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## INTRODUCTION

Dear member,

Welcome to the 2<sup>nd</sup> edition of the SP Quarterly eNewsletter 2009.

The goal of the GS1 eNewsletter is to raise awareness about GS1 and its activities through interesting, informative high-level articles. It is targeted at a wide audience of users and potential users of GS1 Standards.

We invite you to submit a business case study that your organisation has conducted with a customer in any industry sector that demonstrates an increased or improved use of GS1 standards and/or solutions to better serve our users around the globe.

Enjoy!

*The GS1 Ireland Team*



## NEW Solution Provider

### Welcome decaWave

GS1 Ireland is delighted to announce that decaWave Limited have joined the GS1 Ireland Solution Provider Programme.

Decawave is a pioneering fabless semiconductor company which has developed a single chip CMOS UWB (Ultra Wide Band) IC based on the IEEE802.15.4a standard, and goes into production with this part in 2010.

Prototypes demonstrating this technology are available from Decawave now, as of Q2 2009.



## Putting a trace in place

*A fully traceable system for farm foods is essential especially in times of crisis*

Last year's pork dioxin crisis in Ireland served as a stark reminder of the need for a proper food traceability solution. The joint Oireachtas report stated that "the present system for monitoring and tracing Irish pork products is ineffective, and significant changes are required in order to avoid a repeat of the total recall of Irish pork products which has resulted in a cost of millions of Euro in compensation payments to the Irish taxpayer". The report said that an effective traceability system would have facilitated a recall of contaminated product only.

This was not possible in the dioxin contamination incident, which necessitated a 100% recall for a 10% contamination rate. Had the traceability system been developed based on GS1 standards, there is no question a targeted recall would have been possible.

GS1 is a global supply chain standards body that has been at the forefront of product identification and traceability solutions for the past 30 years. There are already excellent implementations of GS1 standards both in the food and healthcare sectors that would provide evidence of this. For example, in the case of Irish beef products affected by the same dioxin contamination, the total recall was not necessary because proper batch traceability systems based on GS1 identifiers were already in place.

Tracking from farm to fork is becoming even more effective and efficient thanks to GS1's development of low cost RFID tags that can be used on animals. Recent developments in this area in New Zealand and Denmark, with pig tracker are undoubtedly more appropriate and fit for purpose than the conventional ear tags. Furthermore, RFID tags can be used to track the bulk product movements across the supply chain. For point-of-sale and in store stock management purposes, the marking of meat products labeled with GS1 data barcodes could indicate the batch information required to enable a targeted recall of all Irish produce, including pork.

Consumers have a right to assume that all food put on the market is safe and fully traceable. Under EU and local regulation, this is a legal requirement. The various EU directives on beef traceability, the general food law and the food packaging law provide clear regulation for all stakeholders involved in the supply chain.

Traceability is defined as "the ability to trace the history, application or location of an item by means of recorded identification. Traceability can relate to the origin of materials and parts, the processing history



and the distribution and location of the product after delivery". It is important because it facilitates the withdrawal of foods and enables consumers to be provided with targeted and accurate information concerning implicated products. The ability to pinpoint the origin of food ingredients and food sources is of great importance to the protection of the consumer, in particular when product recalls are required. In the event of a food safety problem, quick identification of affected products or batches of products can reduce the number of consumers exposed to a potential hazard.

For the food industry, the implications of a major food safety failure can be commercially devastating, with product recalls, reputational damage and liability damages. Traceability systems assist in determining fault, thereby strengthening the liability incentive for firms to adopt good food safety practices.

Irish and European law requires all food and animal feed businesses to establish and implement a food traceability system. It is a legal requirement for businesses to trace one step forward and one step back. This means food business owners must know who supplied them and whom or to where their product has gone. However, there is no legal requirement for businesses to have traceability systems that trace raw materials through the factory and into the finished product. The key components of an effective traceability system are: identification, data capture and recording and communication. This is why the global supply chain standards as developed by GS1 are critical, because they can support each component.

GS1 ID keys for raw materials, finished products, logistic units (totes, pallets etc) and locations enable the accurate identification of what, where and when. With the speed of movement of products along today's supply chain, it is essential to use automatic data capture technologies (scanning), whether GS1 barcodes or RFID tags. Scanning eliminates the need for paperwork and at the same time reduces errors. More importantly, it records "events" i.e. *what, where, when* in real time.

Seeing traceability solely as a cost burden is a profit limiting perspective. Instead of a "knee-jerk" reaction and withdrawing all products from the marketplace, the GS1 system allows the user to uniquely identify the specific product, where it has been and where it went.



## The Bar Code Is Taking a Leap Forward

Look closely at recent supermarket coupons, and you may see some new markings on them near the traditional bar code: sets of neat black bars stacked in two rows. The new symbols, called GS1 DataBar, can store more data than traditional bar codes, promising new ways for stores to monitor inventory and for customers to save money.

One use of the symbols will be in sophisticated coupon offers that combine deals on multiple products, said Jackie Broberg, who leads coupon control management at General Mills in Minneapolis. A single coupon, for example, could offer discounts on three separate items like eggs, bacon and biscuits, all in one transaction. Another use of the new symbols is already helping to streamline operations for a common speed bump in the checkout process: loose produce. During the past three years, for example, the Loblaw Companies, the big Canadian supermarket chain, has gradually switched to scannable, miniaturized DataBar labels pasted onto some fruits and vegetables. Instead of entering a 4- or 5-digit number to look up a price, cashiers scan the DataBar on the produce, said Eric Biddiscombe, senior director of planning in Cambridge, Ontario.

"It's quicker and far more accurate," Mr. Biddiscombe said. But the system is valuable not only for speeding checkout times and for keeping track of different varieties of bulk vegetables and fruits sold. It also prevents another checkout problem: cashiers mistaking organic vegetables for less expensive, conventionally grown ones, and ringing them up for the lower price. "The price difference between organic and field tomatoes may be 40 cents a pound or more," he said. "When they aren't rung up as organic, that bites into our profit margins." Kelly Kirschner, senior marketing manager at Sinclair International, a company in Fresno, Calif., that makes labelling for produce, said DataBars were gradually becoming popular because of limitations of the standard bar code. The standard code, she said, "takes up too much space to be used on loose produce, plus it is for fixed-weight items" — for example, 12-ounce boxes of cereal. The DataBar, by contrast, allows stores to scan for variable weight information. The labels help stores keep better records, she said. If retailers are receiving Red Delicious apples from three separate suppliers at prices of \$8 to \$10 a carton,



and all the apples are dumped into a single bin, retailers can still tell how many they sold of each lot, as each DataBar is tied to a purchase record.

The next use of DataBars at the supermarket will probably be for goods bought at the delicatessen counter, and for fresh meats and poultry, said Stephen Arens, director, industry development, at GS1 US in Lawrenceville, N.J. GS1 US is the trade organization working to move the DataBar standard forward in the United States. A poultry DataBar, for example, might contain not only the price and product category, but also a sell-by date. If a consumer chose an outdated package, the label would alert the cashier at checkout. In the future, coupon bar codes will probably be read less from strips of paper, and more from mobile phones that people hold out for scanning by the cashier.

Samplesaint Inc., a mobile marketing company in Chicago, for example, has developed technology that lets supermarket scanners pick up the image of a coupon bar code directly from the display on a mobile phone. In Samplesaint's system, coupons are sent directly to consumers' mobile phones by text message. The coupon's bar code is small enough to fit on the screen of any mobile phone, said Walid Johnson, director of research and development. Samplesaint erases the coupons from the mobile phone after they are scanned at the supermarket, an action that reduces coupon fraud, he said. "Once coupons are used, they can't be forwarded or sent on to anyone else," he said. "We remove them from the phone." The Samplesaint system will be used this month in a joint trial with Unilever, the consumer products company, at a ShopRite supermarket in Hillsborough, N.J. Consumers can register for coupons from their computer at [www.samplesaint.com](http://www.samplesaint.com) from their computer or at [m.samplesaint.com](http://m.samplesaint.com) from their mobile phone Web browser. They can also text from the supermarket to receive a coupon, he said. In the test, supermarket checkers will be scanning the traditional bar codes. But Samplesaint is prepared to handle the new DataBars, too, when supermarkets are ready. "Our technology can generate the old symbols and the new ones," Mr. Johnson said.

By ANNE EISENBERG

(First published in *The New York Times* on Jun 6<sup>th</sup>, 2009)

## Barcode Verification

Improve the quality of your barcodes

**Ensure your barcodes scan first time, every time!**

### Benefits of Verification

The biggest benefit verification is, simply, **reassurance** and **confidence** that the barcode will perform as intended at all stages of the product's passage down the supply chain, leading to untroubled supplier-customer relationships and excellent operational efficiency.

Additional benefits accrue to the symbol producer, who is able to make use of the measurement information on the symbols he is producing to monitor his production process and adjust his equipment or procedures in order to correct any deviations from his optimum quality. Package designers can use feedback from verification to make sure that symbol size, position and colour will not result in point-of-use difficulties.



### Specific Benefits to consumers

As barcode scan rates improve, data does not have to be manually entered which could lead to delays, errors, customer queue build-ups, man hours lost and money wasted.

Fast and accurate data capture at every point of the supply chain, including goods receiving, warehousing, picking, despatch and point-of-sale information

### Specific Benefits to Manufactures and Retailers

- ⇒ More efficient supply chain
- ⇒ Better quality barcodes improving scan rates
- ⇒ Correct barcodes and therefore correct data in systems
- ⇒ One test and barcode solution for all manufacturers giving confidence to retailers and retailers and other users
- ⇒ Faster product to market
- ⇒ Errors corrected at art work stage, prevents printing of wrong barcode

- ⇒ Improved customer relationships
- ⇒ No need to reprint the barcode that would lead to product recall, loss of packaging material, re-printing costs, poor speed to market
- ⇒ Reassurance and confidence that the barcode will perform as intended at all stages of the product passage down the supply chain
- ⇒ Reassurance that the barcode will scan in almost all scanning environments independently of the scanner type
- ⇒ One barcode testing standard accepted globally
- ⇒ Scannable barcode facilitate accurate, real time stock management
- ⇒ No loss of sales due to poor scanning and consequent loss of sales data
- ⇒ Correct information for eCom processes resulting in more accurate orders, deliveries and invoices

### How to get your barcodes Verified?

All new GS1 members can make 3 submissions free-of-charge within the first 12 months of joining.

Please contact our Helpdesk for further information 01-208 0660, or email [info@gs1ie.org](mailto:info@gs1ie.org)

## Solution Provider Accreditation

GS1 Ireland provides a validation process for all its Solution Provider members. This Accreditation ensures that Solution Providers have the knowledge and capability to implement GS1 Standards correctly.

Ask your Solution Provider are they GS1 Accredited. Look out for the GS1 Seal of Approval.



A list of GS1 Solution providers is available at [www.gs1ie.org](http://www.gs1ie.org)

## HIQA calls for unique patient identifier (UHI)



A New system for identifying patients across all levels of the Irish Healthcare system should be introduced as soon as possible according to a new report from the Health Information Quality Authority (HIQA).

The report states that being able to identify an individual through a unique patient

identification number is essential for patient safety and improved quality of care. The lack of a reliable patient id and tracking system means people are in danger or at risk of receiving wrong treatment. The absence of this unique health identifier (UHI) for individuals is the single most important deficiency in the health information infrastructure. If a new system was put in place, it would cut down on admin costs and costs associated with adverse events and duplicate testing and streamline records management.

Currently there is no reliable or unique method of tracking a patient through the Irish Healthcare system. Healthcare services rely on matching names, addresses and date of birth. This poses a significant risk to the safe delivery of services.

The report also states that it would cost some €16million to issue a unique health identity card to each person in the state and another €17 - €30 million to set up a central trusted authority to operate the health identifier system. International evidence suggests that the system will pay for itself within the first few years of implementation but only if the UHI is used universally throughout the healthcare system.

The use of PPS numbers should be avoided as they would be unsafe and will lead to increased costs in the long run. It concluded a brand new UHI would be the best and safest option, it would be confined to use within the healthcare sector and leakage of information outside would be greatly diminished.

GS1 Ireland presented a submission to HIQA, our recommendation was the implementation of a global service relationship number system as used in the NCHCD Dept. in St.James's hospital. This involves globally unique identifiers for

individuals, healthcare professionals, products and locations. The implementation of the GSRN has contributed to huge cost savings in the track and trace system, product wastage significantly reduced and 40% more patient treatments with same level of staff.

## Unique Product Identification: The Key to a better Supply Chain

As a major distributor of plumbing and heating products throughout Ireland, **Uppercross Enterprises Ltd (UEL)** handle a large number of SKUs (Stock Keeping Units) from a wide range of suppliers. All of these suppliers identify their products differently, with some manufacturers not using barcodes at all at item, carton or pallet level. Additionally, UEL have their own codes in their back office system to identify the products they trade. As the Irish Hardware and DIY retailers are moving closer to adopting Electronic Data Interchange (EDI), UEL required a solution for ensuring that all their products were uniquely identified so that they could be prepared to trade electronically with their customers.

**Gorilla Systems Ltd**, a Dublin-based consultancy firm specialising in supply chain software solutions for the SME market, provided UEL with a complete solution for product identification and labeling.



The solution consists of a web based application, fully integrated with UEL's back office system. The database holds a cross reference between UEL's product codes and their Global Trade Identification Number (GTIN). In the cases where the manufacturer cannot produce a GTIN for their products, UEL assign a number from their own GS1 number bank. The database provides an easy way to keep track of the numbers that have been allocated to each product.

Using a web browser at the Goods Inward area, the operator can retrieve all the products for a particular Purchase Order and print out the labels for those products before they are put away. The GS1 compliant barcodes printed on the labels ensure that they can be read with most linear barcodes in the market.

Although the application is hosted locally in one of UEL's servers, it could also be deployed as a Software as a Service (SaaS) solution; minimising

hardware requirements. On the client side all that is needed is a web browser. UEL are now able to ensure unique product identification, while keeping a record of all the GTINs for the products they handle. Unique product identification is essential for accurate stock control and order replenishment. It enables the efficient and effective exchange of product information between trading partners in the supply chain, driving electronic communications systems like EDI. David Glass, General Manager of Uppercross Enterprises says "unique product identification is the key towards better stock management. By making sure all our products have a GTIN we are moving in the right direction in terms of improving the efficiency of our supply chain".



## Training Support for the implementation of GS1 Standards:

Whether a new or long-standing Member of GS1, your organisation will benefit from receiving the proper training and advice in the use of the GS1 System.

The GS1 System is a set of open global standards and are the foundation for many of the systems and technologies implemented in organisations today to help run operations and supply chains in a more efficient and cost effective manner.

The GS1 Standards cover technologies such as bar coding and scanning, eCommerce messaging, data synchronisation and RFID as well as a range of solutions including traceability, inventory control, and asset & document management.

### GS1 Classroom Courses

GS1 Ireland currently offers a range of courses dealing with bar coding and eCommerce.

### Our current courses include:

- Identification keys (barcoding)
- Introduction to EDI and the concept of Paperless Trading

### Course Delivery

**In-house • in-company • online**

GS1 courses are delivered both in our own premises in Dublin and across the country on Member sites. In-company courses are tailored to meet your specific organisational needs.

### Course Schedule

Our scheduled courses are advertised on our website and notified regularly via email. For a list of forthcoming courses please log on to [www.gs1ie.org](http://www.gs1ie.org) and visit the Services (Training) Section.

**For all course enquires, including details of in-company training or eLearning please contact Adreana Cullen on 01 208 0671 or send an email [adreana.cullen@gs1ie.org](mailto:adreana.cullen@gs1ie.org)**

### Other GS1 Services

In addition to our Training Services GS1 offers Members and potential users of the GS1 System a number of other means of support including our Helpdesk, Website, Newsletter and On-site Professional Service. If you would like more information about any of these services please contact our Helpdesk on 01 208 0660.



**Have you enjoyed this Newsletter?  
Is there anything else that you would like to see?**

**If you have a suggestion regarding this Newsletter please let us know.**

**Suggestions should be forwarded to Adreana Cullen on (01) 2080671 or you can e-mail the details to [adreana.cullen@gs1ie.org](mailto:adreana.cullen@gs1ie.org).**