



GS1 UK Solution: Upstream supply chain integration

Understand how GS1 standards can be used by manufacturers and their suppliers in the upstream supply chain to:

- Increase efficiencies
- Optimise inventory levels
- Maximise production capacity
- Improve trading relationships
- Reduce costs



About GS1 UK



Our mission is to make it **faster**, **cheaper** and **safer** for our members to serve their customers. This is achieved by the industry wide adoption of global GS1 standards and locally delivered services.

Life is simpler when we all have the same information. GS1 UK licenses unique numbers to identify everything from products to patients to enable increased efficiency. These numbers are used to automate the flow of goods and information and are integrated into one or more GS1 UK Solutions to increase supply chain efficiency.



GS1 UK adds value

GS1 UK Solutions improve business processes by cutting cost and time and increasing revenue and efficiency.

We have teams of industry experts with multiple disciplines to tackle the most complex problems businesses face today. We work with them and their trading partners to increase efficiency in their business. Organisations approach us when they want:

- **innovative and sustainable efficiency:** we deliver solutions to improve efficiency, sustainability and traceability in areas such as asset tracking, data quality management and retail point of sale
- **a responsive approach:** we listen, and deliver positively and effectively to their needs
- **delivery of real results:** we produce tangible benefits to their business

We are independent, profit-neutral and part of a global organisation of over one million member companies world wide, operating in 108 countries.

What is upstream supply chain integration?



For many years, retailers and their suppliers – the Consumer Packed Goods (CPG) manufacturers – have been using GS1 standards to improve the efficiency and effectiveness of their supply chains. Upstream supply chain integration aims to bring these same benefits to the manufacturers and their suppliers, one step up the supply chain. It does this by consistent and reliable information sharing and improved visibility of inventories, sales forecasts and production plans.

Evolution of the market

As markets have evolved in recent years, so more and more products and product variations are being developed for consumers – often in ever smaller quantities. Moreover, there is ever increasing pressure to reduce the time between the development, manufacture and final delivery of these products.

This puts enormous demands on the upstream supply chain,

between the manufacturers and their suppliers of parts, ingredients, raw materials and packaging – and this is especially true in the fiercely competitive CPG industry. The proven use of GS1 standards in the upstream supply chain can help relieve these pressures and also increase efficiencies and reduce costs.

The benefits of upstream integration

Upstream supply chain integration brings many benefits to both manufacturers and their suppliers.

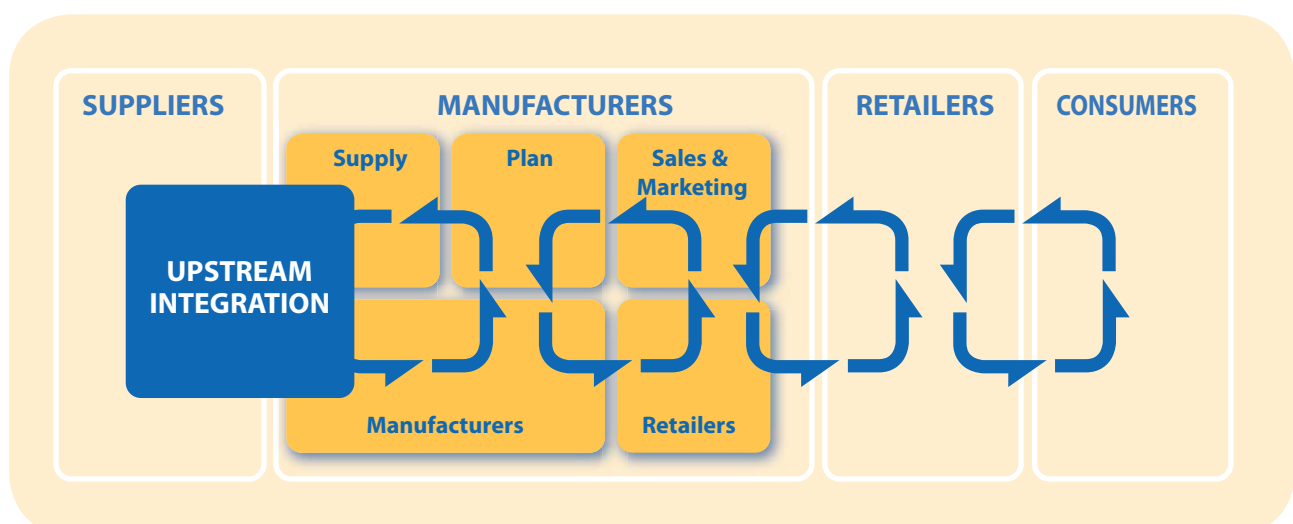
Supplier benefits:

- Greater and earlier visibility of manufacturer requirements and supply and demand forecasts
- Optimised inventory levels in the production process through shorter lead times
- Increased efficiencies through optimised supply chain processes
- Improved customer responsiveness and service levels

- Improved and faster reconciliation of payments due to greater sharing of information with customers
- Reduced costs due to overall improved processes

Manufacturer benefits:

- Increased responsiveness to retailer and other customer demands
- More efficient production planning resulting in maximised production capacities
- Optimised inventory levels in the production process through shorter lead times
- Increased efficiencies through optimised supply chain processes
- Improved trading relationships with both customers and suppliers
- Increased visibility and traceability of goods and their ingredients and materials
- Reduced costs due to overall improved processes



How GS1 standards support upstream integration



When people speak to each other in different languages progress can be very slow and misunderstandings are frequent. The same applies to companies doing business: when they can't understand each other, inefficiency and error results.

Standards are needed so that organisations can all refer to the same things in the same way when they do business. GS1 standards are the global language of business.

The GS1 System provides standard identification numbers for traded items and standard ways to represent these identifiers (for example, in the form of standard bar codes). In fact, the GS1 System goes further by enabling identification not only of traded items, but also of companies, locations, services, assets, logistics units and customers.

What's more, the numbers – or Identification Keys – issued by GS1 are completely unique, so no product can be confused with another. And the system is international so this uniqueness applies around the world.

GS1 Identification Keys

The following GS1 Identification Keys are most applicable to upstream integration:

- **GTIN** (Global Trade Item Number), which identifies all products
- **GLN** (Global Location Number), which identifies all parties (buyer, seller and any third parties involved in the transaction) and all physical locations
- **SSCC** (Serial Shipping Container Code), which identifies all logistics units

In addition, the industry standard GS1 Logistics Label is used to identify track pallets and other logistics units throughout the supply chain, and GS1 eCom standards for the exchange of electronic business messages between trading partners.

The use of GS1 standards in this way enables the physical flow of goods between trading partners to be connected to the information sent by electronic means.



The Global Upstream Supply Initiative (GUSI)



As part of the Global Commerce Initiative (GCI), a group of leading CPG manufacturers and their suppliers formed the Global Upstream Supply Initiative (GUSI) in order to address the upstream supply chain challenges faced by manufacturers and their suppliers.

The objective of GUSI is to avoid costly and time-consuming integration projects with every manufacturer or supplier. To achieve this they defined a common way to provide tighter integration of their supply chains.

The Upstream Integration Model (UIM)

GUSI has developed the Upstream Integration Model (UIM) – a standardised model that defines common business scenarios and processes covering areas such as procurement, material forecasting, inventory management, despatch, receipt, consumption of materials and financial settlement.

The concept of the UIM is based on six building blocks. Together, these six building blocks create a modular solution that defines the entire plan-to-cash process.

Building Blocks	Manufacturer Process	Transactions	Supplier Process
Integration Agreement	Agree on Business Rules	◀ Integration Agreement ▶	Agree on Business Rules
Data Alignment	Maintain Master Data	◀ Item Master Data ▶	Maintain Master Data
Purchasing Conditions	Agree Purchasing Conditions	◀ Purchase Conditions ▶	Agree Purchasing Conditions
Demand & Supply Signals	Report Inventory	◀ Inventory ▶	Report Inventory
	Gather Material Requirements	◀ Purchase Order ▶	Plan Production & Supply
	Integrate Information	◀ Net Requirements ▶	
Despatch Receipt & Consumption	Await Shipment	◀ Consumption Forecast ▶	Confirm Delivery
	Receipt of Goods	◀ Replenishment Forecast ▶	
	Check Goods	◀ PO/Net Requirements Confirmation ▶	Pick & Pack goods
	Consume Goods	◀ Delivery Plan ▶	
Financial Settlement	Invoice Receipt	◀ Despatch Notification ▶	Shipment
	Create Self-Billing Invoice	◀ Physical shipment of goods ▶	Goods Receipt Notification
	Invoice Confirmation	◀ Receipt Notification ▶	Consumption Notification
	Create Remittance Advice	◀ Consumption Report ▶	Create Invoice
	Initiate Payment	◀ Invoice ▶	Invoice Receipt
		◀ Self-Billing Invoice ▶	Invoice Confirmation
		◀ Invoice Confirmation ▶	Payment Notification
		◀ Remittance Notification ▶	Payment Receipt
		◀ Physical Payment ▶	

Source: The 'UIM' version 3.0

The UIM fully supports the two most commonly adopted procurement scenarios:

- Traditional Order Management (TOM) – the manufacturer-driven scenario where orders are initiated by the manufacturer and sent to the supplier
- Supplier Managed Inventory (SMI) – the supplier-driven scenario where the supplier delivers to the manufacturer based on the manufacturer's inventory data and/or consumption forecasts.



Support for GS1 standards

The UIM fully utilises GS1 standards for identification – the GTIN, GLN, SSCC and the GS1 Logistics Label. 15 GS1 XML messages cover all the upstream business transactions.

Building Blocks	GS1 XML messages
Master Data Alignment	Item Data Notification
Purchase Conditions	Purchase conditions
Demand & Supply Signals	Inventory Activity or Inventory Status Multishipment Order Order Response Goods Requirements Goods Requirements Response Replenishment Request Replenishment Proposal
Despatch, Receipt & Consumption	Despatch Advice Receipt Advice Consumption Report
Financial Settlement	Invoice Invoice Response Settlement

Building blocks and GS1 XML messages association

GUSI helps achieve collaboration benefits in the following areas:

- Service: product availability and lead time
- Administration: forecasting, order processing, financial settlement and data management
- Operation: physical receipt, manufacturing, change-over and truck fill-rate
- Financial: working capital and inventory.

GS1 provides further support for GUSI and the implementation of the UIM by:

- Tailoring GS1 standards for specific upstream supply chain processes
- Supporting the development of the UIM
- Providing direct support for implementations by manufacturers and their suppliers.

"It is important to note that the benefits of the robust GUSI set of standards do not only occur in the upstream, they also flow to the downstream where customers and consumers are also beneficiaries."

Garry Haworth, Head
of eBusiness, Nestle
and GUSI Co-Chair





The benefits of GUSI and the UIM

Some of the world's largest CPG manufacturers and their suppliers have identified significant benefits in implementing the UIM with their suppliers:

- **Faster integration:** Up to 75% reduction in the time taken to implement the standard business processes defined by the UIM with their suppliers
- **Reduced costs:** Reduced development and training costs when connecting with new suppliers and lower ongoing maintenance costs due to fewer non-standard processes
- **Wider scope:** Due to the faster integration times and reduced costs the UIM can be implemented across a wider range of manufacturers and suppliers, no matter how large or small they are.

The adoption of the UIM allows companies to translate their internal processes and approaches into a common language that all trading partners can use. As more companies implement the UIM, so the overall benefits increase.

"GUSI is an Industry Integration Solution built on common processes and standards that will enable scaled benefits for trading partners."

Roland Dachs, Vice-President Logistics & Planning, Crown Europe and GUSI Co-Chair



How GS1 UK can help



Many manufacturers and their suppliers throughout the world have already implemented GS1 standards to improve the efficiency of their trading relationships. GS1 UK provides support for all companies implementing GS1 standards and helps to ensure the successful roll-out of GUSI to UK manufacturers and their suppliers.

If you are trying to determine which areas of your upstream supply chain would most benefit from automation, the GS1 UK Professional Services team can provide expert and impartial business analysis and recommendations. We can help companies of all sizes to identify ways in which they can benefit from upstream integration. We do this by:

- Reviewing your existing upstream supply chain processes to determine the areas where GS1 standards and GUSI can maximise efficiencies and deliver the highest cost savings
- Working with other companies already implementing GUSI to bring the same benefits to you
- Recommending specific upstream supply chain implementations, for example, automating particular process flows such as ordering or invoicing and receiving or despatching goods
- Ensuring the correct use of GS1 standards, in particular product and goods identification, bar coding labelling, and electronic messaging
- Working with you or alongside your service providers to ensure your trading partners correctly implement a standardised approach to upstream supply chain integration.

GS1 UK Professional Services

GS1 UK provides a range of professional services that deliver expert business consultancy, project management and community development capabilities to assist in the implementation and roll-out of all GS1 Solutions and standards. We do this by following a three-stage process:

1. Discovery Service

With a Discovery Service we carry out a thorough business analysis of the issues facing the client, and assess all opportunities for greater efficiencies. This may include the further adoption of a GS1 solution based on your supply chain issues and objectives.

We provide expert and impartial business analysis and recommendation relating to GS1 supply chain solutions and standards and their potential benefits.

2. Implementation Service

We provide project management and support to ensure the successful implementation of GS1 UK Solutions. We do this through a team of specialist professionals capable of providing guidance and support at all stages of the implementation. We can also provide independent advice and support in the selection of solution providers and vendors.

3. Community Development

We can also help organisations to ensure their suppliers all follow the same processes through a community development programme.

Contact us



If your organisation is looking to increase supply chain efficiencies and reduce operating costs then the GS1 UK team can provide a strategic and pragmatic approach to delivering you a solution.

Contact GS1 UK for an initial discussion or visit

www.gs1uk.org/solutions/Upstream_integration/Upstream_integration.asp

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