GS1 Standards for Transport and Logistics

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GS1: Vision and Mission

At GS1, Our Vision is a world where goods and related information move efficiently and securely for the benefit of businesses and people’s lives.

Our Mission is to be the neutral leader enabling communities to develop and implement global standards.
• GS1 is a global organization dedicated to the design and implementation of **global standards services and solutions** to improve the efficiency & visibility of the **supply chain**

• The GS1 system of standards is the **most widely used** supply chain standards system in the world
GS1 in a nutshell

GS1 is a fully integrated global organization
• More than 30 years of history
• Over 108 Local GS1 Organizations representing all points in the supply chain
• Over 1.3 Million companies doing business across 150 countries

GS1 operates in multiple sectors & industries
• Over 20 represented sectors ranging from Fast Moving Consumer Goods to Healthcare, Transport, Aerospace…
• GS1 is a **not-for-profit** organization

• GS1 is **neutral** from the business partners

• GS1 is **user-driven and governed**

• GS1 **serves all companies**, both multinationals and SMEs
GS1 Customers

Retail

Healthcare

Customs, transport & logistics

Under Discussion: Aerospace & Defense, Automotive, Postal, Financial Services
Our Global Standards

Global standards for automatic identification
Rapid and accurate item, asset or location identification

Global standards for electronic business messaging
Rapid, efficient & accurate business data exchange

The network for global data synchronisation
Standardised, reliable data for effective business transactions

Global standards for RFID-based identification
More accurate, immediate and cost effective visibility of information
GS1 Activities in Transport & Logistics

- GS1 Logistics Forum
  - STILL - Recommendation on GS1 Logistics Label
  - Logistics Interoperability Model (LIM) – eCom message standards developments for T&L
- EPC TLS Industry Action Group
  - Contribute to the EPC RFID Standards developments
  - EPC RFID Pilot Projects using EPC standards including EPCIS
- Number of MO’s already active in the T&L Sector
- Activities with WCO & local Customs
- Contributions to the int’l standards development (ISO, UN/CEFACT)
GS1 in Transport and Logistics

- Use of GS1 eCom messages streamlined communication between Unilever and DHL

- GS1 North Americas and VICS launched Service for less empty miles runs of trucks that contributes to more sustainable Transport

- German Dachser uses GS1 IDs to improve the logistics processes

- Swedish Bring Frigoscandia uses GS1 Standards to meet requirements of the EU Food traceability

- In Peru EPC/RFID brings visibility and better quality data to Korean multinational LG and partners
Increased Visibility of GEFCO thanks to GS1 Standards

GEFCO, one of leading logistics companies in Europe, uses **GS1 standards in identification and communication**

**Benefits:**

- **Increased visibility** of the flow of goods and shipments for each supplier and store

- **Increased quality of service** and client satisfaction

- **Optimisation** of physical and information flows and associated logistics costs
Visibility and interoperability in transportation and warehousing: these are goals long sought by supply chain stakeholders, and ones which can only be achieved through business process alignment and improvement.

LIM is the framework of common business processes and related data communication interchanges (EDI).

For all levels of the interoperations in Transport and Warehousing,

From master data alignment to financial settlement.
The LIM is...

- an interchange standard for information based on global GS1 standards, GS1 data keys (GSIN, GRAI, SSCC) and GS1 EANCOM and GS1 XML
- intended to scale from large corporations down to SMEs
- focused on visibility
- a collaborative approach around the key players, the logistic service providers

• The LIM can support the vision of the Sustainable Transport especial regarding the reduction of the environmental impact of transport
• The LIM will give the parties in the supply chain the opportunity for scalability
LIM at a glance

Logistic Services Provider  Interoperation Agreement  Logistic Services Client

Logistic Services Provider  Location Master Data  Item Master Data  Transport Routing Data  Logistic Services Client

Logistic Services Provider  Logistics Services Conditions  Logistic Services Client

Logistic Services Provider  Planning  Warehousing Capacity  Warehousing Requirements  Logistics Services Client

Logistic Services Provider  Finance Settlement  Invoicing  LSC Statement of Charges  LSP Statement of Charges  Invoice  Self Billed Invoice  Remittance Notification  Logistic Services Client

Logistic Services Provider  Logistics Service Client

Logistics Service Provider  Consignee  Inbound Delivery Status  Despatch Notification Inbound  Logistics Service Client

Logistics Service Provider  Instruction To Receive  Goods + Logistics Label  Logistics Service Client

Logistics Service Provider  Consignor  Receipt Notification Inbound  Despatch Notification Outbound  Logistics Service Client

Logistics Service Provider  Warehouse Service Order  Inventory Status Instruction  Inventory Report  Logistics Service Client

Logistics Service Provider  Instruction To Despatch  Goods + Logistics Label  Logistics Service Client

Logistics Service Provider  Outbound Delivery Status  Receipt Notification Outbound  Logistics Service Client

Logistics Service Provider  Consignor  Despatch (outbound)  Consignee

Logistics Service Provider  Transport Instruction  Transport Accompanying Documents  Logistics Service Client

Logistics Service Provider  Collect  Pick Up Request  Goods + Logistics Label  Logistics Service Client

Logistics Service Provider  Monitoring  Transport Status Request  Logistics Service Client

Logistics Service Provider  Send  Drop Off Request  Drop Off Confirmation  Logistics Service Client

Logistics Service Provider  (Final) Transport Status Notification  Signed Transport Documents  Logistics Service Client

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Scope of LIM I

- Continental transport (so basically road transportation)

- Planning and Execution:
  - Master data alignment
  - Conditions
  - Planning
  - Execution
  - Financial Settlement

- UNCEFACT alignment

- GS1 eCom: EANCOM and XML, alignment of the use of messages by message guidelines and business transaction rules on top.

- GS1 logistics label enhanced for Transport use
Status LIM 1

Logistics Service Provider  Logistics Service Client

Interoperation Agreement

Logistics Service Conditions

Planning

BSD to start TI & TIR, piloting beta versions

BRAD in construction

Logistics Service Provider  Logistics Service Client

Financial Settlement

LSC Statement of Charges
LSIP Statement of Charges
Invoice
Self Billed Invoice
Remittance Notification

BRAD to start

Logistics Service Provider  Logistics Service Client

Master Data Alignment

Location Master Data
Item Master Data
Transport Routing Data

Consignee

Instruction To Receive
Despatch Notification Inbound
Receipt Notification Inbound

Consignment

Goods + Logistics Label
Outbound Delivery Status
Receipt Notification Outbound

Transport

Transport Instruction
Transport Documents

Consignee

Collect
Transporting
Delivery
LIM II

LIM version II (already announced in version I report)

- more comprehensive version of LIM

Scope to be:

- Inter-modal transport: maritime, rail, air
- cross continental (inter continental)
- customs
LIM II – also + EPC and + eFreight

The physical flow of the goods identified by EPC Global identification technology. More specific to include the work of the EPC Global Transportation and Logistics Services Industry Action Group.

Also in line with the description of other GS1 data keys like especial the GS1 logistics label.

Utilisation of the ePC/RFID standards in transport as well as warehousing

e-Freight
Multi modal (air-land-sea) and extension/enhancement of roles.
LIM II – more relationships

✓ GS1 and eFreight started collaboration to mutually benefit from standards development and implementation in the industry
✓ eFreight participate in the LIM I developments
✓ Focus to further strengthen collaboration for LIM II developments
✓ To achieve the extension of the current LIM collaboration with other organisations and communities like WCO, UNCEFACT-groups and the e-Freight initiative has to be continued and strengthened
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