

## **GS1** Retail & Consumer Goods Newsletter

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# Have you got good visibility into your value chain activities?

Do you have the right traceability system to handle a product or food safety crisis if it hits you next time?

Do you know how sustainable your products are?

Do you have a paper-heavy and sometimes inaccurate order, despatch and invoice process?

Is your real-time inventory less than 100% accurate?

Do you still have queues at your checkout?

Do you throw away a lot of fresh food that has gone past its use-by date?

Are your consumers getting trustworthy information about your products in this new digital world?

To answer many of these questions you need better visibility into your business processes, both within your own walls as well as outside across the global supply chain. And to better see what's going on in your business, you need to capture supply chain data.

You can then use this data for your short- and long-term decision making – whether it is to improve the efficiency, sustainability or safety of your business processes.

Companies in your industry are solving these problems with the help of GS1. Read on and benefit from some of these best practices...

To find out how GS1 can help you optimize your business processes, contact your local GS1 Member Organisation at www.gs1.org/contact.























### Achieve lower out-of-stocks, better on-time shipments rates, more accurate forecasting

Supply chain visibility can do all that, and more



A study from Aberdeen found that companies that have the most visibility into their supply chains also have the lowest outof-stocks, the lowest landed costs and the highest on-time shipment rates.

That's no surprise. Visibility means knowing where things are now; why they are there; and where they were before. It means knowing how many days of production can be done with the raw materials on hand, or whether inventory levels reflect the total of what's in the back room plus what's in the distribution center plus what's in transit. Visibility can create a chain of custody for

pharmaceuticals, confirm that a returned product was purchased legitimately, or provide product authentication to fight counterfeiting.

In short, supply chain visibility translates directly into business value.

For an item to be visible, it must first be identified, its activity captured, and the information collected shared in a standard way so that all who need the information can access and understand it.

GS1 provides the system of standards for structuring and sharing visibility information.

GS1 US™ positions this offer to its members in a Visibility Framework, an integrated suite of global standards that identify, capture and share information about items, locations and events so that visibility becomes a reality. Read more in The GS1 US Visibility Framework (download), a white paper which explains in non-technical terms the basics of the visibility framework and **Usina** 

Standards-based, technology-enabled processes provide the visibility needed to reduce out-of-stocks by **30%** and reduce "safety" stocks by up to

GS1 Visibility Data to Improve Business Processes, (download) a document which explains in more detail the positive impact visibility data can have on business processes.

For more information: http://www.gs1us.org/about\_us/initiatives/visibility

### The GS1 US Visibility Framework

### Identify

#### Company

- GS1 Company Prefix
- Global Location Number (GLN)
- Electronic Product Code (EPC) Manager Number

### Product

- Global Trade Item Number (GTIN)
- Serialized Global
- Trade Item Number (SGTIN)

### Inner Pack, Case, Pallet

- Global Trade Item Number (GTIN)
- Serial Shipping Container Code (SSCC)
- Serialized Global Trade Item Number (SGTIN)

### Location

Global Location Number (GLN)

#### Assets

- Global Individual Asset Identifier (GIAI)
- Global Returnable Asset Identifier (GRAI)
- Global Document Type Identifier (GDTI)

### Services

- Global Service Relation Number (GSRN)
- Global Document Type Identifier (GDTI)

### Electronic Product Code (EPC) RFID Encodings

### Capture

**GS1 System Data Carriers** Barcodes and EPC-enabled RFID tags















**Master Data** Global Data Synchronization Network (GDSN)

#### Transactional Data Electronic Data Interchange (EDI)

GS1 Business Message Standards (XML)

### **Physical Event Data**

EPC Information Services (EPCIS)









### Apparel trading partners gain visibility into their inventory along the supply chain



More than 3/4 of a billion
RFID tags expected in the global apparel market in 2011

(ABI Research)

Multi-supplier demo shows benefits of using EPCglobal standards in RFID solutions

One of the biggest challenges for clothing and shoe retailers is to ensure the right assortment of sizes, colors and styles is available on the store floor and back in the stockroom. Thanks to EPC/RFID, retailers are now achieving over 95% inventory accuracy, up from an industry average of 65% (University of Arkansas study, 2011).

Key to the success of RFID in the apparel & footwear industry is the seamless information sharing provided by the GS1 EPCglobal standards. The use of global

standards provides interoperability and easy implementation between trading partners, from the manufacturer in China all the way through to the retailer on the other side of the world, no matter which RFID solution they work with.

A recent demo organised by GS1 US™ showed how EPC/RFID could be used to efficiently transfer data between partners in the apparel supply chain and provide end-to-end visibility. The demo presented jeans and shirts being tagged at the manufacturer, moving on to a distribution center and then into a retail store.

This was possible thanks to the interoperability achieved through standards. "When the team of solution providers – some of whom are competitors – arrived on the exhibit floor, they had less than a day to set up," explained Michele Southall, GS1 US Implementation Services Director, who helped organize the event. "Within hours, all participants were able to exchange and use information seamlessly."

So, if you're looking at investing in an RFID solution, contact your local GS1 Member Organisation to learn how open, global standards can contribute to the success of your solution: www.gs1.org/contact



### Watch a video of the demo:

https://www.gs1us.org/sectors/apparel/gs1\_us\_rfid\_apparel\_demo

### Shoprite Africa saves millions thanks to its "barcode crusade"

Good barcodes mean improved productivity and happier customers

Although retail isn't fully developed across all nations of Africa, there are nevertheless signs that things are advancing. For example, Shoprite Holdings, Africa's biggest retailer with R60 billion (\$9 billion USD) in revenues, pierced the Top-100 of Deloitte's 2011 'Global Powers of Retailing' list.

Shoprite began implementing item scanning in their shops in 2000. But despite making progress, they still faced some challenges.

Glyn Fogell, Shoprite's project leader for barcode quality and automatic ID and data capture, shares his experience: "Non-scan rates – when the price of an item at the checkout must be entered manually because the barcode is missing or improperly printed – were a major problem for us. Dry groceries were being entered by hand 2.5% of the time in our South African stores. Things were even worse in Nigeria, Ghana and Tanzania, where non-scan rates were over 20% for dry groceries and over 60% for perishables." In Western nations, non-scan rates today are close to zero.

Shoprite calculated that barcoding poor was costing them R14 million (\$2 million USD) in lost productivity annually. To change that, they launched a programme promoting GS1 standards for barcoding. They published a corporate standards document and ran a roadshow for suppliers, printers and packaging companies and even promoted the establishment of GS1 Tanzania. **Training** workshops. often held in association with the



Shoprite's customer checkout time was halved after their barcode programme

local GS1 Member Organisation, helped identify and solve problems. The overall aim was to assist suppliers and their printers instead of punishing them.

The results speak for themselves: From a pre-programme average speed of 11 items per minute at Shoprite checkouts, cashiers are now handling 25–30 items per minute. "That's about 12,700 fewer hours of customer-queuing per week at our corporate stores," concluded Glyn.

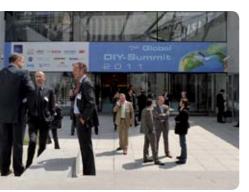








### The DIY industry gears up to meet the challenges of the future



Jim Copeland, CEO of the Irish Hardware & Building Materials Association, shares his view on opportunities for the industry

The first Global DIY Summit, held in Brussels this June, brought together 400 senior executives from leading

Do-It-Yourself companies in over 30 countries, to explore the key challenges facing the industry.

Jim Copeland, CEO of the Irish Hardware & Building Materials Association (IHBMA), participant and speaker at the summit, explains.

- •There is a strong focus on sustainability, starting with products assortments, but some companies are also looking at the sustainable supply chain like Lowe's in the US who is measuring the environmental footprint of its outlets.
- Competition from non-DIY mass retailers is driving the need for efficiency and effective retail tactics, which is propelling home improvement retailers into new product categories
- With the influence of social media, the consumer is becoming more knowledgeable than even the salesman! And cross-channel research and buying means the need for an integrated online/offline approach.

"Key to success is clean data", noted Mr. Copeland. "Data is the new oil". As business becomes digital, the DIY industry is turning to the tools already adopted by the Fast Moving Consumer Goods industry, such as EDI for automated data

exchange and data-pools for better data management.

"We're aiming at taking **80%** of paper out of the system."

For example, the Irish Hardware & Building Materials Association (IHBMA) collaborated with GS1

Ireland and key Irish DIY retailers and manufacturers to develop single electronic invoice, order and despatch messages. "We're aiming at taking 80% of paper out of the system." To allow for international trade, they wanted a global solution and used GS1 standards.

A pilot provided the proof of concept for enabling this paperless supply chain. "This opened our eyes on further opportunities based on GS1 standards, like barcodes, data pools, maybe even RFID", concluded Mr. Copeland.

Many GS1 Member Organizations are active in collaborating with the DIY sector. More information in the *GS1 in Europe DIY brochure* (download), or contact your local GS1 office: www.gs1.org/contact

## Digital order-to-cash system divides invoice processing costs by 10

### Swedish supermarket chain goes paperless and saves big

Today many companies are still passing orders, sending despatch announcements and processing payments manually, using paper-based methods that are unnecessarily time-consuming and error-prone. And yet, this "order to cash" process can be digitized and automated, eliminating mistakes and dramatically saving money.

Just ask Konsum Nord, a Swedish grocery chain. They were dealing with a 100,000 paper invoices every year. To boost both efficiency and savings, Konsum Nord has now digitized all the documents in its administrative workflow.

Konsum Nord's marketing team establishes pricing and item information in the web-based system. The stores log their orders, and upon receiving their deliveries, register any

deviations or damaged items. Finally, an electronic invoice is automatically created and routed to the corporate accounting team.

Costs for Konsom Nord for manually handling invoices were about 6 million Swedish kroner (~ \$950,000 US) per year. The paperless system has brought those costs down to only 600,000 kroner (~ \$95,000 US) a year. The company saw other benefits as well: shortened lead times, better quality assurance, lower inventory, more accurate pricing, fewer errors and improved traceability.

The entire process is built upon GS1 eCom Electronic Data Interchange (EDI) standards.

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Annual costs for processing invoices were **reduced from 6 million Swedish** kroner to 600,000 kroner.

Best of all, the response from suppliers has been overwhelmingly positive.

This text is based on an article originally published in the GS1 Sweden Quarterly Magazine FOKUS.









### Retailers reduce food spoilage and stand to gain millions

Innovative solutions contribute to the fight against food



A recent study commissioned by the Food & Agricultural Organisation of the United Nations revealed that one third of the food produced in the world for human consumption every year gets lost or wasted. IBM data puts the value of fresh food lost to spoilage at \$458 billion a year.

The explanations for these staggering figures are multiple, but one of the many causes is the difficulty that suppliers and retailers have in managing "sell-by" dates at the point of sale. When fresh food expires on the supermarket shelf, it must be thrown out.

Around the world, trading partners are deploying innovative ways to prevent this sort of waste.

For example, several retailers are already using GS1 DataBar to enable automatic markdowns for food that is close to its

expiration date. The DataBar is a barcode that can include more information than the traditional one, such as expiry date. Signs announcing discounts are displayed in the aisle, but the items themselves do not have to be individually re-labelled. Their prices are automatically discounted at the checkout when scanned. This system can also prevent expired products from being sold if their date has past.

Dutch retailer Boni expects to save approximately €1 million Euros per year by preventing spoilage and reducing writeoffs of unsellable food. Similarly, a 100-store retail chain in the USA expects to generate an annual operating savings of \$500,000 by using GS1 DataBar to better manage its

One-third of food produced in the world wasted or lost every year

For more information on GS1 DataBar: http://www.gs1.org/barcodes/databar



sell-by dates.







### **SAFETY**

### Tracing cattle from the pasture to your plate

New Zealand pilot shows the effectiveness of EPC/RFID in meeting regulations for livestock traceability

Motivated by food safety scares such as 'mad cow', foot and mouth disease, salmonella and E. coli, many governments have stepped up food traceability requirements. For example, the European General Food Law 178:2002 (Article 18) expects "the traceability of food, feed, food-producing animals, and any other substances intended to be, or expected to be, incorporated into food or feed shall be established at all stages of production, processing and distribution."

The tagging of pigs, sheep, cattle and other larger animals destined for the food chain is an area of particular interest. The European Union will impose livestock traceability as of 2012, and New Zealand is also considering a similar requirement in a similar timeframe. Even outside of legal obligations, many livestock farmers are putting a greater focus on ensuring end-to-end traceability.





### **SAFETY**











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From pasture to plate: you can now know from which cow in the field your steak came from! Because RFID is extremely well suited to animal traceability, industry experts expect this sector to double or more in the next ten years.

In New Zealand, industry and government have been working on RFID tag and standard questions since 2004. Starting in 2007, GS1 New Zealand and the NZ RFID Pathfinder Group led a consortium of key players through a series of 'in the field' trials which proved that EPC/RFID could be effectively used for the traceability of livestock.

The movement of each individual animal, carcass and meat cut was tracked from the farm all the way to the suburban retail outlet thanks to EPC/RFID tags. The UHF tags used had faster and longer read rates and cheaper components than traditional tags.

In comparison to traditional approaches, using GS1 EPC data & tags also ensured an integrated suite of standards from animal to meat cut could be deployed. This meant that, thanks to the GS1 EPC Information Service (EPCIS), you could achieve full track & trace capability along the value – otherwise known as 'pasture-to-plate' traceability.

"The trials demonstrated that the GS1 EPCglobal Network is capable of meeting New Zealand's future traceability requirements and the proof-of-origin demands of consumers in international markets," concluded Mark Rance from ANZCO Foods, leading New Zealand exporter.

## Does your traceability system have what it takes to manage a food crisis?

Assessing the effectiveness of companies' traceability system with the Global Traceability Programme

Recent headlines on the E. coli outbreak have brought need for reliable global traceability into much sharper focus. That's because when contaminated food products must be recalled, a proper traceability system can quickly lead teams straight to the origin of the outbreak.

Furthermore, traceability programmes are useful even outside of crises, because they provide visibility, which enables more efficient business processes.

According to Aberdeen, 61% of food and beverage companies are currently building compliance and traceability systems into their production processes. Maybe your company is one of them. But how does your traceability system rate?

To help provide the answer, GS1 has a global team of GS1-trained traceability auditors who perform on-site assessments of traceability systems and help you meet regulatory and internal requirements.

Generally lasting one business week, an audit is built around a list of criteria and checkpoints and involves visits to the zones where food, ingredients and equipment are received, stored, used, packaged and/or shipped. An initial meeting with the internal team allows all involved to agree upon the Audit Plan. At the end of the assessment, the Audit Report is presented, generally to the company's leadership team.

Audits are based on the GS1 Global Traceability Standard (GTS) and as a result are technology-neutral. This allows companies to obtain insight on their system's compliance with major international traceability regulations as well as traceability requirements established by the main quality standards used in the food industry.

GS1 Global Traceability Programme is already available in over **40** countries with **135** trained auditors

Companies around the world are using the GS1 Global Traceability Programme. For example, Koestlin, a leading Croatian food manufacturing company, collaborated with GS1 Croatia to assess their traceability system to ensure that they met global food safety requirements, in their plan to expand internationally. In Chile, Champion S.A., a Chilean poultry & eggs producer, worked with GS1 Chile to improve their processes. "The GS1 Global Traceability Programme has been useful for us to know which aspects of traceability to improve in our eggs production process. Now we have started to implement the tools offered by GS1," explained Jaime Riffo Méndez, Director of Logistics.



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For more information: http://www.gs1.org/traceability









### Incorrect product descriptions for 91% of mobile barcodes scanned

GS1/CapGemini Report reveals a new challenge for managing consumer experience in the digital world

While standing in the baby food aisle of her local grocery store, Anna scans the barcode on a baby food jar with her smartphone to obtain additional information about the product that she is considering for purchase. When the mobile app fails to find the information that matters to her, she tries another brand. This time Anna receives a photo of the product and detailed nutritional data. She decides to buy the second brand.



The use of barcode scanning applications increased by **1600%** in 2010.

This example, taken from GS1 and Cap Gemini's new report, "Beyond the Label: Providing Product Information Consumers Can Trust," shows how smartphones are changing the way today's consumers interact with companies, stores, products and brands.

The report underlines the possibilities to use these new technologies to create a new relationship with consumers. "But," it notes, "this requires providing consumers with trustworthy information in the first place."

And that's one of the challenges. A GS1 UK/Cranfield School of Management study revealed that the current state of digital brand information is very poor. For example, a full 91% of mobile barcodes scanned by the researchers returned incorrect product descriptions.

And yet, by providing trustworthy information, brandowners could benefit from better protection for their brands, an improved shopping experience for their consumers, more confidence from shoppers that the product information they access is accurate and authentic, and ultimately, increased revenues.

Download the GS1/CapGemini Report "Beyond the Label" from www.gs1.org/b2c

### Poor mobile product information means poor sales for your product

GS1 survey shows importance of trustworthy digital product information

A whole range of smartphone applications exist that enable location-based price comparisons: Shoppers today use their phones right in the store to see if they find the same product they see in front of them at some other nearby store, for a lower cost.

But beyond price, another type of key information is becoming more critical to the buying decision: 66% of consumers surveyed recently by GS1 said they want nutritional information and 65% want a list of ingredients. Shoppers want to know if the item they are



**73%** of consumers consider it important that product information is trustworthy

about to buy contains ingredients or materials that cause allergies, or elements that they do not consume for health, dietary, lifestyle or religious reasons.

The problem? Right now, most mobile barcodes scanned by consumers provide incorrect product descriptions – in fact, a GS1 UK/Cranfield study put the figure at 91%!

When consumers can't get data, or feel they cannot trust the data they do get, they don't buy: 38% of respondents to our survey would not purchase the product if they did not trust the information displayed on their mobile phone.

That's why it is vitally important for brand owners to ensure they are providing trustworthy data to consumers who are on-the-qo.

Find out more about the GS1 Consumer Survey by contacting Joe Horwoord joe.horwood@gs1.org

### Interested in learning more?

GS1 is working with key stakeholders from the retail and consumer goods industry on a variety of "Business-to-Consumer" (B2C) initiatives.

For more information, visit www.gs1.org/b2c.

### **SUSTAINABILITY**









### Can you measure how green your products are?

A new common set of metrics developed by the industry for measuring the sustainability of product packaging

Packaged Product
Wastage? Recycled
Content? Ozone
Depletion? Freshwater
consumption?
Get ready to start
measuring now!

Sustainability is a key concern for most companies today – and because both retailers and consumers are requesting more information on the products they are buying to guide their choices, the ability to measure sustainability is also becoming vital.

In fact, the need for common metrics was one element behind the creation of the Global Packaging Project from The Consumer Goods Forum. The outcome of the project is the Global Protocol on Packaging Sustainability (GPPS), which will be published at the end of July 2011.

This Protocol contains metrics to give companies a common language so they can measure the sustainability of packaging systems and identify ways to improve them. The metrics can be used to answer a wide range of business questions, either within a business or between business partners.

The number and type of metrics used will depend on the business question being asked: some will be simple queries about the weight or recycled content of specific packaging options. Other might require overall assessments and comparisons of entire product and packaging systems, and thus call for a lifecycle approach



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that will consider everything from the extraction of the product's raw material to its final disposal after use.

Gathering and sharing these new sustainability metrics is a new challenge for retailers and manufacturers in the supply chain. The Consumer Goods Forum is exploring solutions with GS1 to allow trading partners to be able to share these metrics effectively thanks to GS1 standards. By leveraging the GS1 Data Synchronisation Network (GDSN) to exchange this data automatically, they could ensure that sustainability of packaging information is reliable and up-to-date data in the same way as other product information.

To learn more about how you could use the Global Protocol on Packaging Sustainability, visit www.globalpackaging.mycgforum.com/ or contact Diane Taillard, Director Solutions at GS1: diane.taillard@gs1.org

### **SAVE THE DATE!**

### **GS1 Industry & Standards Autumn Event**

Date: 26 Sep 2011 - 30 Sep 2011 - Cologne, Germany www.gs1.org/events/2011/cologne

This is GS1's premier event where solutions are developed by expert users and standards specialists from all industries. Make sure your company is represented so that you can be part of the solution:

- Collaborate with key stakeholders in your industry to identify business needs, gather and harmonize requirements, document best practices
- Ensure that solutions developed meet your business needs
- Understand how to deploy and implement GS1 supply chain standards

International RFID Congress (Retail focused)

Date: 5 Oct – 6 Oct 2011 Lille, France www.rfid-congress.com

Asia-Pacific Retailers Convention & Exhibition 2011
Date: 10 Oct 2011- 13 Oct 2011

Singapore, Singapore www.aprce2011.org/

The Consumer Goods Forum IT Conference, Marketing Forum, Supply Chain Conference

Date: 11 Oct 2011- 13 Oct 2011 Barcelona, Spain

http://tcgfoperationalexcellence.

RFID Journal Live! Europe
Date: 18 Oct 2011 -19 Oct 2011
Amsterdam, The Netherlands
www.rfidjournalevents.com/
europe/

Global Food & Safety Conference (Consumer Goods Forum) Date: 15 Feb 2012 -17 Feb 2012

Orlando, USA

www.tcgffoodsafety.com/

For more information about any of these events, contact your local GS1 Member Organisation:

www.gs1.org/contact

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