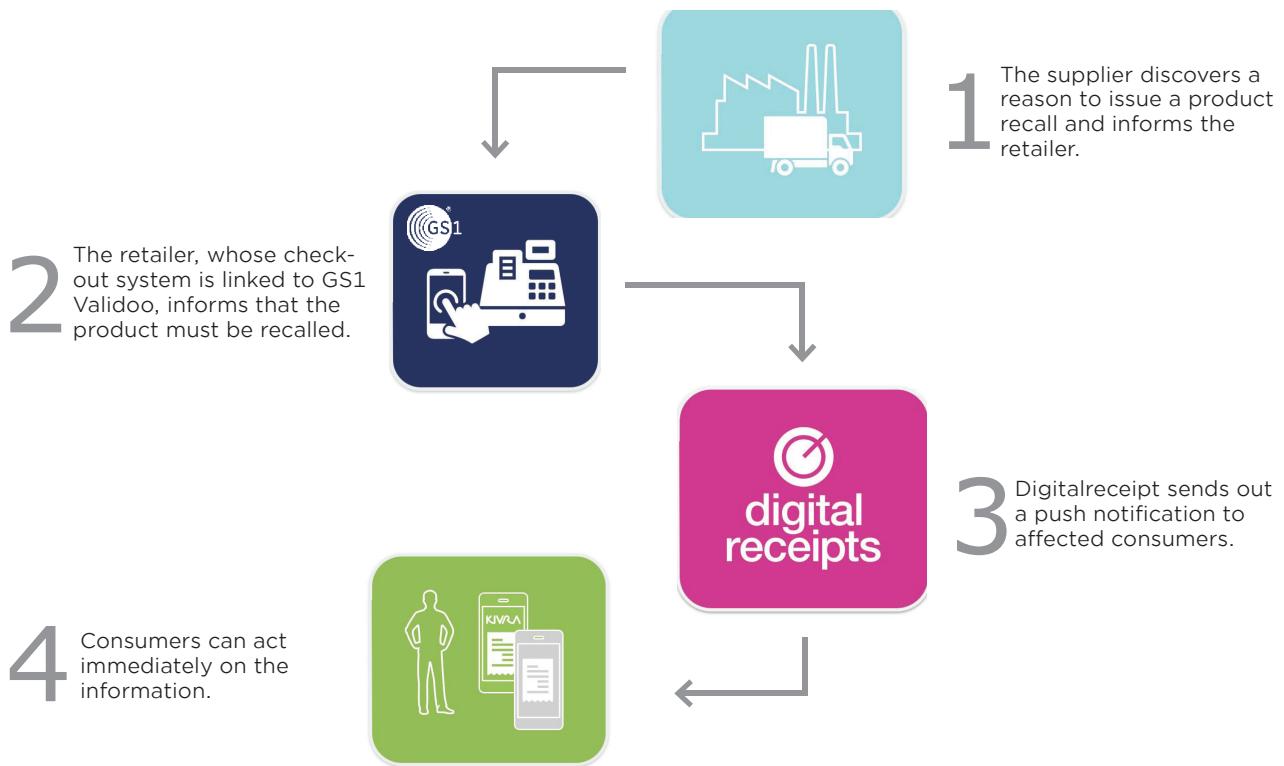
Guidelines are in place today for traceability in the food supply chain, in the form of Article 18 of Regulation (EC) No 178/2002. The Swedish National Food Agency writes on its website that “one of the purposes of the traceability regulation is to facilitate targeted recalls of food and to guarantee consumer safety.”

Today, targeted recalls in the retail industry work well in cases where the consumer purchases online – in such cases it is usually known who purchased what and when. Recalls for purchases made in physical stores can be more difficult. Many stores publish recall information on their websites or use the media to inform consumers.

Digital receipts allow for targeted recalls communicated directly to the consumer. Push notifications are sent to everyone who purchased a recalled item, allowing consumers to find out about recalls much more quickly than they would be able to today.

Targeted recalls

The most important aspect of a recall is that the right consumer gets the right information at the right time. It is also important that the right products are recalled, meaning only the product batch or instances that are affected. For suppliers using the smart QR code this can enable significant cost savings if an incident should occur. Below is the chain of interactions between supplier and consumer in a product recall, assuming digital receipts have been implemented and used.



Swedish consumers are avid users of digital services, with Swedes ranking second in Europe in terms of digital maturity. By offering more possibilities for mobile payments, greater focus on environmental impact, and also meeting the demand of brands to open new communication and marketing channels toward their customers, actors like Findity and Kivra are leveraging the GS1 standards to offer something unique.

A product marked with a smart QR code provides better traceability, as well as enabling digital receipts and targeted recalls. This offers benefits for suppliers, consumers, Swedish retailers in general, and the environment.

Supplier	Retail industry	Consumer
<ul style="list-style-type: none">Reduced costs for recallsQuicker recallsReaches consumers who have already made a purchase	<ul style="list-style-type: none">Higher service levelReduced risk of unhappy customersSimplified processes for returns and recalls	<ul style="list-style-type: none">More safety – information is sent immediatelyEasier to get informationEasier to get compensation



Swedish Digital Receipt Standard (SDRS) makes digitalization simpler

The Swedish Digital Receipt Standard was completed in 2018. Participants in creating it included Findity, IT and telecommunications companies, Swedish retail companies, the Swedish Tax Authority (Skatteverket), GS1 Sweden and others. The purpose of the standard is to make it simpler and more affordable for buyers to integrate different applications, and to help developers better understand retail processes and how different data formats deal with communication between different systems.

The new standard drives development and implementation of digital receipts in retail. It makes it simpler for point-of-sale providers to implement the new standard and connect to the digital receipt ecosystem.

Given consumers' increasing reliance on mobile payments, greater focus on environmental impact, and businesses' need to find new channels for marketing and communication toward consumers, the time is right to replace printed receipts with digital ones.

Read more at digitalreceipts.se to find out how your company can digitalize its printed receipts.

GS1 - the global standard

GS1 standards create a common foundation for business by uniquely identifying, accurately capturing and automatically sharing vital information about products, locations, assets and more. Businesses can also combine different GS1 standards to streamline business processes such as traceability.

GS1 Sweden

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About Findity

A team of creative and innovative people who are making a difference together. We drive the digital society forward by digitizing, automating, and simplifying people's everyday lives and working for a sustainable society.

Findity is the company behind services such as Sparakvittot, Companyexpense, and Digitalreceipts. Companyexpense currently has ca 10,000 corporate customers who have digitized their business and travel expenses, per diem allowances, and mileage logs. So far, Digitalreceipts has produced, stored, and distributed more than 130 million receipts. findity.com

About Kivra

Kivra is a secure digital mailbox with over 3 million users in Sweden. In Kivra users receive their postal mail digitally from 15,000 connected companies and authorities. Kivra is owned by 41an Invest (Karl-Johan Persson and Stefan Krook), FAM (Wallenberg foundations), board and staff. Kivra is a shareholder of Findity. kivra.com

About GS1 Sweden

GS1 Sweden is part of GS1, a neutral, not-for-profit organisation that provides global standards that improve the efficiency, safety and visibility of supply chains across physical and digital channels. We enable organisations of all types and sizes to identify, capture and share information seamlessly. Our scale and reach help ensure that GS1 standards create a common language that supports systems and processes across the globe. gs1.se