



The Global Language of Business

2D in Retail Advisory Group

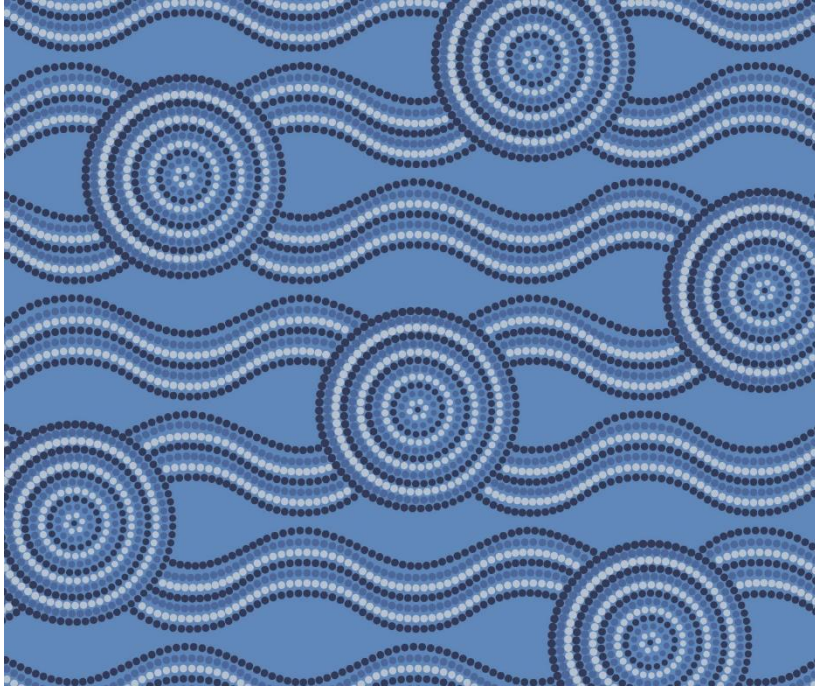
Advancing practical implementations

Jenny Keegan, Woolworths Mark Dingley, APPMA & Matthews

Meeting #13, November 2023



Welcome to country



We acknowledge the traditional custodians of the lands on which we meet today, and pay our respects to their Elders past, present and emerging.

We extend that respect to Aboriginal and Torres Strait Islander peoples joining us today.

GS1 operates under the GS1 Competition Law Caution. Strict compliance with competition 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 Australia caution is available via the link below, if you would like to read it in its entirety: <http://www.gs1.org/gs1-competition-law-caution>

Meeting Etiquette

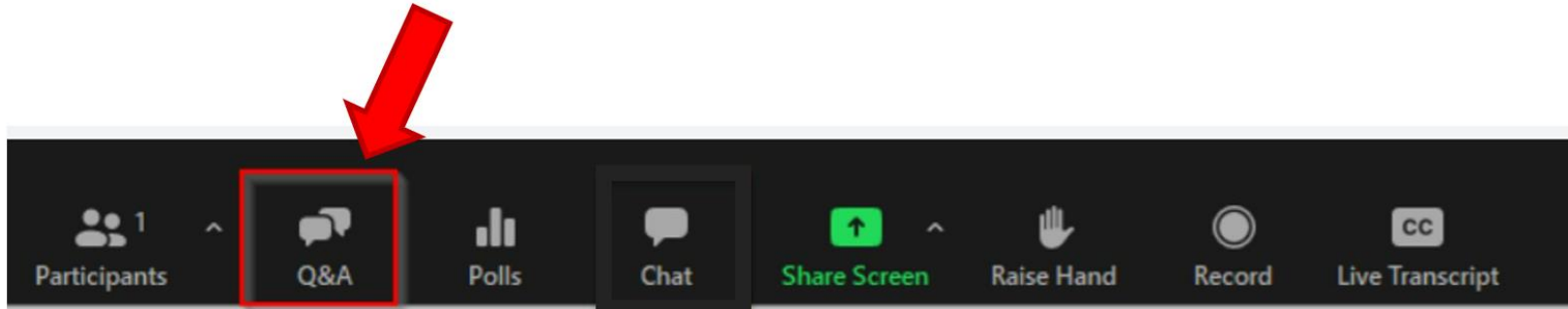
Introduce Yourself
When asking a question

Be considerate
Silence phones
Keep comments concise

Be collaborative
Ask questions
Be open to other views

Be professional
Speak on company's behalf

Please use the Q&A button in the bar at the bottom of your screen to submit questions





The Global Language of Business

Agenda

Welcome and Introductions

Next Evolution of 2D in Retail Advisory Group

Global Update

Local Update

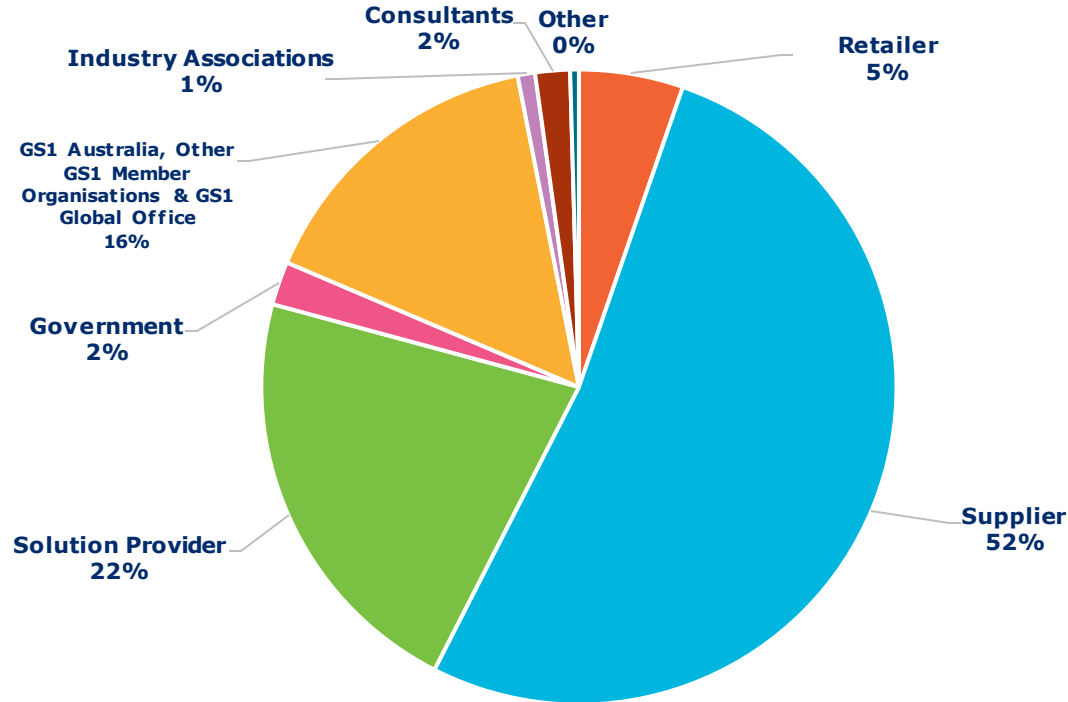
2D Training Update

Marketing Update

General Business, Q&A



Participants Profile this year



225
participants

- Live demo by Steven Keddie
 - Scanning 2D barcodes – GS1 DataMatrix, QR/Data Matrix with GS1 Digital Link
 - Scanning linear & 2D adjacent to each other but still getting one BEEP at POS
- Launch of Keys to Success Video series
- Widening the diversity of the group – Liquor, FMCG, General Merchandise
- Increase in group subscription (around 60% increase)

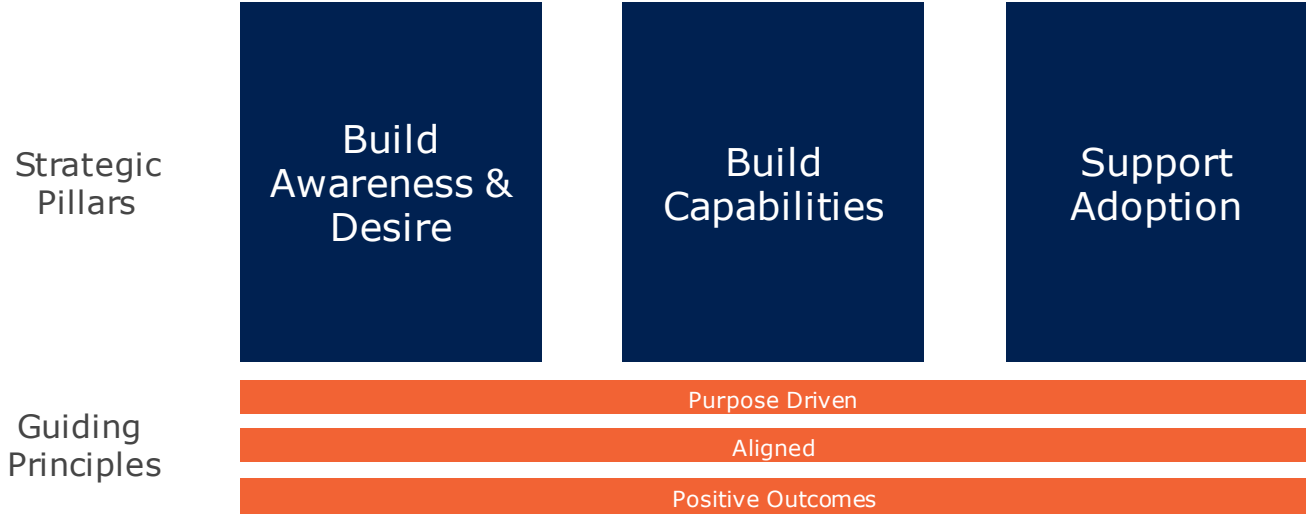
Evolution of 2D in Retail Advisory Group

Sue Schmid, GS1 Australia



2D Program Overview

The 2D program is structured to build 2D awareness, desire, capabilities and support 2D adoption efforts to deliver positive outcomes.





Call to Action



Our request to you:

Forward this to your team members that you think are the people that need to be part of the technical detail of the 2D evolution

Global Update

Tania Snioch, GS1 Global



One scan. Infinite possibilities.

The Global Migration to 2D programme barcodes brings together the internet and the barcode.

With this partnership, simple scan transforms into a gateway of in-depth product information for consumers and opens many unique possibilities for all stakeholders across industry.

Global Migration to 2D Programme



Ambition 2027: Prepare (with industry) to ensure that, by 2027, all Retail POS scanners globally are capable of reading and processing 2D barcodes powered by GS1 and that there is broad, global Supplier Brand implementation of the same.

Community Engagement

- Strategic stakeholder engagement
- Supporting foundations

MO Deployment

- Ensuring MOs have the required knowledge and tools to engage their stakeholders

Technology Readiness

- Facilitating solution provider capability and the underpinning standards that support this

KPIs: Measuring progress, both globally and nationally

Outstanding progress and strong momentum



Pilots are taking place in **48 countries**, representing **88.5% of world GDP**

Detailed GS1 Member Organisation reported 2D activity

36
GS1 MOs
participating

75%

(27 out of 36) of GS1 MOs are actively piloting 2D

94%

(34 out of 36) of GS1 MOs are engaging with their members via webinars, workshops, industry groups

177 Brand/Manufacturers participating in MO 2D Pilots*
89 Retailers participating in MO 2D Pilots

* Not including GS1 China, which had 364,833 brand/maker companies with 2D codes on 12.9 million products as of August 2023

Pilot Insights

Submissions of 1 September 2023



2DBarcodes

A new
dimension
in barcodes

Thank you and questions!

Tania Snioch
Director Global Migration to 2D Programme
tania.snioch@gs1.org



Regional Update

Sue Schmid, GS1 Australia



The year that was 2023

- Continued learning and exploration of 2D across the region
- Great program from GS1 Korea that focused on 2D for identification of recycling materials

Looking forward in 2024

- To support the regions, drive towards pilots
- Continue our learning within the region
- Understand the connectedness with regulation of the impact of 2D

Asia Pacific Region continuing to drive the 2D message in local market.



The Global Language of Business

Local Update

Andrew Steele, GS1 Australia





2027

When all retail point-of-sale systems will aim to scan 2D Barcodes, worldwide.



Australian Retailers Association

- Supply Chain Committee
- Sustainability Committee
- Technology & Innovation Committee

drinks Association

- Supply Chain & Logistics Forum

Hort Connections

Australian Assurance Summit

Australian Food & Grocery Council

- Trading Partner Forum
- Food & Grocery Australia
- Sales Director Committee
- Nutrition & Regulatory Committee

GaP Solutions/Romeo IGA 2D

Nathan Goodacre,
Business Intelligence Analyst
GaP Solutions

Nathan Goodacre – GaP SOLUTIONS



2DBarcodes

A new dimension in barcodes

Expertise in collaborating with customers, software engineers, and support staff to design, develop, and implement innovative retail solutions for supermarkets and fresh food retailers. Passionate about leveraging technology to enhance customer experiences and streamline operations, driving business growth and achieving organizational goals.



2D Barcodes – Why?



Independent Retailers need a modern solution to help them with efficiency

GS1 DataMatrix helps to track wastage. Can reduce wastage and ultimately save the retailer money

Can prevent the sale of expired products, this will give the customer greater trust in the retailer

Good things can happen with increased supplier adoption:

- Traceability
- Expiry and Batch Tracking
- Dynamic Pricing

2D Barcodes – How?



Planning

Independent Retailers often have a mix of hardware, some hardware does not support 2D

Process Investigation

Working with retailers to understand the current processes and how 2D Barcodes can add value

Building a Business Case

2D Barcodes can provide much more functionality, picking the most valuable features for their business is critical

Trial

- Need to ensure correct sizing of symbol
- working with different shapes of products including round
- Human Readable Numbers

GaP Solutions – Romeo's IGA



Jason Kouka, Romeo's NSW Regional Manager, "We will be able to respond quickly to customer demand, reduce overall costs, improve operations and better meet the needs of our customers. The new markdown features with use-by-date checking capabilities are also a great addition, as it helps us to reduce waste and improve our inventory management. It's great to see that GaP Solutions are helping retailers be more sustainable and environmentally friendly."

Mark Down Example



Data Encoded

(01) GTIN

(13) Packaging Date

(17) Use By Date

(3922) Markdown Price

(91) Internal – Original Price of the product




Woolworths Update

Roberto Olivares, Woolworths Group



Recap of 2D Barcode @ Woolies in 2023

2D Barcodes to support Consumer **Food Safety, Product Life and Reduction of Waste**

Use-Case	Initiative	Update	Look Ahead
	<ul style="list-style-type: none"> ● Transition of Fresh articles to 2D Barcodes 	<ul style="list-style-type: none"> ● Meat Conv: 339 articles and 10 suppliers. ● F&V: 36 Salad bag articles and 4 suppliers. ● Deli Service: ~230 articles 	<ul style="list-style-type: none"> ● Woolworths Branded Meat: 39 articles and 7 suppliers ● Woolworths Branded Fresh / Perishables: ~750 articles and ~70 suppliers
	<ul style="list-style-type: none"> ● Cut F&V 2D Barcode labels 	<ul style="list-style-type: none"> ● Trailing 2D barcodes with Date and Time of Production on Cut F&V in 10 stores and 28 articles. 	<ul style="list-style-type: none"> ● Deployment H2F24.
	<ul style="list-style-type: none"> ● Hot Food 2D Barcodes 	<ul style="list-style-type: none"> ● Trailing 2D Barcodes in Hot Food (Roast Chickens) to validate production time 	<ul style="list-style-type: none"> ● Deployment H2F24.
	<ul style="list-style-type: none"> ● Prop Bakery 2D Barcode labels 	<ul style="list-style-type: none"> ● Trialling 2D Barcodes in Prop Bakery +370 articles with Expiry Date labels in 15 stores 	<ul style="list-style-type: none"> ● Deployment H2F24.

What is a 2D Barcode

A Data Matrix barcode symbol is a two-dimensional (2D) matrix barcode, consisting of black and white “cells” or modules that can be arranged in a square or rectangular matrix, allowing the printing of variable information in a barcode data carrier, at high production rates.

What Data is used in the GS1 DataMatrix barcode

Embedded Data	(AI)*	Article Type	Mandatory / Optional
GTIN	(01)	All	M
Sell Price	(3922)	RW	M
Actual Weight (Kg)	(3103)	RW	M
Use by Date	(17)	All	M
Best Before Date	(15)		
Batch / Lot ID #	(10)	Any	0
Serial Number	(21)	Any	0

* There is a large number of **Application Identifiers (AI)** GS1 General Specifications that can be used in a 2D Barcode. The use of an application identifier (AI) is only required on the basis of its use-case.

Barcode Types for Retail

- **EAN/UPC** - Traditional linear barcode. 50 years. Fixed data string.
- **ITF-14** - Logistics unit (Carton). Linear barcode. Fixed data string.
- **GS1-128** - Logistics unit (Carton). Linear barcode. Encodable variable data and continuous code.
- **GS1 Databar** - Linear barcode. Encodable variable data, up to 74 numeric characters. Currently in use in Loose Fruits. It's **4.5 times** larger than a GS1 DataMatrix barcode.
- **GS1 DataMatrix** - two dimensional matrix barcode. Encodable variable data, up to 2335 alphanumeric characters.
- **GS1 Digital Link QR Code** - two dimension matrix barcode, similar to GS1 DataMatrix with added ability to encode URL information for consumer engagement. It's **2.5 times** larger than a GS1 DataMatrix due to URL
- **Digimarc** - Linear barcode. Fixed data string. Digimarc's proprietary digital watermarking technology. Product can't be marked down.

GS1 DataBar Stacked



GS1 DataMatrix



GS1 Digital Link QR Code



Sharing 2D Implementation with Other Retailers in 2023

- Woolworths Journey on 2D Barcodes
- Why GS1 DataMatrix
- How and why were the relevant product groups selected for the 2D barcode trial
- How, when and where were the 2D barcode labels applied to the products in the trial
- Did all store devices recognise the 2D barcode e.g. handheld terminals for availability / picking processes & point of sale systems
- What about GS1 Digital Link



2D in Retail

Global Working Group



- As 2D barcodes have larger data capacity than traditional linear barcodes used at retailer point-of-sale, the possibility of encoding GTIN and additional information enables multiple use cases for in-store and online, which are not possible with the GTIN alone.
- This guidance is intended to be applicable to all types of retailers, from small independent businesses all the way through to large multinationals.
- This document will provide guidance specific to retailers implementing 2D barcodes, to help understand business opportunities, changes to existing processes or the introduction of new processes, and most importantly, the various requirements to ensure success throughout all phases of 2D migration, including the transition period.

6 Implementation guidance for retailers (Roberto-Woolworths & Peta-GS1 GO) 21

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Upcoming Seminar/Webinar /Event

Andrew Steele



GS1
Australia

**Raise a Glass to
Next Generation 2D Barcodes**

Helping brand owners
meet regulatory and retail
requirements

**Wednesday 06 December 2023
11.00 am to 12.00pm**

Wine
Australia

drinks
AUSTRALIA

REGISTER HERE

Webinar Invitation

Unbottle the potential of 2D barcodes for your brand

Register for this timely webinar and hear keynote speaker Ned Hewitson, Legal Counsel at Wine Australia, provide the latest from the grapevine on European Union (EU) wine labelling.

GS1 experts and solution providers will also crack open next generation 2D barcodes and the latest digital options available to brands for meeting the new and evolving regulatory and retail requirements.

Wednesday, 06 December 2023

11.00am to 12.00pm

[Click Here to Register](#)



The graphic features several logos at the top: CPD Accredited 1 CPP Point, GS1 Australia, and AIP 60 Years 1963-2023. Below these are three numbered steps (1, 2, 3) showing a smartphone scanning a product, a smartphone displaying data, and a smartphone displaying a list. A central image shows a product with a 2D barcode being scanned. A 'SCAN ME' button with a QR code is also present. The main text reads: 'AIP WEBINAR: BEHIND THE 2D BARCODE: WHAT IT MEANS FOR PRINTING & PACKAGING'. Below this, it says: 'An overview of next generation 2D barcodes including labelling, placement, size specifications and more.' and 'TUESDAY 12 DECEMBER 2023'.

Hosted by the Australian Institute of Packaging (AIP)

Take a deep dive into 2D barcodes and what it means for the printing and packaging industries.

Next generation 2D barcodes are revolutionising businesses in Australia and across the globe.

A single 2D barcode can hold a significant amount of information and may remain legible even when printed at a small size or etched onto a product. 2D barcodes are used in a wide range of industries, from grocery, manufacturing and warehousing to logistics and healthcare.

This session will provide an overview of next generation 2D barcodes including labelling, placement, size specifications and more. Speakers will discuss examples and answer your questions.

Register: <http://aipack.com.au/event-registration/?ee=411>

A banner for the APPEX 2024 event. The top half shows a blue-tinted photograph of an exhibition hall with various booths and people. A dark blue box on the right contains the text 'Sustainability, Efficiency, & Automation for Australian Manufacturers'. Below this is a yellow button that says 'REGISTER FREE NOW'. The bottom half of the banner features the 'appex' logo in a stylized font, with 'app' in green and 'ex' in black. To the right of the logo, it says '12-15 March 2024' and 'MCEC, Melbourne'. At the bottom, it reads 'Owned and presented by APPMA. Incorporating AUSPACK.'

Sustainability, Efficiency,
& Automation for
Australian Manufacturers

REGISTER FREE NOW

appex 12-15 March 2024
MCEC, Melbourne

Owned and presented by APPMA. Incorporating AUSPACK.

APPEX | Australia's Largest Processing & Packaging Expo

APPEX, Australia's premier Processing and Packaging Expo, is coming to the Melbourne Convention and Exhibition Centre from 12–15 March 2024.

Previously known as AUSPACK, APPEX 2024 is set to be Australia's largest event in the country for manufacturing, retail and distribution to source the latest in machinery, equipment, materials & packaging, food processing and industry services.

Owned and presented by APPMA, the Australian Packaging and Processing Machinery Association, APPEX is built on a strong foundation laid by 35 years of successful AUSPACK exhibitions and is set to represent the entire processing and packaging industry, uniting all sectors for a comprehensive exploration of innovation and collaboration.

Free Registration: <https://www.appex.com.au/register>



The Global Language of Business

2D Training Update

Brian Gemmell, GS1 Australia



- Built 2D barcode basics eLearning module – industry agnostic
- Covering:
 - What are 2D Barcodes?
 - Why were they developed?
 - The differences between linear barcodes and 2D barcodes
 - The benefits of 2D Barcodes
 - GS1 2D Barcode types
- To be made available to members via GS1 Australia LMS shortly

Training plan 2024

- Main target industries: Solution Providers, Retailers, Brand owners.
- 2D training analysis identified 16 topic areas.
- Training pathways developed based on industry, job role and topic areas.
- 2024 training plan:
 - eLearning modules for topics that have broad audiences
 - Scheduled instructor led sessions (both F2F and Zoom), focussing on technical topic areas
 - Learning Management System hosts eLearning
 - Private training offered for all content
 - Marketing campaign planned to drive participation

Marketing Update

Tracey Kelly-Jenkins, GS1 Australia





Retailer Companies
Accelerate your digital transformation with next generation 2D barcodes. Be ready for 2027, today.
[Learn more](#)



Food & Beverage
Brand owners, suppliers and manufacturers: Unlock infinite possibilities with 2D barcodes and safeguard your future.
[Learn more](#)



General Merchandise
If you're in apparel, homewares, hardware or anywhere in between, 2D barcodes are the next generation for brands and retailers, online and instore.
[Take a look](#)



Primary Industry
Producers, processors and marketers, enhance your export opportunities, achieve two-way consumer interaction and much more with 2D barcodes.
[Learn more](#)



Healthcare
Across the globe, 2D barcodes are transforming the healthcare industry.
[Learn more](#)



Rail
Project i-TRACE and 2D barcodes deliver a safer, more efficient rail industry. Critical data captured by a simple scan, directly at the point of use.
[Learn more](#)



Freight
2D barcodes and Scan+Transport drive digital capability for the transport industry. Supporting first mile, sortation and last mile activities.
[Learn more](#)



Solution Providers
2D barcodes are transforming the way technology is being used. Help your customers transform their business today and for the future.
[Here's how](#)



Printing & Packaging
Support your customers with knowledge and expertise to deliver the correct standards and specifications required for 2D barcodes.
[View now](#)

2D Barcodes - GS1 Australia

Highlights

Page views

1,588

↑ 35.6%

Unique viewers

770

↑ 17.7%

First time visitors

378

↑ 5.6%

Conversions

Newsletter Subscriptions

55

↑ 3.8%

Clicks

2,377

↑ 48.2%

Engagement time

10:07:38

↑ 26.1%

Bounce Rate

50.73%

↓ -25.0%

1 Jul 2023 - 15 Nov 2023

Video series



Episode 1

2D Keys to Success

Video • An introduction to the adoption and implementation of 2D barcodes in Australian retail.

Episode 2

2D Keys to Success

Video • Richard Plunkett from Woolworths shares the success achieved through 2D barcodes.

Episode 3

2D Keys to Success

Video • 7-Eleven Thailand and 2D barcodes, safeguarding consumers with every scan.

Highlights

Total views	Subscriptions
5,052	123

Keys to Success - GS1 Australia

1 Jul 2023 - 15 Nov 2023

General Business

Q&A





The Global Language of Business

Thank you

