



## Achieving **Visibility** in Transport & Logistics



# Meeting the challenges of the modern transport and logistics sector

Nowadays, many different actors may take part in the transport of goods between a seller and a buyer.

To optimize the management and reduce the costs of these complex and increasingly global supply chains, logistics service providers, freight transporters and their customers need to know exactly where their shipments are, at any moment. That's where GS1 can help. The GS1 System of Standards enables real-time, end-to-end visibility over the entire supply chain. Companies can know exactly where things are at any point in time, where they have been before, and why.

GS1 provides a standardised way to **identify** items and locations, to **capture** details about supply chain movements, and to **share** that information with authorised business partners.

Furthermore, the GS1 System of Standards is a neutral global framework that ensures interoperability among all stakeholders.

SHIPPERS AND LOGISTIC SERVICE PROVIDERS **NEED** TO BE ABLE TO DETERMINE EXACTLY **WHERE** THEIR SHIPMENTS ARE AT **ANY GIVEN TIME** SO THEY CAN MAKE **GOOD BUSINESS DECISIONS** AND **TAKE APPROPRIATE ACTION** BASED ON **ACCURATE UP-TO-DATE INFORMATION**.

*78% of Chief Supply Chain Officers recently surveyed by Aberdeen say that **improving supply chain visibility** is a top priority*



*Many different actors can take part in the transport of goods between a seller and a buyer. That's why end-to-end supply chain visibility is so important.*



MANUFACTURER



PALLET



TRANSPORT



PORT OR HARBOUR



TRANSPORT



CUSTOMS



PORT OR HARBOUR





## A wide range of tangible business benefits

When companies and their logistics service providers have access to real-time knowledge about the flow of products and transactions in their supply chains, they can make decisions that drive business value.

- More precise shipment tracking, with real-time updates
- More accurate planning, forecasting and replenishment
- Optimised fleet management
- More efficiently managed vehicles, containers and warehouses
- More effective and cost-optimised traceability and recall programs
- Easier collaboration using common identification and information sharing mechanisms
- Reduced, and in some cases even entirely eliminated, paperwork
- More secure import controls
- Reduced CO<sub>2</sub> emissions (thanks to fewer "empty" miles)
- And more

GS1 Standards *deliver value* to  
all transport & logistics processes, including :

- Shipping & Receiving*
- Warehouse Management*
- Transport Management*
- Border Procedure Management (Customs)*
- Asset Management*



CONTAINER



TRANSPORT



LOGISTIC SERVICE  
PROVIDER DISTRIBUTION  
CENTRE



TRANSPORT



PALLET



RETAILER



CONSUMER



# Delivering Value in Shipping and Receiving

Get goods in and out, accurately and quickly





> Shipments come in from manufacturing plants or distribution centres. They depart toward other warehouses or directly to retail stores, hospitals, restaurants and other destinations.

They need to be received, verified, logged, consolidated, stored, and more – sometimes even down to the serialized item level. It is vital to know what is expected to arrive and when; and to know where the outbound shipments are as they make their way downstream.



Get the best of GS1 Standards in  
Shipping and Receiving for improved  
**visibility** of incoming shipments.



More info:

[www.gs1.org/transportlogistics](http://www.gs1.org/transportlogistics)





## Delivering Value in Warehouse Management

Moving beyond storage to value-added services







> More manufacturers and retailers are outsourcing the management of their warehouses and distribution centres to Logistic Service Providers (LSPs). Furthermore, warehouses are no longer used just for storage. LSPs are offering

warehouse-based value-added services including the consolidation of goods from multiple transport operators, management of cross-dock deliveries and additional services such as assembly of retail displays.



Get the best of GS1 Standards in  
Warehouse Management for better  
**visibility** of inbound and outbound  
flows and inventory



**More info:**

[www.gs1.org/transportlogistics](http://www.gs1.org/transportlogistics)



# Delivering Value in Transport Management

Plan knowledgeably, execute efficiently





> Today's supply chains demand more frequent, just-in-time deliveries, smaller shipments and more pinpoint distribution in often dense city areas. Additionally this needs to be accomplished at the

lowest possible cost, using sustainable methods across multiple transport modes. The GS1 System and the GS1 Logistic Interoperability Model (LIM) are key enablers in this area.



Get the best of GS1 Standards in  
Transport Management to  
reduce costs and improve  
shipment **visibility**.



More info:

[www.gs1.org/transportlogistics](http://www.gs1.org/transportlogistics)



# Delivering Value in Border Procedure Management (Customs)

Moving products across borders with greater visibility and efficiency





> Managing the flow of goods across land and sea borders poses a major challenge and growing security concerns for government agencies and trading partners. Government officials need help to make prompt and well-informed decisions to admit or deny entry.

This is where GS1 comes in. GS1 Standards can significantly improve product visibility at border crossings, improve consumer security, and deliver cost savings to industry, government, national regulators and customers alike..



Get the best of GS1 Standards in  
Border Procedure Management (Customs)  
to improve product **visibility** at  
border crossings and improve  
consumer security



More info:

[www.gs1.org/transportlogistics](http://www.gs1.org/transportlogistics)





## Delivering Value in Asset Management

Optimise availability and reduce costs and delays





*> All trading partners benefit when individual returnable assets can be identified, tracked and traced across different physical sites. No location ever needs to find itself short of necessary equipment, and inventory management of assets is significantly faster and more accurate.*



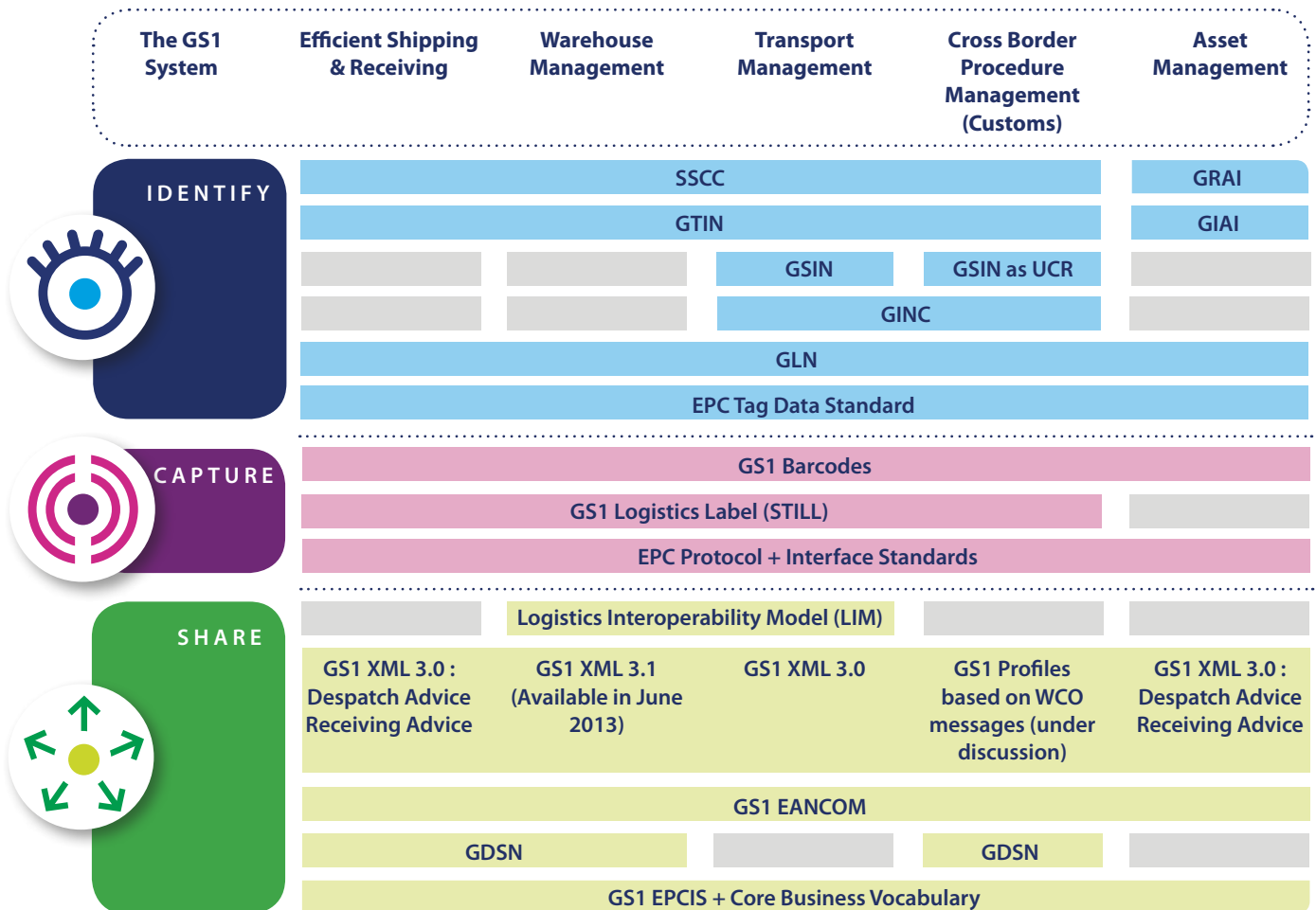
Get the best of GS1 Standards in  
Asset Management for better **visibility**  
of asset movements and inventory



**More info:**

[www.gs1.org/transportlogistics](http://www.gs1.org/transportlogistics)

# GS1 Visibility in Transport & Logistics



**Learn more**

Interested in learning more ? Contact your local GS1 Member Organisation ([www.gs1.org/contact](http://www.gs1.org/contact)) and read more case studies at [www.gs1.org/transportlogistics/implementation](http://www.gs1.org/transportlogistics/implementation)



# GS1 Standards at the service of the Transport & Logistics sector

GS1 provides a standardised way to **identify** items and locations, to **capture** details about supply chain movements, and to **share** that information with authorised business partners. Furthermore, the GS1 System of Standards is also a neutral global framework that ensures interoperability among all stakeholders.



## IDENTIFY: GS1 Standards for Identification

Used to uniquely distinguish all products (trade items), logistic units, locations, and assets across the supply chain from manufacturer to consumer.

COMPANY & LOCATION	PRODUCT
Global Location Number (GLN)	Global Trade Item Number (GTIN) Serialised Global Trade Item Number (SGTIN)

LOGISTICS & SHIPPING	ASSETS
Serial Shipping Container Code (SSCC) Global Shipment Identification Number (GSIN) Global Identification Number for Consignment (GINC)	Global Individual Asset Identifier (GIAI) Global Returnable Asset Identifier (GRAI)

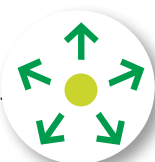


## CAPTURE: GS1 Standards for Barcodes & EPC/RFID

GS1 Barcodes and EPC/RFID are data carriers for GS1 identifiers but can also accommodate different needs such as Batch/lot information and expiry dates.

ITEM & CASE	ASSETS
<b>EAN/UPC</b> Carries a Global Trade Item Number (GTIN)) <b>ITF-14</b> Carries a GTIN <b>GS1-128</b> Carries a GTIN with extended data such as Batch/Lot Number <b>EPC/RFID</b> Carries a Serialised GTIN (SGTIN)	<b>GS1-128</b> Carries a Global Returnable Asset Identifier (GRAI) or a Global Individual Asset Identifier (GIAI).  <b>GS1 EPC/RFID</b> Carries a Global Returnable Asset Identifier (GRAI) or a Global Individual Asset Identifier (GIAI).

LOGISTICS & SHIPPING	LOCATION
<b>GS1-128</b> Carries a Serial Shipping Container Code (SSCC) and potentially a GTIN  <b>GS1 EPC/RFID</b> Carries an SSCC	<b>GS1-128</b> Carries a Global Location Number (GLN) <b>GS1 EPC/RFID</b> Carries read points and business location identified by the GLN and optional extension



## SHARE: GS1 Standards for Data Exchange

Interoperability, made possible by identification standards, data capture standards, and interface standards, allows product information to flow through the supply chain.

MASTER DATA	TRANSACTIONAL DATA	EVENT DATA
<b>GDSN</b> Global Data Synchronisation Network  The GDSN connects trading partners to the GS1 Global Registry® via GS1-certified Data Pools, enabling automated electronic sharing of standardised, up-to-date, accurate, product information.	<b>eCom</b> Electronic Communication  GS1 eCom standards (GS1 EANCOM®, GS1 XML) provide clear guidelines for Electronic Data Interchange (EDI), enabling electronic sharing of accurate business transaction information between trading partners.	<b>EPCIS</b> Electronic Product Code Information Services  EPCIS is the standard for immediate sharing of information about critical events between trading partners in the end-to-end supply chain



GS1  
Blue Tower  
Avenue Louise 326, b10  
B-1050 Brussels - Belgium  
T. +32 (0)2 788 78 00  
F. +32 (0)2 788 78 99  
[contactus@gs1.org](mailto:contactus@gs1.org)  
[www.gs1.org](http://www.gs1.org)

GS1 is a registered trademark  
of GS1 AISBL

February 2013