





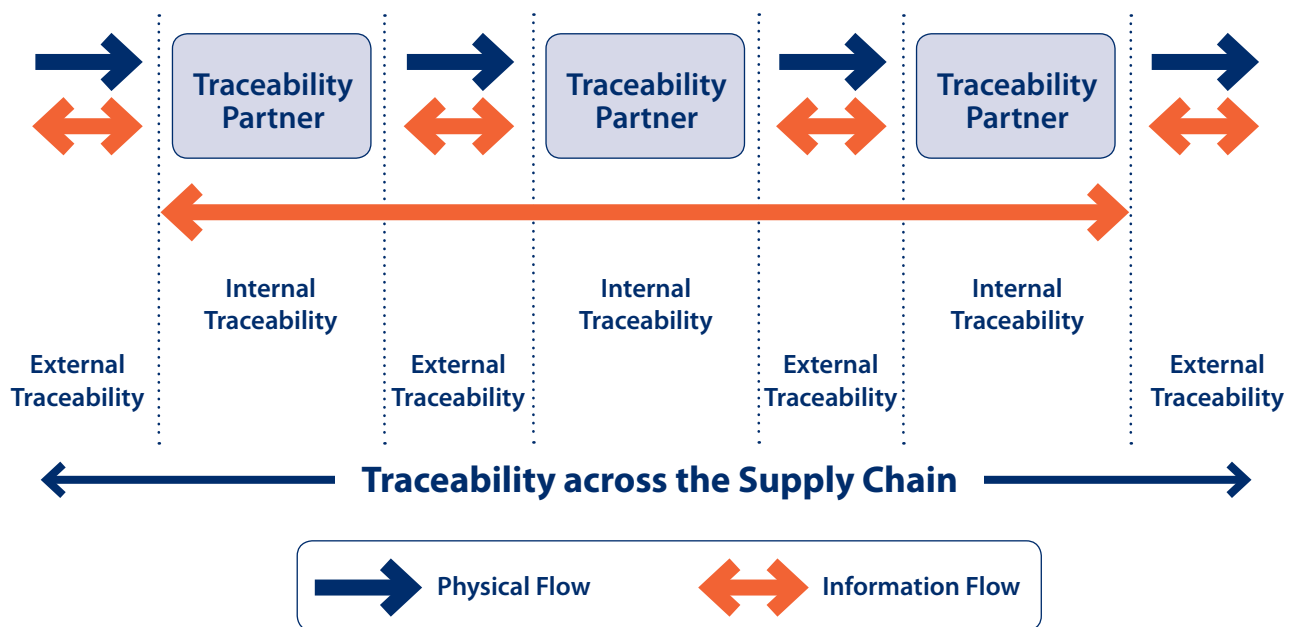
GS1 Traceability can  
provide the answers  
to important questions

# What is traceability?

Across every industry and supply chain, managers constantly need to know the answers to a variety of questions:

- *Does this shipment contain what we ordered?*
- *Is the physical flow of my goods optimised?*
- *Would I have the information I need, if there was an item recall or withdrawal?*

**Traceability** is the ability to trace the history, application or location of an entity, such as a food product or raw material, through all stages of production, processing and distribution.



In hospitals and patient-care facilities, doctors and nurses need to ensure that the right patient is getting the right medication and dose, and receiving treatment with the right equipment and devices, at all times.

In supermarket aisles and in home kitchens, consumers are asking themselves if food is safe, if it contains what the package says it does.

In shops and in restaurants, people of many religious faiths are asking themselves if the food products they are purchasing have been prepared in a way that properly respects their beliefs.

Traceability can provide the answers to questions like these – and many others.

Some form of traceability is already prevalent in certain sectors in Australia. There are already strict meat industry guidelines to be met before exporting meat to the United States, for example. More and more industries are voluntarily deploying traceability programs to improve efficiency and to help protect their brands and ensure that their food, drugs, medical devices or toys are safe. Regulators continue to look at legislation as a tool to encourage industry to run and maintain safer supply and demand chains.

**In short: traceability is now a vital part of the supply chain.**



The GS1 Global Traceability Standard makes traceability systems possible on a global scale, for both small and large organisations

# The GS1 Global Traceability Standard

For the last 30 years, we at GS1 have dedicated ourselves to the design and implementation of global standards for use within and across supply chains. GS1 standards ensure effective exchange of goods and information between companies and provide best practice guidelines that facilitate interoperability and structure to many industries.

Building upon decades of experience and leadership, GS1 has created the GS1 Global Traceability Standard (GTS) and intends for it to become the recognised reference for companies requiring any kind of traceability.

The GS1 Global Traceability Standard makes traceability systems possible on a global scale, for both small and large organisations, all along the supply chain, no matter how many companies are involved, no matter what enabling technologies are chosen.

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***The GS1 Global Traceability Standard is a business process standard. It was developed within the GS1 Global Standards Management Process (GSMP), by a community of more than 800 companies from around the world, representing retailers, suppliers, GS1 Member Organisations and solution providers, in a wide range of industries.***

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A Traceability Standards Maintenance Group (SMG) is being created within the GS1 GSMP as a collaborative platform for all traceability stakeholders and to ensure the proper and continuous maintenance and evolution of the traceability standard.

The GS1 Global Traceability Standard complements other international standards such as those from ISO, from the CIES Global Food Safety Initiative (GFSI), Global Food Standard, the Food Marketing Institute, GLOBAL GAP, as well as various certifications for “organic” foods. In the Australian market, GS1 Australia works closely with peak Australian associations like the Australian Food and Grocery Council (AFGC), Food Standards Australia and New Zealand (FSANZ), the Therapeutic Goods Administration (TGA), the Australian Competition and Consumer Commission (ACCC) and numerous other bodies to ensure our traceability standards and solutions meet local requirements while continuing to be globally aligned and interoperable.

# The foundation for a more efficient supply chain

The ability to track and trace goods and information and quickly respond to market needs is the key to successfully and efficiently managing today’s logistics supply chain. Manufacturers, logistic providers and trading partners are facing a multitude of new challenges:

- The fluctuation in the price of a barrel of oil
- The need to work with reduced inventories while maintaining high service levels
- An increasingly ‘tense’ extended supply chain, requiring tighter production planning, closer production monitoring and more efficient logistics scheduling, from sourcing materials upstream to products in consumers’ homes
- Higher consumer expectations for quality and safety than ever before
- An increased demand from regulators to respond quickly and efficiently to any question about any ingredient of any product
- The need to be almost immediately responsive, in our high-tech, always-connected world.

***In short:*** They need constant access to business-critical product information in their supply chain operations. They need globalised track-and-trace capabilities that can provide real-time visibility over goods.

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***The GS1 GTS provides the foundation for the creation of more integrated systems that can maximise the efficiency of a supply chain, while minimising the production and distribution of unsafe or poor quality goods. It is a key enabler of services that provide supply chain visibility, from manufacturing through to distribution and points of sale and consumption. These programs can help track items as small as a letter and as big as a shipping container!***

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The efficiencies delivered by the GS1 Global Traceability Standard and Track-and-Trace solutions would include (but is not limited to):

- Improving the safety of our food
- Addressing regulatory requirements
- Ensuring the conformance of food to certain characteristics
- Enhancing patient safety and quality of care
- Combating counterfeiting and parallel imports
- Improving sustainability



Traceability is especially important if something goes wrong and food products must be recalled

## Improving the safety of our food

Where does the food your family eat come from? How did it get to your supermarket? What route did it take to get there? Does it contain anything your child is allergic to? Is the food subject to a recall?

The ability to answer these questions quickly and accurately lies in traceability applications and systems.

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***In order to work, food traceability systems need to know everything that happens, every step of the way, from the farm to the kitchen table. But with the increase in extended and highly global supply chains and the growing use of contract manufacturing, tracing food products from end-to-end has become more difficult.***

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The GS1 Global Traceability Standard (GTS) makes food traceability systems possible, on a global scale — no matter how many companies are involved or how many borders are crossed as food and food ingredients travel from one end of the supply chain all the way to the consumer.

Traceability is especially important if something goes wrong and food products must be recalled. The GS1 Global Traceability Standard plays a vital role here: because it is built upon global standards, reaching from one end of the supply chain to the other, it can ensure immediate access to accurate product track-and-trace information which enables swift, comprehensive recalls.

To further improve and streamline the product recall and withdrawal process, GS1 Australia, in collaboration with the Australian Food and Grocery Council (AFGC) and the National E-Health Transition Authority (NEHTA), and many other industry participants, government bodies and regulators, has developed GS1 Recallnet, an online portal for the efficient management of recall and withdrawal notifications for unsafe or unsuitable products in the supply chain. The use of the GS1 Global Traceability Standard underpins this new whole-of-industry service.

## Ensuring the conformance of food to certain characteristics

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***Traceability solutions enabled by the GS1 Global Traceability Standard provide an excellent way to be sure food conforms to the requirements of people's religious beliefs or respects their lifestyle choices.***

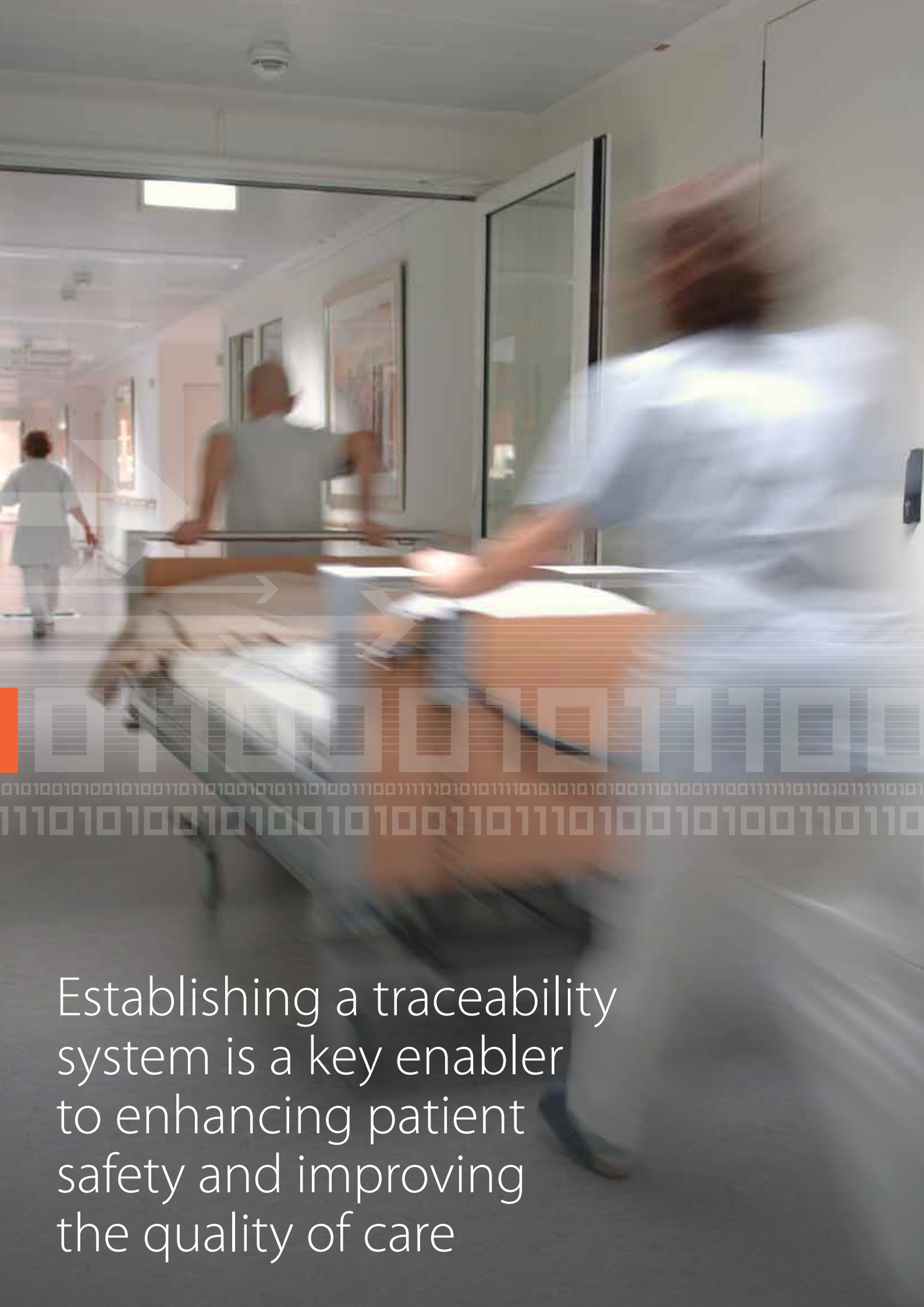
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A significant shift is taking place where consumers want to be able to access product information via a mobile phone. Studies confirm that consumers will scan products to find information, but if it is incorrect or missing, then trust in both the product and the application that scanned the item diminishes rapidly. Getting this data directly from the brand owner (manufacturer or retailer), and ensuring its accuracy and currency, is critical.

More and more people are seeking food that respects certain ethical standards. Various labels and seals now exist to guarantee that the food items bearing them are the result of equitable, empowering and sustainable trading practices.

Billions of people of faith are required by the tenets of their religions to ensure that the food they purchase and the restaurants at which they eat respect a well-defined set of codes and principles. Various bodies around the world have been created to certify that food and food premises are halal, kosher, organic or eco-friendly. The GS1 Global Traceability Standard can make their work easier.

GS1 Australia is further contributing to the delivery of accurate and trusted product data to consumers. The GS1 GoScan application uses brand owner-approved and validated compositional data, including conformance data, and makes it accessible to consumers through their smart phones in a standard and consistent way, thus extending the reach of the product's label.



Establishing a traceability system is a key enabler to enhancing patient safety and improving the quality of care

## Enhancing patient safety and quality of care

Hospitals and care facilities are extremely complex environments in which careful attention must be paid at all times.

But doctors and nurses are only human and, unfortunately, that means that errors are made. Sometimes the wrong dose or the wrong medicine is given to a patient. Or the wrong medical device is used. Or the right dose of the right medicine with the right device...but for the wrong patient.

Every day, people die or are disabled because of medication errors. The medical sector is working hard to prevent as many of these sorts of mistakes as possible.

Establishing a traceability system is a key enabler to enhancing patient safety and improving the quality of care.

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***Traceability systems based on global standards, such as the GS1 Global Traceability Standard, enable verification and authentication of medical products throughout the global healthcare supply chain, making implementation faster and more effective, while improving the supply chain's safety and integrity.***

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In December 2007, GS1 Healthcare established the 'Traceability in Healthcare' Work Team. This work team initially focused on the development of the Global Traceability Standard for Healthcare (GTSH) based on the GS1 Global Traceability Standard.

The GTSH is now a published standard and serves as a starting point for identifying specific traceability requirements while ensuring a consistent approach and a common understanding of key principles. Their next step is the creation of an implementation guideline for the GTSH.

## Combating counterfeiting and parallel imports

Counterfeit handbags and watches are a problem. Counterfeit medical products are a serious problem.

In hundreds of places around the world, makeshift laboratories are using sugar, wax or worse to produce counterfeit pills that look exactly like the real ones; other counterfeiters produce blood-sugar testing strips which are nothing but ordinary paper and dye. Counterfeiting has become so sophisticated that in some cases, even the companies whose own products have been duplicated can't differentiate between real and fake without performing chemical tests.

Despite the best efforts of the healthcare sector, such useless or even dangerous products reach the markets.

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***The GTSH can help with the introduction of unique identification for each and every pack of medical products, as well as enabling traceability and authentication systems with readily available technology, making it much more difficult for counterfeiters to intrude in the healthcare supply chain.***

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GS1's efforts to hinder counterfeiters in the healthcare sector puts us in an excellent position to assist other industries whose products are also frequently counterfeited, such as cosmetics, electronics and automobile parts.

Similarly, the issue of parallel imports is a growing concern for many Australian companies as it compromises accurate traceability to the source of the product. A parallel import is a non-counterfeit product imported from another country without the permission of the brand owner. As is the case with counterfeiting, product-safety issues with parallel-imported products can have irreparable consequences for the legitimate importer as well as for the product's brand owner.



Sustainability strategies are also driving shareholder value and delivering positive financial returns

## Improving sustainability

More and more frequently, investors and consumers are considering a company's record in protecting the environment when making a buying decision.

Governments are stepping up to support sustainable development. The Australian Government released its National Waste Policy in late 2009. The Government recognises the seriousness of sustainability issues and is willing to take steps to help address them.

Beyond new regulations or changing customer expectations, there is growing evidence that sustainability strategies are also driving shareholder value and delivering positive financial returns. Sustainability is rapidly becoming a critical business strategy.

Retailers and manufacturers can achieve effective and efficient sustainability through collaboration, particularly on data. The GS1 Global Traceability Standard can make this easier.

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***With a GS1 GTS-based program in place, companies can avoid wasting energy by more easily making the right choices for transportation and logistics. They can launch stronger waste management and recycling initiatives. They can get better control over production and delivery. They can benefit from the visibility that standards make possible.***

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## Addressing regulatory requirements

Following two significant incidents overseas in recent years – the outbreak of bovine spongiform encephalopathy (BSE), commonly known as mad-cow disease, and the epidemic of avian influenza (bird flu) - governments around the world, including Australia, are drafting and enacting legislation to protect their industry and consumers by ensuring increased levels of traceability in the supply chain.

These new regulatory requirements are creating more demand for traceability than ever before. In Australia, for example, the Productivity Commission (PC) conducted a review of the Australian consumer product safety system and released its report on 16 January 2006. In July 2008, the Council of Australian Governments approved the recommendations made by the PC in its report. One of those recommendations was for a review of the existing consumer product recall guidelines to ensure that recalls are undertaken in the most effective manner.

The Australian Competition and Consumer Commission (ACCC) conducted its review of recall effectiveness following the PC recommendation in 2010 which examined the existing consumer product recalls system, the regulators involved in its oversight and the ways in which the risks associated with unsafe goods can be addressed by suppliers and regulators.

The review identified four broad aspects of the recalls system that are influenced by differing levels of involvement of regulators through provision of advice, through oversight or through intervention in the recall process. These are: notification of the product recall to the relevant regulator(s), communication of the product recall to consumers, retrieval of the recalled product and closure of the recall.

Companies need systems that can provide end-to-end traceability, with accurate information and precise identification of the products and services, locations and people involved.

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***The GS1 Global Traceability Standard can make such systems possible. It allows traceability systems from each trading partner to be compatible with each other and avoids any breakdown in traceability along the chain. Building upon it, businesses can provide traceability with real-time control to meet requirements set by customers, outside organisations and regulatory bodies — while improving efficiency and profitability.***

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GS1 can help industry sectors develop traceability guidelines and best practices that are suited to their specific needs

## GS1 supports assessment and implementation

There are many traceability applications and services that can be made possible by the GS1 Global Traceability Standard. Because the GS1 GTS is independent from enabling technologies, it allows users to deploy applications and services which can build upon an entire range of GS1 Standards, including GS1 Identification Keys, GS1 Bar Codes, GS1 eCom, GS1 EPCglobal and GS1 Global Data Synchronisation Network (GDSN).

Currently, according to the GS1 GTS, there are several mandatory requirements for a standards-based traceability system:

- All traceable items must be identified with the appropriate GS1 Identification Key at their point of creation
- Identification must remain with or on the item until it is used
- All physical locations must be identified with the appropriate GS1 Identification Key across the entire supply chain
- Data about products and their physical flow is captured and shared as agreed among trading partners

It is then up to trading partners or industry sectors to determine the relevant level of accuracy and depth of their traceability system - they can use the GS1 Global Traceability Standard to develop specific traceability guidelines that are perfectly suited to their own unique needs.

GS1 also has focused on another foundational element to assist companies in managing an increasingly critical part of their business – data! The GS1 Data Quality Framework is similar to the GTS in that it is a process standard describing how to best set up the complex processes for data management. A series of tools are provided to assist and aid companies in a variety of ways.





GS1 Australia can assist  
you to put your traceability  
processes in place

# Interested? Then contact GS1 Australia!

GS1 Australia has the experience and expertise to help your company implement a range of traceability improvements.

The GS1 Traceability Standard defines minimum requirements and business rules to be followed when designing and implementing a traceability system:

## Step 1

Plan and Organise how to assign, collect, share and keep traceability data and determine how to manage links between inputs, internal processes, and outputs.

## Step 2

Align Master Data by assigning identifications to parties and physical locations, trade items and, if appropriate, to assets. At this stage you also determine how to exchange Master Data with trading partners.

## Step 3

Record Traceability Data. Assign, apply and capture traceability identification and collect, share and store traceability data during the physical flow.

## Step 4

Initiate and/or respond to a traceability request.

## Step 5

Take appropriate action as required by legal and business requirements.

GS1 Australia can assist you with putting these processes in place. We can provide:

- An assessment of your current traceability system or assist with your plans to launch one
- Full details about all our guidelines and standards
- Training on a variety of traceability topics
- 'Helpdesk' services to answer your questions
- Implementation support
- Access to GS1 Recallnet – get connected to the only whole-of-industry recall notification management solution

**Contact GS1 Australia on 1300 366 033.**





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