Achieving Visibility in Transport & Logistics

Do you know where your shipments are?
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.

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.

78% of Chief Supply Chain Officers recently surveyed by Aberdeen say that improving supply chain visibility is a top priority.
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 CO₂ 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
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
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
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
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
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.

More info: www.gs1.org/transportlogistics
## GS1 Visibility in Transport & Logistics

### The GS1 System

<table>
<thead>
<tr>
<th>Efficient Shipping &amp; Receiving</th>
<th>Warehouse Management</th>
<th>Transport Management</th>
<th>Cross Border Procedure Management (Customs)</th>
<th>Asset Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSCC</td>
<td>GTIN</td>
<td>GSIN</td>
<td>GSIN as UCR</td>
<td>GRAI</td>
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<td>EPC Tag Data Standard</td>
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</tbody>
</table>

### IDENTIFY

- SSN
- GTIN
- GSIN
- GSIN as UCR
- GIN
- GLN
- EPC Tag Data Standard

### CAPTURE

- GS1 Barcodes
- GS1 Logistics Label (STILL)
- EPC Protocol + Interface Standards

### SHARE

- Logistics Interoperability Model (LIM)
- GS1 XML 3.0: Despatch Advice Receiving Advice
- GS1 XML 3.1 (Available in June 2013)
- GS1 XML 3.0
- GS1 Profiles based on WCO messages (under discussion)
- GS1 XML 3.0: Despatch Advice Receiving Advice

### Learn more

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

**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.

**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.

### Identify

<table>
<thead>
<tr>
<th>COMPANY &amp; LOCATION</th>
<th>PRODUCT</th>
</tr>
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<tbody>
<tr>
<td>Global Location Number (GLN)</td>
<td>Global Trade Item Number (GTIN)</td>
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<tr>
<td></td>
<td>Serialised Global Trade Item Number (SGTIN)</td>
</tr>
</tbody>
</table>

### Logististics & Shipping

<table>
<thead>
<tr>
<th>LOGISTICS &amp; SHIPPING</th>
<th>ASSETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Shipping Container Code (SSCC)</td>
<td>Global Individual Asset Identifier (GIAI)</td>
</tr>
<tr>
<td>Global Shipment Identification Number (GSIN)</td>
<td>Global Returnable Asset Identifier (GRAI)</td>
</tr>
</tbody>
</table>

### Item & Case

<table>
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<th>ITEM &amp; CASE</th>
<th>ASSETS</th>
</tr>
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<tbody>
<tr>
<td>EAN/UPC Carry a Global Trade Item Number (GTIN))</td>
<td>GS1-128 Carries a Global Returnable Asset Identifier (GRAI) or a Global Individual Asset Identifier (GIAI).</td>
</tr>
<tr>
<td>ITF-14 Carries a GTIN</td>
<td></td>
</tr>
<tr>
<td>GS1-128 Carries a GTIN with extended data such as Batch/Lot Number</td>
<td>GS1 EPC/RFID Carries a Global Returnable Asset Identifier (GRAI) or a Global Individual Asset Identifier (GIAI).</td>
</tr>
<tr>
<td>EPC/RFID Carries a Serialised GTIN (SGTIN)</td>
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### Logistics & Shipping

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

### Master Data

- **GDSN 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.

### Transactional Data

- **eCom 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.

### Event Data

- **EPCIS 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.