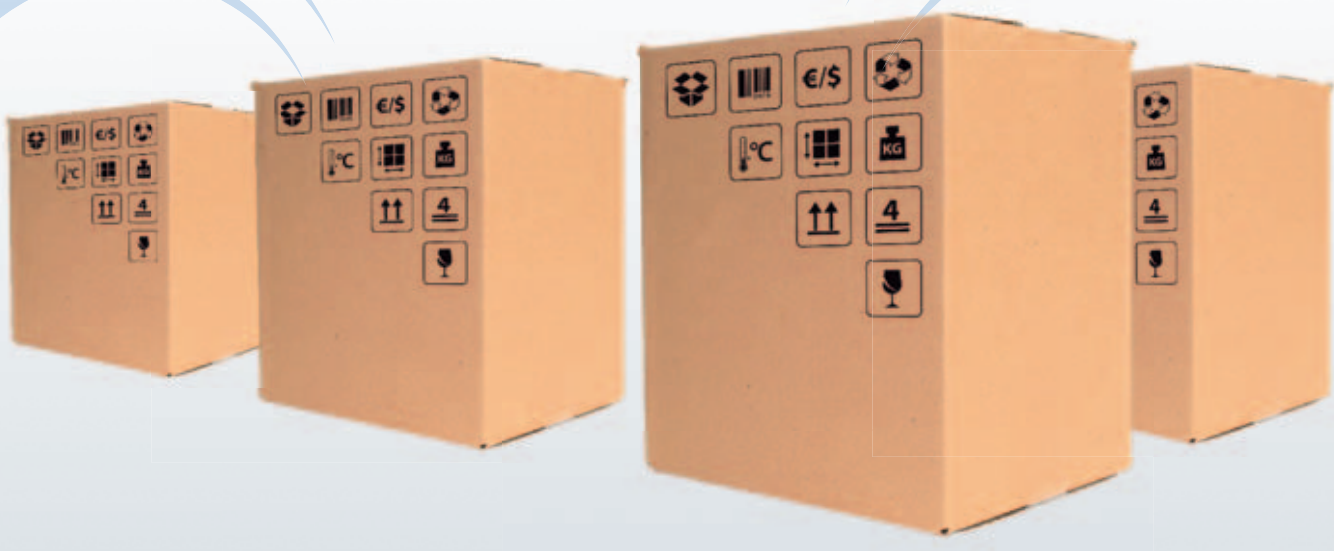GS1

Synchronising Data:
Proven Benefits for Your Company

GS1 GDSN

Every company in the world has a database filled with information about the products they make, or sell, or buy. These databases act very much like a catalogue that customers can use to place orders. Difficulties happen when one company needs to change any bit of information in their database or add a new item to it: suddenly their "catalogue" isn't up to date anymore.

That's where GDSN can help.

Implement GDSN and bring benefits and opportunities to your company

GDSN is **the GS1 Global Data Synchronisation Network®**, built around the Global Registry, GDSN-certified data pools, the GS1 Data Quality Framework and GS1 Global Product Classification, which when combined provide a powerful environment for secure and continuous synchronisation of accurate data.

As a result, trading partners always have the same information in their systems, and any changes made to one company's database are automatically sent to all of the other companies who do business with them.

When a supplier and a customer know they are looking at the same accurate and up-to-date data, it is smoother, quicker and less expensive for them to do business together.

Synchronising accurate, properly classified data also results in improved accuracy of orders, fewer forms to fill out, fewer duplicate systems and processes, and most importantly, a proven way to drive unnecessary costs out of the supply chain.

Many suppliers and retailers around the world, both large corporations and small manufacturers and producers, have already discovered how synchronising qualitative, properly classified data using GDSN can bring both benefits and opportunities.

What is GS1?

GS1 designs and manages a global system of supply chain standards.

We bring together companies representing all parts of the supply chain – manufacturers, distributors, retailers, transporters, customs organisations, software developers, local and international regulatory authorities, and more. These companies, who may in fact have conflicting business interests, work together under our leadership to agree upon standards that make the supply chain faster, more effective, less complex and less costly.
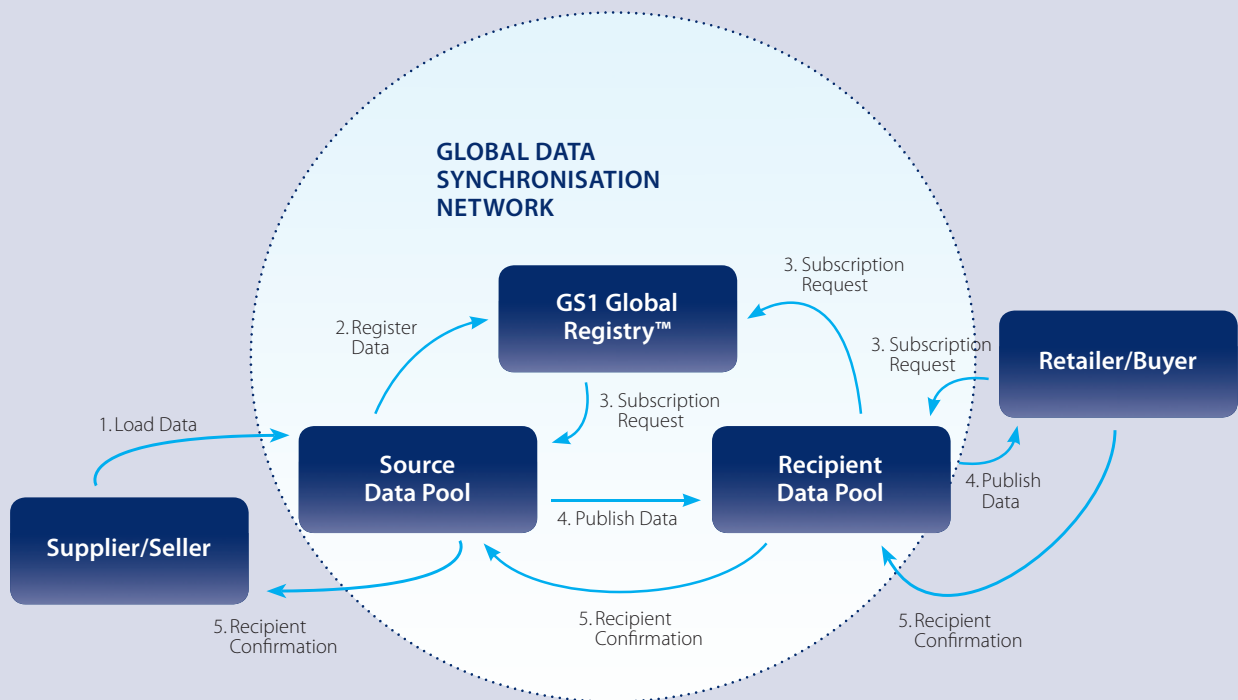
Without a neutral, not-for-profit and global organisation like GS1, such very different companies would probably not be able to agree on standards. We make it happen, and consumers and businesses benefit.

How does GDSN work?

GDSN is the GS1 Global Data Synchronisation Network, which connects trading partners to the GS1 Global Registry® via a network of interoperable GDSN-certified data pools.

Within this Network, trade items are identified using a unique combination of the GS1 identification keys called Global Trade Item Numbers (GTIN) and Global Location Numbers (GLN).

GLOBAL DATA SYNCHRONISATION NETWORK

GS1 Global Registry™

Source Data Pool

Recipient Data Pool

Retailer/Buyer

Supplier/Seller

1. Load Data

2. Register Data

3. Subscription Request

3. Subscription Request

3. Subscription Request

4. Publish Data

4. Publish Data

5. Recipient Confirmation

5. Recipient Confirmation

5. Recipient Confirmation

There are **five simple steps** that allow trading partners to synchronise item, location and price data with each other:

- **Load Data:** The seller registers product and company information in its data pool.
- **Register Data:** A small subset of this data is sent to the GS1 Global Registry.
- **Request Subscription:** The buyer, through its own data pool, subscribes to receive a seller's information.

- **Publish Data:** The seller's data pool publishes the requested information to the buyer's data pool.
- **Confirm & Inform:** The buyer sends a confirmation to the seller via each company's data pool, which informs the supplier of the action taken by the retailer using the information.

The **GS1 Global Registry** is the GDSN's "network facilitator and information directory" that guarantees the uniqueness of the registered items and parties. It provides data pools critical information to establish data synchronisation communications in the network and ensures they are using a standard set of messages, validation rules, and processes.

GS1-Certified Data Pools are electronic catalogues of standardised item data. They serve as a source and/or a recipient of master data. Data pools can be run by a GS1 Member Organisation or by a solution provider. An up-to-date list of all GDSN-certified data pools is always available at www.gs1.org/gdsn.

The importance of synchronising high-quality, properly classified data

Before data about a trade item even enters the GS1 Global Data Synchronisation Network, however, it must first be **factually accurate** and **properly classified**.

Indeed, this is essential to a successful data synchronisation programme. Synchronising incorrect or improperly classified data only creates problems, delays and costs in the supply chain.

It is easy to imagine the havoc that would result across the entire end-to-end procurement and logistics process if a product's height is indicated the "width" section, if it's listed as being 8 centimetres tall when it's actually 8 inches tall, or if it's classified as a canned good when it's actually a frozen food.

GDSN has ways to help prevent these sorts of problems.

GS1 Data Quality Framework: Ensuring quality data

GDSN calls for data quality programmes that are sustainable and focused on the long term: our experience has shown time and again that business benefits come not from enacting short-term curative data cleansing actions, but only from having good quality data from the start.

To ensure and maintain this level of data quality, GDSN recommends the processes described in the **GS1 Data Quality Framework**.

The GS1 Data Quality Framework uses GS1 standards and fits perfectly into GDSN. For suppliers, it enhances internal processes and guarantees the good quality of data that is shared. For retailers, it helps ensure that they have the means to receive and use proper information.

This data quality management system was established jointly by GS1 and:
- the Global Commerce Initiative (GCI)
- the European Brands Association (AIM)
- the Food Business Forum (CIES)
- the International Commerce Institute Europe (ECR)
- the Food Marketing Institute (FMI)
- the Association of Food, Beverage & Consumer Products Companies (GMA)

The Framework details a number of ways to show compliance, and contains a procedure for companies to self-assess their own status. Read more and download the GS1 Data Quality Framework at www.gs1.org/data_quality

GS1 Global Product Classification: Properly classifying data

To ensure products are classified correctly and uniformly, GDSN uses **GS1 Global Product Classification (GPC)**, a system that gives buyers and sellers a common language for grouping products in the same way, everywhere in the world.

This improves the Global Data Synchronisation Network's data accuracy and integrity, speeds up the supply chain's ability to react to consumer needs, and contributes to breaking down language barriers. It also facilitates the reporting process across product silos.

The foundation of GPC is called a "brick;" GPC bricks define categories of similar products. Using the GPC brick as part of GDSN ensures the correct recognition of the product category across the extended supply chain, from seller to buyer.

More information – including a discussion of methods of migrating from a legacy classification system to GPC – is available at www.gs1.org/gpc

Business benefits for retailers and suppliers of all sizes

Significant efficiencies in logistics, accounting, customer service and inventory management are made possible because supply chain disruptions are greatly reduced – often even eliminated! A more fluid supply chain is less expensive and faster for all involved.

Simplify and enhance reporting, order tracking, and planning abilities. Make additions and changes simpler to manage and process. Reduce the quantity of complaints and disputes that need to be treated. Greatly improve the accuracy of orders, shipments, and receiving. Lower logistics and labour costs. Increase sales. Enjoy the ability to have confidence in the information you're sending to and receiving from your trading partners.

Manufacturers

• Time-to-shelf reduced by an average of 2 to 6 weeks
• Order & item administration improved by 67%
• Item data issues in sales process reduced by an average of 25% to 55%

Retailers

• Order & item administration improved by 50%
• Coupon rejection at the check-out reduced by 40%
• Data management efforts reduced by 30%
• Improvement of on-shelf availability, with out-of-stock items reduced from 8% to 3%

Source: Reports by Accenture and Cap Gemini

Open the door to a multitude of opportunities

When you have confidence in the information you're sending to and receiving from your trading partners, many other collaborative actions and new ways of working together are possible. Data synchronisation enables innovative programmes that can help maximise marketing efforts, revolutionise promotions and transform corporate management.

Enable powerful corporate reporting, easily and quickly. Make global sourcing a reality. Eliminate expensive redundancies in the IT system and internal business processes. Create the possibility for data sharing. Expand your supplier base. Put an end to many time-consuming processes and manual forms. Launch sales synergy programmes. Establish transparency in sourcing and pricing. An abundance of ingenious ideas and inventive projects are possible, once you're part of the Global Data Synchronisation Network!

Data synchronisation is also a foundation for electronic collaborative commerce initiatives such as the Electronic Product Code™ (EPC). The GS1 EPCglobal Network™ relies on the accurate data exchanged through global data synchronisation.

Accenture and Cap Gemini have worked with major associations, suppliers and retailers to measure the business benefits of GDSN. Participants included Royal Ahold, The Coca-Cola Company, General Mills, The Hershey Company, The J.M. Smucker Company, Johnson & Johnson, Nestlé, PepsiCo, Procter & Gamble, Sara Lee, The Gillette Company, Unilever, and Wegmans. The reports of these business cases are posted on our web site: see www.gs1.org/gdsn for more details.

GDSN: Synchronising accurate and properly classified data brings business benefits

Benefits and opportunities **for retailers**

Better Category & Promotion Management
- Less need for local agents or intermediation
- Ability to expand supplier base
- Improved visibility for stock-level planning
- Simplified/enhanced category reporting
- Quicker and easier new item introductions
- Shorter lead time on product promotions
- Price changes or corrections easier to manage, less need for costly human intervention

Easier Administrative Data Handling
- Less in-store labour required: cost savings
- Less administrative personnel needed: cost savings
- Less time spent maintaining catalogues
- Less need for duplicate catalogues
- No need for cross-reference tables
- Fewer invoice disputes
- Fewer order defects
- Better fill rates

Smoother Logistics
- Savings from more accurate weights & measures
- Error-free shipment receiving
- Fewer return shipments
- Fewer backorders
- Less excess or "safety" stock
- Optimised location despatch
- Reduction in shrink

More Satisfied Consumers
- Better on-shelf availability
- Quicker checkout times
- More promotions

Better Bottom Line
- Increased sales

Benefits and opportunities **for suppliers**

Better Category & Promotion Management
- Improved visibility for stock-level planning
- Maximised retail exposure and product posting
- Simplified/enhanced category reporting
- Quicker and easier new item introductions
- Shorter lead time on product promotions
- Easier to add or change catalogue items (or their prices)

Easier Administrative Data Handling
- No need for cross-reference tables
- Fewer invoice disputes
- Fewer write-offs
- Fewer accounts receivable
- Fewer order defects
- Fewer downstream shipping and billing discrepancies

Smoother Logistics
- Efficient order sizing from accurate weights & measures
- Easier order tracking and tracing
- Fewer return shipments
- Higher percentage of perfect orders
- Fewer emergency orders
- More accurate picking
- Optimised short-term planning

More Efficient Employees
- Less administrative work means sales, buying & merchandising teams can focus on generating demand for product, growing business

Better Bottom Line
- Increased sales

Getting started with GDSN

GS1 and GDSN-certified data pools provide guidance and support in the implementation of GDSN.

Visit www.gs1.org/gdsn for more information.

Your local GS1 Member Organisation can help, too: see www.gs1.org/contact to find the GS1 office in your country.

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