GS1 Transport & Logistics Workshop
Last Mile: The time to act is NOW

Jaco Voorspuij, Senior Manager Transport & Logistics
10th September 2018
Welcome & Agenda

• Schedule for this workshop
• Housekeeping
• Presentations and discussions
• Break
• Focussed Work Group sessions
  • City Logistics: Key to excellent Customer Experience
  • Emerging Parcel Standards: GS1 initiatives
• Work Groups reporting back to plenary
• Closing
• Lunch
## Schedule for this workshop

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Housekeeping</td>
<td>Jaco Voorspuij (Global Office)</td>
</tr>
<tr>
<td>20</td>
<td>Setting the scene</td>
<td>Jaco Voorspuij (Global Office)</td>
</tr>
<tr>
<td>20</td>
<td>Parcel and Postal standards: Initiatives, developments, news</td>
<td>Walter Trezek (Document Exchange Network)</td>
</tr>
<tr>
<td>20</td>
<td>City Logistics - Promising frontier for Transformation of Last Mile</td>
<td>ALICE-etp</td>
</tr>
<tr>
<td>15</td>
<td>Q&amp;A and Discussions for all speakers</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>BREAK</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Parallel focussed work groups</td>
<td></td>
</tr>
</tbody>
</table>
|      | **City Logistics: Key to excellent Customer Experience**  
      | **Enabled by GS1 standards** | No |
| 5    | Short intro | Jaco Voorspuij (Global Office) |
| 40   | Smart City Hubs thrive on GS1 standards | Birgit Hendriks (Eco2City) |
| 45   | Discussions in small groups | facilitated by Jaco & Birgit |
|      | **Emerging Parcel Standards: GS1 initiatives** | |
| 5    | Short intro | Garry Thaniel (Global Office) |
| 20   | GS1 Poland | Agata Horzela (GS1 Poland) |
| 20   | GS1 Portugal / GS1 Brasil - UPU | Roberto Matsubayashi (GS1 Brasil) |
| 45   | Discussions in small groups | facilitated by GS1 MO presenters |
| 30   | **Focussed WG report back to plenary; Q&A** | 15 minutes each (5 + 10 Q&A) |
| 10   | Wrap-up and Close | Jaco Voorspuij (Global Office) |
Housekeeping
WiFi Internet access

• Select network “GS1events” and connect
• Password: GS1events
GS1 Industry & Standards Event App

1. Get the App by searching your App store for "GS1 Global Events"
   If you already have the Global App due to attendance at the most recent Global Forum, you do not need to do this

2. Once you have the Global App on your mobile device, type GS1IS18 into the search box. Please click the orange (+) to activate the event within your application.

3. Login with the email address you used to register for the event:
   Username: (your registered email)
   Password: GS1events
Event App – How to rate sessions

1. Within each session, you will see “surveys” listed at the bottom

2. Select your rating and enter comments

3. A confirmation appears
Meeting etiquette

- **Meetings will begin promptly as scheduled**
- **Be present – avoid multi-tasking**
- **Avoid distracting behaviour:**
  - Place mobile devices on silent mode
  - Avoid sidebar conversations
- **Be considerate**
  - Avoid monologues
  - Keep comments concise
- **Respect work group decisions**
  - Avoid re-opening decisions unless there is a significant quality impact

- **Collaborate** in support of meeting objectives
  - Ask questions
  - Be open to alternatives
- **Be representative**
  - Avoid personal remarks
  - Do not speak for your company or community if you do not clearly understand their needs
  - Votes should reflect the needs of your company or community
Anti-Trust Caution

• GS1 operates under the GS1 anti-trust caution. Strict compliance with anti-trust laws is and always has been the policy of GS1.
• The best way to avoid problems is to remember that the purpose of the group is to enhance the ability of all industry members to compete more efficiently.
• This means:
  - **There shall be no discussion of prices, allocation of customers, or products, boycotts, refusals to deal, or market share.**
  - If any participant believes the group is drifting toward impermissible discussion, the topic shall be tabled until the opinion of counsel can be obtained.
• The full anti-trust caution is available via the link below, if you would like to read it in its entirety: [http://www.gs1.org/gs1-anti-trust-caution](http://www.gs1.org/gs1-anti-trust-caution).
Setting the scene

Jaco Voorspuij, Senior Manager Transport & Logistics

10th September 2018; GS1 Industry & Standards Event 2018; Dublin
Transport and Logistics are the processes that take care of moving goods from where they are to where they should be.

B2C

B2B
Supply Chains are NOT simple
Supporting ALL sectors

HUMANITARIAN LOGISTICS
FOODSERVICE
HEALTHCARE
RETAIL
TECHNICAL INDUSTRIES

T&L is an **integral** part of every Sector’s **Value Chain**.

T&L **follows the business** needs in every Value Chain.
Changing T&L landscape

1. Convergence of physical and digital
2. E-commerce and consumers
3. B2B commerce
4. Globalisation
5. Urbanisation
6. Technology and innovation

By 2019, B2B firms will spend more on e-commerce technology than online retailers do.

Source: 10 Ecommerce Trends for 2018

70% of the world’s population will move to an urban area by 2050.

Source: 2016 CGF Collaborative Logistics Report

E-commerce is likely to reach more than 20% of all retail sales.

Source: 2016 CGF Collaborative Logistics Report

Inefficient cross-border delivery is consistently one of the top-three biggest barriers for online merchants.

Source: Cross-border E-commerce Barometer 2016
Insights from our customers

Technology is significantly impacting T&L.
“Digitisation of the maritime supply chain system will help solve the majority of the problems we have today and it will bring a lot of improvement into our day-to-day activity”.

Today’s operations are not sufficient to meet current trends and customer demand.
“Facilities and transport networks are not built to support the current trends of smaller packages and high volumes. They were built to support retail fulfilment, not direct-to-customer”.

GS1 can support collaboration between the different logistics partners.
“In interconnectivity, it’s important that this language is there across different parties so that the platform is more like a virtual layer that brings everyone together”.

GS1 has an opportunity to develop standards for new technology.
“Focus on standards and expand to meet whatever new technology needs can be met”.

© GS1 2018
GS1 T&L strategy milestones & timeline

Vision
- **End-to-end visibility** throughout the supply chain—from source to consumer

3-5 years
- **Real-time business processes** powered by standardised web APIs, interconnected platforms & registries

0-2 years
- **Development efforts, pilots and partnerships** for standardised web APIs, interconnected platforms & registries

Today
- **Do more with GS1 standards, services and solutions** by telling new stories to new audiences; focus on last mile, HPL, cross-border & traceability

The Global Language of Business

© GS1 2018
Maintain momentum of T&L current initiatives

Progress has been made to drive the inclusion of GS1 standards in T&L processes.

This means the direct adoption of our own GS1 standards into different modes of transport, as well as the implementation of other standards that embed GS1 standards.

- **Cross-border**: GS1 standards enabling swift cross-border identification
- **Last mile**: Adoption of the CEN Harmonised Parcel Label and SSCC
- **Air**: Electronic bill of lading (FIATA) and piece-level tracking (IATA)
- **Maritime and ports**: Synchronising port and surrounding area operations
- **Road**: GS1 standards enabling electronic consignment note (IRU)
City Logistics in the Supply Chain

Manufacturers
- Retail distribution centres
- E-fulfilment centres

Wholesalers
- Retail distribution centres
- E-fulfilment centres

First stage consignment

Second stage consignment

Urban Consolidation Hub

Inner City Hubs

Pick-up point
Home Store

Business Customers
Consumers

The Global Language of Business
Last mile delivery

- > 5 billion parcels per year
- > 25,000 online retailers in Europe
- >Thousands of carriers and service providers are waiting for common standards......
The Vision: Harmonised label
Used by ALL end-to-end

Created and attached by SHIPPER at origin
How to create worldwide interoperability

<table>
<thead>
<tr>
<th>Worldwide unique Parcel identification</th>
<th>GS1 SSCC</th>
<th>Future proof</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parcel labels</td>
<td>European CEN standard</td>
<td>Better service for the consumer</td>
</tr>
<tr>
<td>Data exchange</td>
<td>European CEN standard</td>
<td>Lower delivery costs</td>
</tr>
</tbody>
</table>
Make the SSCC on parcels even more successful than the GTIN on products.
Parcel = Postal standards: Initiatives, developments, news

Dublin, September 10th, 2018
Digital Single Market

Building the next-generation e-commerce ecosystem: Digital infrastructure meets big data

In the past: Small data for handling big volumes

<> The future: Big data for handling individual items
If it can be delivered, it will be delivered

- **Non-food** ecommerce will be joined by **food** ecommerce

Source: ISO/PC315: “Indirect, temperature-controlled refrigerated delivery services – land transport of parcels with intermediate transfer”

- **Consumables** and **spare parts** will be supplemented by **3D Printing**
Everything is connected

- **Track & trace** will be replaced by **Electronic Advanced Data (EAD)**

  ![Diagram of content and item identifier]

  **Item ID provides access to item content**

- **Self-learning infrastructure** will **re-define FIRST & LAST Mile**

![Diagram of self-learning infrastructure]
Volume rise → infrastructure evolution

- **2018**: More B2C commercial items delivered in EEA than transactional B2C letters
  
  2023: B2C volume 2x 2018?

- **Multi-carrier & multi-pipeline** consolidation

- Smart city & smart country

- **CEP today**: *Wrong vehicles, wrong sorting, wrong business model?*
Consumer demand driven by (e-)retail

- **All available goods** will be deliverable (including C2C – shared economy)
- Offline retail becomes interconnected
- Online retail needs physical outlet

- **Last mile/new address**: delivery to the recipient’s “Point of Presence”
Legislation sets frame <-> Stakeholders fill it
Postal items (Const. art. 1bis.1.6bis)

Documents
- Non-priority: Letters/postcards/printed papers (P, G, E)
  - Items for the blind
  - M bags
- Priority: Letters/postcards/printed papers (P, G, E)
  - Items for the blind
  - M bags
- Premium: EMS

Goods
- Non-priority: Small packets (E)
  - Items for the blind
  - M bags
- Priority: Small packets (E)
  - Items for the blind
  - M bags
  - ECOMPRO parcel
  - Parcels
- Premium: EMS
The **wider postal stakeholders**, represented by the **UPU CC**, are actively involved in improving postal services through technical and messaging standardisation based on

**collaboration of all parties concerned**, to specify and develop, state-of-the-art solutions, **within the legal and regulatory framework conditions**, nationally, regionally and globally
## Non-exhaustive examples

### Electronic Advance Data:

<table>
<thead>
<tr>
<th>UPU:</th>
<th>EU:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCO-UPU Postal Customs Model</td>
<td>UCC (Union Customs Code); simplified procedures</td>
</tr>
<tr>
<td>M33-12</td>
<td>M/548 (Mandate to CEN): “EAD for customs and transport security”</td>
</tr>
<tr>
<td>M41-7</td>
<td>“Requirements to connect, access, participate and further develop open global networks and systems, for postal operators &amp; the wider postal sector players”</td>
</tr>
<tr>
<td>M42-3</td>
<td></td>
</tr>
<tr>
<td>M48-6</td>
<td></td>
</tr>
<tr>
<td>M52-1</td>
<td></td>
</tr>
</tbody>
</table>
Based on ONE unique item identifier, customs, transport and inland revenue aim at electronic advanced data to know what is in the shipment, its value and related lifecycle management.

**Status Quo**

- **Non-EU Consignor**: Most of the non-EU suppliers do not lodge import declarations themselves.
- **EU-Consignee**: No individual person lodges an import declaration him/herself.
- **Customs**: Receives no data from the sources.
- **Declarations**: Shall be lodged by representatives.
  - Guarantee paid to Customs to cover taxes (incl. VAT).
  - Taxes are paid in advance on the import declaration.
  - Consignee pays taxes to representative after the import.
Taxable persons not established in the EU must be represented by an intermediary. The taxable person established in the EU or intermediary must register in the MS of his business or where he has a fixed establishment.

To be made monthly (by the end of the following month)

The MSI transfers the VAT to each MSC at the latest 20 days after the end of the month during which the payment was received.
An optimal dataset for the customs clearance of low value goods for release for free circulation for the purpose of the supplication of 144 of the UCC-DA by any economic operator, was based on the dataset of the current M33-12 of the UPU.
Non-exhaustive examples

New products and service

**UPU:**
- IPP / IRP
- S19
- S67

**EU / Global:**
- X-border parcel Regulation (May 2018)
- CEN/TS17073 „Interfaces for cross-border Parcels“;
- CEN/NWIP: „Postal services – Packaging for boxable items“;
- ISO/PC315: “Indirect, temperature-controlled refrigerated delivery services – Land transport of parcels with intermediate transfer”

**NWI:**
„Standardization of postal labelling and interoperability – towards a strengthened role for the UPU”
III. Main risks for designated operators

8 France is of the view that the use of labelling standards that focus solely on the global postal network does not meet the freight transport market's expectation of optimal interoperability between designated operators and other stakeholders.

9 If nothing is done, designated operators may have to double-label postal items to ensure interoperability between all stakeholders in the supply chain.

Source: POC C1 2018.1 Doc.10
## Secured electronic Postal Services

### **UPU:**
- Convention Art. 10

### **EU:**
- eIDAS Reg. & GDP Reg.
- CEN/TS15121 1
- CEN/TS15121-2
- CEN/TS16326
- ETSI/EN 319 522
- ETSI/EN 319 531
- Interoperability framework S52 & EN319 522
Thank you for listening.

Walter Trezek

Ecommerce Europe: CO-Chair, e-Logistics WG

European Committee for Standardisation (CEN): TC 331, WG2 “New digital postal services” Convenor & Secretary. Liaison officer of CEN to ETSI TC ESI

EEA Project Leader “EAD for Customs and Transport Security”

Universal Postal Union (UPU): Chairman of the Consultative Committee & Liaison officer of CEN to UPU
City Logistics and Last Mile
Where do they fit into future Supply Networks?

Fernando Liesa; ETP-ALICE; MD

10th September 2018; GS1 Industry & Standards Event 2018; Dublin
Who is Alice?

Alliance for Logistics Innovation through Collaboration in Europe

Research and Innovation Roadmaps

SUSTAINABLE, SAFE AND SECURE SUPPLY CHAINS
CORRIDOR, HUBS AND SYNCHROMODALITY
INFORMATION SYSTEMS FOR INTERCONNECTED LOGISTIC
GLOBAL SUPPLY NETWORK COORDINATION AND COLLAPORATION
URBAN FREIGHT
The CHALLENGES OF URBAN LOGISTICS

- deliveries increase and generate pollution, congestion and noise
- the cities expand
- trucks are an accident risk
- the trucks park anywhere
- the regulations are not respected
- the city centre is not attractive enough
- I want to preserve the historic centre

- I do not want to wait
- to be delivered faster and do not pay more
- ability to change location, time and day of delivery
- manage returns
- give a note to my carrier
- to be delivered by appointment and be constantly informed

- deliver more often, faster, later
- restriction in access to urban areas
- the regulations keep changing
- they say that I pollute
- how to deliver during pollution peaks
- recipients often absent
- delivery places are not available
- traffic jams reduce my productivity
- Social status is low (low pay, long work hours...)
The need for collaboration in City Logistics

- Over 50% of world population lives in (congested) urban areas today. Expectation is >70% by 2050.
- City Logistics is an extremely costly component in the end-to-end logistics supporting Value Networks.
- In Europe, City Logistics represents 28% of the total transport costs and contributes up to 50% of total traffic air pollution.
- Very low load factors for city delivery vehicles; 38% for London vans in some cases utilization rates are as low as 24%.
- Delivery to these areas becomes increasingly unsustainable.
- Collaborations of various kinds are required to address the issues in City Logistics environment.
- European Policy targets 2030 for zero CO2 emissions in cities.
Key principles for improving City Logistics

- **Cooperation, trust and quality partnership** replacing ownership and exclusivity
- **Costs for logistics** optimised, transparent and recognised
- **E-commerce seen as opportunity and not as a problem.** Responsible behaviour and cultural change from individuals are fundamental.
- **Moving goods and not vehicles**
- **Continuation of innovation and market uptake of new business models**

City Logistics is a real game-changer as innovation key driver for the Last Mile, having a huge impact in the logistics supply chain.
Achieve full integration of freight flows operations and activities

ALICE overall targets, addressing the EU goal to “Achieve CO$_2$-free city logistics in major urban centres by 2030”:

- **Increase energy efficiency**, which can be achieved by improving the efficiency of the whole urban logistics system.
- **Improve the urban environment** by increasing air quality and reducing noise.
- **Increase customer satisfaction** by delivering the goods on time and improving the reliability of the system.
- **Increase safety and security** reducing injuries and fatalities and also cargo lost or damage. Reducing risk of using trucks for terrorist attack.
Urban Freight Research Roadmap

Research Roadmap on urban freight and logistics delivered jointly by ERTRAC and ALICE

Goal
Identify research priorities related to urban freight, returns and city logistics and to contribute to the definition of research programs for the actors of the sector.

Developed in 2014 and updated in 2016.
NEW RESEARCH TOPICS - IMPLEMENTATION PLAN 2018 - 2020

- Logistics in the full circular economy: New business models for horizontal and vertical collaboration
- Exploring new opportunities for achieving effective integration of urban freight and personal mobility services and networks
- **Improving** the link between urban and long distance freight transport services and infrastructures
- New business models for logistics services based on sharing economy
- Bringing Logistics into urban planning
- **Interoperable standards** for (modular) transport units’ operation in the urban context
- Safety and security in urban freight
Collaborative innovation day - Validating ideas with the community

1 - **SULP** (Sustainable Urban Logistics Plans): SULP is a specific Plan for designing logistics solutions within mid-term horizon and managing urban freight processes. It should consider the integration between networks and operations, the improvement of the interaction between long distance freight transport and urban freight including also the regional area.

2 - **Private and Public collaboration**; new procurement strategies. Local authorities could encourage zero emission transport, stimulating operators to provide more sustainable transport solutions via procurement strategies, which should properly consider the development of **city hubs** such as urban or extra-urban consolidation centres.
1 - More attention to city logistics planning and development is needed from city authorities in SULP.

- Currently measures are focused on banning diesel trucks and other restrictions for the movement of goods.
- This should be accompanied with clear measures and clearer understanding and planning of logistics activities in cities to ensure citizens have

**Aim:**
Ensure citizens in cities have proper access to services and goods as well as good living conditions
2 - Increased Public-Private Collaboration is needed in the City Logistics domain. Some cities are facing problems of congestion and emissions.

In order to make efficient and smart use of city transport infrastructure, a model for the city logistics needs to be developed and further private-public collaboration can support further integration of traffic flows in cities.

ALICE members see opportunities to engage with authorities in cities (and regions) to improve City Logistics and the link with regional and long-distance transportation.
• Share an overview of the state of play of ecommerce implications on city logistics and related impacts.
• Share and discuss achievements, challenges and opportunities addressed by new and ongoing projects/initiatives and Start-ups.
• Discuss and agree on next steps and research and innovation needs in the application field of city logistics.

Questions addressed:
• How is ecommerce impacting city logistics? Which are the opportunities and threats?
• How can eCommerce be an opportunity to drive 0-Emissions City Logistics in 2030?
• Which are the most prominent use cases in the area of city logistics?
• What Research and Innovation is needed to get the best out of eCommerce?
Questions & Discussions
BREAK

Please be back in 30 minutes