

# 50 years since the birth of barcodes – where to next?

The humble barcode has turned 50. Now is the time for a change and GS1 CEO Maria Palazzolo gives the low down on the new 2DBarcode and its place in traceability.

Despite how established barcodes are in Australian's way of life and within the global economy, it's hard to believe the concept was introduced just 50 years ago. Maria Palazzolo, CEO of GS1 Australia explained.

"It's one of the great untold stories in history that has changed the modern economy," she said.

According to Palazzolo, it was one of the first times competitors truly came together and put their differences aside.

"They were able to create a global solution that worked for everyone," she said. "This ultimately led to the creation of barcode numbers and the linear barcode we know today."

Now, history is repeating itself as entities like GS1 look down the same path, planning for the next 50 years where 2DBarcodes will come to replace the linear barcodes of today.

"We have to move from something they have embedded into their organisations today, to something totally different they will need to do in the future, which is no small feat and needs to be well planned and executed," said Palazzolo. "We need industry to



GS1 CEO Maria Palazzolo.

collaborate in the same way it did 50 years ago."

## Linear barcodes

A wealth of pressures is pushing for

this change. As linear barcodes have limitations in respect to additional data – such as with traceability – it is apparent that consumers' demand for more information and full transparency have increased, which means more industries will feel the need for 2DBarcodes.

The current linear barcode's traceability capabilities are hindered by the restricted amount of information that can be stored. But also, organisations across many industries have developed their own proprietary, stand-alone barcode systems that do not talk to other businesses. Only an open standard, like GS1, can do that properly.

"It's those limitations that have not allowed the full traceability journey to be embraced across the supply chain," said Palazzolo. "With traceability, you have to have a seamless flow of standardised data throughout the supply chain. If

you're not using one single standard across the entire value chain, then full traceability is not possible."

According to Palazzolo, this is part of a larger problem. A key issue with introducing the 2DBarcodes is also encouraging industry to adopt a global standard of barcodes, as once was the issue with introducing barcodes 50 years ago. With the link now created between 2DBarcodes and the unique GS1 identifiers, the perceived need for stand-alone systems and challenges with the amount of information available to users will disappear.

"2DBarcodes with more, standardised information, will allow for full visibility across the whole value chain with everyone using the same system," said Palazzolo.

## GS1's role

GS1's role in this transition is not insignificant. The company aims to foster collaboration and encourage businesses around the world to plug into the same system. Through bringing all parties to the table, facilitating conversation and ensuring everyone understands what the process is, and what the change means, Palazzolo believes they can encourage the much-needed transition.

"We need everyone to understand, it's about making a decision for the greater good of industry and not just about a few companies," she said.

"GS1 has been working with major Australian retailers to identify how 2DBarcodes can provide them with the ability to capture additional, valuable data about the products they buy and sell," said Palazzolo.

Globally, GS1 has working groups, as Palazzolo describes them, who are designing and developing 2DBarcodes under GS1's global program The Future of On Pack Coding. This program works as a transitional initiative that coordinates global and



New barcode technology is here to stay and collaboration is needed to make the most of what it has to offer.

local changes.

“This helps us manage all parts of the project and ensures that each move occurs when the agreement has happened across the whole industry,” said Palazzolo. “It won’t work if it’s just one retailer changing their systems.”

Major retailers are driving these changes. Eventually, the 2DBarcode will be used at POS and potentially right throughout the supply chain in manufacturing and distribution channels. GS1 also plays a role in informing these suppliers that they can include key information such as batch numbers and use-by dates to link products back to their brand and encourage food safety.

But coordination of the transition is only half the battle. As Palazzolo points out, even if 2DBarcodes were to be printed on products and shipped out tomorrow, what information would they hold? And what systems would be in place to actually read the data? “It will be a slow process,” she said. “This is the discussion within industries that we need to have. We need to discuss what data will be put in and how we are actually going to use this data.”

The systems that scan the updated barcodes must be able to decipher and

consolidate the information to be able to improve global traceability said Palazzolo. “This is one of the biggest hurdles we face; it isn’t printing the 2DBarcode on the packaging itself or the decision to do it, it is ensuring that the systems in place are able to manage and read the data that comes from the barcodes,” she said.

### COVID-19

Despite Palazzolo’s preparation for the long road to change, it’s nowhere as long as it used to be, thanks to COVID-19. But it didn’t just begin with the pandemic – this change has been snowballing for the past two years, with consumers at the helm.

A trend towards sustainability and traceability saw consumers wanting more information than what was available. Where the product came from and what happened on its journey were suddenly being demanded, with price points no longer enough to sell a product.

“And retailers and even manufacturers are aware of this,” said Palazzolo. “Because it ultimately leads to brand loyalty. If you can provide that kind of data to your consumers, they’ll keep coming back because they know they can trust you.”

And what COVID-19 did was provide that extra push.

The introduction of “check in” systems as part of health regulations encouraged a level of comfortableness, awareness and understanding with barcodes that had not been seen before.

“And why would we see resistance?” asked Palazzolo. “It’s easy when we have scanners right here on our phones, in our pockets, at our disposal. Why would we say no to information that has the potential to help us?”

### Fifty years forward

According to Palazzolo, it’s likely we’ll see a hybrid of barcodes in the near future, perhaps to the displeasure of marketers. With barcodes being described in the past by some marketers as ‘visual pollution’, they are now seeing the benefit of a single barcode that can work in the supply chain and also interact with consumers. The end result is predicted to be a standardised industry endorsed, singular 2DBarcode.

“It won’t be a big bang situation,” said Palazzolo. “It’s a transitional program and it will take a number of

Key information can be included in the new 2DBarcodes.



years to fully complete, but I do think we’ll definitely see a faster uptake of the 2D technology than we did of the linear barcode, particularly in the food and beverage industry.”

What 2DBarcodes enable is for products to morph into communication channels with a wealth of information.

“Fifty years ago, when they watched the first barcode being scanned, somebody said ‘it was like watching magic’ because no one had ever seen anything like it,” said Palazzolo, when asked what she saw for the industry in the oncoming years. “And I’m going to say, we’re going to be creating a lot more magic over the next 50 years.” **F**

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