



# Case Study:

How a great Australian Baker saves  
with GS1 Australia



## Shaving 20 per cent from its inventories converted Australia's largest pie maker from a believer in the efficiency of bar codes, to a champion for the global GS1 standards. So much so, that Patties Foods has become a pioneer in the use of a new supply chain technology.



Logistics is big business for Patties. The company behind the iconic Four'n Twenty, Herbert Adams, Patties, Great Australian Pies, Wedgwood and Nanna's brand, Patties dispatches around 200 pallets of pastries daily from its eastern Victorian factory. At the other end of the supply chain, the company receives truckloads of fresh produce and ingredients every day from dozens of suppliers.

### Better information demanded by purchasing, planning and production

Managing such large volumes of perishable goods means timely, accurate information about ingredients and orders is vital to the pastry manufacturer.

Inspired by a GS1 Australia case study, Patties called in GS1 Australia's Professional Services team in 2003. The time was right, according to Patties General Manager Purchasing and Supply, Joe Rettino.

"The retailers had mandated the use of GS1 bar codes on shipping containers and we wanted to make sure we were compliant," he said. "We could also relate to the experiences of other businesses who had been assisted by GS1 and could see potential benefits for us."

As part of GS1 Australia's 'Supply Chain Review', the Professional Services team studied Patties' operations, scoped a brief and prepared a business process map of the company's existing operations.

"GS1 really understood the supply chain and knew exactly what we needed to do," Joe said. "I was particularly impressed to see how they spent time learning from our forklift drivers, storemen and a range of our people to find out where and how goods were moving."

The Supply Chain Review showed paper-based forms and faxes were leading to delays of up to three days between actual and recorded raw material

inventory levels. The lack of real time information and a degree of inaccuracy made production scheduling and distribution functions difficult. The result was unnecessary reordering or false out of stocks that hindered production.

At the same time, Patties was also keen to reduce its exposure to the risk of a product recall. While systems were in place to recall products based on their use-by dates, there was no facility to allow the swift and accurate identification of affected customers.

### How the system works for Patties

In partnership with Patties staff members, GS1 Australia's Professional Services team mapped out a plan to make real time information available and enhance traceability using automated transactions.

Implementation began with new supply chain practices throughout Patties raw materials warehouse. A working party comprising representatives from Patties' purchasing, supply and demand, production, packing and stores departments oversaw the installation of new racking and had every pallet location labelled with a GS1 bar code within three months. This simple step allowed Patties staff to quickly and reliably locate stock for picking.

At the same time, Patties was talking with its suppliers and customers about adopting the same standards. Joe says there were few hesitations from trading partners.

"The beauty of it was that we were using a genuine standard that they could also use with their other trading partners, so they quickly saw the value of going with the GS1 bar codes," he said.

Suppliers are the first link in Patties' new data capture and communication system. Responding to an electronic purchase order from Patties, suppliers send the pie manufacturer an advanced shipping notice as the raw materials are shipped.

Every container received by Patties carries a GS1 logistics label that includes a unique Serial Shipping Container Code (SSCC) to identify each logistic item, whether carton, pallet or crate, in much the same way as a number plate identifies a car.

Patties inwards goods staff members scan the GS1 label using Radio Frequency (RF) units and once confirmed with a quick physical check, the data is automatically uploaded into management and accounting software. The software marries the information with the original electronic purchase order, acknowledges receipt with an order confirmation and readies the account for payment.

### Informed production planning

The number one advantage of the system for Patties is enhanced production planning. At any time, planners can easily track stock through Patties' Bairnsdale factory.

When required, the container (which may be a pallet or carton) of raw materials is scanned out of the warehouse into production. Any unused portion of the container is then relabelled with a fresh logistics label reflecting the depleted quantity and scanned back into the raw materials warehouse. Instantly updated by the central computer system, the inventory levels are always accurate and available to production planners at the click of a mouse.

In the same way, finished goods are bar coded and packed into trade units, then palletised, stretch wrapped and identified with a logistics label before being scanned into the finished goods freezer as inventory. Finally, pallets are scanned on dispatch and delivered to PFD Food Services and Montague Cold Storage in Melbourne, which manage Patties' national distribution. PFD and Montague scan receipt of the goods and also scan pallets allocated against customer orders to ensure traceability, at both the batch and the pallet level.

## The technology behind the Patties revolution

Four GS1 Australia Alliance Partners supplied Patties with the equipment and information technology to support the baker's supply chain management system.

### Matthews Australasia Pty Ltd

The Patties RFID pilot used three Matthews products, including:

- Label printer – Printronix RFID printer  
The Printronix RFID printer writes the EPC number to the RFID tag, which is embedded into a paper label. The label can also be printed with a bar code.
- RFIDnet  
RFIDnet software directs all the printing and reading of the tags and provides web based integration with the EPC Information Service.
- RFID fixed readers  
Matthews fixed readers collect information from the tags as they pass along the supply chain.

### Verisign Australia Pty Ltd

Verisign supplied the Patties RFID trial with the EPC Information Service. Acting as a "yellow pages", the EPC Information Service identifies the location of information about the EPC numbers that have been read and source information specific to the items.

### Paxar Corporation Pty Ltd

Paxar scan packing solution, Vendor Connect, played an important role in Patties' review of its supply chain management. With some modifications, Vendor Connect met Patties' supply and packaging needs. Scan packing allows companies to scan the bar codes on the goods to fill orders sent electronically via Electronic Data Interchange (EDI).

### GXS (ANZ) Pty Ltd

GXS (Global Exchange Services) supplied the Integrator 4 - EDI translator that enabled EDI with both Patties' supplier and customer community.

### Real time information, lower inventories and less paperwork

"The GS1 System prevented the errors that come when you're keying in a lot of data and for the first time, we could be really confident in what we were seeing," Joe said.

"Because of the increased visibility of our inventories, there was no longer any need to carry excess safety stock – not just at the finished goods stage but at every point of our manufacturing process. The bottom line is that implementing the GS1 System freed up 20 per cent of Patties' inventory and made more working capital available."

Aside from streamlining the flow of materials to and from production, improved inventory visibility made sales forecasts more reliable.

"We used to get a lot of movement of inventory because of inefficiencies in the warehouse and that can cloud sales activity, affecting your ability to forecast," Joe said.

"With greater clarity, our forecasting has improved and the benefits of that flow on to our customers with more consistent in full, on time delivery. We are customer driven, not warehouse driven."

### Patties breaks new ground with RFID

Impressed with the savings made using the GS1 System, Patties has become a leader in the adoption of the world's latest supply chain technology. The first Australian end user to sign up for the EPCglobal standards overseeing Radio Frequency Identification (RFID) in the supply chain, Patties is undertaking the first Australian trial in frozen foods.

The trial is again being overseen by the GS1 Australia Professional Service team and will involve Patties' information technology partners, Matthews Intelligent Identification, Verisign Australia and their cold storage supplier, Montague Cold Storage.

Joe said Patties could see "enormous benefits" of the technology based on overseas experience and it was important for Patties to prepare for its introduction in Australia.

"At the first GS1 Impetus conference, there was a lot of talk about RFID but little follow-up from industry but just 12 months later at the next Impetus we found people were keen to act," he said.

"There hasn't been a lot done in freezers and we want to see what does and doesn't work so we'll be ready for it."

### Patties urges cooperation

Asked how he would advise other companies considering new supply chain practices, Joe said cooperation is key.

"When you're introducing new technology, there's always a change management aspect to the job, so it's important to involve stakeholders as early as possible – both your internal associates and your supply partners," he said.

Joe also said it is critical to have your entire team on board and whilst unable to mention all involved this project and its ongoing future success cannot go mentioned without acknowledging individuals such as Megan Cheyne, Demand and Supply Manager and Ray Baillie, IT Manager.

"Definitely, contact GS1 Australia to find out what's been done with other businesses and plot a way forward. They are the experts. I only wish we'd done it sooner."



GS1 Australia's Alliance Partner  
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Patties implementation journey:



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