

The Global Language of Business

### GS1 Standards Event – A digital experience

Future of On-Pack Coding

Steven Keddie & Kevin Stark

June 2020



# 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: <u>http://www.gs1.org/gs1-anti-trust-caution</u>.



# Meeting etiquette

Be present Avoid multitasking	<b>Be considerate</b> Silence phones Keep comments concise
<b>Be collaborative</b> Ask questions Be open to other views	<b>Be professional</b> Speak on company's behalf







# Working together to achieve more

### We achieve more as one GS1.



# Today's Line Up!





Background on Strategy



Deep dive into Colruyt & the GS1 BELU Implementation



Deep dive into Woolworths & the GS1 AU Implementation



A&E Workstream 2020 Near-term deliverables



NSE Workstream 2020 Near-term deliverables





# Future of On-Pack – phases





# **Need for Strategy**





### https://www.gs1.org/docs/barcodes/The-Barcode-(r)Evolution.pdf

# Poll 1: What's the goal of this work?

[Select only one answer]

- 1) Enable GS1 Digital Link in everything
- 2) Put a QR code on every pack
- 3) Push everyone to GS1 DataMatrix
- 4) RFID or NFC in on every product
- 5) "One Barcode to rule them all"
- 6) Create guidance to industry for what to do on-pack based on use cases
- 7) I don't know Steven, that's why I'm here...



Polling 1: Goal of the Future of On-Pack Coding	~
Polling is closed	58 voted
1. What's the goal of this work?	
Enable GS1 Digital Link in everything	(3) 5%
Put a QR code on every pack	(1) 2%
Push everyone to GS1 DataMatrix	(1) 2%
RFID or NFC in on every product	(1) 2%
"One Barcode to rule them all"	(10) 17%
Create guidance to industry for what to do on-pack based on use cases	(33) 57%
l don't know Steven, that's why I'm here	(9) 16%



# WHY: Future of On-Pack Coding Strategy

- Problem Statement: The proliferation of barcodes and other methods of identification on products and things causes confusion to consumers and trading partners, who expect a seamless experience of connecting products and things to relevant experiences in the digital world.
- GS1 must make it possible for "all products and things to serve as sources of data for the companies that manufacture, transport and sell them."





## Vision

en same

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Visual Journey GS1 Future of On-Pack Coding

GS1 will provide an informed, forward looking, appoach for stakeholders to consistently and efficiently, implement on-pack coding (barcodes, tags, etc.) That enables products or objects to serve as unambiguos Sources of information, built on top of foundational standards for continued interoperabilitybetween trading partners. 10000

Maçãs

昆布ほん社

# Future of On-Pack Coding - Challenge





# Future of On-Pack Coding - Vision

**GS1** will provide an informed, **forward looking** approach for stakeholders to **consistently and efficiently implement on-pack coding** (barcodes, tags, etc.) that enables products or objects to serve as unambiguous sources of information, **built on top of foundational standards** for continued interoperability for value chains.



# Future of On-Pack Coding Strategy

The strategy work is comprised of:

- Global inputs leveraging MO research, pilots, implementations as well as Digital Link work.
- Engaging across our communities for insights, trends, and business needs (50+ industry interviews).
- Identifying key workstreams and deliverables needed to achieve the vision and objectives over the next 3 years.





# Poll 2: What do you think are the top use cases that benefit from including additional data into an on-pack barcode?

### [Select your top 3 answers]

- 1) Preventing sale of expired products
- 2) Managing targeted recalls
- 3) RCN transition to GTIN for variable measure products
- 4) Reducing food waste
- 5) Regulatory compliance
- 6) Improved inventory management
- 7) Consumer engagement with products
- 8) Product traceability
- 9) Other

10) Steven, I already told you: I don't know...that's why I'm here!



Polling 2: Top Use Cases	~
Polling is closed	56 voted
1. What do you think are the top use cases that benefit from including additional data int on-pack symbol? [pick 3] (Multiple choice)	o an
Preventing sale of expired products	(21/56) 38%
Managing targeted recalls	(17/56) <b>30%</b>
RCN transition to GTIN for variable measure products	(12/56) 21%
Reducing food waste	(15/56) 27%
Regulatory compliance	(12/56) 21%
Improved inventory management	(18/56) 32%
Consumer engagement with products	(31/56) <b>55%</b>
Product traceability	(35/56) <b>63%</b>
Other	(1/56) 2%



# GS1 US Research: Powering the Future of Retail

#### Summary

- 2018-2019 research effort:
  - Research industry's appetite to move beyond EAN/UPC at point-ofsale (POS) and identify key obstacles and constraints to adoption.
  - The 2018 research focused on Tier 1(\$1B+) while the 2019 research captured the whole market by focusing on Tier 2(\$100M-\$1B) and 3(\$10M-\$100M)
- The full paper has been published-<u>https://www.gs1us.org/future-of-retail</u>

### **Key Learnings**

- ▶ 87% of handheld sales in 2019 were for optical scanners<sup>1</sup>
- While required hardware in market is nearing critical mass, the ability to process encoded data continues to need further development and integration throughout systems to reap potential benefits
  - ▶ e.g., POS systems, back office integration, analytics platforms
- To best address key challenges, the focus should be on standardized data as opposed to identifying a single data carrier. Data carrier options will continue to evolve with industry over time and are unlikely to be one-size fits all.
- While nuances exist across stakeholder groups, overall motivations and hurdles are similar, allowing for alignment on a potential 5-year transition

USA

Retail focused (not Healthcare) ✓ Research□ Pilot□ Invaluence

#### Implementation





### **Next Step Details**

- The research paper findings will be used to foster communication between trading partners to better understand the needs and benefits, leading to increased engagement on what next steps will look like.
- US industry can begin moving forward with the adoption of data rich data carriers
- A minimum 5-year dual marking period with EAN/UPC will be necessary
- GS1 US to develop initial, US market guidance for 2D at POS implementation in 2020



Source: <sup>1</sup> VDC Research's 2019 Handheld Barcode Scanner Ideas and Insights Report <sup>2</sup> Beyond the U.P.C. Research

The Global Language of Business

# Use case Deep Dive





### Variable Measure Items at POS Pilot: Replace RCNs

#### Use Case

- . Key Driver: replace the use of RCNs for fresh foods with a 2D code that can enable variable weight items to be scanned at POS. Additional interest in increasing product traceability with the suppliers and food waste management. 3 retailers (400+ shops), 10+ suppliers and 1000+ GTINs
- Data encoded: (GTIN & weight on all; others vary by product) GTIN Weight Price to Pay Best Before Batch Number

#### Key Learnings

- Required updates to software, label, printer firmware More encoded data, smaller size and better readability of the GS1 DataMatrix beneficial for all stakeholders
- · Scanning speed similar to EAN and faster than GS1 DataBar or GS1-128
- Handheld scanners fairly easy to implement: flatbeds more difficult (multiple barcodes on the label) and require scanner scripting

Vegetables

Cheese

- Staff training very important
- General interest in Digital Link Fresh meat & fish



□ Research

Pilot

□ Implementation



#### GS1 DataMatrix on fresh vegetables Note: Colruyt & Makro using GS1 DataMatrix, Carrefour using GS1 DataMatrix with EAN-13 # Products Open ecosystem **GS1** DataMatrix Closed ecosystem

https://www.youtube.com/watch?v=Y VHkJHGSxk

□ OR Code

Other

### Woolworths: 2D Pilot at POS

#### Use Case . Key Driver: enable new business cases with use of more granular data in a compact symbology (waste reduction, reduce # of symbols, traceability, inventory management, targeted recalls, etc.) . Looking to extend learnings from improved use of GS1 DataBar in loose produce · Data encoded: + GTIN Best-Before / Use-by Price (Variable Measure) - Batch / Lot Number Weight (Variable Measure) Key Learnings · Phased roll-out: Short-term trial with 2 meat suppliers (10 SKUs total: variable & fixed weight) starting August 2019 across 6 supermarkets for 5 When scanned at the point of sale, customers will be alerted that weeks the product is past its expiry date and the system won't allow the · Medium-term expansion to all store fleet (1,000 stores) and urchase expand to top 50 meat suppliers (optional participation) Woolworths press release, 24 May 2019 Research C OR Code Fresh meat & Open ecosystem Pilot **GS1** DataMatrix Poultry Closed ecosystem Implementation C Other The Global Language of Business @ GS1 2020



### Variable measure items scanned at POS In Belgium & Luxembourg

GS1 Standards Event

Karen Arkesteyn – Innovation Manager & Product Specialist GS1 Belgium & Luxembourg 24<sup>th</sup> of June 2020





# Greetings from Belgium!







### Scanning at POS

- Use of EAN-13 barcode
- Usually contains a Global Trade Item Number (GTIN) with a GS1 Company Prefix



- However, no price or weight can be "integrated" within a GTIN
  - $\rightarrow$  needed another solution for variable measure items
  - $\rightarrow$  national/internal solution with a restricted circulation number (RCN)



# Background

### **RCN** as initial solution

• Item packaged/labelled by supplier  $\rightarrow$  13-digit **national number** assigned by GS1



• Item packaged/labelled by retailer  $\rightarrow$  13-digit **internal number with 02 or 20-27** 





### Limitations to use of RCN







### **Goal = 1 GTIN for 1 product for all retailers for all countries**



# Background

### New solution = standardization

- Move from RCN to GTIN (<u>Global</u> Trade Item Number)
- Move from EAN to barcode with Application Identifiers
  - Traceability
  - Transparency
  - International data exchange
  - E-commerce
  - Food safety

. . .

- Food waste management
- Use of universal B2C apps



# Launch Work Group

- Participants: retailers, suppliers, solution providers, GS1 MOs, federations, ...
- Discussed possible data carriers to encode GTIN + dynamic info (weight) with Application Identifiers, for ex
  - GS1 DataBar Expanded (used for coupons)
  - GS1 DataMatrix
  - GS1 QR Code
- GS1 no preference for data carriers
- Unanimous decision by WG: **GS1 DataMatrix** as data carrier





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# Launch Work Group

Unanimous decision by WG: GS1 DataMatrix as way forward



**PRO** Much smaller Higher readability Contains more data **CONTRA** Not yet implemented Requires image based scanning

- Analysis of impact on procedures, budget and other stakeholders in the supply chain
- Supported by Board of GS1 Belgilux
- At that time, 2D at POS not yet approved as GS1 standard but "go" for pilots





# Project current status

Move from **RCN to GTIN** (GS1 Belgilux initiative) Move from **1D to 2D** barcodes (WG initiative)



# Project current status

- "Use of GS1 DataMatrix and GS1 QR Code scanned at retail POS for variable measure items" approved as global standard since 2019
- In agreement with trading partner
- More and more retailers are piloting in Belgilux





# Findings – successes 2D

### Supplier

- Small size, less space on label needed and more space available for e.g. marketing
- Possible to encode a lot more than GTIN (e.g. traceability information), fewer manual intervention
- Better readability of barcode (error correction algorithm) = fewer fines at retailer's

### Retailer

- Better readability of barcode = fewer delays at Point-of-Sale
- 2D scanning equal to better than 1D scanning = faster at Point-of-Sale
- Possible to encode a lot more than GTIN (e.g. expiry date for inventory and food waste management)
- Use of handheld scanners
- = faster 2D implementation

### **Solution provider**

- Improved technology (e.g. scanner scripting) and service
- New scanners almost always include 2D option



# Findings – obstacles 2D

### Supplier

- Will need to adapt to retailer's scan abilities
- Want to expand scope to fixed weight
- Lack of technical knowledge leads to incorrect barcodes

### Retailer

- Not easy to involve franchisees/small retailers
- Miscommunication with suppliers (e.g. wrong type of barcode)
- Difficult to define ROI
- Use of flatbed scanners requires scripting and strategy to tackle issue of `multiple barcodes on one label'
- Want to expand scope to coupons, fixed weight

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U	0		

- Belgium ≠ Luxembourg,
  2 countries and 5 languages
- Restructuration and Covid lead to in-and-out commitment
- Pioneer, no examples (no neigbouring countries) to follow
- No Application Identifier for Price/kg yet



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# Project current status

- Retailers at different pace
  - Goal is to reach sunset date for national numbers 1<sup>st</sup> of January 2022 → move to GTIN
  - AND to allow them to implement preferred solution:
    - GS1 DataMatrix
    - OR GS1 DataBar Expanded (Stacked) → move to 2D
- Ongoing activities GS1 Belgilux to support impacted stakeholders
  - Survey for market readiness
  - Guidance and support (e.g. overview of retailer implementations for suppliers)
  - Communication (e.g. information sheets)
  - Training (e.g. technical barcode specifications)



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# Pilot Colruyt Group





# Pilot Colruyt Group














- Working with **16** suppliers
- More than **1500** products rolled-out at







239 shops - 100%

29 shops - 100%

141 shops - 100%



## **Impacted stakeholders**

- Purchasing department
- Reception goods
- Service center product information
- Packaging department
- Knowledge center sales
- Employees shops
- Order pickers
- IT department
- External Partners (supplier)

- -> Involvement high.
- -> Involvement low.
- -> Involvement high.
- -> Involvement high.
- -> Involvement high.
- -> Involvement low.
- -> Involvement low.
- -> Involvement high.
- -> Involvement high.

- Motivation good.
- Motivation good.
- Motivation great.
- Motivation great.
- Motivation good.



## **Findings**

### "Less is more:

- Less internal or national solutions, more global solutions
- Less space for the barcode, more space for marketing
- Less printing issues, more readability
- Less barcode, more barcode data"



## **Next steps**

- Get internal production lines (for variable measure products) ready to print GS1 Datamatrix
- Convert all remaining products with GS1 Databar (GTIN / Weight) to GS1 DataMatrix (GTIN / Weight / Best Before and later on Batch number)
- Obstacles to conquer:
  - Multiple barcodes on one label
  - No Application Identifier yet to encode price/kg in barcode -> Work Request GSMP



# **Woolworths Food Group**

Variable measure items scanned at POS Future of On-Pack Coding



Roberto Olivares – Program Lead Data Embedded Barcode

GS1 Digital GSMP 24 June 2020

### Founded in 1924, Woolworths Group is the largest retailer in ANZ region

- More than 3,000 stores across Australia and New Zealand
- **Stores span food, drinks, and general merchandise**
- Serve 28 million customers per week
- Employ 200,000 people
- ❑ Australia's largest domestic online retailer



### Some of the Woolworths Project Team – Wide Business Representation



Chan Ratnapala Head of Quality - Fresh Food and Customer Sensory



Ram Akella Business Partner, Technology Woolworths Food Group



Scott Kemble Snr Project Manager IT



Roberto Olivares **Program Lead** Data Embedded Barcode



Allison Hackshall Head of Business Support Services



Jennifer Keegan Head of Merchandise Portfolio Delivery

# We have identified a number of drivers that require more granular data, higher data capacity and compact symbology size.

## Voice of:

Customer	Supplier	Woolworths
<ul> <li>Waste reduction</li> <li>Provenance (Traceability)</li> <li>Food Safety - Prevent sale of expired/unsafe items</li> <li>Product attributes - Gluten Free, allergens, Organic, Sustainability</li> </ul>	<ul> <li>More targeted Product Recalls / Withdrawals</li> <li>Waste reduction</li> <li>Food Safety</li> <li>Promote value proposition - Provenance, Quality, Sustainability, Organic.</li> </ul>	<ul> <li>Quality Management &amp; Food Safety</li> <li>Waste reduction</li> <li>Improved Inventory management</li> <li>Simpler Store processes</li> <li>Promote value proposition - Provenance, Quality, Sustainability, Organic.</li> </ul>

### **Enabling the use of Data Embedded Barcodes at POS**



### GS1 DataMatrix



Human Readable GTIN only printed with the GS1 DataMatrix

- SCO/POS Equipment
  - Enable equipment to read and decode GS1 DataMatrix and DataBars (Ignore Plain Text DataMatrix)
  - Upgrade scanners (old equipment)
- POS System Core (NCR)
  - Use **GS1 Data Standards** and it's Application Identifiers (AI's)
  - System integration of Use-Cases Master Data, Back-End system, and Other support systems.
- Build Elapsed Time for POS Systems ~3 months including System Testing. Back-End systems to achieve E2E flowthrough of embedded data requires more time.

Embedded Data	(AI)
GTIN	(01)
Sell Price (Variable Weight items only)	(3922)
Actual Weight (Kg) (Variable Weight items only)	(3103)
Use by Date Best Before Date	(17) (15)
Batch / Lot #	(10)

### What we set out to achieve with Data Embedded Barcodes

### "Enable the use of GS1 DataMatrix barcodes in AU and NZ, and trial in 12 stores in September 2019"

### Data Embedded Barcodes



### Supplier:

• Ability to print GS1 DataMatrix barcodes and encode Weight, Expiry date and Batch/Lot ID

### Application:

- POS to process embedded data in GS1 DataMatrix:
  - Weight for Variable Weight articles
  - Prevent Sale of Expired item.

### **Equipment:**

• Manned Registers, Self-Checkouts and Mobile devices to read GS1 DataMatrix only.



### GS1 DataMatrix on Meat & Poultry: Key Findings







### Customer:

- No comments on new barcode when scanning at ACO's Only one barcode.
- Customer ability to adapt to new barcode appears seamless.

### Supplier:

- Education on the use of GS1 Standards
- Barcode testing and verification Barcode Apps
- 2 barcode types in Product Standards and Verification Reports
- Configuration of printing technology
- QA opportunities to create and encode a Batch ID with date, line, packer ID, plant ID
- Larger DM barcodes doesn't mean better scanning at POS

#### Store Team:

Positive feedback regarding embedded Weight and Use-by date and enquiring about future articles with the new 2D barcodes

### Learnings:

- Suppliers knowledge and understanding of the use of GS1 Standards and Application Identifiers.
- POS and ACO hardware types and variations -Imager technology





## **Next Enabling Steps**

01	Pilot GS1 DataMatrix in NZ	Replicate pilot in NZ stores.
02	Implementation of GS1 DataMatrix	<ul> <li>Fresh Food implementation of GS1 DataMatrix barcodes - Meat, Poultry, Seafood, Produce</li> <li>Packaging design review for new GS1 DataMatrix</li> <li>Define a road map of implementation in other Categories such as Dairy, Perishables, Groceries</li> </ul>
03	Expiry Date Management	Develop the framework and systems to manage inventory by expiry date
04	Targeted Recall/Withdrawal Management	<ul> <li>Configure systems to consume Batch/Lot ID</li> <li>Define the store process to manage targeted recalls/withdrawals</li> <li>Test/Pilot targeted recall with a Supplier partner.</li> </ul>
05	Traceability Framework	<ul> <li>Define the Traceability Framework</li> <li>Test/Pilot Traceability systems and processes.</li> </ul>

### **Supplier Readiness Suggestions**



# **Next Steps for Aust/NZ Industry**



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## Full circle back to point-of-sale





## **Observations & Findings**

- 2D Codes already commonplace
  - QR Codes
  - Datamatrix
  - GS1 Datamatrix
- Small number of products with GS1 Datamatrix in addition to EAN/UPC data carrier but with different GTINs





# **Engagement & Collaboration is Essential!**





# Aust/NZ Data Embedded Barcode Industry Group

- Formed in July 2019 to discuss local and global industry implementations and pilots
- Link into MO and Global Initiatives including FoOPC
- Chaired by Industry
  - Jennifer Keegan (Retailer)
  - Mark Dingley (Solution Provider & Industry Association)
- Industry Engagement
  - Identification and communication to all stakeholders in the supply chain
  - Consensus for an industry implementation roadmap
- To date over 140 contacts are on the working group distribution list representing retailers, suppliers, solution providers and industry associations





Poll 3: How do you see a further 2D implementation on a global level for all products at POS (not just fresh foods of variable measure)?

[Select only one answer]

2D will be hip and happening within 3 years' time
 2D is the future but it will take 3 to 5 years
 2D is the future but it will take 5 to 10 years
 No way Steven, 2D is not the future!
 Like I told Steven... "I have no idea"



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Polling 3: Possible timeframe for 2D symbols at Point of Sale	~
Polling is closed	47 voted
1. How do you see a further 2D implementation on a global level for all products at POS ( foods of variable measure)?	not just fresh
2D will be hip and happening within 3 years' time	(13) 28%
2D is the future but it will take 3 to 5 years	(16) 34%
2D is the future but it will take 5 to 10 years	(14) 30%
No way Steven, 2D is not the future!	(1) 2%
Like I told Steven "I have no idea"	(3) 6%



# Han Xin Code

### The application of Han Xin code Chong Qing Lifan Automobile Corp..

- Mainly studied the whole process of auto parts products quality tracking in automatic information acquisition, information integration, information coding, key technologies such as unified coding of parts (accessories).
- Implemented based on integration of Han Xin code identification, and constructed the whole process of auto parts products quality traceability system, realize the whole process of auto parts products quality and safety control and quality traceability.







# GS1 HK: Migration of "Real Barcode" to 2D "Real QR"

#### **Use Case**

- Key Driver: enable a more "consumer friendly" code to enable app-based product authenticity in a 2D code
- > 10 suppliers and 240,000 GTINs
- Data encoded:
  - GTIN & sGTIN
  - Microprinted pattern overlay (proprietary)



#### https://epcis.eztrack.org?01=9916680000029&21=12345678

### **Key Learnings**

- Initiated work in 2017...prior to Digital Link Standard
- Starting to migrate to Digital Link
- ▶ Significant uptake on solution adoption after the use of 2D barcode



### Illustrative examples of the GS1 HK REAL QR





## Japanese convenient stores: METI project

### **Use Case: automatic stores**

- Enable real time marketing based on customer's behavior and item's attributes (expiry date,...)
- Digitalization of Product Inventory via Smart Shelf and smart refrigerators
- > Dynamic Pricing via Coordination with Supply/Demand and Expiry Data
- Cash Register-less, Cashless, Receipt-less via "Walk Through" Settlements (also works as anti-theft system)
- Source tagging (RFID tags attached to products by the manufacturers)
- EPCIS and GS1 encoding standards

### Key Learnings & next steps

- EPCIS for data sharing
- ▶ Tag resistant to microwave with improvement of read accuracy
- Embedding tags in packages Printed implementation
- Improvement of encoding efficiency
- Reduce tag's price (1cent)



Japan FMCG	<ul> <li>✓ Research</li> <li>✓ Pilot</li> <li>□ Implementation</li> </ul>	<ul> <li>✓ WiFi</li> <li>✓ UHF RFID</li> <li>✓ Camera</li> </ul>	<ul><li>✓ Open ecosystem</li><li>□ Closed ecosystem</li></ul>	# Products
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© GS1 2019

## GS1 US Digital Link POC

### **POC and Standards Update**

- GS1 US, GS1 GO, P&G, Avery Dennison, and Walmart
- Goals:
  - Show value of more granular identity across the retail ecosystem.
  - Show relevance and a value proposition for each stakeholder including Suppliers, Retailers, Consumers, and Technical Providers
  - · Demonstrate the value of standards.
- Apps scanned QR with embedded Digital Link providing different experiences from one URI.
- Next steps: share learnings and business recommendations and plan a phase 2 pilot.

#### A Few Key Learnings

- ROI is important to determine priority use cases for implementation, for example recall and expiry date management have high ROI potential, customer engagement equally important.
- Alignment may be needed between batch/lot and serial numbers if resolvers are shared.
- Implementation better with B2B data aligned on a regular cadence to ensure POS response maintained as well as in other areas.
- This stuff works!



### One Barcode, Multiple Experiences at Multiple Touchpoints

USA CPG Focused	<ul> <li>□ Research</li> <li>✓ POC</li> <li>□ Implementation</li> </ul>	✓ QR Code	<ul> <li>□ Open ecosystem</li> <li>✓ Closed ecosystem</li> </ul>		<b># Products</b>	s 1k 10k+
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### Update: 15 01 2020

## Strategic Workstreams





Paul Reid GS1 UK

# Madalena Centeno GS1 Portugal



Deliver a future state where MOs are **empowered** with information, guidance and tools to **help guide** Stakeholders into the **future of on-pack coding**.

Align a global message within the GS1 Community – speak as "One GS1".

## Raise Awareness and Help Educate our Community

<b>V</b>	Awareness & Education	Inform our GS1 community on uses cases, research, regulations and deliver new decision tools enable consistent implementations
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## **Deliverables 2020**

- Stakeholder Map Who is doing what within the GS1 Community.
- *Survey* to identify the FMCG's needs
- Identify Key Messages
- Create a Use Cases Library
- Develop and/or leverage on existing tools to help guide our community
- Decision Tree to understand what information a user would like to include in its product and using which data carrier.





## Benefits





# Awareness and Education: Workstream Team



News	NO	Dele	Nome	NO	Dele
Name	MO	Role	Name	MO	Role
Kevin & Steven	GO	Project Managers	Luiz Costa	GS1 BR	Core Team Member
Paul Reid	GS1 UK	Workstream Co-Lead	Ricardo Melo	GS1 BR	Core Team Member
Madalena Centeno	GS1 PT	Workstream Co-Lead	Andrew Steele	GS1 AU	Core Team Member
Amber Walls	GS1 US	Core Team Member	Marie Holm	GS1 DK	Core Team Member
Karen Arkesteyn	GS1 BELU	Core Team Member	Mads Kibsgaard	GS1 DK	Core Team Member
Anne-Sophie Huygens	GS1 BELU	Core Team Member	Tatyana Dyadyushko	GS1 G0	Core Team Member
Katrina Gao	GS1 CN	Core Team Member	Philippe Neirinckx	GS1 GO	Core Team Member
Jiangfeng Qiu	GS1 CN	Core Team Member	Elena Tomanovich	GS1 G0	Core Team Member
Yanis Zhi	GS1 CN	Core Team Member	Timothy Marsh	GS1 GO	Core Team Member
Andrea Arozamena	GS1 MX	Core Team Member			
Eduardo Nuñez	GS1 MX	Core Team Member			
Rocio Rivera	GS1 MX	Core Team Member			
Sergei Andreyuk	GS1 RU	Core Team Member			
Leong Kah Leon	GS1 MY	Core Team Member			



Poll 4: What is the current level of awareness across your Organisation with regards to the work we (FoOPC team) are doing?

[Select only one answer]

- 1) High
- 2) Medium
- 3) Low
- 4) None







# Poll 5: How best could we support raising the level of awareness of the FoOPC work across your Organisation?

## [select all that apply]

- 1) Targeted email updates (e.g. to CEO or other)
- 2) MO zone collateral
- 3) Webinars
- 4) PowerPoint decks
- 5) FAQ documents
- 6) Updates at GS1 events (Regional Forums, Global Forum, Standards Events)
- 7) Education 'roadshow'
- 8) Use case library
- 9) Other (type your ideas/needs in the chat box)



Polling 5: Raising Awareness	~
Polling is closed	45 voted
1. How best could we support raising the level of awareness of the Future of On-Pack Codi across your Organisation? (Multiple choice)	ing work
Targeted email updates (e.g. to CEO or other)	(17/45) 38%
MO zone collateral	(16/45) 36%
Webinars	(36/45) <b>80%</b>
PowerPoint decks	(24/45) 53%
FAQ documents	(21/45) <b>47%</b>
Updates at GS1 events (Regional Forums, Global Forum, Standards Events)	(26/45) 58%
Education 'roadshow'	(16/45) <b>36%</b>
Use case library	(30/45) <b>67%</b>
Other (type your ideas/needs in the chat box)	(1/45) 2%



# Amber Walls GS1 US

# Sue Schmid GS1 AU





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New Stakeholder Engagement – Purpose

- Create meaningful ways to *involve more* of the stakeholder community
- Support the other workstreams in ensuring that standards and guidance tell the whole story
- Ensure important voices are not left out of FoOPC discussions
- Foster an understanding throughout GS1 communities of how we can all work better together



New Stakeholder Engagement Develop connections into our stakeholder marketing community as well as strengthen and expand solution provider relationships







# Poll 6: How would you like to see GS1 become more involved with solution providers (SP)?

#### [Select only one answer]

- 1) Work with SPs to update their products, services, and solutions to align with GS1 standards
- 2) Seek SP technical expertise and experience to help develop better standards and guidance
- 3) Work with SPs to educate their clients on the use of GS1 standards
- 4) Partner with SPs on case studies, pilots, and implementation support
- 5) The current level of SP involvement is good no action needed



Polling 6: Solution Provider Engagement	~
Polling is closed	49 voted
1. How would you like to see GS1 become more involved with solution providers (SP)?	
Work with SPs to update their products, services, and solutions to align with GS1 standards	(15) 31%
Seek SP technical expertise and experience to help develop better standards and guidance	(7) 14%
Work with SPs to educate their clients on the use of GS1 standards	(11) 22%
Partner with SPs on case studies, pilots, and implementation support	(16) 33%
The current level of SP involvement is good – no action needed	(0) <b>0%</b>







# Poll 7: What is the most important marketing need that the FoOPC is addressing?

#### [Select only one answer]

- 1) Help build brand recognition and reputation
- 2) Enable dynamic links to Web content
- 3) Reduce delays in getting products to market
- 4) Improve content personalization
- 5) Support the capture of data used for analytics and lead generation
- 6) Make barcodes/data carriers more aesthetically pleasing
- 7) Reduce the on-pack space needed for data carriers



Polling 7: Engagement with Marketing Teams	~
Polling is closed	50 voted
1. What is the most important marketing need that the Future of On-Pack Coding is a	ddressing?
Help build brand recognition and reputation	(10) 20%
Enable dynamic links to Web content	(10) 20%
Reduce delays in getting products to market	(3) 6%
Improve content personalization	(3) 6%
Support the capture of data used for analytics and lead generation	(9) 18%
Make barcodes/data carriers more aesthetically pleasing	(2) 4%
Reduce the on-pack space needed for data carriers	(13) <b>26%</b>



## Deliverables for 2020

#### **Solution Providers**

 Map out what a "tool kit" might look like to and engagement methods for interacting with SPs in local MO communities, such as outreach programs (seminars, surveys, presentations, etc.)

#### **Marketers**

 Define and develop the value proposition for marketers to consider combining marketing and supply chain/product identity needs into onpack coding strategies



## New Stakeholder Engagement: Workstream Team

Name	МО	Role	
Kevin & Steve	GO	Project Manager	
Sue Schmid	GS1 AU	Workstream Co-Lead	
Amber Walls	GS1 US	Workstream Co-Lead	
Katherine Tabares Vásquez	GS1 CO	Core Team Member	
Nicolle Castro	GS1 BR	Core Team Member	
Karen Arkesteyn	GS1 BELU	Core Team Member	
James Urquhart	GS1 US	Core Team Member	
Andrea Arozamena	GS1 MX	Core Team Member	

Name	МО	Role
Eduardo Nuñez	GS1 MX	Extended Team Member
Artur Andrade	GS1 PT	Extended Team Member
Bijoy Peter	GS1 IN	Extended Team Member
Andrew Steele	GS1 AU	Extended Team Member
Renate Arntsen	GS1 NO	Extended Team Member
Ana Paula Maneiro	GS1 BR	Extended Team Member
Rogério Proença	GS1 PT	Extended Team Member

## **Come join the caped crusaders**



# Jo Anna Stewart GS1 US

# Jonas Buskenfried GS1 Sweden





## Standards & Technology – Key Goals

- Ensure Standards are "Fit for Use" to support the Future of On-Pack Coding strategy
- Provide a roadmap and guide to help industry move forward
- Provide thought leadership regarding what's possible with new technologies and the importance of foundational standards into the future





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### Deliverables 2020





Near-term Road-Mapping



Identify General Specification Changes

Key learnings library





# Poll 8: What do you feel is the key <u>starting</u> use case to raise interest in moving to a 2D data carrier?

#### [Select 1 answer]

- 1) Consumer Engagement: GTIN-level product information
- 2) Consumer Engagement: additional product transparency
- 3) 2D at Point-of-Sale for price lookup
- 4) 2D at Point-of-Sale to capture additional information for improved inventory and more
- 5) Shipping and Receiving process improvement
- 6) Recall process improvement with Batch/Lot granularity
- 7) Other (please put in Chat)



Polling 8: Top Use Case	~
Polling is closed	55 voted
1. What do you feel is the key starting use case to raise interest in moving to a 2D data carrier	?
Consumer Engagement: GTIN-level product information	(8) 15%
Consumer Engagement: additional product transparency	(7) 13%
2D at Point-of-Sale for price lookup	(5) 9%
2D at Point-of-Sale to capture additional information for improved inventory and more	(29) <b>5</b> 3%
Shipping and Receiving process improvement	(3) 5%
Recall process improvement with Batch/Lot granularity	(3) 5%
Other (please put in Chat)	(0) <b>0</b> %



#### Benefits





# Poll 9: What does your community use the most to raise awareness of newer GS1 initiatives or standards?

[Select all that apply]

- 1) GS1 Technical Standard
- 2) GS1 Implementation Guideline for a standard
- 3) GS1 Webinars
- 4) GS1 Use Cases around an initiative or standard
- 5) Community Engagement
- 6) Solution Partner Engagement
- 7) GS1 Press Releases or Announcements
- 8) Google searches
- 9) Other (please put in chat)



Polling 9: Engagement with GS1	~
Polling is closed	49 voted
1. What does your community use the most to raise awareness of newer GS1 initiatives or (Multiple choice)	standards?
GS1 Technical Standard	(14/49) 29%
GS1 Implementation Guideline for a standard	(24/49) 49%
GS1 Webinars	(23/49) 47%
GS1 Use Cases around an initiative or standard	(30/49) 61%
Community Engagement	(27/49) <b>55%</b>
Solution Partner Engagement	(15/49) 31%
GS1 Press Releases or Announcements	(26/49) 53%
Google searches	(6/49) 12%
Other (please put in chat)	(0/49) 0%



## UPDATE TEAM Standards and Technology: Workstream Team



	Name	МО	Role
	Kevin & Steve	GO	Project Manager
	Jo Anna Stewart	GS1 US	Workstream Co-Lead
	Jonas Buskenfried	GS1 SE	Workstream Co-Lead
	Peta Ding	GS1 UK	Core Team Member
	Yoshi Iwasaki	GS1 JP	Core Team Member
	Heide Buhl	GS1 DE	Core Team Member
	Michel Ottiker	GS1 CH	Core Team Member
	Katrina Gao	GS1 CN	Core Team Member
	Melanie Wishart	GS1 AU	Core Team Member
	Ricio Rivera	GS1 MX	Core Team Member
	Jean Christophe Gilbert	GS1 FR	Core Team Member
	Luiz Costa	GS1 BR	Core Team Member
	Kevin Dean	GS1 CA	Core Team Member
	Terje Menkerud	GS1 NO	Core Team Member
	Vivian Tai	GS1 US	Core Team Member
	Aruna Ravikumar	GS1 AU	Core Team Member
	Sergey Andrejuk	GS1 RU	Core Team Member

Deliver standardised guidance and the **"what's possible"** for technology to support the community and on-pack coding strategy

Extended Team Members
Shawn Chen GS1 TH
Karen Arkesteyn GS1 BELU
Flavia Costa GS1 BR
Nicole Golestani GS1 CA
Hua Wang GS1 CN
Huipeng Deng GS1 CN
Jianhui Li GS1 CN

#### **Questions/Discussion**



## Thank you!



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