



Peacock Bros.

ACTION PLAN & TIMELINE

The clock is ticking on your Barcode Infrastructure

Your 7-step action plan for the transition to 2D barcodes: **A practical guide**

Prepared by Peacock Bros. | Australia's Trusted Barcode & Labelling Partner

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Getting you Ambition 2027 ready

For decades, the humble 1D barcode has done one job: store a product identifier. Now, the retail and supply chain landscape has outgrown it. A 1D barcode cannot carry expiry dates, batch numbers, serial numbers, or web links. It cannot tell a consumer where a product came from, flag an allergen, or surface a safety recall in real time. One product often needs multiple labels just to serve different purposes across the supply chain.

Industry's Ambition 2027 initiative is removing these limitations with 2D barcodes (QR codes and DataMatrix). These little squares can hold all of that data in a single code, scanned at POS exactly as a 1D barcode is scanned today. The same scan that processes a checkout can also give a consumer full product transparency on their phone, give a warehouse manager real-time batch visibility, and give a brand the traceability data it needs for regulatory compliance and recall management. GS1 Digital Link takes this further, turning the barcode into a live web address that resolves differently depending on who scans it.

That is why the Ambition 2027 deadline is not a future problem, it is an active operational risk. Major Australian retailers (Woolworths, Coles, Chemist

Warehouse, ALDI, and others) are already upgrading their POS systems to read 2D barcodes, and they will expect their suppliers to follow. For operations and supply chain managers, this means your labelling infrastructure, printing hardware, scanning equipment, software systems, and supplier relationships all need to be assessed and upgraded. The lead time for a well-executed transition is longer than most teams expect, and the time to act is now.

It can feel overwhelming, so we have broken it down into 7 practical steps to get you Ambition 2027 ready.



Your 7-step action plan

01

Conduct a barcode audit

Know your current state before you plan your future state.

Map every product line, packaging format, and supply chain touchpoint where barcodes are used. Identify what format each barcode is in, what data it encodes, and what equipment prints and scans it, and list all codes that need to be updated and list in order of priority.



Output:

A complete inventory of your barcode landscape, with gaps identified and priorities ranked.

02

Define your data requirements

Determine what data your 2D barcodes need to carry.

Work with your retail customers, regulatory advisors, and supply chain partners to lock in your data specification. For example:



- **Global Trade Item Number (GTIN):** a standardised identifier used to uniquely identify products in global supply chains and retail systems
- **Batch/lot number:** essential for traceability and recall management
- **Expiry/best before date:** required for perishables and medicines
- **Serial number:** mandatory for pharma serialisation and medical device UDI
- **GS1 digital link URL:** a structured web address embedded in a QR code that carries product identifiers and resolves to different destinations

depending on who is scanning it. One QR code can serve multiple audiences simultaneously. Examples include:

- A consumer scans the QR code on a wine bottle and lands on a tasting notes and provenance page
- A retailer's system scans the same QR code at goods receipt and automatically extracts the GTIN, batch number, and expiry date for inventory management
- A regulator scans the QR code on a pharmaceutical pack and retrieves serialisation and compliance data
- A logistics operator scans the QR code on a pallet and pulls up the batch/lot number for traceability

Output:

A data specification document aligned to retailer and regulatory requirements, and a marketing touchpoint to boot.

03

Update label & packaging design

Your current label layouts will not accommodate 2D barcodes without redesign.



2D barcodes have different physical requirements to 1D. Key design considerations include:

- Minimum size and quiet zone (blank space) requirements must be met for reliable scanning
- Substrate, print process, and surface type all affect scan reliability
- During the transition period, you may need to carry both a 1D and 2D barcode, so plan your label real estate accordingly
- Dark barcode on light background is the standard as contrast must be sufficient

Did you know?

In **2021**, Food Standards Australia & New Zealand (FSANZ) introduced Plain English Allergen Labelling (PEAL), meaning that allergen information must be declared using plain English terms in bold font (in both the ingredient list and a separate 'Contains' summary statement) in a specific format and location on food labels. The deadline for updating labels passed in **February 2026**, and it is now a legal requirement for all food and beverages on Australian shelves.

In **2025**, Australia amended the Food Standards Code to require energy labelling on packaged alcoholic beverages (0.5% ABV and above). Producers must display the number of servings per package, serving size in mL, and energy content per serving and per 100mL. Wine requires a truncated Nutrition Information Panel. Producers have a three-year transition period and must fully comply by 13 August 2028, though any stock packaged and labelled before that date is exempt from relabelling.

If you are a food & beverage manufacturer, your label redesign is not just about barcodes. It is also an opportunity to consolidate these regulatory changes in a single label refresh.

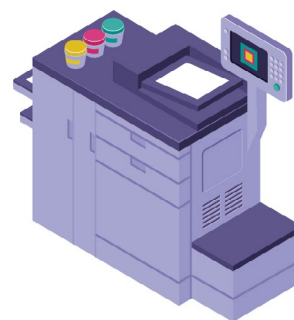
Output:

Updated label and packaging designs compliant with GS1 & FSANZ specifications.

04

Upgrade your printing infrastructure

Not all printers can produce high-quality 2D barcodes.



Key operational requirements:

- Minimum 300 DPI resolution; 600 DPI preferred for small GS1 DataMatrix symbols
- Thermal transfer printers are the industrial standard for barcode label printing
- Variable data printing capability is required if barcodes include batch, expiry, or serial data
- Print quality verification (ISO/IEC 15415 grading) is mandatory for regulated products and strongly recommended for all others
- ERP/WMS integration is required for variable data print jobs

Output:

Printing infrastructure capable of producing compliant 2D barcodes consistently at production volumes.

05

Upgrade your scanning infrastructure

Laser scanners cannot read 2D barcodes.



Every scanning touchpoint in your operation (receiving, warehousing, dispatch) needs to be assessed. What to address:

- Replace laser scanners with 2D image-based (camera) scanners. Modern 2D imagers read both 1D and 2D.
- Match scanner type to application: fixed-mount for conveyor/POS, handheld for warehouse, ruggedised mobile computers for logistics environments
- Confirm connectivity compatibility (USB, Bluetooth, Wi-Fi) with existing systems
- Ensure scan distance and angle tolerance suits your specific use cases

Output:

Scanning infrastructure capable of reading 2D barcodes at every relevant operational touchpoint.

06

Update your software & systems

The data 2D barcodes carry is only valuable if your systems can capture and use it.



Assess your ERP, WMS, and any other relevant platforms:

- **ERP:** Must be able to store and process batch numbers, expiry dates, and serial numbers. Many modern ERPs support this; older systems may need customisation or upgrades.
- **WMS:** Must capture 2D barcode data at receiving, picking, and dispatch to drive traceability and inventory management.
- **Barcode generation:** Systems must generate correct variable data and pass it to print infrastructure.
- **GS1 Digital Link resolver:** Required if implementing consumer-facing QR codes.
- **Recall management:** Confirm your systems support lot-level recall execution (the ability to locate all units of a specific batch across your supply chain).

Output:

Software systems capable of generating, capturing, and utilising 2D barcode data end-to-end.

07

Engage your supply chain partners

This transition does not stop at your warehouse door.



Align your entire supply chain, upstream and downstream:

- **Retailers:** Contact key customers now to confirm their specific 2D barcode requirements and timelines. Some will mandate compliance ahead of the 2027 deadline.
- **Suppliers:** Communicate your inbound data requirements. Ensure they know what you need encoded and when.
- **Logistics partners:** Confirm they are upgrading scanning infrastructure in line with the transition.
- **GS1 Australia:** If not already a member, join. GS1 membership provides access to standards, GTIN allocation, and Ambition 2027 readiness resources.
- **Staff training:** Ensure operations, warehouse, and IT teams are trained on new equipment and processes before go-live.

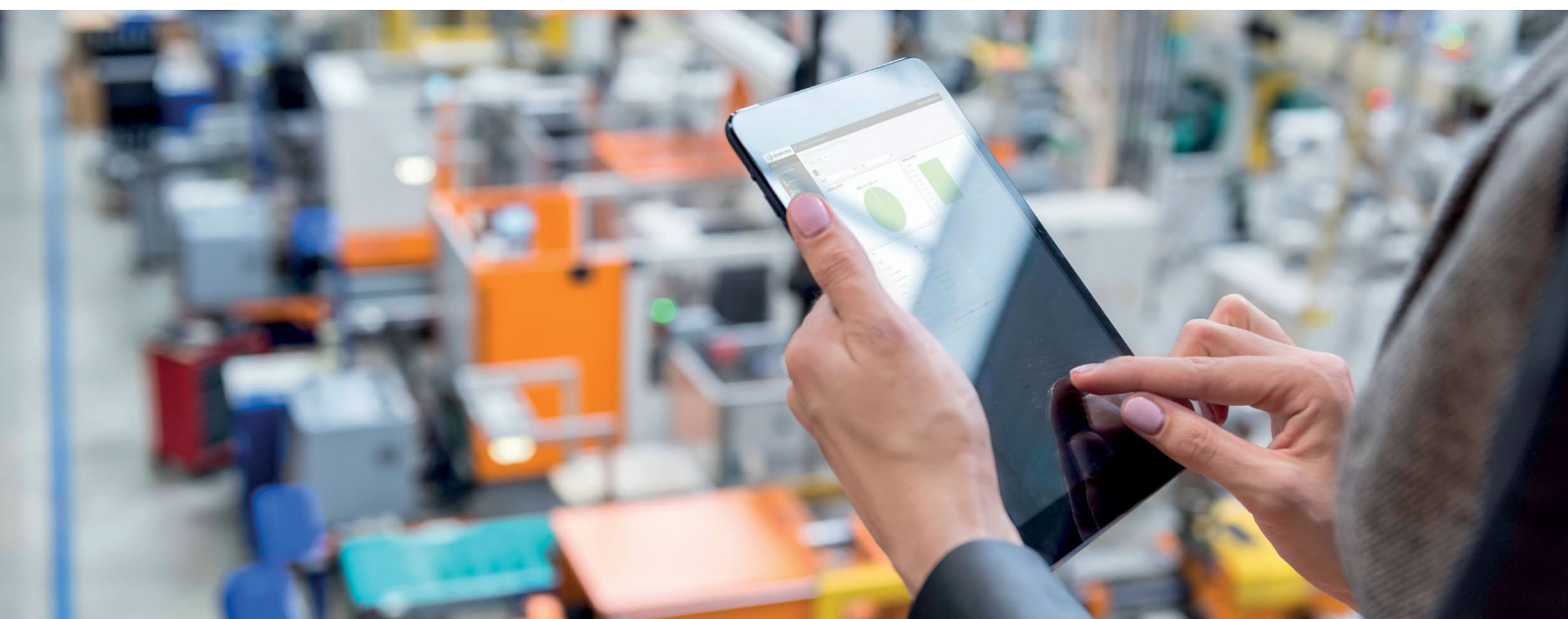
Output:

A supply chain aligned and ready for the 2D barcode transition, with agreed timelines across all partners.

Implementation Timeline

Use this phase-by-phase breakdown to plan your transition. The recommended completion date for all new product lines is **Q1 2027**; work backwards from there.

Phase	Timeframe	Key Actions
Phase 1: Assess	August 2026	Complete barcode audit; define data requirements; engage retail customers to confirm their timelines and specific requirements.
Phase 2: Design	September 2026	Update label and packaging designs; finalise data specification; assess printing and scanning infrastructure gaps.
Phase 3: Procure & integrate	October 2026	Procure and install upgraded printers and scanners; integrate with ERP/WMS; configure variable data printing and barcode generation.
Phase 4: Test & verify	November 2026	Conduct print quality verification; test scanning at all operational touchpoints; validate data capture in ERP/WMS; run pilot with a single product line or site.
Phase 5: Roll out	December 2026/ January 2027	Staged rollout across all product lines and sites; supplier and logistics partner engagement; staff training.
Phase 6: Compliance ready	Q1 2027	All new product lines carrying compliant 2D barcodes; scanning infrastructure upgraded; systems integrated; supply chain partners aligned.



Industry Deadlines: Know Your Hard Dates

Date	Milestone	Who Is Affected
2025	EU Digital Product Passport phased rollout began (textiles, batteries, electronics)	Australian exporters to EU
2025	GS1 Australia formal Sunrise 2027 readiness programs launch	All GS1 member companies
2026	Retailer pilot programs for 2D barcode scanning at POS expand	Grocery, pharmacy, specialty retail suppliers
2026	TGA UDI requirements expand to additional medical device classes	Medical device manufacturers & distributors
Q1 2027	Recommended deadline: 2D barcodes on all new product lines	All retail suppliers
End of 2027	Industry's Ambition 2027 deadline: all POS systems must read 2D barcodes	All retail suppliers globally
2028 onwards	Retailers begin phasing out acceptance of 1D barcodes on new products	All retail suppliers



Your partners from barcode to scan, delivery **and beyond!**

Peacock Bros. can guide you through the entire process and set you up for success with your 2D Barcodes.
Reach out to us today.

Australia's trusted barcode & labelling partner

The question is not whether your business needs to transition to 2D barcodes. It does. The question is whether you manage it on your own terms, or get forced into it at the last minute.

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With you at
every step of the
supply chain.

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