

#### GS1 Industry & Standards Event 2017 09-13 October 2017 – Brussels, Belgium Transforming business together

Session: GS1 standards in CPG - Creating Value for trading partners and consumers

Time: Wednesday 11 October, 13.30 - 15.00

Who may attend: Everyone

Speaker(s): Ms. Linda Vezzani – GS1 Italy, Mr. Patrik Jonasson – GS1, Ms. Elena Tomanovich – GS1



### Anti-trust caution

- GS1 operates under the GS1 anti-trust caution. Strict compliance with anti-trust laws is and always has been the policy of GS1.
- The best way to avoid problems is to remember that the purpose of the group is to enhance the ability of all industry members to compete more efficiently.
- This means:
  - There shall be no discussion of prices, allocation of customers, or products, boycotts, refusals to deal, or market share.
  - If any participant believes the group is drifting toward impermissible discussion, the topic shall be tabled until the opinion of counsel can be obtained.
- The full anti-trust caution is available via the link below, if you would like to read it in its entirety: <a href="http://www.qs1.org/qs1-anti-trust-caution">http://www.qs1.org/qs1-anti-trust-caution</a>.



### Meeting etiquette

- Meetings will begin promptly as scheduled
- Be present avoid multitasking
- Avoid distracting behaviour:
  - Place mobile devices on silent mode
  - Avoid sidebar conversations
- Be considerate
  - Avoid monologues
  - Keep comments concise
- Respect work group decisions
  - Avoid re-opening decisions unless there is a significant quality impact

- Collaborate in support of meeting objectives
  - Ask questions
  - Be open to alternatives
- Be representative
  - Avoid personal remarks
  - Do not speak for your company or community if you do not clearly understand their needs
  - Votes should reflect the needs of your company or community



## GS1 Standards Event App – How to get it

- ① Get the App by searching your App store for "GS1 Global Events" (If you already have the Global App due to attendance at the Global Forum or Standards Event, you do not need to do this)
- Once you have the Global App on your mobile device, type GS1IS17 in the search box. Please click the orange (+) to activate the event within your application.
- Output
  State of the end of the end of the end of the event:

Username: (your registered email)

Password: 2017





### WiFi internet access

- Select "Crowne-Plaza-Free-Internet" and connect
- Password: 2017



## Agenda

- GS1 Anti-trust caution, session administration and welcome
- Meetings this week at the GS1 Industry & Standards Event
- GS1 standards in CPG creating value for trading partners and consumers
  - Pantry Trainer: enabling traceability and sustainability with GS1 standards, Ms. Linda Vezzani – GS1 Italy
  - Traceability and Cross-Border e-commerce: A Public Policy Perspective from Asia-Pacific, Mr. Patrik Jonasson – GS1
- Group discussion
  - Deployment of Global Traceability Standard version 2 (GTS2)
- Meeting close



## Consumer Packaged Goods (CPG)

Also referred to as: Fast Moving Goods (FMG), Fast Moving Consumer Goods (FMCG), Food & Beverage or Grocery

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## Consumer Packaged Goods (CPG)



#### **CPG**

(non-perishable)

A type of packaged product that is consumed or used every day. Shelf stable food and beverage (e.g. baby-food, rice, canned beans, soft drinks, confections, organics), frozen food and beverage (e.g. gelato, concentrated fruit juice, heat-and-eat entrees), beauty and personal care (e.g. cosmetics, skin care, toothpaste, baby care) and home care (e.g. fabric and air care, paper towels, cleaning products) and pet care. In this sector, food and beverage products are kept a room-temperature (referred to as ambient temperature/"shelf-stable"- e.g. crisps, canned soup, bottled water, pet food) or are intended to be refrigerated or stored frozen until consumption (e.g.-18 degrees C or below).

These products are commonly available in Grocery, Drug, Mass, Convenience and Club stores, as well from on-line retailers.





## GS1 Industry & Standards Event

CPG programme of meetings and discussions



## CPG – Monday & Tuesday

- GSMP Consumer Product Variant in the Global Data Synchronisation Network (GDSN) Mission Specific Working Group (MSWG)\*
- Lunch & Learn: Traceability
- New EU Data Protection Package
- Supply Chain 4.0: Innovative Technologies Relevant to Logistics Operations
- Mobile Ready Hero Images Workshop
- Plenary
- GSMP Mobile Ready Hero Images Mission Specific Work Group
- Standardisation in Last Mile: Improving the Customer Experience
- Global Standards in Maritime and Ports: Improving the Customer Experience



## CPG – Wednesday & Thursday

- Wednesday
  - Last Mile: Promoting Parcel Standards and GS1 ID keys
  - This session ©
  - Barcode Identification Futures OPEN TO ALL
    - Or: GS1 CPG Member Organisation (MO) Interest Group GS1 only
- Thursday
  - GS1 Innovation: Blockchain, Consumer focused Internet of Things (C-IoT) & GS1 Standards
  - The Growing Importance of International Food Trade and the Role GS1 can Play



## GS1 standards in CPG – creating value for trading partners and consumers



## The vital role of GS1 standards for the CPG sector - then

- CPG brand owners and retailers were the pioneers who identified the need for and established a common language of business. They were among the earliest adopters of GS1 standards, enabling the efficient physical flow of products - and the information about those products - throughout their supply chains.
- Over the last 40 years, consumers, brand owners and retailers have changed. Yet, the need to collect, manage and exchange quality data has remained unchanged.
   Better data has meant better service.



## The vital role of GS1 standards for the CPG sector - now

- Companies in the CPG sector understand the importance of meeting the needs of consumers and providing a modern shopping experience.
  - Over time, these companies have come to increasingly rely on quality data, and insights from that data, more than ever before in order to meet the needs of consumers, manage increasingly complex supply chains, and make smart business decisions.
- GS1 standards offer a common foundation for identification, data capture and information-sharing across their supply chains

   creating value for themselves, their trading partners and consumers.



## CPG industry needs

- 1. Industry must meet the needs of consumers for trusted information about the products they purchase - no matter how or where they shop.
- 2. Industry needs to manage increasingly complex supply chains and collaborate with trading partners to ensure the right product is at the right place, at the right time.
- 3. Industry increasingly relies on quality data to grow, reduce costs, leverage insights and manage risk.



## How GS1 standards help the CPG sector

- 1. Industry must meet the needs of consumers for trusted information about the products they purchase no matter how or where they shop.
  - The use of GS1 standards for unique, persistent identification and accurate, complete data work together to provide trusted product information.



## How GS1 standards help the CPG sector

- 2. Industry needs to manage increasingly complex supply chains and collaborate with trading partners to ensure the right product is at the right place, at the right time.
  - The use of GS1 standards delivers supply chain efficiencies and supports agility and responsiveness.

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## How GS1 standards help the CPG sector

- 3. Industry increasingly relies on quality data to grow, reduce costs, leverage insights and manage risk.
  - The use of GS1 standards results in higher-quality data at a lower overall cost and a better shopping experience for consumers.

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## Pantry Trainer: enabling traceability and sustainability with GS1 standards

Ms. Linda Vezzani, GS1 Italy



# Pantry Trainer: enabling traceability and sustainability with GS1 standards

Linda Vezzani

GS1 Italy October 11, 2017





### Agenda

- Background
- Enabling Traceability and Sustainability the Pantry Trainer Project
  - Proof of Concept
  - Benefits
  - Application Smart Store: the store of the future
  - Video
- Questions



## Background

GS1 Italy and its Lab



## **GS1** Italy

- 1978: we began with 60 member companies
- 2017: we have more than 35.000 members!
- Headquarters: Milan
  - One of the world's fashion capitals. Milan offers MANY opportunities for chic shopping
  - Home to the world's first 7 star hotel <u>Town House Galleria</u> and one of the leading opera and ballet theatres in the world (<u>Teatro Alla Scala</u>)
  - Are you ready for a holiday?
     Visit Milan ©









## GS1 Italy's work with the CPG sector

- Membership base
  - > 45% of companies belong to Food Industry
  - > 16% of companies belong to Beverage Industry
- Our objective is to be considered vital for the continuing success of our members' business



## GS1 Italy Lab objectives

- Opened as an EPC Lab in 2007, in partnership with Politecnico of Milan University, to promote the EPC and involving companies, hardware vendors, solution providers
  - In 2010, our focus was expanded to all the GS1 standards and became the GS1 Italy Lab

#### **Spreading knowledge**

#### **Activities**

#### **Pilots**

- Visitors: more than 5.000 people (more than 3.000 companies)
- Public reports and documents summarise the activities
- A ROI tool available to assess the impacts and benefits
- Hands-on tests, pilots, prototypes
- Training sessions, Demonstrations
- Assessments and technical/process analysis
- Food, Wine, Textile & Apparel, Logistics, Consumer Electronics, Railway, Automotive, Heating Industry



## Enabling Traceability and Sustainability

The Pantry Trainer Project



## Example of previous work: Global Wine Supply Chain Visibility via EPCIS Network



#### **Case Sharing**

Achieving Global Wine Supply Chain Visibility from Italy's Vineyard to Hong Kong Local Storage via Cross-border EPCIS Networks

#### Key Benefits in Wine Value Chain

#### Wine Producer

- Protect brand reputation
- Enhance relationship with foreign buyers by providing supplementary information about wine storage and transportation

#### Importer/Distributor

- · Optimize product flow visibility
- Prevent unauthorized diversion

#### 3. Retailer

- Product quality assurance by real-time temperature & humidity monitoring
- · Gain consumer trust and increase purchase confident level

#### More information:

https://www.gs1.org/docs/tl/2012 05 GS1HKItal y WinetraceabilityCase.pdf http://www.rfidjournal.com/articles/view?9665/



## Proof of Concept: Background

- GS1 Italy was asked to participate in a special project organised by Deloitte Italy to develop a new consumer app using GS1 standards.
  - The project team also included members of academia, service and solution providers

#### **Partner**

- Main partner
  - Deloitte



- The team
  - IoT Lab Politecnico of
     Milan
  - Antecs
  - Gulliver
  - ZebraTechnologies











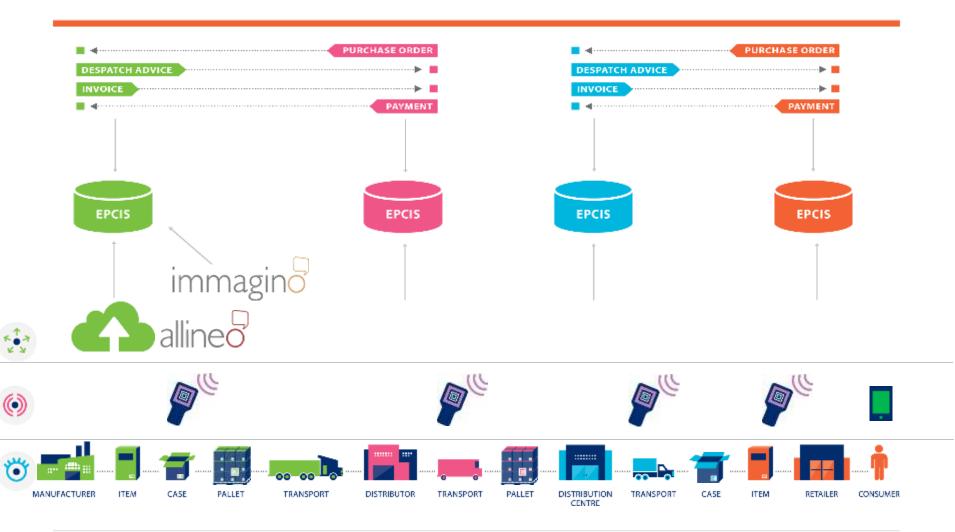
### Proof of Concept: Overview

- Project Goal: Develop a lab prototype to evaluate the BENEFITS, COMPLEXITY, PERFORMANCE (including LIMITS) for use of RFID technology along the entire supply chain
- Summary: The consumer app, called «Pantry Trainer» provides precise information about products, identified with EPC/RFID tags
  - EPC/RFID labels applied to items
  - Using an EPCIS-based scaleable platform able to manage information about the product history (including batch and expiration dates)
  - A mobile app that connects consumers with retailers and producers
    - It is a personal advisor of daily consumption
    - It supports the monitoring of one's own food expiration dates
- GS1 standards used in the solution:
  - GS1 identifiers, GS1 EPC, GS1 barcodes, GS1 GDSN, GS1 EDI, GS1 EPCIS

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## Proof of Concept: the GS1 standards involved





## GS1 Italy activities on the Pantry Trainer project

- Technical analysis, checking the technical feasibility of solutions
  - technological scouting
  - HW provider selection
  - Performance tests
- Process analysis, optimizing logistic processes with GS1 standards
  - Use case definition
  - Process reengineering with GS1 standards
- Report editing
- Advise on experience and best practices of users who have already implementing related GS1 standards
- GS1 Italy also was one of the 2 Project manager



### Proof of Concept: Results and Outcomes

#### Results – The numbers

- 10 products tested: 3.034 items and 416 cases tagged
- 15 types of RFID labels tested: tests with and without products
- 5 RFID gates
- 3 readings configurations analysed
- About 1.500 tests performed

#### Outcomes

- Detailed report
- Prototype demo at GS1 Italy Lab

"In the Pantry Trainer Project, we leveraged the benefits of all GS1 standards related to product identification and data exchange (master data, transactional data, event data), as well as business processes such as order-payment cycle documents management and enabled real-time products track & trace with RFID technology." - Massimo Bolchini, Standards Development Director, GS1 Italy



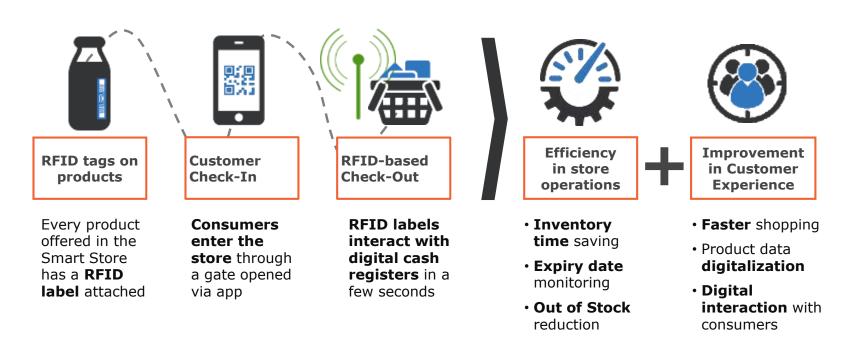
## Proof of Concept: Benefits for the whole supply chain

- Increased operations efficiency
- Product traceability and visibility in the supply chain
- Sharing information among the supply chain players
- Easier recall of batches or serial numbers
- Chain of custody precise monitoring
- Enhancing consumer engagement
- Food waste reduction with discounts on expiring items at check out for better sustainability



## Smart Store: the supermarket of the future

- Deloitte Italy and GS1 Italy worked together to implement the last step of the Proof of Concept Supply Chain
- With the support of a multinational retailer, a new concept of supermarket based on RFID technology has been designed and tested





## Video



### More information

Pantry Trainer Video: <a href="https://www.youtube.com/watch?v=Zj-z5sGS4gc">https://www.youtube.com/watch?v=Zj-z5sGS4gc</a>
 English subtitles available

#### Articles:

- <a href="http://tendenzeonline.info/articoli/2017/03/09/con-pantry-trainer-internet-things-e-di-casa/">http://tendenzeonline.info/articoli/2017/03/09/con-pantry-trainer-internet-things-e-di-casa/</a>
- <a href="http://tendenzeonline.info/articoli/2017/06/29/pantry-trainer-la-dispensa-sotto-controllo-con-gli-standard-gs1/">http://tendenzeonline.info/articoli/2017/06/29/pantry-trainer-la-dispensa-sotto-controllo-con-gli-standard-gs1/</a>

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### Questions?





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# Traceability and Cross-Border e-commerce: A Public Policy Perspective from Asia-Pacific

Mr. Patrik Jonasson, GS1





## Traceability and Cross-Border e-commerce

A Public Policy Perspective from Asia-Pacific

Patrik Jonasson



### The Context and Key Trends of Today's **Food Supply Chain**

#### Lack of Trust

Food safety incidents are leading to new customer behavior and stricter requirements from Government

#### **Food Trade Facilitation**

Food supply chains are internationalized with increased complexities, lower tariffs but increase in NTBs

#### **Data – Enabled Technologies**

Technology is more accessible and affordable, driving change in how the food system operates

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### China Food Safety Regulatory Landscape is Evolving

### Food trade is regulated in China by the Food Safety Law

- The Law came into effect in October 2015 and is still evolving through various implementing regulations
- The Law and its implementing regulations will impact traditional food trade, retailing
- But also e-commerce food trade, including crossborder e-commerce

SOURCE: McKinsey, Survey, April 2016: How savvy, social shoppers are transforming Chinese e-commerce, By Kevin Wei Wang, Alan Lau, and Fang Gong http://www.mckinsey.com/Industries/Retail/Our-Insights/How-savvy-social-shoppers-are-transforming-Chinese-e-commerce?cid=other-eml-alt-mip-mck-oth-1604

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# Direct Results of the Implementation of the new Food Safety Law

**Stricter requirements and enforcement from Chinese** 

Government





### Article 42 in Food Safety Law Outlines Stricter Traceability Requirements

"Country to establish food safety traceability system: Food producers and operators should establish food safety traceability system ...to ensure the food traceability."

- Traceability system(s) is required to be established throughout China, with farm to fork traceability to guarantee food safety
- A fragmented implementation of traceability systems run by local governments is taking place
- GS1 China is working with local governments in 11 regions to support GTIN and GTIN+batch number as the key of local traceability platforms, to get access to product information, producer, specification and product flow



## GS1 standards for goverment supervision in Jiangsu Traceability Platform



Jiangsu FDA established food safety platform supports GTIN, GTIN+LOT, GTIN+Serial number, products includes liquor, meat, etc. more than 1000 enterprises use the platform to track and trace



## GS1 standards for goverment supervision in Guangdong Traceability Platform



Guangdong FDA food safety traceability platform support "GTIN+Produce date/lot"; Including Dairy products, infant milk powder, edible oil, aquatic products, etc.



### GS1 standards for goverment supervision in Shanghai Traceability Platform



Shanghai FDA food safety traceability platform enables consumers to inquiry on traceability information through inputting GTIN (商品条) and lot/batch number ( 批次号) to get access to product information, producer, specification and product flow.

最近三笔进货			
批次号	生产日期	采购日期	
20150922	2015-09-22	2015-11-05	
20150402	2015-04-02	2015-11-05	

## New Chinese Regulation Referencing GS1 for Supply Chain and Traceability Improvements

Ministry of Commerce and Ministry of Finance statement 337:2017\* aiming to standardize logistics and construct product traceability system

- 17 regions/cities in China will start supply chain standardization development, to improve supply chain efficiencies and implement the traceability system.
- Focusing on meat and vegetable, Chinese medicine, drugs, ecommerce products, FMCG products
- Statement clearly referencing GS1 Standard, GS1 China is cooperating with Government on development and implementation



### Introduction of APEC pilots

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## What are the supply chain issues we have tried to address in APEC region?

Poor visibility and traceability of goods moving along international supply chains are counter to the APEC principles of trade facilitation

- Five pilot projects aimed to show how the use of GS1 for seamless data sharing between trading partners could ensure:
  - supply chain integrity (anti-counterfeit and product quality)
  - visibility of product ensuring traceability and
  - removal of manual processes to ensure improved efficiencies
- These are all crucial for improving trade facilitation in the APEC region, especially when good are traded across borders



### Pilot Findings

Boxed Beef Australia-US:

Automation saved 1,000 hours of manual work

Wine
AustraliaHong Kong:

Improved tracking achieving 100% delivery in full on time

Tequila
Mexico-US:

100%
Supply
Chain
Visibility
Achieved

Durian Malaysia-China/ Hong Kong:

Time Spent on Tracking Goods Reduced by 98% Asparagus Peru -US:

Logistics
Processing
time
Reduced
by 20%

- Final report to be published by APEC with research findings
- Asia-Pacific MOs
   want to accelerate
   work and
   commercialise use
   of GS1 standards at
   the border



### **Key Strategic Opportunities in the Asia-Pacific context**





# What is next? We need to generate real value...

GDS 2.0 aims to achieve the broad adoption of GS1 standards at the border by Government agencies

This can be achieved by matching GS1 members' business needs to regulatory requirements

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# Proposed bilateral trade routes and products

Australia - China







Thailand - Hong Kong





New Zealand - China





New Zealand -Malaysia







### Patrik Jonasson

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### Group discussion

Your input to improve deployment of Global Traceability Standard version 2 ("GTS2")



### Global Traceability Standard version 2

- Developing standards is a significant investment of industry's time.
  - GS1 partners with industry in the process (GSMP).
- At GS1, we also partner to deploy standards and drive adoption and use of standards with existing users and new users.
  - Today, we would like to obtain input from industry on topics related to WHAT and HOW we deploy GTS2 to the Fresh Foods industry globally



## Use cases (scenarios, reasons) - traceability Validate and identify others that may be missing

- Provide product information "freshness", best-before date, expiry date across the physical and digital shelves
- 2. Provide product information enable unique, persistent product information including ingredients (what, source) and potential allergens across the physical and digital shelves
- 3. Recall locate where unsafe product may be in the supply chain
- 4. Recall support activities (communicate- internally and across companies, locate, return/ destroy) to remove unsafe product from the supply chain including post-purchase

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5. Comply with regulations - communicating to the consumer



### Use cases (scenarios, reasons) - traceability

Validate and identify others that may be missing

- 6. Comply with regulations demonstrate/ validate "doing business" meets requirements of regulations
- 7. Anti-counterfeit product authentication
- 8. Anti-counterfeit brand protection
- 9. Supply chain vision to sources of supply, information about the supplier(s)
- 10. Supply chain visibility to the physical flow and the information flow of a product or shipment
- 11. Supply chain cold chain integrity (e.g. food storage, temperature control)
- 12. Supply chain expedite cross-border trade (customs, product/shipment/transport documents match physical product and electronic information, validate chain-of-custody)



### Use cases (scenarios, reasons) - traceability

Validate with MOs and identify others that may be missing

13. Comply with trading partner requirements – demonstrate/ validate "doing business" meets requirements

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14. other?



### Group discussion- traceability use cases

- Please review the list of traceability use cases that we have identified. (5 minutes)
- As a group, please discuss this list with the goal of identifying if there is something important that is missing? (15 minutes)
  - Write down any use case that you think is missing.
- Share what you identified as missing.



### Concluding remarks



### How GS1 standards help the CPG sector

- The use of GS1 standards for unique, persistent identification and accurate, complete data work together to provide trusted product information.
- The use of GS1 standards delivers supply chain efficiencies and supports agility and responsiveness.
- The use of GS1 standards results in higher-quality data at a lower overall cost and a better shopping experience for consumers.

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# GS1 standards to meet the needs of industry in the future

 According to senior industry executives interviewed for the 2013 "The Future of Standards in the Consumer Goods & Retail Industry" report:

"The near-future of standards will focus on going back to the basics to leverage the existing standards and improve data quality, with the ultimate goal of **providing enhanced service to consumers in a more complex world.**"

This includes a need for new standards than enable more complete, more granular identification and sharing of consumer information.



# GS1 standards to meet the needs of industry in the future

- In addition to recently ratified GS1 standards such as GS1
   UniqueID GTIN Management Standard, GS1
   SmartSearch, GTS2 and new Mission Specific Working
   Groups (MSWG) for GS1 UniqueID Consumer Product
   Variant and Mobile Ready Hero Images, we are working together across GS1 on key strategic initiatives to build the future of GS1.
- As CPG companies look to the future, they must consider complete and accurate data as an asset for their business.
   Better data still means better service.



### Thank you!

Please complete the session survey in the Event App



#### **Contact Information**

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### **GS1 Xchange:** Where collaboration meets community

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#### **User benefits include:**

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- Easy navigation between different communities
- Improved experience

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**Did you know? The Daily Scan** is the new welcome page on the GS1 Xchange platform, providing you with up-to-date GS1 news and information.



**Join us!** Experience this modern approach to news, with cutting-edge features such as:

- Timely retail & standards' news for GS1 members
- Quick access to your GS1 portals
- News sorted & tagged by category
- Shareable & downloadable content through social media
- Translation function
- Weekly digest...and more!









