

The background of the cover is a grayscale photograph of a family of four—a woman, a man, a young girl, and a young boy—standing in a field and holding hands. In the upper right portion of the background, a large, detailed image of the Earth from space is visible, showing clouds and continents. An orange rounded rectangle is positioned in the center-right of the page, containing the title text.

GS1 Traceability Standard Frequently Asked Questions



1. What is Traceability?

Traceability is the ability to trace the history, application or location of that which is under consideration. (ISO 9001: 2000)

2. Why do we need Traceability?

Increasingly, the ability to trace materials and products up and down the supply chain has become an integral part of doing business. One traditional use has been to identify and locate unsafe foods or pharmaceuticals and remove them from commerce.

Later, track and trace systems have been used to validate the presence or absence of attributes important to consumers (e.g., organic foods, non-allergenic cosmetics). Traceability has also become one tool in fighting product counterfeiting and protecting brands. Most recently, traceability of foods has become a regulatory requirement to protect against bioterrorism.

Traceability can be used for these specific objectives as well as a tool to assess other business systems and tools such as:

- Quality Management
- Risk Management
- Information Management
- Logistical Flows
- Commercial Advantage
- Evaluation of Management Demands

3. Why has GS1 developed a global Traceability Standard?

Safety, security and traceability are currently at the forefront of both government regulations and industry concerns around the world. As a result, numerous irreconcilable track and trace solutions have been proposed to the national, regional and global supply chain participants.

The cost of diverse government regulations, proprietary service offerings and incompatible commercial solutions to the consumers, companies and the global supply chain called for defining traceability as a business process, which is supported by voluntary business standards that are accepted around the world.

To further develop our capability to assist consumers, businesses and governments worldwide, GS1 has defined traceability as a business process and produced a global Traceability Standard, which links it to enabling technologies and relevant GS1 System tools.

4. Who has developed the GS1 Traceability Standard?

An Industry Requirements Team, working within the GS1 Global Standards Management Process framework, developed the Standard in 2005. The Team was composed of 73 experts from 18 countries, including representatives of Allied Domecq, Albertsons, BASF, Carrefour, Casino, CIES, CPMA, Daymon, Dole, ECR Europe, FMI, General Mills, Glon, GMA, GS1, Imaje, John Deere Food Origins, Metler Toledo,



mpXML, Nestlé, NTT Data Corp, P&G, Safeway, Syngenta, Target, TraceTracker, Tyson Foods, Verisign, Wal-Mart and Wegmans amongst others.

5. What is the GS1 Traceability Standard?

The GS1 Traceability Standard is a business process standard describing the traceability process independently from the choice of enabling technologies. It defines minimum requirements for companies of all sizes across industry sectors and corresponding GS1 Standards used within information management tools.

The Standard maximises the use of globally established and implemented GS1 System tools that uniquely identify any “traceable item”, describe the creation of accurate records of transactions, and provide for fast data communication about the traceable item between trading partners.

It meets the core legislative and business need to cost-efficiently trace back (one step down) and track forward (one step up) at any point along the whole length of the supply chain, no matter how many trading partners and business process steps are involved and how many national borders have been crossed.

6. What is the value of the GS1 Traceability Standard?

GS1 has succeeded in producing a global business agreement on generic requirements and a common way to describe the traceability process, while taking into account differences imposed by diverse legislative and business requirements and diverging expectations in terms of enabling technologies.

While businesses recognize the value of traceability, they do not want multiple, potentially conflicting, traceability systems, and they do not want to increase costs unnecessarily. Businesses also recognize that an individual company is only one partner in the supply chain, and that a chain is only as strong as its weakest link. So they want a system that could easily be adopted by just about everyone in the supply chain.

The GS1 Traceability Standard addresses these business needs, we believe, in the following ways:

- It is based on existing business practices, and there is no need to purchase, create or integrate new systems.
- It uses a common language, the GS1 System of identification and bar coding, as well as GS1 EANCOM® and GS1 XML messaging.
- It is, therefore, broad-based in that GS1 Standards are used in over 150 countries around the world by a large majority of supply chain partners (there are over 1 million GS1 user companies).
- It takes a global approach, addressing the supply chain as a whole rather than any particular individual partner.
- It is thorough, covering the fundamentals of traceability – identification, data capture and management, links management, and communication.
- It focuses on the interfaces of physical flow of materials and products, establishing an open, global relationship between independent partners.
- It is flexible, recognizing that circumstances vary within and between sectors, and thus providing for tailored applications.



7. What is the benefit for the consumers?

All of us are consumers and all of us expect the products we purchase to be safe, perform well and deliver consistent quality. The GS1 Traceability Standard will help companies meet those expectations. When used with other quality and safety systems, the Standard will identify materials and products making it easier to get the right materials and products to the next step in the supply chain. And if a problem arises, the application of this Standard will make it easier to locate unsafe or defective products, remove them from or keep them out of the supply chain, thus reducing consumption or use of unsafe or defective products.

8. Does the Standard apply to all types of companies and supply chains?

The Standard is a high level description of the traceability process enabling and promoting supply chain collaboration. At the same time, it allows each company to design its own traceability system in terms of width, depth and precision in accordance to its own commercial objectives.

By defining a shared minimum requirement and showing what action is required from trading partners, the GS1 Traceability Standard enables maximum interoperability between traceability systems across the whole supply chain whilst accommodating specific commercial, industry sector or legislative requirements.

It serves as a foundational standard to be used as a starting point for identifying the unique requirements of each actor in the supply chain. This framework will ensure a common approach and understanding of key principles by businesses and governments around the world.

9. Which areas does the GS1 Traceability Standard not cover?

- It is not a standard for internal traceability, although it does show the inputs and outputs that must be linked by an internal traceability system.
- It is not a law or regulation, although it is designed to help business comply with existing and expected laws or regulations.
- It is not a replacement for a service provider for e.g. training or implementation support, although it does identify the types of information and core specifications that a service provider needs to consider in designing a system to manage traceability.
- It is not a replacement for safety or quality programmes. It complements them when a problem arises. For example, food safety programs such as the CIES Global Food Safety Initiative and quality programmes such as EUREPGAP.

10. Why is GS1 best suited to develop and support a Traceability Standard?

From an information management point of view, implementing a traceability system within a supply chain requires all parties involved to systematically associate the physical flow of materials, intermediate and finished products with the flow of information about them.



This requires a holistic view of the supply chain, which is best attained by deploying a global language of business – the GS1 System. Its neutrality and universal acceptance around the world makes it uniquely positioned to appropriately respond to traceability system design and implementation requirements.

Because of its ability to provide globally unique identification of trade items, assets, logistic units, parties and locations, the GS1 System is particularly well suited to be used for traceability purposes. Leading business organisations around the world have endorsed the use of GS1 traceability solutions.

11. What difference does the GS1 Traceability Standard make?

Considering the number of traceability initiatives, whether regional, national or international (Codex, ISO), it is reasonable to ask what point of difference the GS1 Traceability Standard provides. Quite simply, this Standard delivers the “nuts and bolts” that these other initiatives require or recommend.

For example, the two major economies, the European Union and the United States, have within the last few years passed regulations requiring specific information be collected to trace food products “one step up, one step back” within a supply chain. These regulations do not, however, specify how this should be done, leaving it to industry to find the most efficient and effective methods for their situations.

On an international scale, the Codex Alimentarius Commission is developing Guidelines for traceability of foods in international trade and has drafted a number of useful and important principles. While the ISO 9000:2000 Quality System Management Standard is applicable to all products not just foods, its approach is systematic - the criteria and limits for each product characteristic, how they are measured, actions to be taken if they are not met, auditing, training of personnel, etc. – but does not specify the criteria or the information to be collected. It is important to point out that the GS1 Traceability Standard does use the ISO definition of traceability.

Having a proven global standard-based traceability process can demonstrate that an organisation has met requirements of corporate responsibility.

12. What does the GS1 Traceability Standard define?

The Standard defines minimum requirements and business rules to be followed when designing and implementing a traceability system. They are clustered around a matrix of roles and responsibilities within the physical and information sub-processes:

- “Plan and Organise” sub-process determines how to assign, collect, share and keep traceability data. Furthermore, it determines how to manage links between inputs, internal processes, and outputs.
- “Align Master Data” sub-process determines how to assign identifications to the parties and physical locations, trade items and if appropriate to assets. It also determines how to exchange Master Data with trading partners.
- “Record Traceability Data” sub-process determines how to assign, apply and capture traceability identification and how to collect, share and store traceability data during the physical flow.
- “Request Trace” sub-process determines how to initiate and respond to a traceability request.
- “Use Information” sub-process enables the use of the previous processes to take appropriate action as required by legal and business requirements.



13. How will the GS1 Traceability Standard be maintained and developed further?

The global GS1 Traceability Council will be the permanent platform upon which to structure and develop all GS1 traceability activities. The Standard will be maintained and developed within the GSMP framework and under the leadership of the global GS1 Traceability Council.

14. How will users and solution providers correctly apply the GS1 Traceability Standard?

Correct interpretation and implementation of the Standard are of the highest priority for the GS1 Community. To that effect, education is seen as the foundation on which to build a global community of GS1 accredited and/or certified implementers of the GS1 Traceability Standard.

A comprehensive set of classroom and e-learning GS1 Traceability Education Programme modules is thought to be the best way to train and on-board existing and new users and solution providers. This programme will be delivered through the global network of GS1 Member Organisations in over 100 countries and territories.

15. Whom should I contact to find out more about the Standard?

Your local GS1 organisation may provide expert advice about the GS1 Traceability Standard and any existing extension, support during your project to implement a traceability policy, help to identify the technology most suited to your requirements and to assist you to get an appropriate level of knowledge and training on this technology and appropriate GS1 Standards.

In the case of an industry sector, you may want to establish a working group with representatives from all types of operators in your industry sector. Your local GS1 organisation may host and facilitate such working groups. If an industry sector discovers that it requires an extension to the generic standard, the GS1 organisation will advise and support this process.

The list of GS1 Organisations may be found at <http://www.gs1.org/>. For international initiatives, please contact the GS1 Global Office.

16. Who is the person responsible for Traceability Solutions at the GS1 Global Office?

Until the appointment of a Traceability Solutions Manager, who will be the first point of contact, please address your enquires to Miodrag Mitic, GS1 Solutions General Manager (miodrag.mitic@gs1.org).



GS1 Global Office
Avenue Louise 326, bte 10
B-1050 Brussels BELGIUM
T +32 2 788 78 00
F +32 2 788 78 99
W www.gs1.org