2D in Retail Advisory Group - 14th March 2023 - Meeting 11
Meeting Minutes

Venue	Dial in only
Date	Wednesday 14th March 2023
Time	10.00am – 12.00noon
Co-Chairs	Mark Dingley – APPMA / Matthews Australasia Jenny Keegan – Woolworths Sue Schmid & Andrew Steele – GS1 Australia
GS1 Secretariats Minutes	Sue Schmid & Andrew Steele Aruna Ravikumar Tracey Kelly Jenkins
Next Meeting	TBD

Working Group purpose/Outcome
A new industry advisory group with the objective to bring together retailers, suppliers and solution providers to look at the next evolution of Data Embedded Barcodes for retail point-of-sale and come up with an industry consensus roadmap for implementation

Agenda:

ID#	Item	Details	Owner/Presenter
1	10:00 – 10:15	**Welcome & Introductions** • GS1 Competition Law Caution • Outstanding Actions • Approach for 2023 • Participants profile	Co-Chairs
2	10:15 – 10:30	**Global Update** • GS1 Global Forum Update • Asia Pacific region Update	Sue/Andrew
3	10:30 – 11:15	**Standards & Technical Update** • Testing Results – Tier 3.1 • Practical Scanning demo • Standards Development Update	Steven Keddie Aruna
4	11.15 – 11.40	**Local Update** • Woolworths Update • Dairy Industry Update	Roberto Olivares Andrew
5	11.40 – 11.50	**Marketing Update**	Tracey/Andrew
6	11.50 – 12.00	**General Business and Q&A**	Co-chairs/Andrew/Sue

Key Meeting Notes:

1: Introductions

- Jenny Keegan welcomed everyone and read the GS1 Australia Competition Law Caution and Acknowledgement of our Country. Jenny briefed on the agenda topics and detailed our Approach for 2023 being "Advancing Practical 2D implementations". She then went on to provide an update on Outstanding actions from previous meeting regarding the Solution Provider showcase survey and how the group has decided to go with an 'online series' which could also be used as collateral by anybody at any point in future.

2: Global Update

- Andrew briefly provided an update on the GS1 Global Forum which took place between 13th - 16th Feb as a hybrid event and explained that interested parties can register and access the recordings of the event at - https://forum.gs1.org/ up until the 1st May.
- Andrew highlighted that 2D was one of the main topics at the Global Forum and it was great to get endorsements from representatives from both retailers and brand owners in the Global forum event like The Kroger Company, P&G, Carrefour, METRO, PEPSICO. He also added that there was a separate session for Printing and Scanning too with many Solution Providers in the likes of Domino, Markem-Imaje, Bell-Mark, Zebra, Wipotec showcasing live demonstration as well.
- Sue provided an update on the series of training events on 2D topics that were run for Asia-Pacific Member organisations in order to gear them up for the 2D readiness.
- Sue also explained about the 3 priorities for 2023 for the Asia-Pacific region, which is to strengthen our training and education, raise awareness and understanding and finally maintain a close collaboration with global 2D programme.
- Andrew shared some exiting updates on the first Japanese retailer to scan 2D barcode (GS1 DataMatrix) at POS including automated markdowns – http://www.youtube.com/watch?v=o6pwnh6Q3r0

3: Standards & Technical Update

- Steven outlined the lab testing that is being done at University of Memphis AIDC lab and how the robots pick up the test cards and pass the test cards under the different scanning systems. He also explained that as part of 2D in Retail work they created very specific tests which focussed on high speed bi-optic scanners.
- Steven provided an in-depth insight into the three different phases these tests are divided into:
  - Establish common baseline for barcodes with GTIN only. (Tier 1 Testing report)
  - Understand how additional data affects scanning performance and throughput. (Tier 2 Testing report)
  - Determine how multiple barcodes and the location of barcode combinations impact scanning. (Tier 3.1 testing report)
- Steven also did a live practical demonstration of few products with multiple barcodes and how scanners with existing and updated software's delivered different results.
- Aruna shared an update on the Standards stream of the 2D in Retail program and highlighted the important points as part of Human readable Interpretation and Multiple barcode Management guidance.

4: Local Update

- Roberto Olivares summarised as to how they are scanning around 9 million 2D barcodes per week in stores and online nationally. He also advised that currently they are partnering with 10 suppliers who have adopted 2D barcodes in meat, poultry, fruit and veg areas and the next step is going to be in Dairy in particular with Woollies private label milk.
- Roberto also briefed on the Salad bags that were trialled with 2D barcodes which was first of its kind to try printing using on demand printing capabilities embedding expiry date on film material. He highlighted that this product also has a EAN-13 barcode and if the 2D barcodes are not scanning they can use the linear barcode as the backup.

- Andrew talked about how Dairy becomes the next obvious choice of category for us to engage to create awareness and have value proposition discussions with suppliers and solution providers in that space. Andrew highlighted that GS1 has had sessions with Australian Dairy farmers mainly on two use cases – one being point of sale and the next one being consumer engagement with GS1 Digital Link.

5: Marketing Update

- Tracey provided an update on a new section on 2D barcode resources that has been introduced in the GS1 2D Australia webpage which has links to the 2D Toolkit, FAQs etc - https://www.gs1au.org/for-your-industry/2d-barcodes
- Tracey also added that Marcel Sieira from GS1 Australia will be participating in 2023 AIP Australasian Packaging Conference on the 29th March in a panel discussion on "Packaging that Saves Food" – http://aipack.com.au/event-registration/?ee=387 for those interested in participating in the event.
- Andrew showcased the QR code best practices document which can mainly be used by brand owners - https://www.gs1au.org/download/QR-Code_powered-by-GS1-best-practices.pdf/file
- Andrew also requested any brand owners who are currently putting 'plain QR Code' on their products, if you are interested to add GS1 identifiers into the QR code to reach out to us and we would love to have the discussion of how it is possible to convert the 'plain QR' to QR Code with GS1 Digital Link.
- Andrew shared some insights about a project with Citrus Australia and Agriculture Victoria which utilizes GS1 standard right across the citrus supply chain till the end unit which has a QR code with GS1 Digital Link.
- Andrew also congratulated the Results Group who were involved with another industry project with Agriculture Victoria and Perfection Fresh around Australian table grapes which won a World Packaging Organization award.

Q & A's:

Question – Anna Di Bello (Sealed Air): In the test - was all the information read offline, i.e., the info was embedded in the code, rather than being a link to extract data from a cloud?
Answer – Aruna Ravikumar (GS1 AUS): These tests were mainly done for Point-of-Sale purposes - so the data was embedded in the code and not extracted from the cloud.

Question – Roderick Bolt (Toshiba) - Can't you build in cyclic redundancy checks into the 2D barcode to increase scanability of the 2D barcode over the 1D barcode and do away with the 1D?
Answer – Roberto – One of the things that we always do is try to put contingency everywhere we go. We do know the error correction capabilities of 2D barcodes but since we are in a 'transition period'. You might have already seen our meat and poultry products don't have 1D barcodes. The 2D barcode on salad bags is first of its kind nationally and globally on demand printing on films so we need to ensure   the suppliers and solution providers learn how to print and verify 2D barcodes – so it is a transition for them. The objective after the transition period will be to remove the 1D barcode.

Andrew Steel (GS1 AUS): As part of the program through to 2027, there will be the need for the 1D and the 2D barcodes to co-exist. The meat and poultry products that Roberto refereed where there is only the 2D barcode are private label products that is only being supplied to Woolworths. For supplier branded products being sold across multiple retailers they need to have both the 1D as well as the 2D barcodes across as we work with the other retailers to build their 2D scanning capabilities. We are lucky here in Australia as two of the major retailers are already in this journey, Woolworths already scanning 2D barcodes and Coles evaluating their capabilities now. So, by 2024 we may have both the major retailers live with 2D.

Question – Andrew Steele (GS1 AUS) – If I am a supplier to Woolworths but not necessarily in the meat, fresh or dairy category but I want to have discussion around 2D barcodes then what is the best way to get in touch?
Answer – Roberto Olivares (Woolworths) – You can reach out to us or myself or through GS1. We are open to talk to anyone for future implementations obviously fresh and perishables being the key focus area for us. As I said earlier Dairy will be the next step for us but saying that we are also looking at Baby formula which is a long-life

product but should have an expiry date and batch number to protect from a food safety point of view.

Question – Cheryl Williams (Euri Gold farms) – I have a QR code. You are saying that you can incorporate my GTIN information into this. Also do all fruit being sold in Woolworths have to have a Best By date?
Answer – Steven Keddie (GS1 Global)– Yes. You can take your GTIN and put it in a QR code using GS1 Digital Link. The best practise document that Andrew talked about will also help you on the best way you can encode GS1 identifiers in a QR code.
Roberto Olivares (Woolworths) – To answer it correctly, it is not a Woolworths requirement but Australia New Zealand Food Standards requirement to use a Use by date. There are some products that do not have a Use by date for example berries especially fresh blueberries and strawberries don't have use by date but everything else have a Use by date or Best before date. All these are regulated by Australia and NZ Food standards and not by us.

Question – Roberto Olivares (Woolworths) – During the testing that you conducted with different barcodes did you also have the opportunity to test different printing technologies?
Answer – Steven Keddie (GS1 Global)– Yes. We tested all of the major technologies as part of first 2 rounds of testing. In Tier 3 since the focus was on determining other aspects, we only used thermal transfer. But in the first 2 rounds all of them were fine.

Question – Daniel Hill (Cellr) – Has there been any discussions/plans on discussing, software to provide 2D barcodes? Specifically, with QR codes

Answer – Steven Keddie (GS1 Global)– GS1 has created a library (GS1 barcode syntax resource)
based on C code that can help you with the syntaxes to make sure that you have the right structures to go into these 2D barcodes. We will take you through the GS1 barcode syntax resource in the next 2D in Retail Advisory meeting.

Question – Steph Griffiths (Koda Nutrition) – I have pre-printed laminate used over multiple batches and different best before dates. Which 2D codes is best for my product?
Answer – Steven Keddie (GS1 Global)– Any of the 2D barcodes GS1 DataMatrix or QR Code with GS1 Digital Link is equally good. When it comes to a really busy background then you would want to lean towards a QR code with GS1 Digital Link because its easier for scanning system to find it. But both the barcodes will work as long as you provide enough quiet zones around the 2D barcode.

Mark Dingley (Matthews/AAPMA) – It also depends on what you need the 2D barcode for whether if it is for consumer engagement or at point of sale. It also depends on which markets you are in which will dictate the requirement as well.

Question – How are 2D barcodes different from QR codes?
Answer – Andrew Steele: A QR code is a 2D code. There are three 2D codes that have been approved for Retail Point-of-Sale
- GS1 DataMatrix
- QR Code with GS1 Digital Link
- Data Matrix Code with GS1 Digital Link

Question - In the AUS market. what qualifies as truncated seems to be different to other markets (AUS seems to have more requirements and less allowance), would GS1 be standardised globally at some point?
Answer – Andrew Steele: The technical specifications around the GS1 barcodes whether 1D or 2D are global. GS1 Australia and GS1 NZ are one of the handful Member Organisations that have a Barcode testing facility. So, we test against the global GS1 specifications. So, if a barcode is truncated and we test it will be marked outside of specifications. There are some tolerances, but we test against global specifications. Unfortunately, you do see some truncated barcode out there in the marketplace but that is something the industry needs to work on it.

Mark concluded the meeting and thanked all the presenters especially Steve for the live demonstration and Roberto for providing an update on the Woolworths implementations. Mark also thanked the GS1 2D Advisory group team for putting together a very informative session for the members. He asked the members to stay tuned for more updates as we will be defining the topics for the online series focussing on Advancing Practical 2D implementations and reach out to Solution providers/brand owners/retailers to participate in the coming months.

![GS1 Australia logo]

Actions from previous Meetings

Action	Who	When By	Actioned	Status
Solution Provider Showcase survey – Next steps	GS1	2023 - Ongoing	GS1 to work on developing an 'Online series' by defining the scope and release topics to Solution Providers and provide fair opportunities to participate	WIP

Other Resources:

GS1 barcode syntax resource

2D Barcodes: A new dimension in barcodes | GS1

Attendees:

Company	Name
Aldus Tronics	b.riddell
ALM liquor	Peter Wagner
Andatech	Sudirman Ng
Apetite Foods Group Pty. Ltd	Mark Davis
Archibald Honey Pty Ltd	Stuart Archibald
Australia Post	Kalpna Aggarwal
AUSTRALIA SMART TRADING PTY LTD	Ammar Tawil
Australian Blending Company	Brenton Halaliku
Australian Cosmeceuticals	Larisa Alexander
Australian Food & Beverage Group	Catherine Kew
Australian Liquor Marketers	Peter Wagner
Baiada	Wayne Tuckwell
Bayport Brands	Carly Jordan
Beechworth Honey	Nikki Ferguson
BioPak Pty Ltd	Sarish Shashidhar
Bulla	Alexandra Piaia
Calbee Australia	Kit Yi Mah
Campari Australia	Chris Callen
Casella Family Brands	Dominic Musolino

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Cellr	Dan Hill
Checkpoint Systems	Mark Stafford
Coles	Susie Stojanovski
Company	Amy Morrow
Comvita NZ LTD	Andrew Bykar
Datalogic Australia	Christine Sullivan
Deloitte	Jo Jericho
Diageo	Samuel Tam
Diageo	Chetan Patil
Diageo Australia	Angela Vanges
DKSH	Anna Wong
DPIRD	David Kessell
Drakes Supermarkets	Stephen Skehan
Driscoll's Australia Pty Ltd	Dominic George
Elato Pty Ltd	Roz Kaldor-Aroni
Euri Gold Farms	Cheryl Williams
Fashion	Sheridan Bowden
Fluid	Allan Hayes`
Fonterra Australia	Ricardo Ramos
Foodmach Pty Ltd	Phil Biggs
Fowles Wine Pty Ltd	Tracie Battersby
FreshChain Systems	Greg Calvert
GPK	Dennis McPhee
GPK Group	Anthony Parker
GS1 Australia	Margo Fraser
GS1 Australia	John LaVacca
GS1 Australia	Supriya K
GS1 Australia	Peter Davenport
GS1 Australia	Marcel Sieira
GS1 Australia	David Withington
GS1 Australia	Ann Tindale
GS1 Australia	Melanie Wishart
GS1 Australia	Jeroen Van Weperen
GS1 Australia	Ethan Ward
GS1 Australia	Mark Blitenthall
GS1 Australia	Terry Papadis
GS1 Australia	Michael Davis
GS1 New Zealand	Gary Hartley
GS1 New Zealand	Richard Manaton
GS1 Pakistan	Shahid Kamal
GS1 Thailand	jiraporn chalermjirarat
GS1 New Zealand	Raman Chhima

Harvest Moon	Tundra Howe
iFoodDS	Ilango Surendran
insignia	Craig Zammit
insignia	Helen O'Donnell
Insignia	Craig Zammit
Kansom Australia Pty Ltd	Pagan Metcalf
KODA Endurance Pty Ltd	Steph Griffiths
Kraft Heinz	Jane Wilson
Kraft Heinz	Craig Kent
Kraft Heinz Australia	Shawnee Henson
Livingstone International Pty Ltd	Jason Lo
Madura Tea Estates	Steven Pike
Matthews	Paulo Araujo
Matthews Australasia	Braydon Cocks
Matthews Australasia	howardm
Matthews Australasia	Vas Buvan
McCain Foods	Premesh Silva
Metagenics	Sarika Lingarkar
Metagenics	Elizabeth Gherasim
Metcash	Pat Hadfield
Metcash	Will Cartwright
Metcash	Lisa Sharpe
Neomorph Mouthguards	Amanda Trenerry
Nu Pure Beverages	Jay Zendler
Nu-Pure Beverages	Shuo Huang
Origins Trace	Sam White
Ozganics Australia Pty Ltd	Sherralee Tempest
Paragold Distributors	Louis Camps
Pizzini Wines	Claire Vonarx
Plantworx Pty Ltd	Peter Francis
Prysmian Australia	Phillip Eves
Prysmian Australia Pty Ltd	ongmo001
PZ Cussons	David Rose
PZ Cussons Australia PL	Dennis
RAFEX Interior Co	Ramya Srinivasan
Result Group	Michael Dossor
Rivalea Australia	Justin Wheatley
Safe Food Production Qld	Rob Sherlock
Samuel Smith & Son	Jonathan Weavers
Saputo Dairy Australia	Rina Nam
SC Johnson	Deren Nixon
Seagull scientific	Kate Bradley
Sealed Air	Anna Di Bello

SGK	Michael De Bari
Simplot Aus	Rose Grlj
Slumbertrek	Victoria Murray
Sullivans Cove Distillery	Michael Eastman
Swan Valley Honey	Debbie Starr
Tasty Fresh Food Co.	Colin Lear
The Fashion Group .co Pty Ltd	Natalie Winter
The Sustainable Nutrition Group	Danielle
Toshiba Australia	Roderick Bolt
Tronics	Ken Sky
Trumps	Declan Dart
Trust Codes	Paul Ryan
Unique Micro Design	Desiree Di Bartolomeo
Unique Micro Design	Paul Otto
Unique Micro Design	Desiree Di Bartolomeo
WIPOTEC AUSTRALIA PTY LTD	Colin Seddon
Yatsal	Hailee Apps
Zebra Technologies	George Pepes