TRADE FACILITATION AND DIGITAL TRANSFORMATION OF MULTIMODAL INFORMATION EXCHANGE IN EASTERN EUROPE AND SPECA, USING UNITED NATIONS STANDARDS

How to implement the UNTTC package of transport and logistics standards for digitalization of data and document exchange

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Baku Seminar, 22–23 May 2023

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Objectives

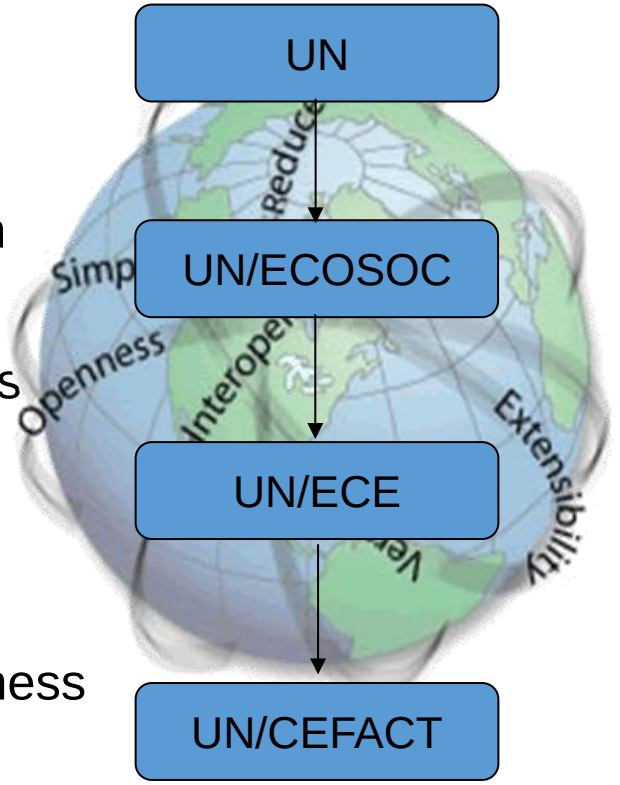
- Simple, transparent and effective processes for global business
- Efficient and automated exchange of information

Outputs

- Global Trade Facilitation and Electronic Business Recommendations and Standards

Means

- Public Private Sector Partnership – over 1000 experts from government and business
- Experts meet via internet every week plus two Face-to-Face Forums per year (hopefully)



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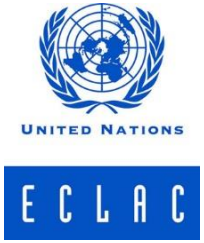
Cooperation / Collaboration



EEC

EU
DG-MOVE
DG-TAXUD
DG-MARE
DG-DEVCO
DG-DIGIT
…

ISO
IEC
ITU
WTO
ITC
IATA
WCO
OECD

IPCSA
PROTECT
FIATA
SMDG
DCSA
…

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UN/CEFACT Deliverables

- Deliverables
  - Internationally agreed recommendations
  - Internationally agreed e-business standards
  - Common Librairies
  - Common Directories
  - Code Lists

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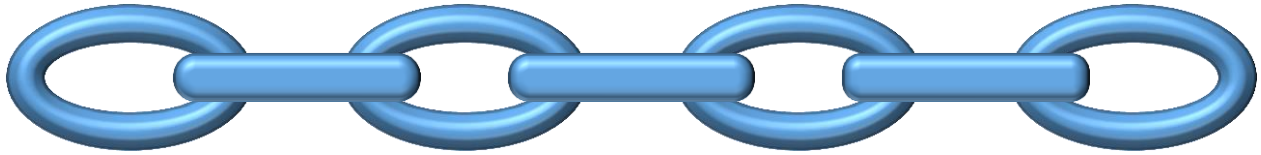
One link in a global supply chain



- Most dematerialization projects are only looking at one sectoral view
  - Almost all sectoral views are just one part of a global supply chain
  - The international supply chain is very complex (multiple actors and multiple relations in data exchanges)
- A holistic approach is needed
  - Information will not be related purely to goods or purely to transport or purely to regulatory
  - There are clear links between the information in each part of the global supply chain
- UN/CEFACT deliverables all take this holistic approach

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UN/CEFACT Global Supply Chain eBusiness Standards

- Based on UNCCL (Core Component Library)
- Cross-industry and Multi Modal/Intermodal
- Result of contributions from 100s of supply chain experts over 20 years
- Business Process Analyses and Data Exchange Message structures
- Latest published versions D22B
- Publication formats html/UML, profile xsd and future JSON schema to support UN/CEFACT standardised APIs and harmonised JSON-LD API developments
- Included references to UNTDED and UN/EDIFACT to support migration
- Aligned to international regulations and conventions where applicable

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Basis for Semantic Interoperability

Agreed and Harmonised

- Party and Role Definitions
- Semantic Anchors
- Message Structures
- Contextualised Code Subsets
- Contextualised Business Rules

https://unece.org/fileadmin/DAM/cefact/brs/BuyShipPay_BRS_v1.0.pdf

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

Consignment

- 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

Aligned with WCO Data Model Concepts

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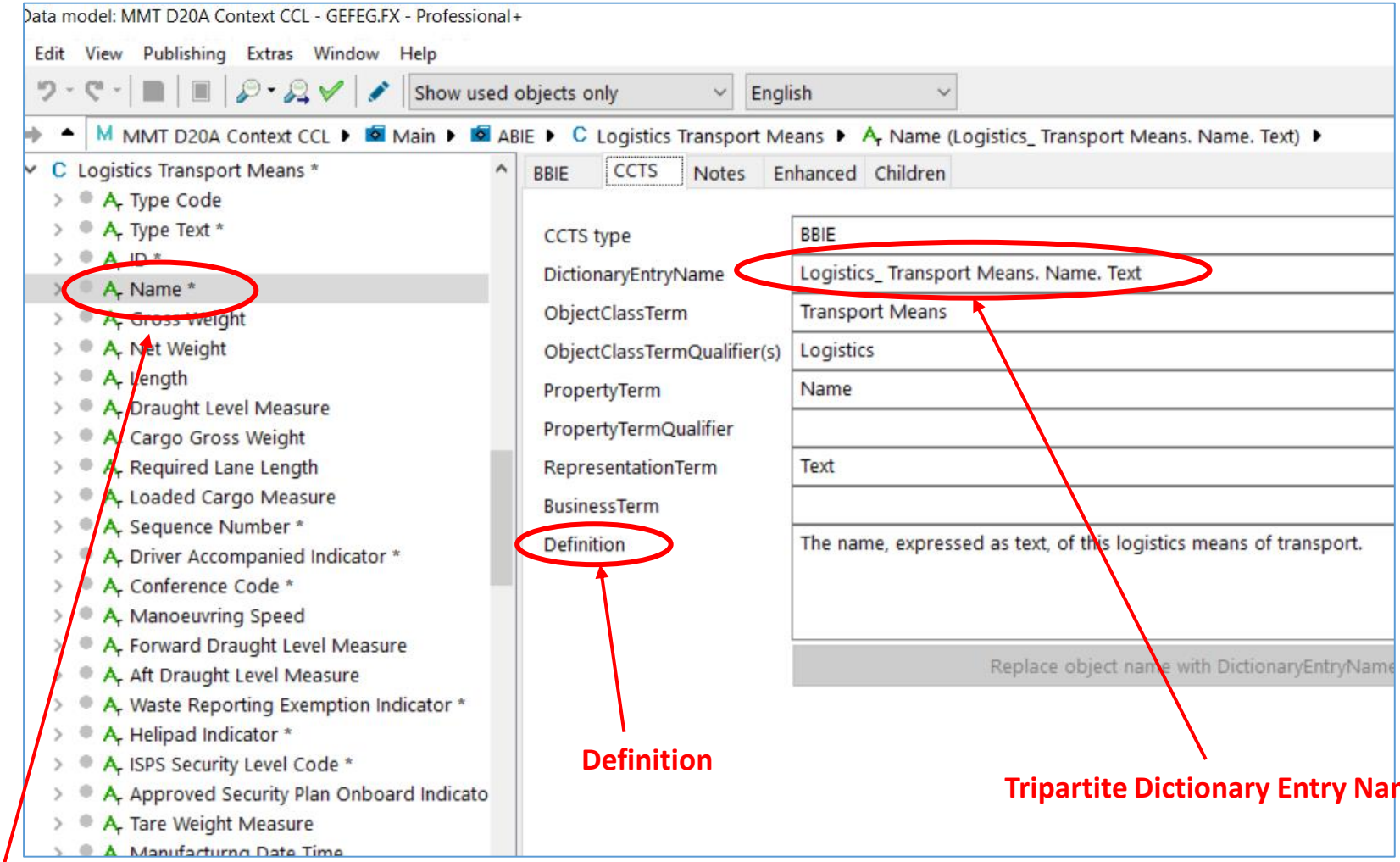
Core Component Dictionary Entry Names and Definitions



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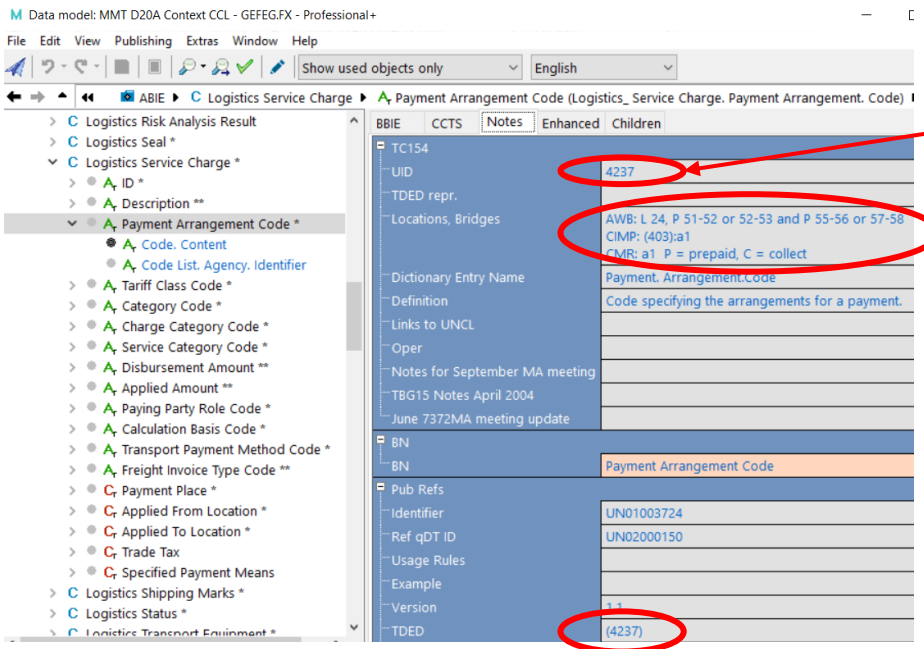
Built-in mappings to UNTDED, UN Layout Key and UN/EDIFACT

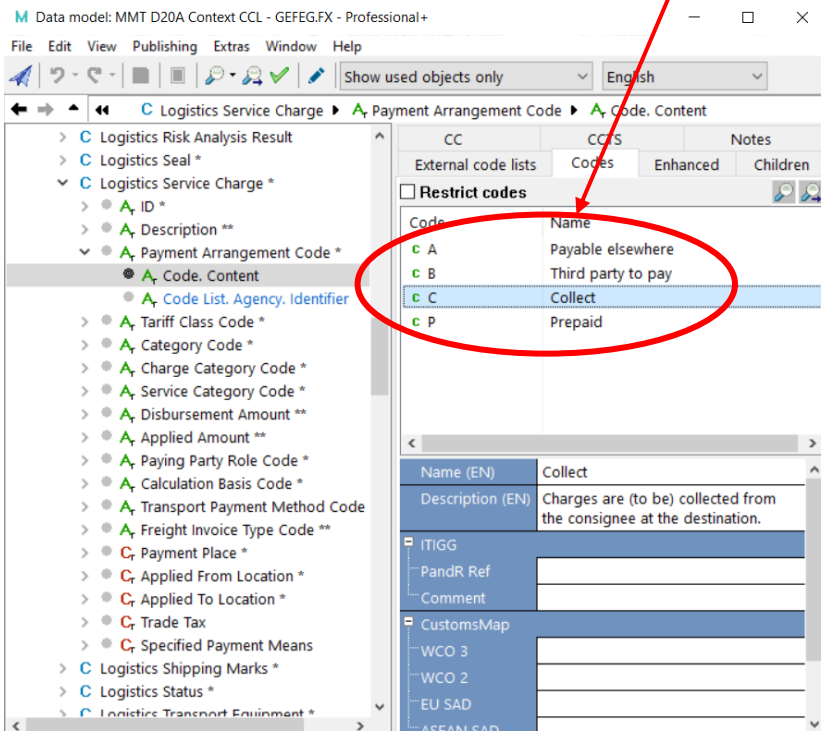


UNTDED

UN Layout Keys

UNTDID
EDIFACT

UNCL Codes



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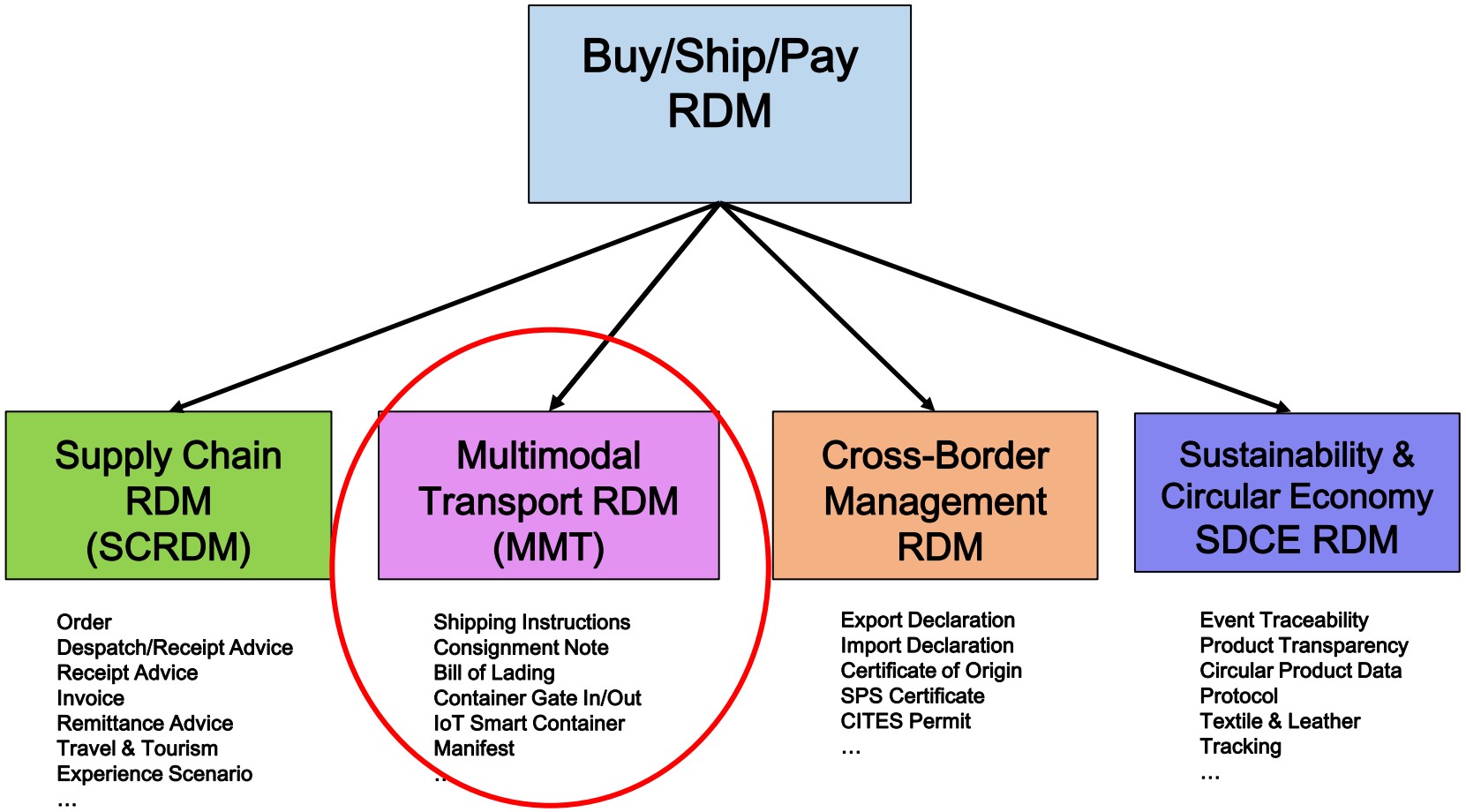
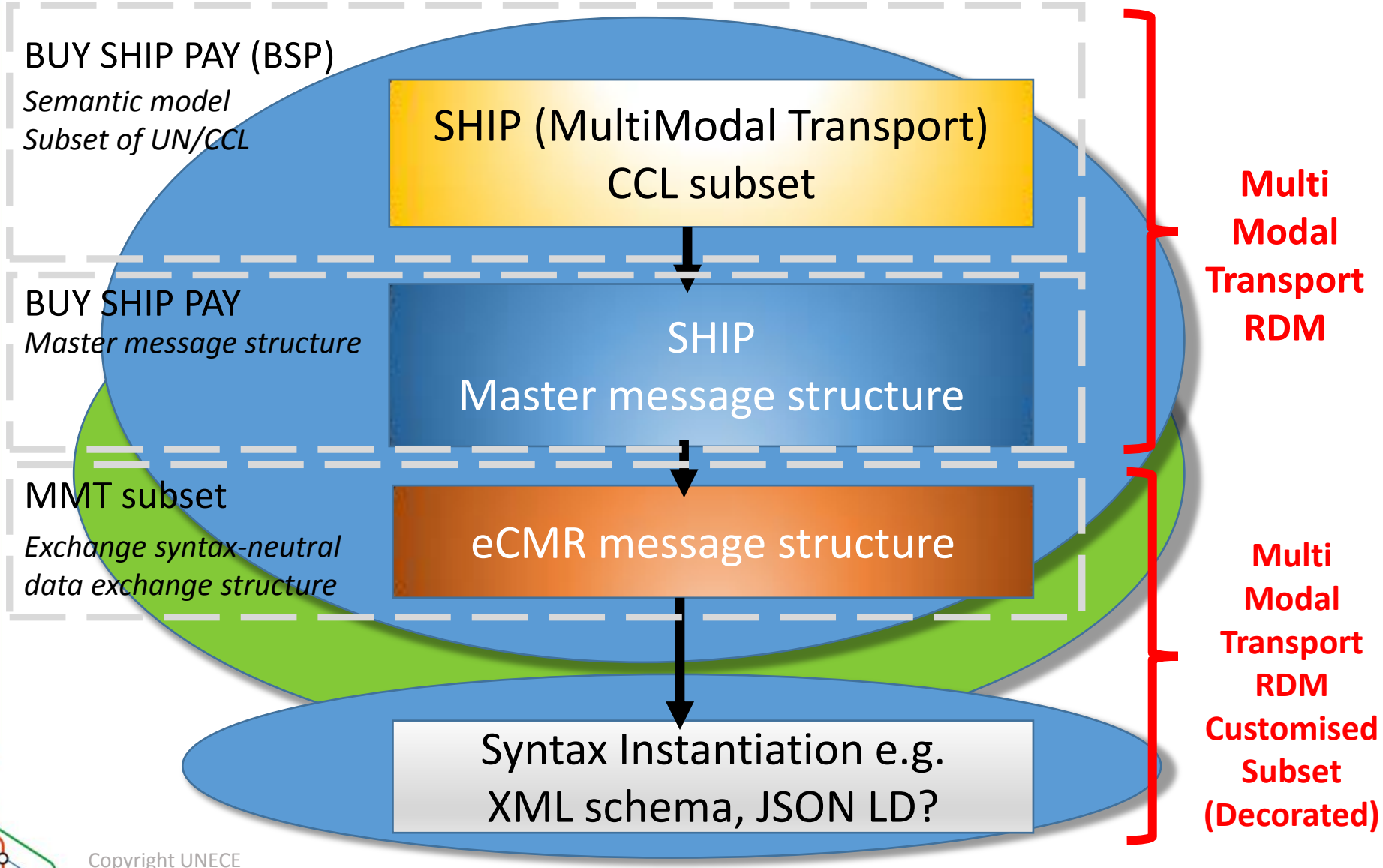
UN/CEFACT Reference Data Model Family



UN/CEFACT Publication Transport Example: electronic Road Consignment Note (eCMR)



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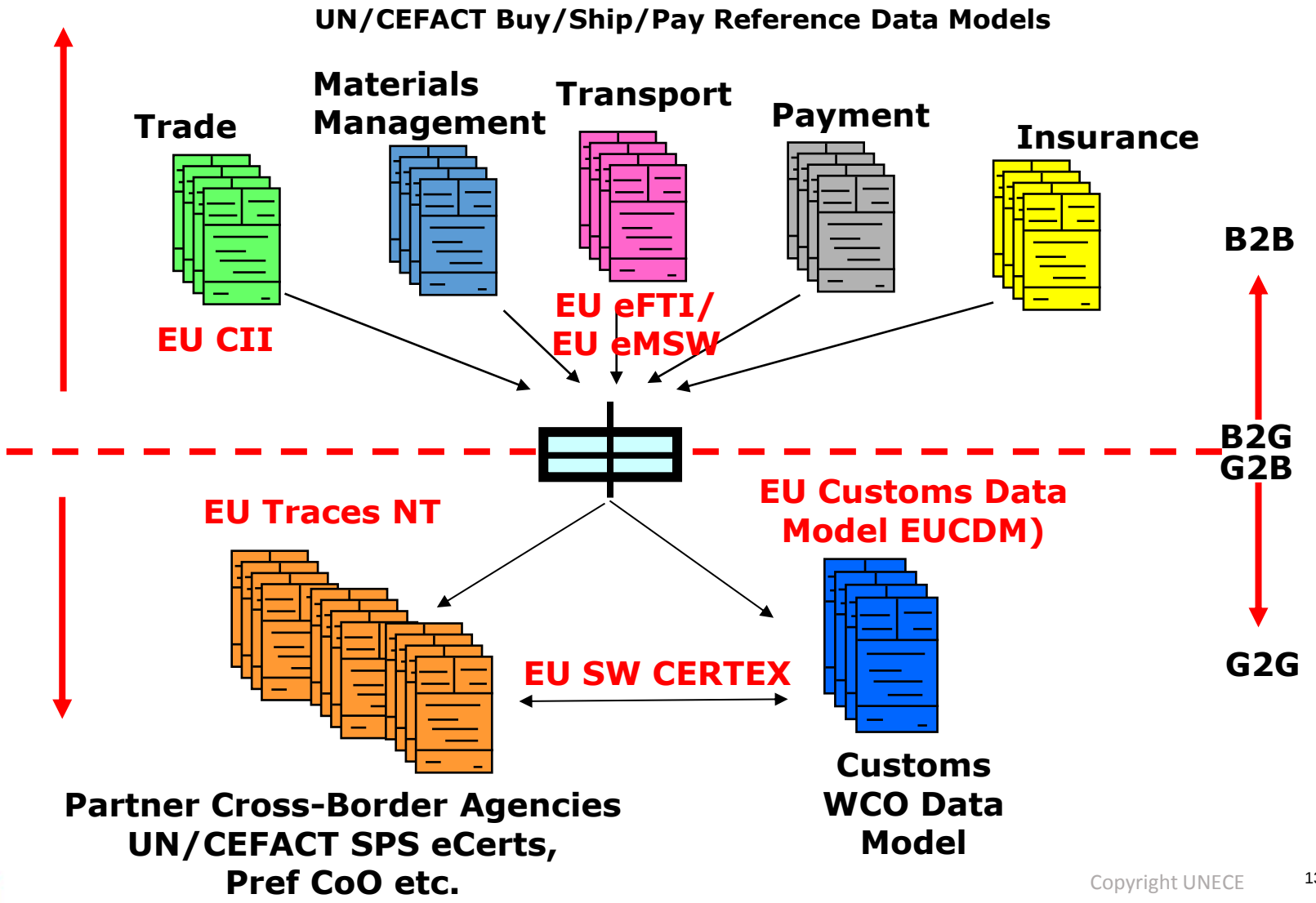
Single Windows Document Families – European Union Perspective



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Key Single Window Semantic Aspects

- Public side and Government side speak different languages or, at least, different dialects
  - Affects names and definitions
  - Affects data quality
- Partnership approach using harmonised names and definitions will offer increased quality and mutually beneficial facilitation
- Pipeline provision of data in trusted trader programs
- Primary and Secondary data views
- Managing moving targets

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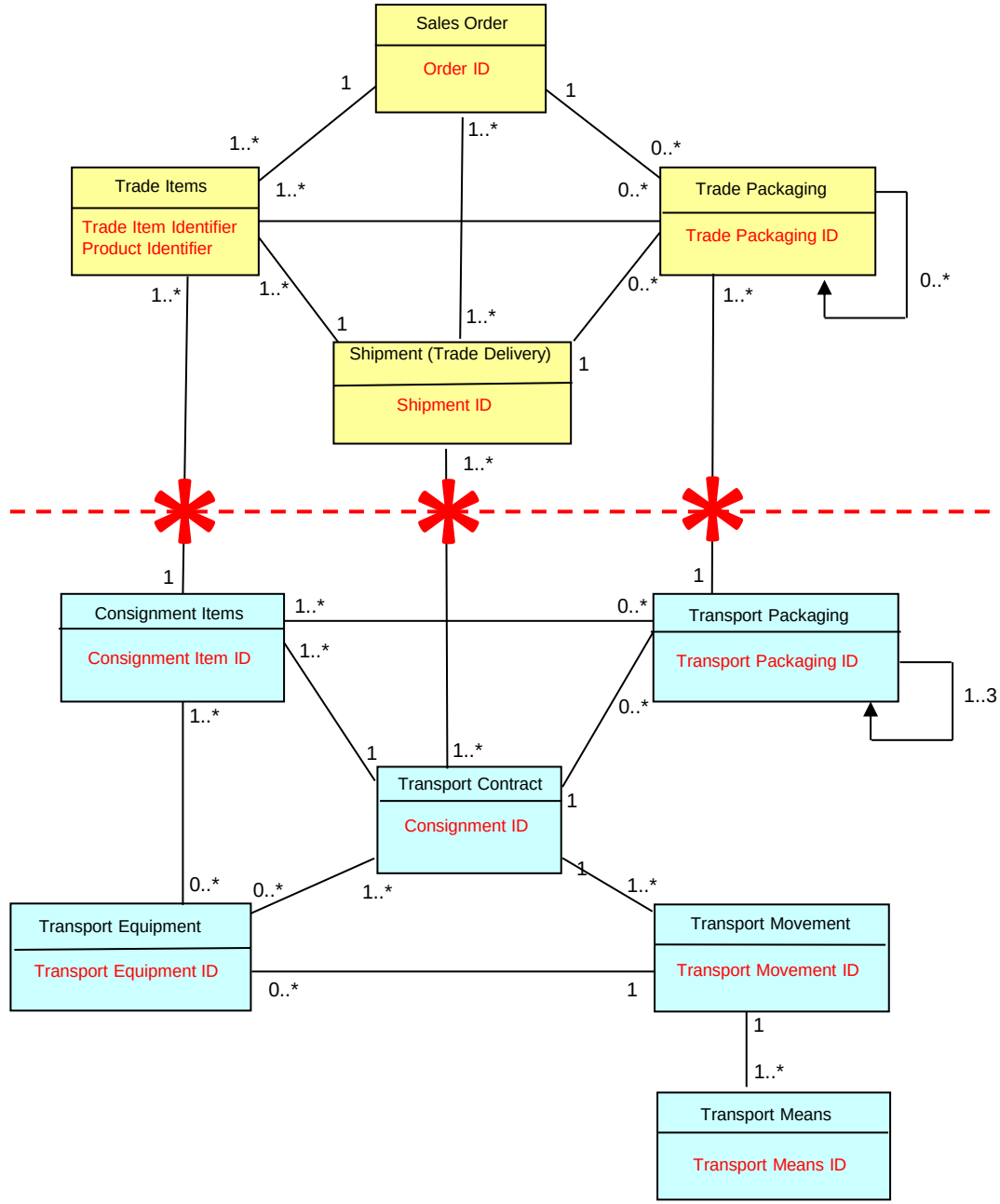
Global Trade – Trace & Track Project

Trade B2B Data World

Transport B2B Data World

ID Gaps



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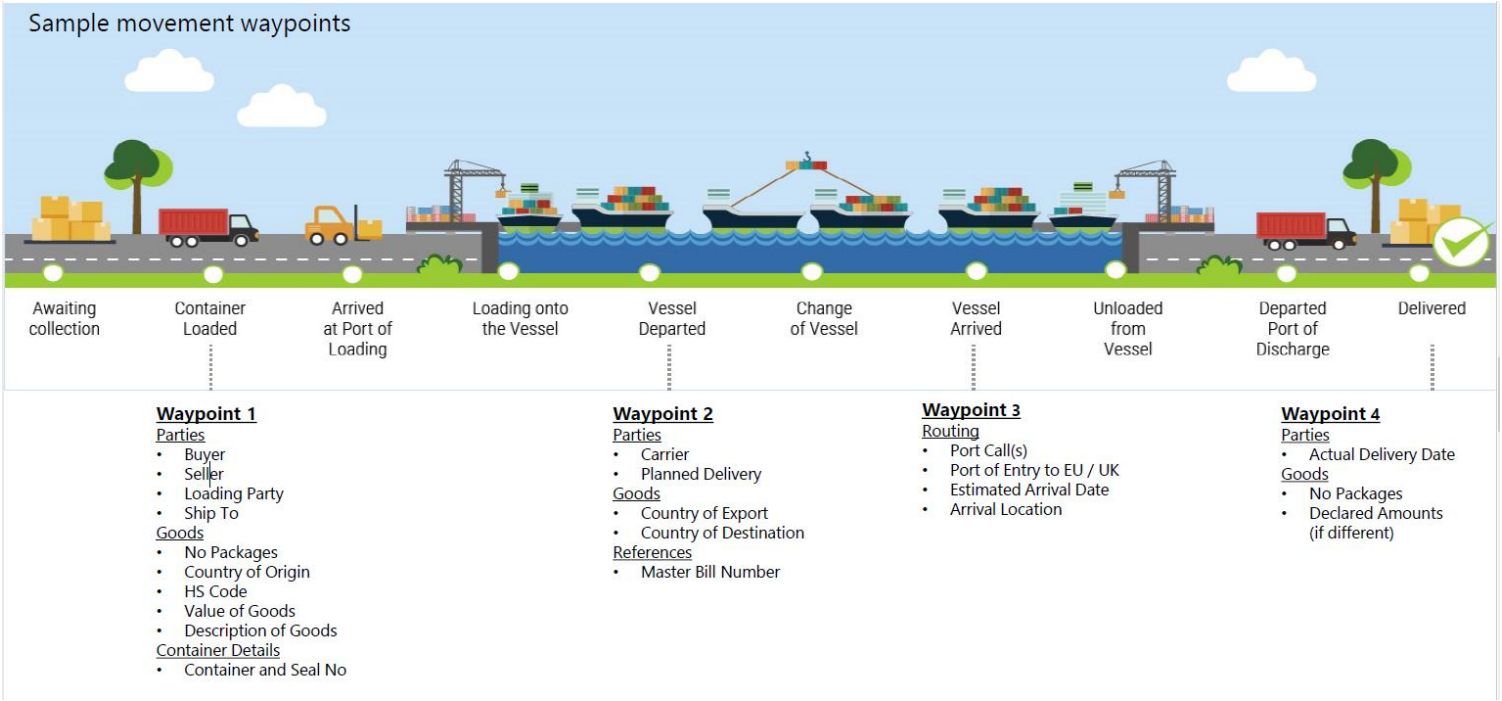
Pipeline Data Exchange Standard (PDES)



- Supply Chain data extracts sent to regulatory agencies at key time points
- Standardised overall data exchange structure
- Quality data from the original source at earliest time
- Regulatory and supply chain visibility benefits

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UNTTC
Transport & Trade Connectivity in the age of pandemics

- UN New York launched **COVID-19 initiative to encourage exchange of digitised electronic data** rather than paper documents in transport contract related data exchanges
- **UNECE and UN/CEFACT joint contribution:**
  - UN/CEFACT Cross-modal project to develop modal data exchange guides as subsets of the UN/CEFACT MMT Reference Data Model to support digitised data exchanges between transport modes
  - **7 Heads of Delegation** supported the Project (Germany, Spain, Greece, Russia, Italy, US and Ukraine)
  - Project completed all ODP steps successfully and published on UN/CEFACT website plus links to UNTTC website

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Dangerous Goods MMT-based Customisations

✓Maritime

✓Road

✓Rail

✓Inland Waterway

✓Air

In conjunction with UNECE Transport Division, IMO FAL, ICAO and the EU DG MOVE EFTi Regulation development

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Latest Deliverables

Recently Completed Projects

- Buy Ship Pay Reference Data Model
- Cross Industry Supply Chain Track and Trace eb Standard
- White Paper overview of Blockchain in Trade
- White Paper on Verifiable Credentials (to be developed into new TF Recommendation)
- Cross-Border Management RDM
- UNDA COVID-19 initiative (UNTTC) – Electronic Transport Data Exchange Structures based on MMT (MultiModal Reference Data Model)
- Cross-modal Dangerous Goods data harmonisation

UN/CEFACT Semantic Publications:

https://unece.org/trade/uncefact/mainstandards

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For further Information

- All UNECE and UN/CEFACT Recommendations, codes, standards and publications are available for free on our website at:
- www.unece.org/cefact/
- All experts are welcome to join the standards development work free of charge

UN/CEFACT Secretariat

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