SHARE

Electronic Data Interchange (EDI)

In order to provide timely information to the parties involved in the delivery management process two main EDI message standards need to be applied.

Delivery Management

1: Despatch Advice

2 : Receiving Advice

Shipper   Receiver

The **Despatch Advice** enables a shipper to provide information about the content of a shipment to a receiver. Usually, the Despatch Advice serves as a pre-announcement of the goods being shipped. In a pick-up scenario it may also serve as a pre-announcement of goods to be collected.

The **Receiving Advice** enables the receiver of the shipment to inform the shipper on the actual goods received, compared to what was advised as being sent.

GS1 XML	GS1 EANCOM	ANSI X12
Despatch Advice	Despatch Advice, DESADV	Advance Shipping Notice (ASN), 856
Receiving Advice	Receiving Advice, RECADV	Receiving Advice, 861

Global Data Synchronisation Network

Important pre-requisite for efficient delivery management is the alignment of trade item master data. The **Global Data Synchronisation Network (GDSN)** enables companies to efficiently exchange data on all of their trade items, including hierarchical relations between trade items (e.g. outer cases and contained consumer units), and palletization information (e.g. number of layers, number of cases per layer).

GS1 Standards for Delivery Management

Shipping & Receiving

What is Delivery Management

Delivery Management is the collaborative process between shipper, transport provider and receiver **focused on the logistics related to order fulfilment.** It covers the picking and packing of goods, staging and loading, the unloading, the inspection and receiving process. Scenarios include delivery to customer Distribution Center (DC), direct delivery to final customer destination (e.g. a store), cross-dock delivery, and home delivery.

Receiving
- Unload goods
- Sign waybill
- Receiving Advice

- Pick and pack goods
- Load goods
- Despatch Advice

Shipping

Shippers   Receivers

LSPs

Stakeholders

Stakeholders involved in the Delivery Management process include:
- Shipper (sender of goods), *Manufacturer, Retailer, Distributor, Wholesaler, ...*
- Receiver (of goods), *Retailer, Hospital, ...*
- T&L Service Providers, *Warehouse Service Provider, Carrier, RTI pool operator...*

Business Process

As shipments of goods arrive from manufacturing plants to warehouses for consolidation, cross docking, or storage, efficient and accurate receipt processes demand that trading partners have clear and aligned identification of pallets and cases.

Likewise, shipments from manufacturers and distribution centres to stores, hospitals, construction sites, etc., mandate the same rigor in communications and identification of goods down to the product/ item level.

The capability of the warehouse to quickly identify and understand what cases are to be combined with other cases for immediate shipment to a specific retailer or what cases are to be held in storage for future replenishments is critical for an efficiently run warehouse. The Receiver of the goods must be able to efficiently identify receipt of goods ordered for stocking store, hospital shelves and replenishment control.

GS1 Standards

Knowing exactly where goods are at any point in time (or where they have been) and when they are scheduled to arrive is equally critical. This capability or visibility is enabled by GS1 identifiers that are captured on a standards-based label or tag with information shared and synchronised by all trading partners.
GS1 offers a comprehensive set of standards in support of the Delivery Management process.
- Standards to **identify** logistic units, trade items, locations and returnable transport items.
- Standards to automatically **capture** barcoded data in order to efficiently register which goods are being picked, shipped, received and stored.
- Standards to electronically **share** data between trading partners in order to pre-announce the shipment is on its way, and to rapidly confirm the shipment has been received.
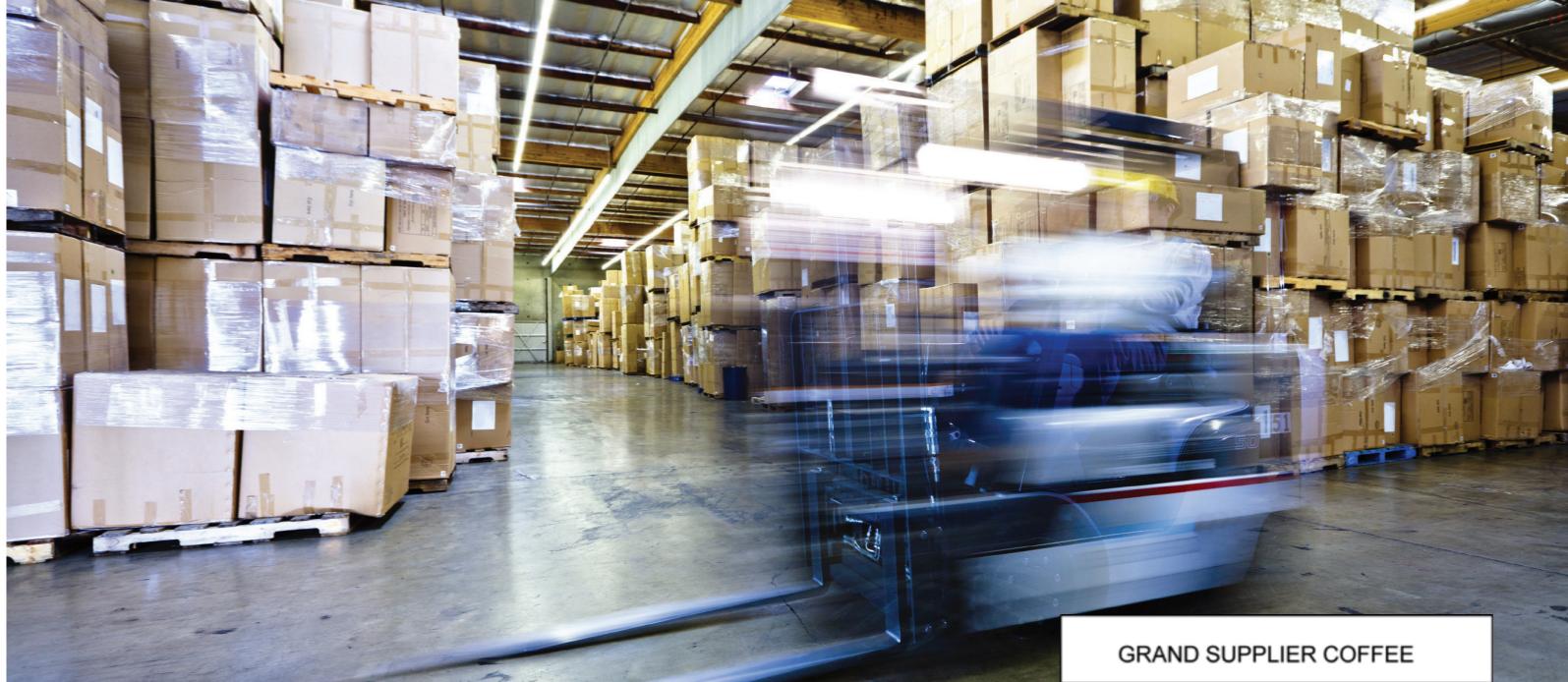
IDENTIFY

The **Global Location Number (GLN)** can be used by companies to identify their locations, such as the locations from where goods will be shipped (plants, DCs) and the ship to locations (DCs, stores).

The **Global Trade Item Number (GTIN)** can be used by a company to uniquely identify all of its trade items. The GTIN can be used to identify types of products at any packaging level (e.g., consumer unit, inner pack, case, pallet). Groups of trade items with similar production and usage characteristics such as production batches can be further identified with the help of the batch / lot number, expiry date, and similar data elements. Individual trade items can be uniquely identified using a GTIN plus serial number.

The **Serial Shipping Container Code (SSCC)** can be used by companies to identify a logistic unit, which can be any combination of trade items packaged together for storage and/or transport purposes; for example a case, pallet or parcel.

The **Global Returnable Asset Identifier (GRAI)** is especially suitable for the management of reusable transport items, and can identify these returnable assets by type and if needed also individually for tracking and sorting purposes.

CAPTURE

Various bar code standards are of importance in the delivery management processes.

Trade Items

For the barcoding of trade items used in the distribution process (such as outer cases) ITF-14, EAN-13, UPC-A and GS1-128 are the most applied symbologies.

EAN-13

5 012345 678900

UPC-A

0 12345 67890 5

The symbols from the EAN/UPC Symbology family can be used when only a GTIN needs to be encoded and no special printing conditions apply.

ITF-14

00012345678905

The ITF-14 symbology can be used to encode a GTIN, and where printing conditions require the application of a less demanding symbology

GS1-128

(01) 0 0614141 00004 8 (15) 140228 (10) 451214

The GS1-128 symbology can be used to encode a GTIN and additional attributes of the trade item, such as batch/ lot number and expiry date.

Logistic Units

Barcodes on logistic units are included on a separate label, and GS1 has a standard for this: **The GS1 Logistics Label.**

Barcodes on GS1 Logistics Label always need to use the **GS1-128** symbology, which can encode the SSCC, GTIN, GLN and several other attributes (see next paragraph).

GRAND SUPPLIER COFFEE

SSCC
0 0614141 1234567890
CONTENT   COUNT
0061414100418   20
BEST BEFORE   BATCH
28.02.14   451214

(02) 0 0614141 00004 8 (15) 140228 (10) 451214 (37) 20

(00) 0 0614141 123456789 0

GS1 APPLICATION IDENTIFIERS

A GS1 Application Identifier (AI) is a field of two or more digits at the beginning of an Element String that uniquely defines its format and meaning. GS1 Application Identifiers are used in all GS1 endorsed bar code symbologies that can encode more than a GTIN, such as GS1-128.

Examples of application identifiers are:
AI (00) SSCC, AI (01) GTIN, AI (02) CONTENT, AI (37) COUNT, AI (15) BEST BEFORE

Locations

The GLN can be included on logistic locations using the GS1-128 symbol with AI (414) LOC NO. If needed also the GLN Extension Component can be included using AI (254).