GS1 Transport & Logistics Workshop
GS1 Services for the Digital World
Making GS1 an essential building block in IT ecosystems

Jaco Voorspuij, Senior Manager Transport & Logistics
10th September 2019
Welcome & Agenda

• Schedule for this workshop
• Housekeeping
• Presentations and discussions
  • Setting the scene
  • Slot Booking Service – GS1 France
  • National Location Registry – GS1 Australia
  • Cloud for Locations – GS1 in Europe
  • Questions, Answers and Discussion
• Closing
• Lunch
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.
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
• Collaborate in support of meeting objectives
  - Ask questions
  - Be open to alternatives
WiFi internet access

- Select network “Sheraton Lisboa” and connect
- User and Password both: GS1events
Setting the scene

GS1 services to deliver GS1 T&L strategy

Jaco Voorspuij, Senior Manager Transport & Logistics
10th September 2019; Industry & Standards Event; Lisbon
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".
End-to-end visibility throughout the supply chain—from source to consumer down to individual product level

Real-time business processes powered by standardised web APIs, interconnected platforms & registries

Development efforts, pilots and partnerships for standardised web APIs, interconnected platforms & registries

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

Vision

3-5 years

0-2 years

Today
GS1 must establish NOW a system of core services to create, store, and check GCP, GLN and GTIN.

This system will require urgent prioritisation, focus, and coordination between Member Organisations and industry, based on technology tools, business process, and standards rules.

Establishing and maintaining ubiquitous adoption of GCP, GLN, and GTIN is a pre-requisite to any more advanced use cases in product traceability, dynamic fulfilment, pedigree, content management, content quality, and authentication for industry.
GLN-based Services are like a grocery store

- Clients come in with widely varying shopping lists and the contents of their shopping bags is highly individual.
- Like for grocery shop Clients, one can create profiles across multiple Clients for GLN-based data (Products).
- However a single grocery shop (GLN based service) cannot serve all kinds of Clients.
- So each grocery shop (GLN Service) MUST clearly define its target Clients and serve those as best that shop can.
- Large retailers may run different shop formulas for different Client profiles.
- Similarly GS1 has developed (and is developing) various shop formulas (GLN based services).
- Today we will have a look at a few (more to come).
Slot Booking and Tracking Service

Eliminating needless waiting at load/unload locations

Ons Sassi, Innovation project manager, GS1 France
10th September 2019; Industry & Standard Event; Lisbon
Digital agendas interconnection

- Give autonomy to each stakeholder
- Delete data silos
- Facilitate the booking of timeslots (picking then delivery)
- Allow algorithms to recommend the best slots and optimise the allocation of resources
- Etc.

Carriers → API & Connector → Appointment management platform → Picking/Delivery locations → Appointment management platform
A new performance leverage!

-15% Transport cost
-9% CO₂
-26% Trucks
-22% Route time
-10% km
Similar needs for transport tracking...

Provide 100% of requested data to ordering institution:
- Estimated time of arrival
- Time-stamping of arrival times
- Self-billing

Avoid multi-homing for carriers
Slot Booking and Tracking Service: Eliminating needless waiting at load/unload locations and avoiding penalties

How to ensure trust and security?
Decentralised, efficient and secure
Slot Booking and Tracking Service

Increased added value for all stakeholders thanks to the blockchain:

- No trusted third-party
- Better flexibility
- Efficient value sharing mechanisms (Tokens)
- New opportunities
- Better collaboration
- Possibility to add new services easily

Agenda
Carrier 1: 10 am
Carrier 2: 11 am
Dynamic rearrangement of digital agendas

Carrier 1

Estimated delay of 1h

Carrier 2

I’m arriving early!
I have to wait for 1h!
Dynamic rearrangement of digital agendas

Is it possible to exchange appointments to avoid both wasted time and penalties?

The answer may be “Yes” thanks to the Blockchain!

Carrier 1
New appointment at 11 am

Carrier 2
New appointment at 10 am!
Demo: 2 possible scenarios

A carrier asks for a switch

- The carrier who is late or arrives early sends a request for a time slot switch.
- The logistics site may accept or reject the request.
- In case of acceptance, the request is broadcasted to other carriers.

Logistics site plays the role of control tower

- Thanks to a complete visibility, a pick-up/delivery location can propose switch opportunities to carriers.
National Location Registry in Australia

What is it?
What does it deliver to Australia User Community?

Michiel Ruighaver, Senior Advisor - Freight, Logistics & Industrial Sectors, GS1 Australia
10th September 2019; Industry & Standards Event; Lisbon
Cloud for Locations
GS1 in Europe project

We need a different approach to build a location registry

Project Lead: Sara Kalboussi, GS1 France
Valerie Mazzoni, Chief Marketing & Innovation Officer, GS1 France
10th September 2019; Industry & Standard Event; Lisbon
Reminder: Singapore Resolution

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GS1 Data Service Strategy – GS1 Registry Platform

Business solutions

Verified by GS1
Fighting Illicit Trade

Data in
Data upload and data quality

Data out
Data checking and querying

Attribute Explorer

GS1 Registry Platform

GS1 Key Registry
GCP, GTIN, GLN, etc.

Global Data Dictionary

Infrastructure
APIs, analytics, security

Services capabilities

Data & Rules

Infrastructure
GLN is not a GTIN: we need a different approach to build a location registry because

1. No critical mass
2. Heterogeneous use
3. Multiple sources
4. A frequently evolving data set
# «Cloud for Locations » Project Deliverables

## Initiation
- Setup PDD
- Create Core team
- Deliverables:
  - Core team
  - PDD

## Business needs Analysis
- Identify prioritized use cases, business cases and stakeholders (cross sectors)
- Deliverables:
  - Customer segments
  - Data Model
  - Consumption profiles

## Benchmark and Data Workflow
- Define the Data workflow: key allocation process, data in, out (creation, update, consumption, delete)
- Build a competitive benchmark of external & existing MO solutions
- Make an inventory of external location registries (google map,…)

### KPI
- PDD
- Core team
- 3 main business needs
  - Location Data Model with core & secondary attributes
- Competitive Benchmark
- GTM Best practices
- Data workflow (in/out)
- Basic and advanced features
- Functional specifications

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*We are at this stage of the project*
Business Needs / Customers stakes

- Validated location identifiers
- Complete, accurate, up-to-date data
- Interconnection between existing databases
- Data accessible for everyone who needs it
- Centralised Location repository

Location information and data quality

- Promote the origin of the product, and its lifecycle
- Enable food Traceability (fresh foods, farmers) & safety
- Sustainability (product processes, sourcing, respect for environment, animal wellbeing)
- Transparency for customers
- Compliance with regulation

Product Traceability

- Deliver to the right address
- Improve process time
- Reduce transportation cost
- Supply chain efficiency
- Help transports to identify physical locations
- Accurate data about operating hours

Transport and supply chain efficiency
Data Model

What information on locations do our customers need to solve their problems?

Key attributes

- Global unique identifier
- Name of location
- Name of the company
- Address: street #, postal code, country, GPS coordinates
- Location description

Secondary attributes

- ID: Legal identifiers
- Company type at location
- Detailed location characteristics
- Location Access constraints
- Location Certifications
- Products found at location
- Source of data - owner of location or external party
Cloud for Locations project milestones

- **Core Team Recruitment**: Aug 2018 - Jan 2019
- **Kick-off**: 1/8/2019
- **Workshop 1**: 2/19/2019
- **Workshop 2**: 4/29/2019
- **Workshop 3**: 6/17/2019
- **Workshop 4**: To be planned

Timeline:
- **Jan – Dec 2019**
- **May – Dec 2019**

**Business needs Analysis**: Jan – Jun 2019

**Benchmark & Data workflow**: May – Dec 2019
Cloud for Locations Project Team

Sponsor

Pere Rosell

GS1 in Europe
Project Coordinator

Henk-Jan

Project coordinator

Elodie Rasoarahona

Agata

Cihan

Oliver

Giuseppe

Sara

Seppa

Staffan

Glenn

Lead
Join us at Cloud for Locations session during GS1inEurope regional forum

on Monday 14th, October
11:00am to 12:30pm

Contact: Sara KALBOUSSI
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Questions & Discussions
• Thank you all for being here
• Thursday morning 08:30 – 10:30 we have a session titled "Transport & Logistics: Key to Customer Experience"
• Hope to welcome you there again
• But for now enjoy your lunch

Bon Appétit