GS1 Standards in Transport and Logistics Sector

Yuliya Shevchenko
GS1 Global Office
June 29th, 2010
Agenda

1. GS1 in Transport and Logistics sector
2. Transport and Logistics Integration
3. Regional T&L projects
4. GS1 in Customs and Cross-border initiatives
5. Working with International Standards Bodies
6. GS1 Marketing for Transport & Logistics
1. GS1 in Transport and Logistics sector
Supply Chain Flows

Physical Flow

Supplier ➔ Transporter ➔ Distributor ➔ Transporter ➔ Customer

Information Flow

- Identification
- Bar Coding
- Communication
Collaborative forum for T&L industry at global level to:

- Forum for reaching standards based agreements
- Identify requirements for the standards in sector
- Develop standards and implement them
- Agree prioritises and set roadmaps

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Activities in Transport & Logistics

- GS1 Logistics Forum
- EPC TLS Industry Action Group
- 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 Logistic Forum

✓ Was formed by GS1 in 2006
✓ Participants from major transport and logistics companies, manufacturers and solution providers.
✓ Purpose to enhance their business processes and information flows by using the GS1 standards

Business needs:
- Interoperability
- Visibility of operation flows
  Eliminate unnecessary costs
GS1 Logistics Forum

Organisation

Logistics Forum Leadership Team

Unilever — DHL Exel — GEFCO — VICS
GS1 Netherlands — GS1 France — GS1 GO

GS1 Logistics Forum Members

Companies:
Manufacturers
Procter & Gamble
Firmenich
(material supplier)
Unilever
Henkel
Remia

Logistics Service Providers:
DHL Exel Supply Chain
Geodis
FM Logistics
GEFCO
Schenker

Associations & Others:
VICS, ESCLA, Tie

GS1 MOs:
GS1 Czech Republic
GS1 France
GS1 Germany
GS1 GO
GS1 Netherlands
GS1 Norway
GS1 Sweden
Two groups of the Logistics Forum

1. GS1 Logistics Forum
   - Logistics Label
   - STILL

2. Logistics Interoperability Model - LIM

5 building blocks for Business Interoperability:
- Common processes
- Common coding & definitions
- Business case
- Common Message standard
- Common Technology
Standard International Logistics Label - STILL

- Developed standard, common and minimum transport information to appear in the GS1 logistics label
- Developed recommendations and the best practice guideline for transport and warehousing
- Promotes the use of GS1 Logistics solutions with carriers

Available on GS1 Website
75% of all goods transported in all sectors Sweden carries STILL label
Logistics Interoperability Model

- Develop Logistics Interoperability Model (LIM), framework of common business processes and related data communication interchanges between trading partners and Logistics Service providers

<table>
<thead>
<tr>
<th>Interoperation Agreement</th>
<th>Master Data Alignment</th>
<th>Logistic Services Conditions</th>
<th>Planning</th>
<th>Warehousing</th>
<th>Transport</th>
<th>Financial Settlement</th>
</tr>
</thead>
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- Develop data exchange standards based on GS1 eCom (addressing both EANCOM® and GS1 XML)
  - Gap-analysis of the proposed LIM transactions to EANCOM® and GS1 XML messages
  - Development of eCom messages (EANCOM and BMS) and Implementation Guide Development
  - Work is ongoing
What is GS1 EPCglobal TLS?

TLS: Transportation and Logistics Services (TLS) Industry Action Group

- Established in 2005.
- Over 140 participating companies globally.
- TLS companies handle over 35% of international shipping volume.

Co-chairs: Naotaka Ishizawa (MTI/NYK)
Tony Hollis (Exel)
Objectives

To develop total-industry solutions.

Standards must:

• Meet TLS user needs
• Ensure interoperability between layers
• Win adoption across industries
TLS Global Pilot Test

Phase 1
Hong Kong → Tokyo
Footwear
Ocean
February 2007

Phase 2
Shanghai → LA
Electronic Goods
Agricultural Machinery
Air, Ocean, Overland
February 2008

Phase 3
Tokyo → Amsterdam
Electronic Goods
Ocean
February 2009
2. Transport and Logistics Integration
Based on the user requirements, it was decided to integrate separate Transport and Logistics activities into the **Integrated T&L Industry User Group (IUG)**.

Representatives from GS1 EPC TLS and GS1 Logistics Forum met in the face-to-face meetings and reached the following key agreements for the Integrated T&L IUG:
Key agreements of the Integrated T&L User Group

✓ Define framework for Integrated Transport & Logistics User Group

✓ Increase awareness and adoption of the GS1 system in the T&L sector
✓ Development new / enhanced standards and services for T&L
✓ Continue to liaise and collaborate with international organisations

✓ Support and information sharing within specific regional Initiatives: APEC Supply Chain Visibility and EU Projects
3. Regional Transport & Logistics projects
EU Regional Projects

- GS1 participates as stakeholder in EU Cassandra & CONTAIN projects. Subject: monitoring and tracking of shipping containers
- Both passed selection criteria of the EU and were selected in March 2010.
- GS1 and E-Freight work together to explore requirements and opportunities for further collaboration
APEC Japan 2010

Supply Chain Visibility Workshop

Mid-September
Sendai

P.R. China
Republic of Korea
Japan

March 1 Hiroshima

Action Plan
Investments for trade facilitation and growth of APEC

Sponsored by
U.S.A.  Singapore  Hong Kong  Korea  Chinese Taipei  Japan

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4. GS1 in Customs and Cross – Border Initiatives
GS1 in Customs

- Memorandum of Understanding between GS1 and WCO to provide a framework for further collaboration
- **GS1 UCR Pilot Projects**, joint Customs and Trade initiatives to address supply chain security and trade facilitation
- **EPC TLS Pilot projects** to demonstrate global product and asset visibility utilizing EPCIS
- **GS1 MO’s** (including US, Germany, Netherlands, India…) actively working with national Customs administrations, in international forums, at WCO …
- **Global Shipment Identification Number (GSIN)**, GS1 ID Key that meet requirements of the WCO for the unique identification of shipments
The GS1 SSCC can be used as a UCR number for Customs purposes.

Using the GS1 SSCC would provide companies with enhanced traceability in international supply chains.

Exporters, carriers, customs agencies, importers would benefit from:

- predictability of information
- enhanced security
- reduced compliance costs
Pilots summary

Phase 1
- SSCC as UCR
- Included wines and spirits supply chain, trade associations, customs and GS1 MOs
- Successfully completed

Phase 2
- Test GSIN as UCR for complex scenarios
- Initially planned test between South Africa / New Zealand / UK was put on hold
- Currently work is ongoing on identifying partners for Phase 2 pilot
5. Working with International Standards Bodies
Why does GS1 liaise with ISO?

• ISO deliverables have a status of “de jure” standards in many countries and organisations.

• ISO reference is important to GS1 adoption by governmental organisations in some regions and by sectors such as Health care, Defence, Airlines, Industrial goods, Automotive, etc.
## ISO groups into which GS1 participates

1. ISO/IEC JTC 1/SC31 - Automatic Identification and Data Capture Techniques
2. ISO/TC 34 – Food Products
3. ISO/TC 46/SC9 - Information and Documentation
4. ISO/TC 104/SC4 – Freight Containers
5. ISO/TC 122 – Packaging
6. ISO/TC 154 - Processes, data elements and documents
7. ISO/TC 215 - Health informatics
8. ISO/PC 240 – Product Recall
Working with other International Standards Bodies

- GS1 works with UN/CEFACT to enable eCom in a multi-sectoral environment
- GS1 is active in a number of work groups: TBG 1 - Trade, TBG 3 – Transport, TBG 17 – Harmonisation, TBG 19 – eGovernment and several technical committees

GS1 is also collaborates with the T&L sector organizations, including BIC, WSC
6. GS1 Marketing activities for Transport & Logistics
Transportation & Logistics Case Studies

- New brochure on GS1 standards in Transportation & Logistics developed

- Objective is to provide GS1 MOs and users examples of real life implementations of the GS1 Standards in T&L

- High demands from MO's and members

- Excellent support from MO's & members on content
Business drivers for global standards

Set of standards, services and solutions offered by GS1 have a very beneficial impact on Transportation & Logistics industry

- Interoperability of labeling, unique identification, messaging, terminology and event information across industries and transportation sector

- Standard methods to exchange key contract, shipment, consolidation and event information

- Enhanced accurate and more granular visibility across supply chains

- Standard test methods for compliance, performance and interoperability of relevant technology
Questions?
Contact Details

GS1 Global Office
Avenue Louise 326, bte 10
B-1050 Brussels, Belgium
T  + 32 2 788 78 00
W  www.gs1.org
GS1 GSIN: Global Shipment ID Number

GSIN is used to identify a grouped transport unit assembling a number of containers, pallets, etc all travelling under one single purchase order.

Result: Customs agreed to test GS1 GSIN as UCR
Overview of TLS Global Pilot Test

Phase 3
Tokyo → Amsterdam
Electronic Goods
Ocean
February 2009
- Fully automated reading of tags (fixed readers).
- Use of electronic seals on container (proof of closure).
- Parties involved are AEO (Authorized Economic Operator).
  Involvement of Customs (use of UCR; draft of “green lane”).

Phase 1
Hong Kong → Tokyo
Footwear
Ocean
February 2007
- Handheld readers.
- Connect EPCIS’s in several countries.

Phase 2
Tokyo → Amsterdam
Electronic Goods
Ocean
February 2009
- Hibernating active tags in plane.
- Connect EPCIS’s in several countries between different industries.

Shanghai → LA
Electronic Goods
Agricultural Machinery
Air, Ocean, Overland
February 2008
- Fully automated reading of tags (fixed readers).
- Use of electronic seals on container (proof of closure).
- Parties involved are AEO (Authorized Economic Operator).
  Involvement of Customs (use of UCR; draft of “green lane”).