UN/CEFACT Supply Chain Cross-Industry Track & Trace Project Update

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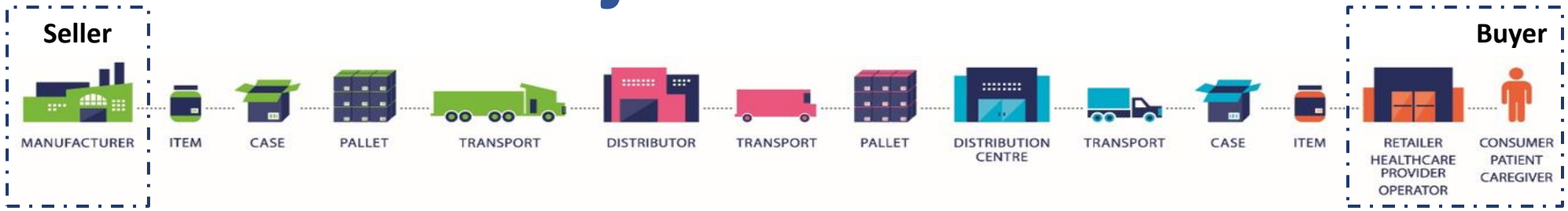
UN/CEFACT Cross Industry Supply Chain Track & Trace Project



The mission of this project: Where is the product at any time?

- Enable tracking and tracing of products (or assets) and information sharing in ***standard*** electronic format.
- Track and trace any ***traded and identified items*** including transport equipment or assets (e.g., box, pallet, container, etc. … Even empty!).
- Logistic services: transport the traded goods between the ***seller*** and the ***buyer***.

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Track & Trace Project
Current Status and Deliverables

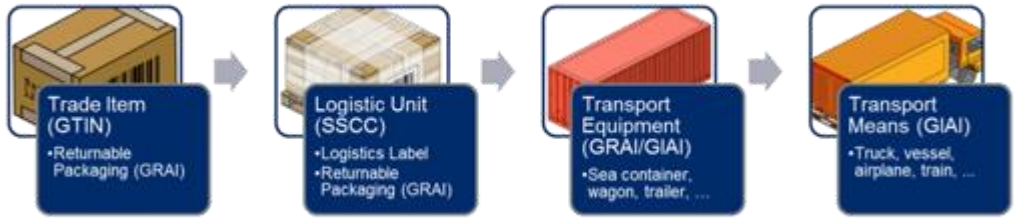
- Information gathering phase: Green Paper compiling concepts, scenarios, and use cases for all primary modes of transport - completed (82 pages)

Formal DELIVERABLES of the project:

- Published:
  - White Paper: "***Integrated Track and Trace for Multi-Modal Transportation***" presented to the 27th UN/CEFACT Plenary in April 2021
- In progress :
  - ***Business Requirements Specification (BRS),*** detailing the Business Processes of Cross Industry Track and Trace ***in public review now***

Challenges and opportunities

- Numerous stakeholders can be involved in a single journey
- End users have increasing expectations due to technological progress (e.g., ***Linked Data and API***)
- Emergence of many digital data streams offering more visibility (smart containers, RFID, etc.)
- It is not possible to impose the usage of the same unique identifier to all logistic chain actors
- ***Trade transactions may involve many different trade items***
- Many scenarios defining relationship of traded items, logistic units, transport and means of transportation



Global Trade – Semantic anchors

Shipment (Trade Delivery)

A shipment is an identifiable collection of one or more **Trade Items** (available to be) transported together from the Seller (Original Consignor/Shipper) to the Buyer (Final/Ultimate Consignee):

- A Shipment can only be destined for one Buyer
- ***A Shipment can be made up of some or all Trade Items from one or more Sales Orders***
- A Shipment can have only one Customs Unique Consignment Reference (UCR)
- A shipment may form part or all of a Consignment or may be transported in different Consignments.

Consignment (Transport contract)

A consignment is a separately identifiable collection of **Consignment Items** (available to be) transported from one Consignor to one Consignee via one or more modes of transport as specified in one single transport service contractual document:

- A Consignment can only have one Transport Service Buyer
- A Consignment can only have one Transport Service Provider
- A Consignment can only have one Consignor
- A Consignment can only have one Consignee
- The Transport Service Buyer can be either the Consignor or the Consignee
- A Consignment is made up of one or more Consignment Items
- ***A Consignment can be made up of some or all Trade Items from one or more Shipments***

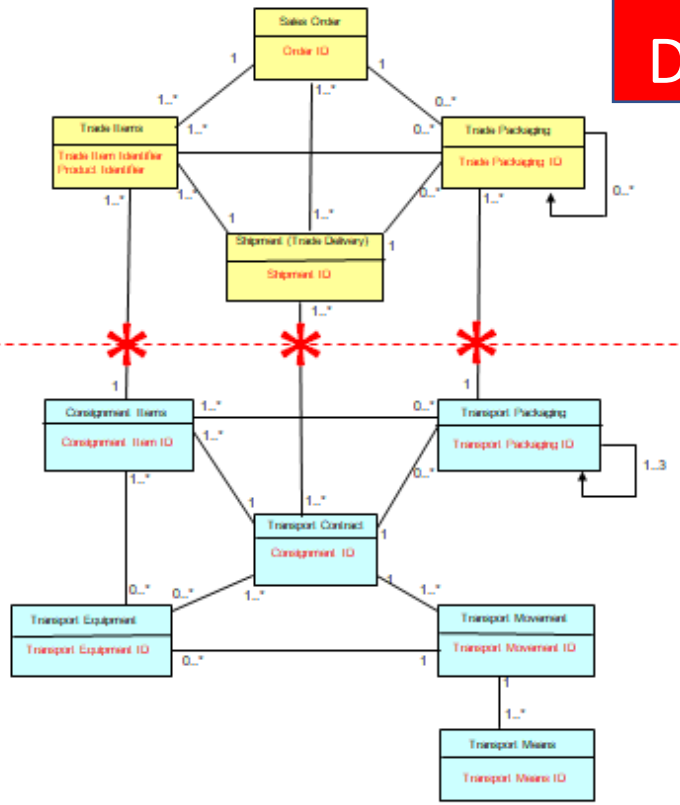
Trade and Transport identity disconnects

Starting point

ID DISconnects → Will transport incorporate trade IDs?

Trade B2B Data World

Transport B2B Data World



NO, only some by transport service buyer of the original seller/consignor

How to solve?

Create a collection of ***events*** carrying the ***connected IDs***

Pass the IDs (***links***) through the transport value chain

Events are the basis of Track and Trace

- Different standards development organisations (e.g., UN/CEFACT, ICAO, IATA, FIATA, BIC, WCO, ISO, IMO, ITPCO, etc.), have developed key data element identifiers related to Track and Trace methodology.

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UN/CEFACT
World Customs Organization
Organisation mondiale des douanes
ISO
FIATA
IMO
International Taskforce
Port Call Optimization
BIC
GS1
ICAO
UNITING AVIATION
A UNITED NATIONS SPECIALIZED AGENCY
IATA

UNECE
UN / CEFACT

Events to CONNECT the different IDs

1. Packing
2. Consolidation
3. Combining consignments

4. Loading consignment onto transport means
5. Unloading consignments from transport means
6. De-Consolidating Consignments
7. Shipment splitting event

Transport execution events may affect Product quality or safety (invalidating previous certification).

E.g., Temperature limits exceeded, shock, tilt, fumigation etcetera.

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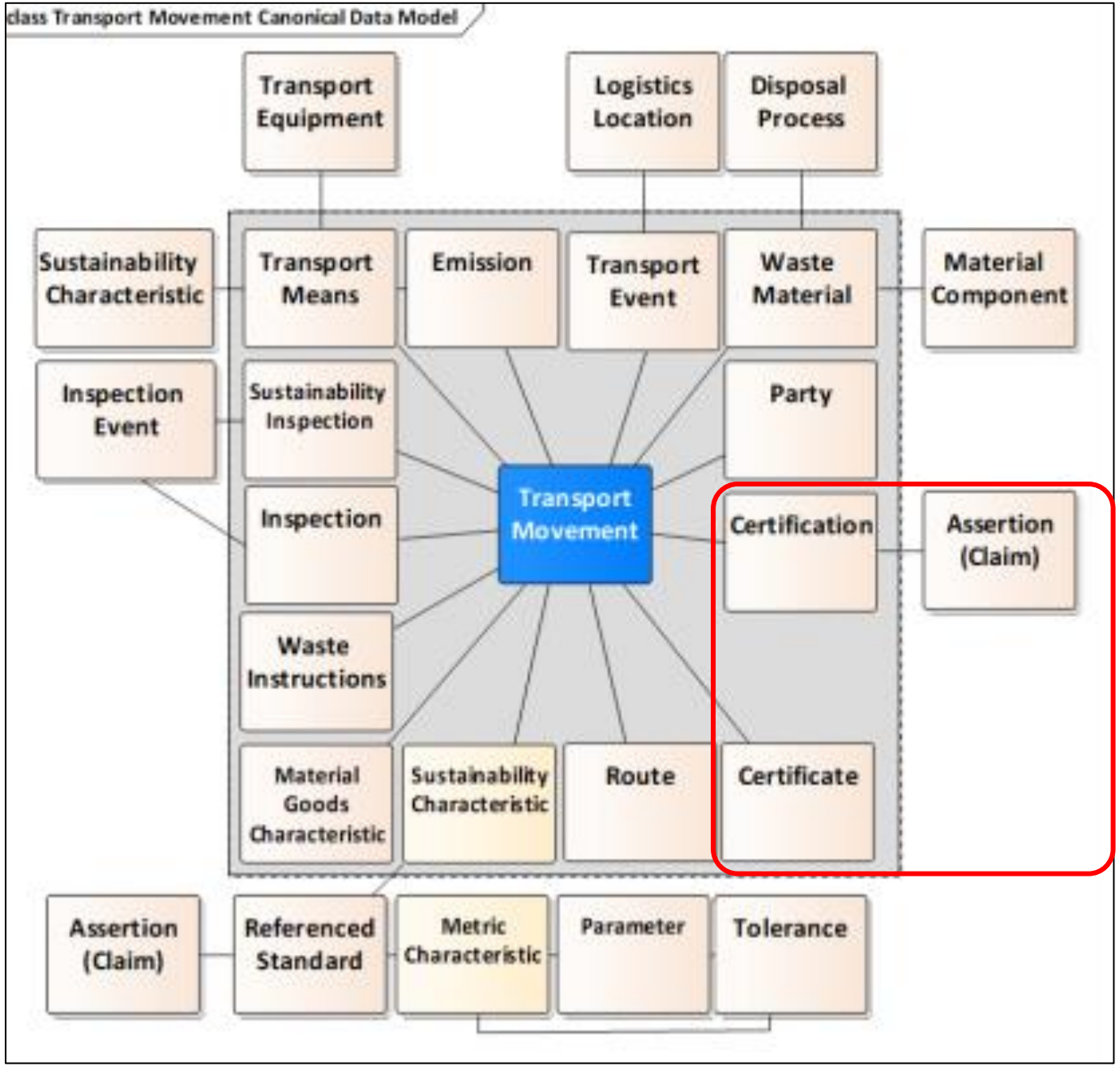
Transport & Logistics link to Certification



Question and Answers

Thank you

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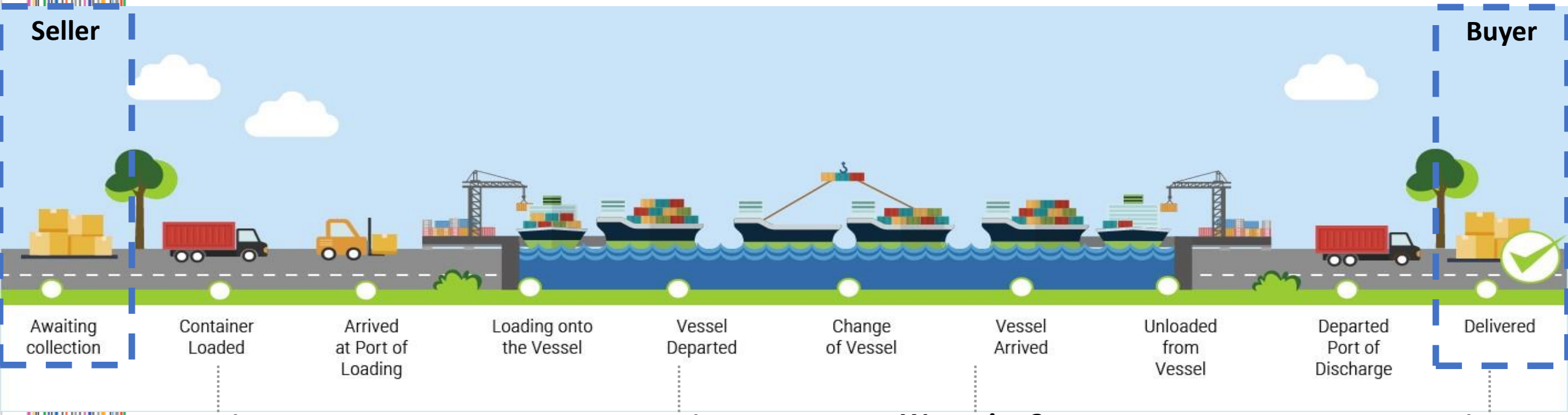
Sustainable Product Initiative (SPI) Regulation

- Proposal adopted 30 March 2022 by European Commission
- **Aim:** Reduce the life cycle environmental impacts of products
- Digital Product Passport covers *any physical good, including components and intermediates products, placed on the EU market or put into service*.
- "Digital P*roduct Passport means a set of data specific to a product that includes the information (specified in the delegated act) and that is accessible via electronic means through a data carrier*"
- **Open, global standards referenced by the draft regulation**
  - Product identifier, Operator identifier, Facility identifier
- *All information included in the product passport shall be based on an open standard, developed with an interoperable format and shall be machine-readable, structured, and searchable*
- More information on DPP; EUCircularTalks; GS1 article; EU SPI Q&A; EU law site;

Key Waypoints in a Data Pipeline



Waypoint 1

Parties
- Buyer
- Seller
- Loading Party
- Ship To

Goods
- No Packages
- Country of Origin
- HS Code
- Value of Goods
- Description of Goods

Container Details
- Container and Seal No

Waypoint 2

Parties
- Carrier
- Planned Delivery

Goods
- Country of Export
- Country of Destination

References
- Master Bill Number

Waypoint 3

Routing
- Port Call(s)
- Port of Entry to EU / UK
- Estimated Arrival Date
- Arrival Location

Waypoint 4

Parties
- Actual Delivery Date

Goods
- No Packages
- Declared Amounts (if different)

Key messages

- **Reuse existing global data standards for unique identifiers and event structure**
- Accept decentralised identifiers for the shipment, the consignment and their movements.
- **UN/CEFACT MMT RDM already contains all required data elements**
- Combining existing global data standards in concert with using new digital technologies make it now possible to fix the trade-transport disconnect and move closer toward operational and systems interoperability.