41st UN/CEFACT Forum - Bangkok

ESCAP-ADB/ROC-TF Workshop: Emerging Developments and Opportunities in Green Trade Facilitation

Dr. Hanane BECHA
Vice Chair, Transport & Logistics

UNECE

ESCAP Economic and Social Commission for Asia and the Pacific

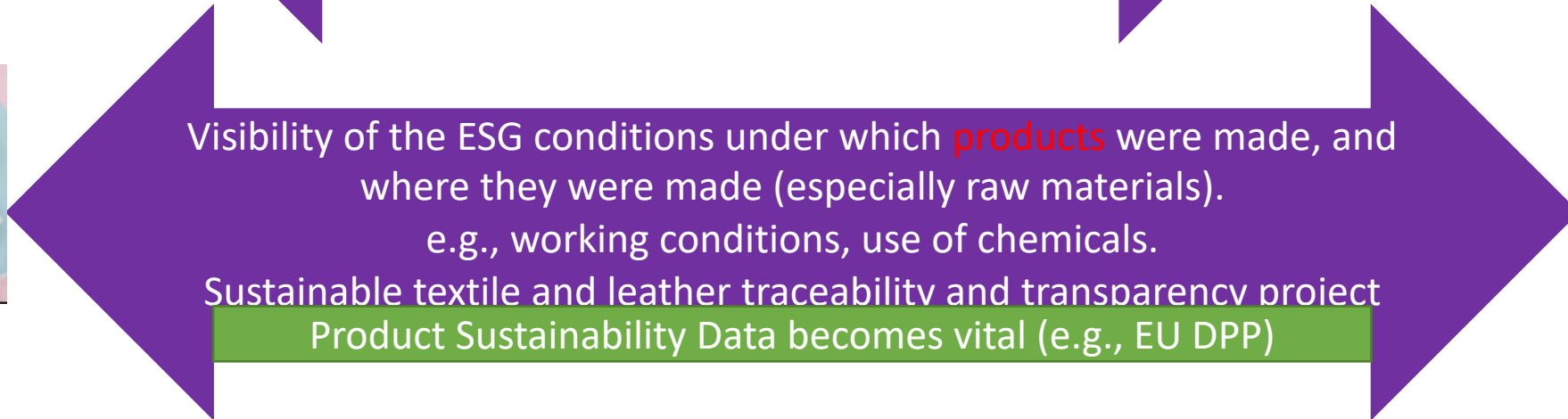# 41st UN/CEFACT FORUM

2-5 OCTOBER 2023 | BANGKOK | THAILAND

T&T scopes towards supporting ESG goals

Visibility of transport assets
Smart Containers project

Visibility of goods/products being multi-modal
transported from seller to buyer
Cross Industry Supply Chain T&T UN/CEFACT project

Visibility of the ESG conditions under which products were made, and
where they were made (especially raw materials).
e.g., working conditions, use of chemicals.
Sustainable textile and leather traceability and transparency project

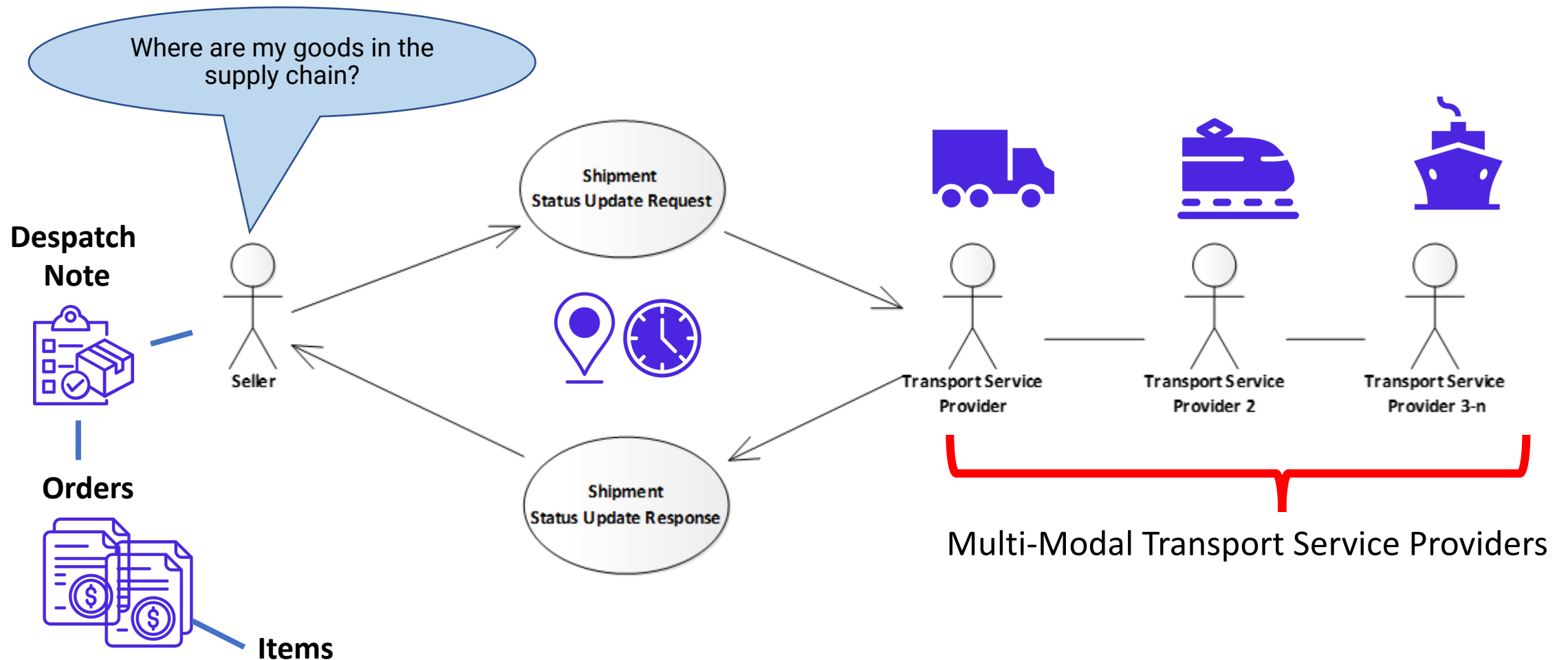Product Sustainability Data becomes vital (e.g., EU DPP)

Cross Industry Supply Chain Track & Trace Project
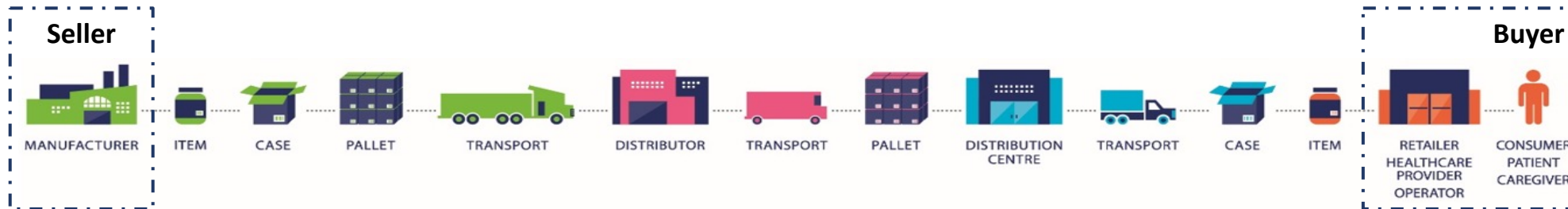
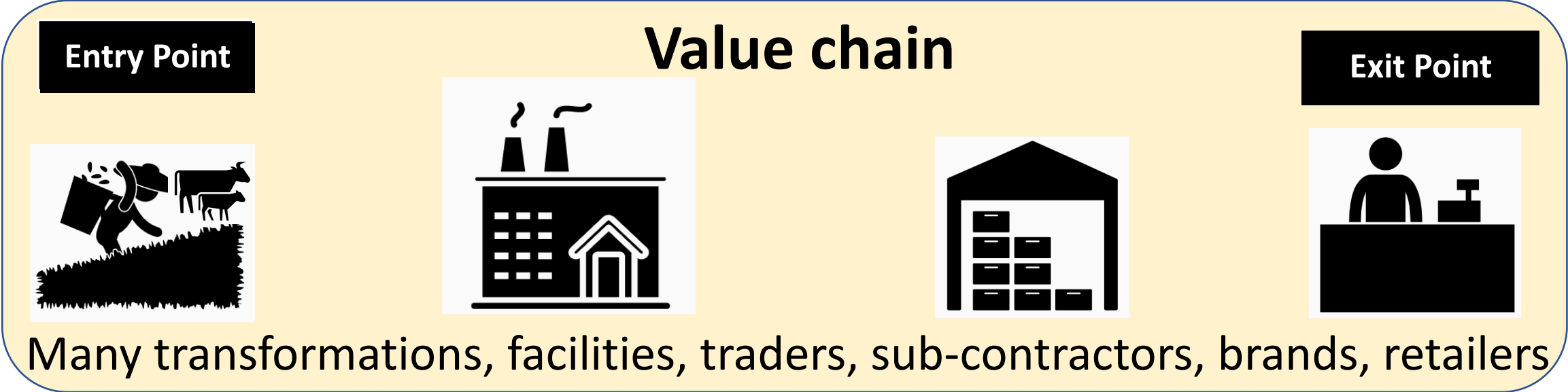**The mission of this project: Where is the product at any time?**

- 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.*

Visibility of goods between seller and buyer

There is a need for supply chain visibility

Value chain

Entry Point

Exit Point

Many transformations, facilities, traders, sub-contractors, brands, retailers

1. Planting & cultivation of cotton
2. Harvesting cotton
3. Ginning
4. Spinning
5. Dyeing, bleaching, washing
6. Weaving
7. Finishing
8. Enoblement, packaging
9. Placement in stores/on-line
10. Consumption & disposal
11. Post consumption & recycling
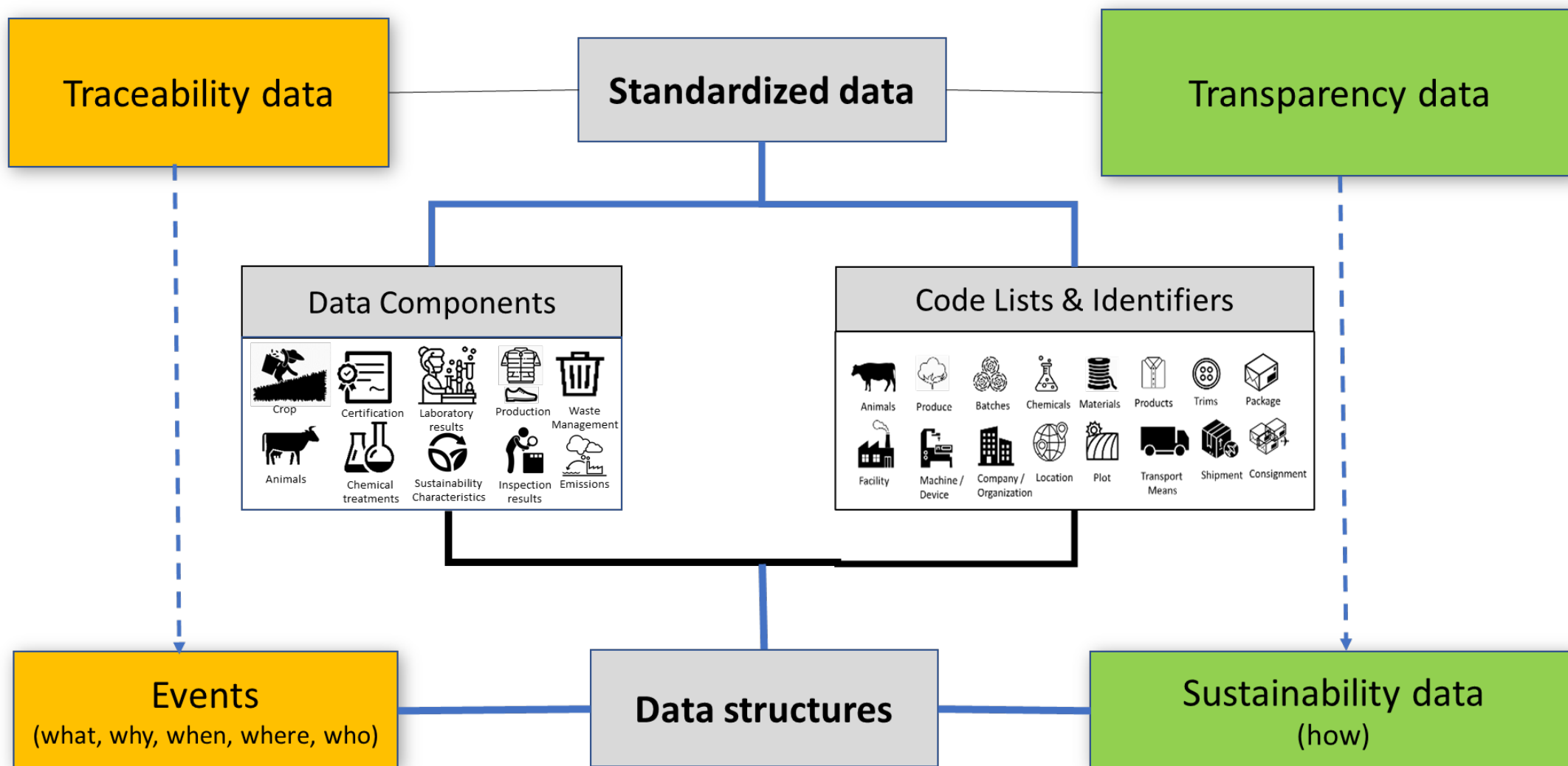
Challenges and opportunities

- Numerous stakeholders, large amount of information and multiple modes can be involved in a single journey

- End users and competent authorities have increasing expectations due to new regulations and technology progress

- 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 across all logistic chain actors

- Many scenarios defining relationship of traded items, logistic units, transport and means of transportation (consolidation, de-consolidations, incident, etc.)

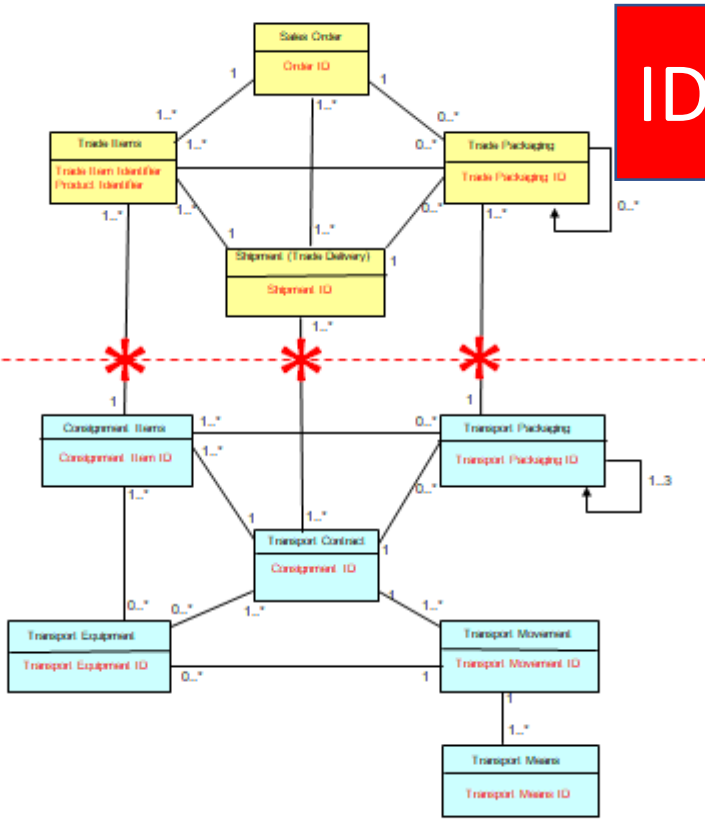# Transport events can provide information on:

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

Starting point

ID GAPS

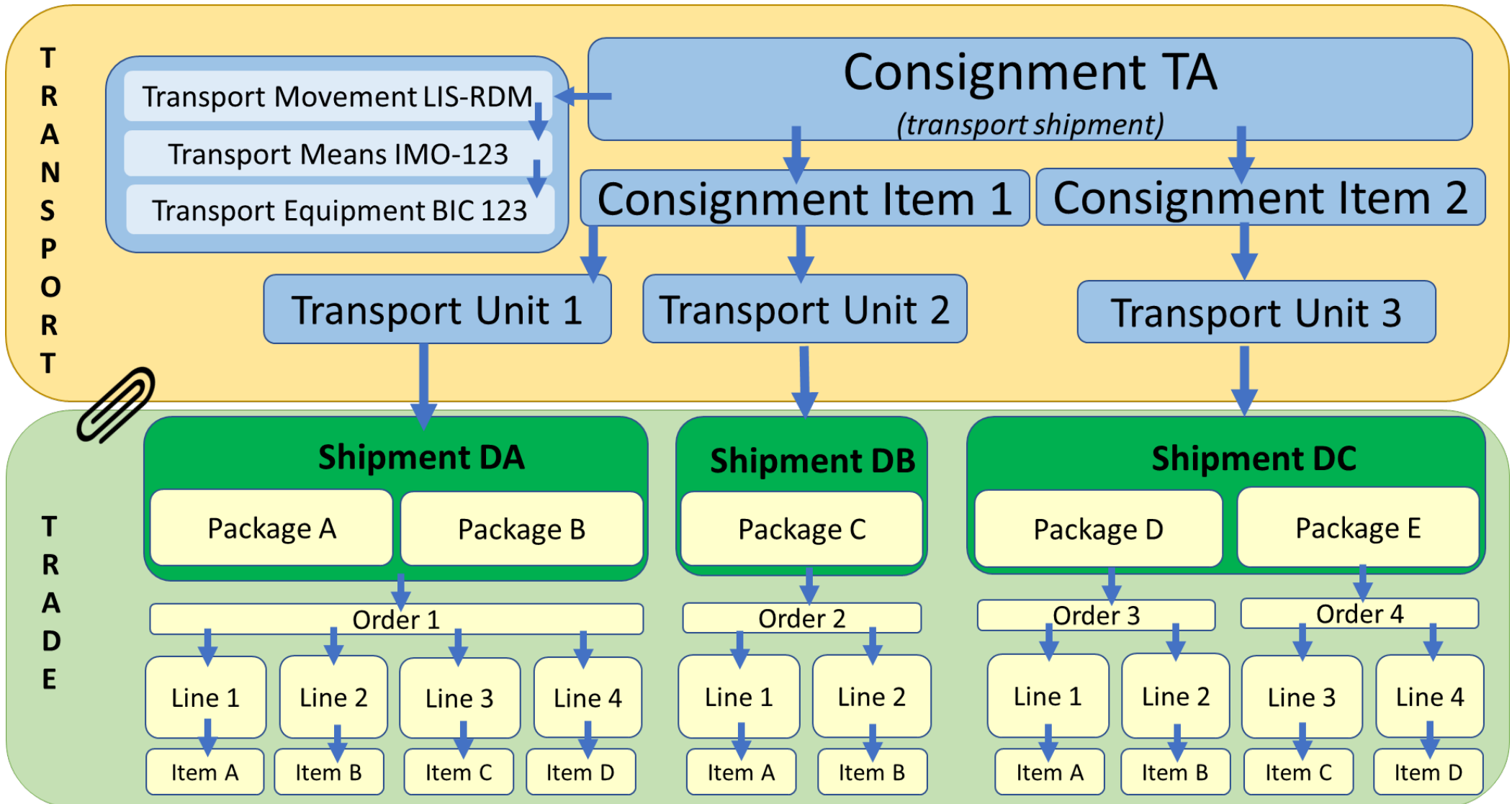Will transport incorporate trade IDs?

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

How to solve?

Create a collection of events carrying the different IDs

Pass the IDs (links) through the transport value chain

Trade B2B Data World

Transport B2B Data World

ID Gaps

Bringing worlds together: trade and transport

Why is integrated T&T difficult?
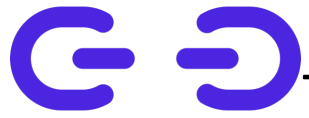
The **disconnect** between trade and transport views for the goods being transported using different modes of transport.
e.g., Tracing the goods offer evidences of the place of origin of the products supporting ESG goals.

Stakeholders involved in trade and transportation of goods **use terms and definitions in different ways**.
e.g., consignments versus trade deliveries (trade shipments)

Intregrated T&T using 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 UCR

A shipment may form part or all of a Consignment or may be transported in different Consignments.

Consignment (Transport View)

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 (aggregated into Consignment Items) from one or more Shipments

Common terms and linking data is key

Seller

Pre carriage

Main carriage

Onward carriage

Buyer

Awaiting collection

Delivered

Cross-Industry & Cross- Border Multi-Modal-Transport

Linking

shipments – means of transport – consignments - transport units – items - products

Visibility
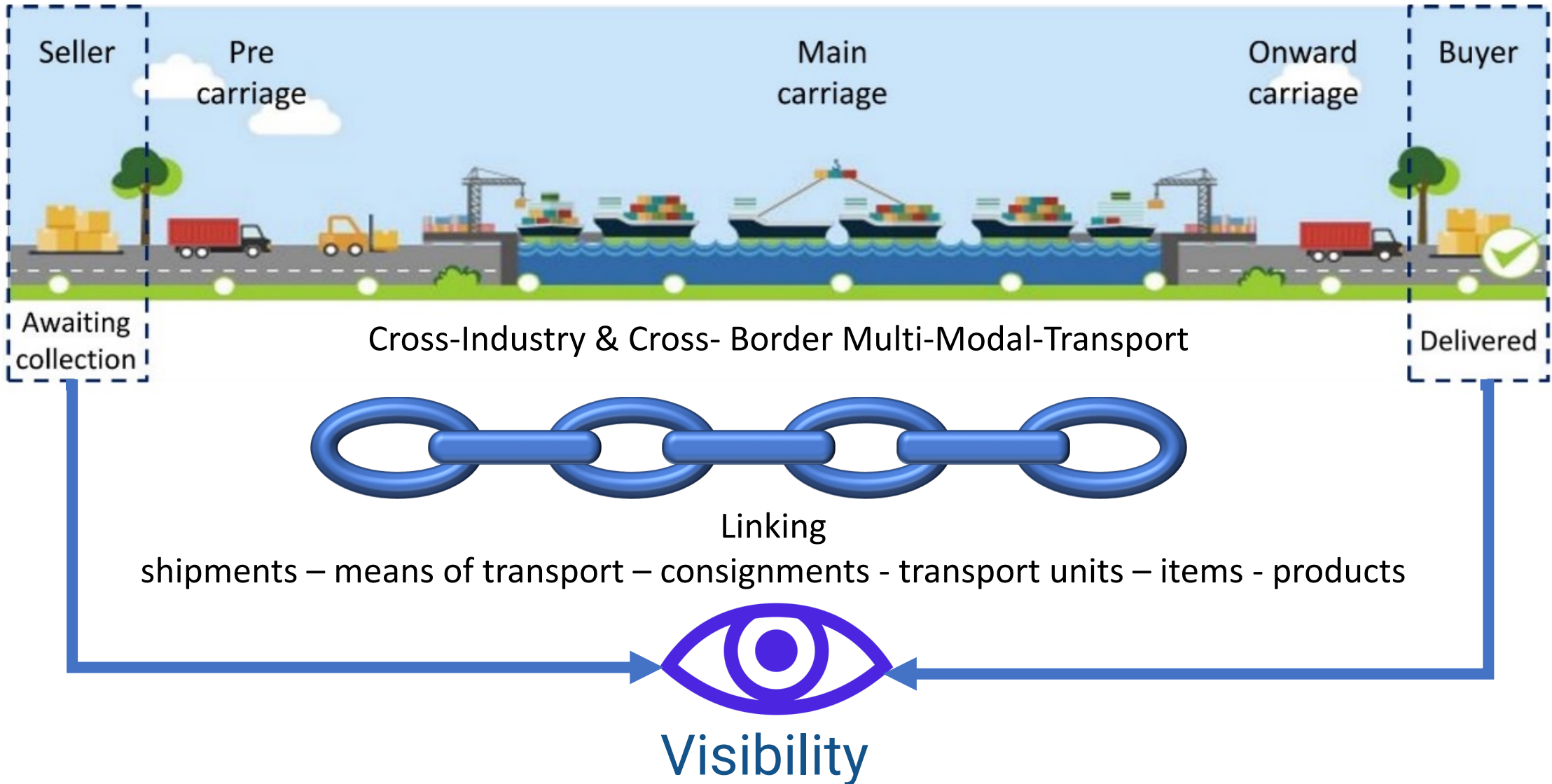
Transactions data and ESG related data

linking using unique identifiers

Companies Transactions

Consignment Note

Despatch Advice

Order

ID Company

ID Products

ID Company

ID Products

ID Company

ID Products

Product Levels:
Model
Batch
Item

Certificate
Licence
Declaration
Inspection Report

ESG data

ID Company
ID Product
Process
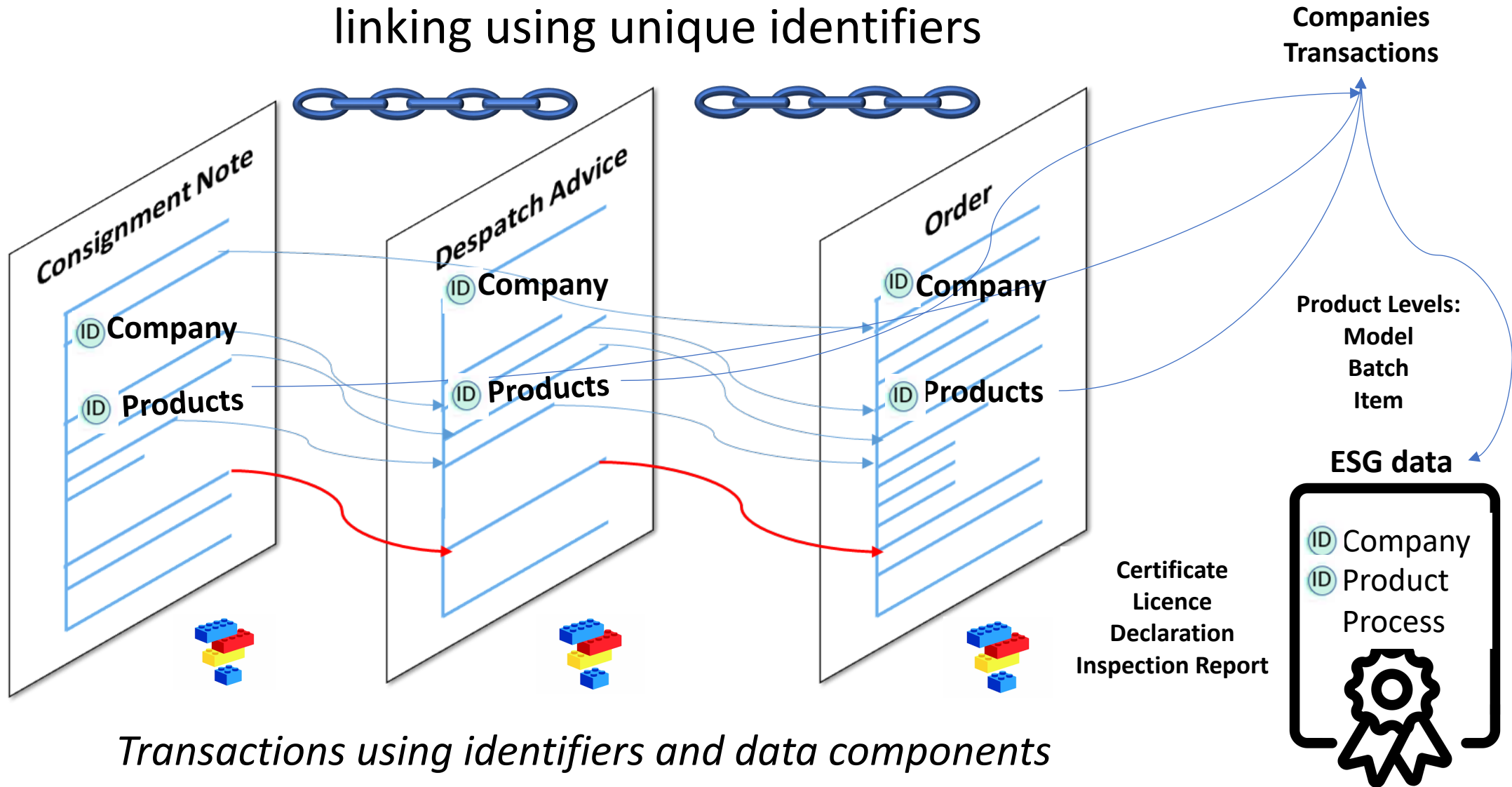
Transactions using identifiers and data components

Integrated T & T Project: conclusion

All of the data elements required for supply chain track and trace are already in the UN/CEFACT Library.

IoT data components (smart containers)

Support for Identifiers (global Ids)

Transport Means Details

Transport means & movement ESG data

Transport Equipment Details

Transport Movement Details

Consignment Details

Trade Details (shipment, order, items)

T&T Event Details

Codes

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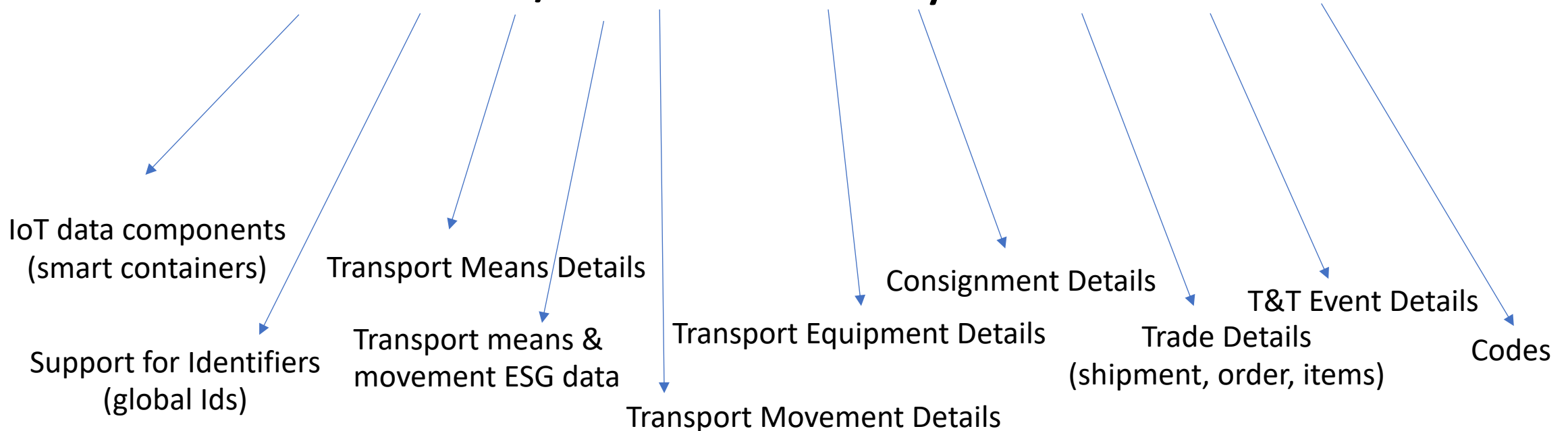
A library with more then 15000 data elements

Supply Chain Management & Procurement
Environmental Management
Accounting and Audit
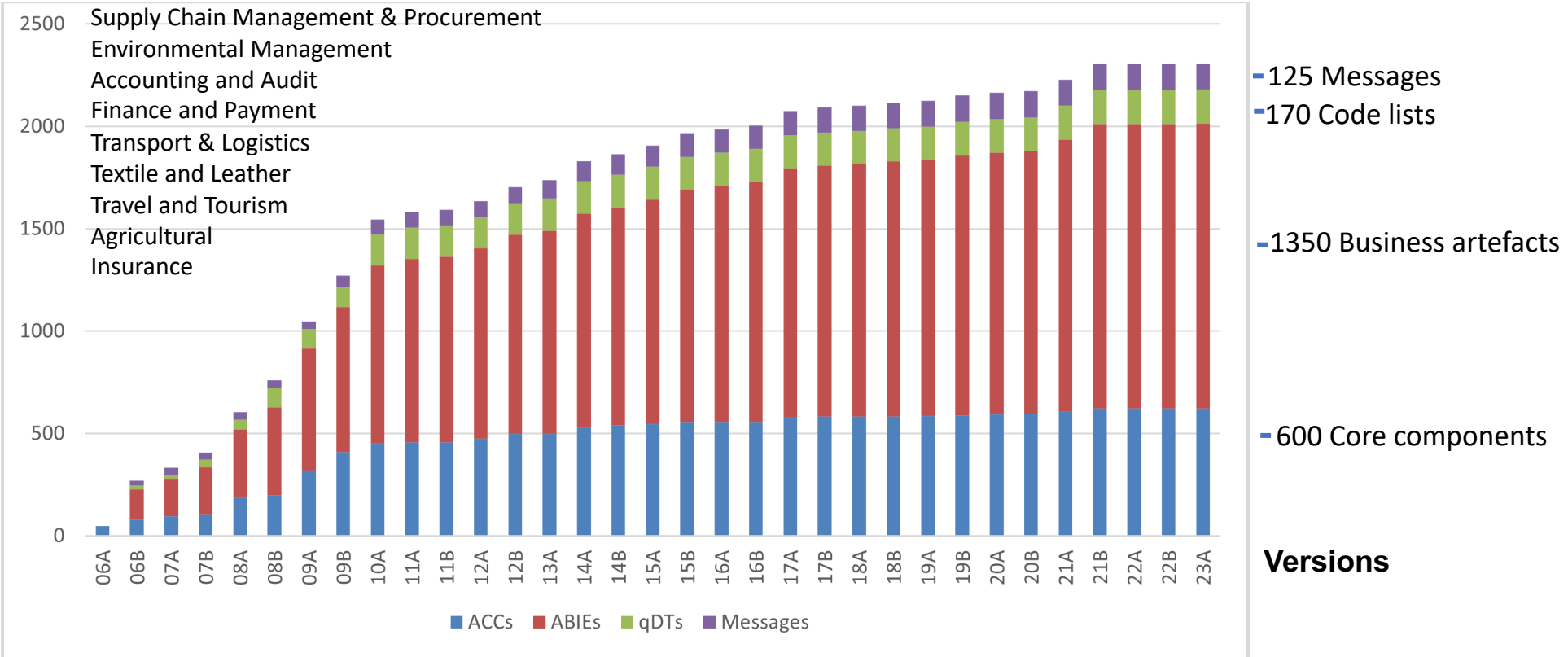Finance and Payment
Transport & Logistics
Textile and Leather
Travel and Tourism
Agricultural
Insurance

- 125 Messages
- 170 Code lists

- 1350 Business artefacts

- 600 Core components

Versions

Legend: ACCs, ABIEs, qDTs, Messages

ABIE - Aggregate Business Information Entities - ACC - Aggregate Core Component qDT – Qualified DataType

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Providing a framework of standardized data

Library Level

UN Core Component Library — 1350

Contextualized RDM Level 1

Buy-Ship-Pay RDM — 380

Contextualized RDM Level 2

- Supply Chain RDM — 140
- Multi Modal Transport RDM — 150
- Cross-Border Management RDM — 90
- SDCE/**ESG** Sustainability RDM — 170

Contextualized Subsets Level 3

Textile & Leather subset → Standardized Messages

\# — Number of aggregate business information entities

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T & T and Transport related ESG data

Reefer Monitoring Reduced loss of goods	CO2 emissions monitoring	Custom clearance Reduction inspection delays	Cargo security Reduction of theft, counterfeiting
Container terminal congestion monitoring	Reduction of buffer stock and stock in transit	Reduction of delivery time and cargo loss	Process compliance Reduction of fine occurrence

Our key messages

- Decentralized identifiers – accepting different IDs, as long the identifier is associated with a recognized standards body. This is referenced today in the UN/CEFACT MMT-RDM

- UN/CEFACT MMT-RDM already contains all required data elements

- Combining existing data elements in concert with using new digital technologies make it now possible to close the trade-transport gap and move closer toward operational and systems interoperability.

- Reuse of existing international open standards as much as possible!

Thank you!

Dr. Hanane BECHA
Vice Chair, Transport & Logistics
hbecha@gmail.com
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