

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

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UN/CEFACT

Objectives

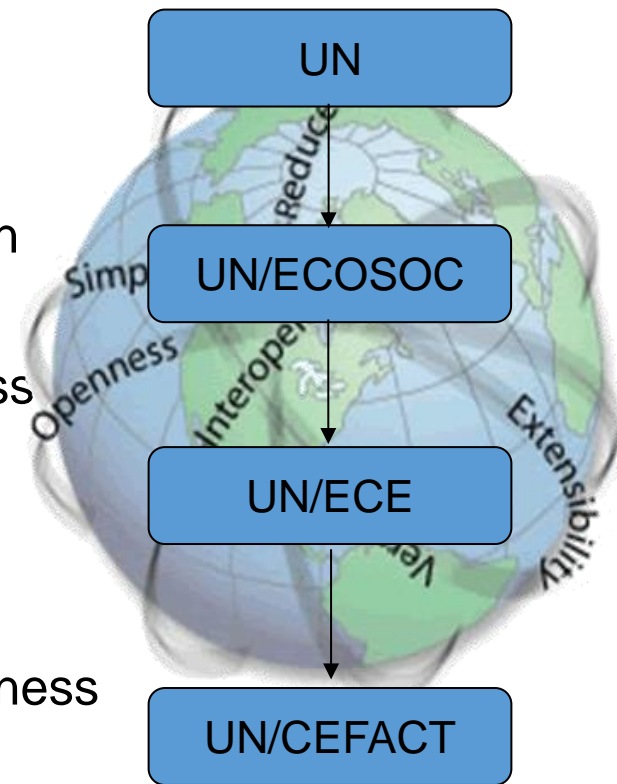
- Simple, transparent and effective processes for global business
- Efficient and automated exchange of information

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)



Global Remit

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
...

UN/CEFACT Deliverables



Deliverables



○ Internationally agreed recommendations

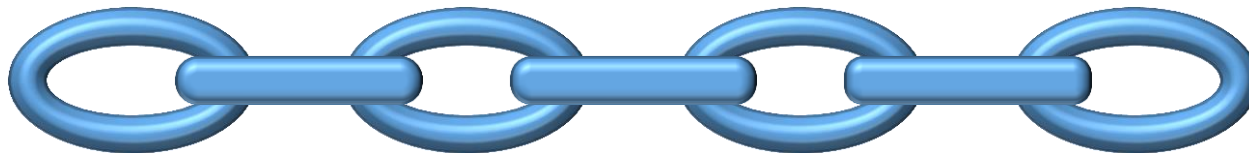
○ Internationally agreed e-business standards

○ Common Libraries

○ Common Directories

○ Code Lists

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



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

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



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

Core Component Dictionary Entry Names and Definitions

Data model: MMT D20A Context CCL - GEFEG.FX - Professional+

Edit View Publishing Extras Window Help

Show used objects only English

MMT D20A Context CCL Main ABIE Logistics Transport Means Name (Logistics_Transport Means. Name. Text)

Logistics Transport Means *

- Type Code
- Type Text *
- ID *
- Name ***
- Gross Weight
- Net Weight
- Length
- Draught Level Measure
- Cargo Gross Weight
- Required Lane Length
- Loaded Cargo Measure
- Sequence Number *
- Driver Accompanied Indicator *
- Conference Code *
- Manoeuvring Speed
- Forward Draught Level Measure
- Aft Draught Level Measure
- Waste Reporting Exemption Indicator *
- Helipad Indicator *
- ISPS Security Level Code *
- Approved Security Plan Onboard Indicato
- Tare Weight Measure
- Manufacturing Date Time

BBIE	CCTS	Notes	Enhanced	Children
CCTS type	BBIE			
DictionaryEntryName	Logistics_Transport Means. Name. Text			
ObjectClassTerm	Transport Means			
ObjectClassTermQualifier(s)	Logistics			
PropertyTerm	Name			
PropertyTermQualifier				
RepresentationTerm	Text			
BusinessTerm				
Definition	The name, expressed as text, of this logistics means of transport.			

Replace object name with DictionaryEntryName

Business Name

Definition

Tripartite Dictionary Entry Name

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

MMT D20A Context CCL - GEFEF.FX - Professional+

File Edit View Publishing Extras Window Help

Show used objects only English

ABIE > C Logistics Service Charge > A Payment Arrangement Code (Logistics_Service Charge. Payment Arrangement. Code)

TC154

UID 4237

TDED repr. AWB: L 24, P 51-52 or 52-53 and P 55-56 or 57-58
CIMP: (403):a1
GMR: a1 P = prepaid, C = collect

Locations, Bridges

Dictionary Entry Name Payment Arrangement Code

Definition Code specifying the arrangements for a payment.

Links to UNCL

Oper

Notes for September MA meeting

TBG15 Notes April 2004

June 7372MA meeting update

BN

BN Payment Arrangement Code

Pub Refs

Identifier UN01003724

Ref qDT ID UN02000150

Usage Rules

Example

Version 1.1

TDED 4237

UNTDED

UN Layout Keys

UNCL Codes

UNTDID
EDIFACT

MMT D20A Context CCL - GEFEF.FX - Professional+

File Edit View Publishing Extras Window Help

Show used objects only English

C Logistics Service Charge > A Payment Arrangement Code > A Code List Agency Identifier

CC

External code lists Codes Enhanced Children

Restrict codes

Code	Name
C A	Payable elsewhere
C B	Third party to pay
C C	Collect
C P	Prepaid

Name (EN) Collect

Description (EN) Charges are (to be) collected from the consignee at the destination.

ITIGG

PandR Ref

Comment

CustomsMap

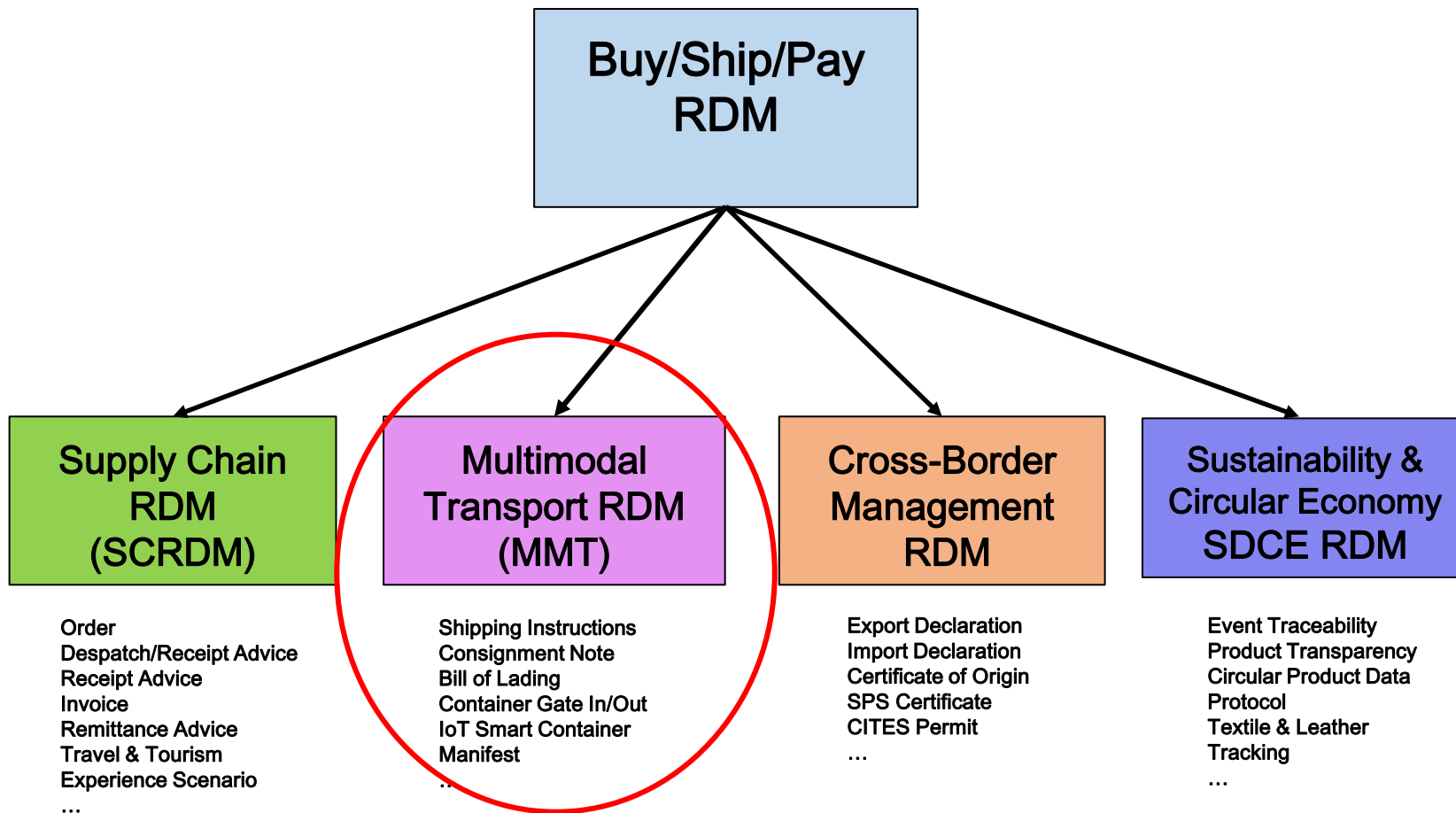
WCO 3

WCO 2

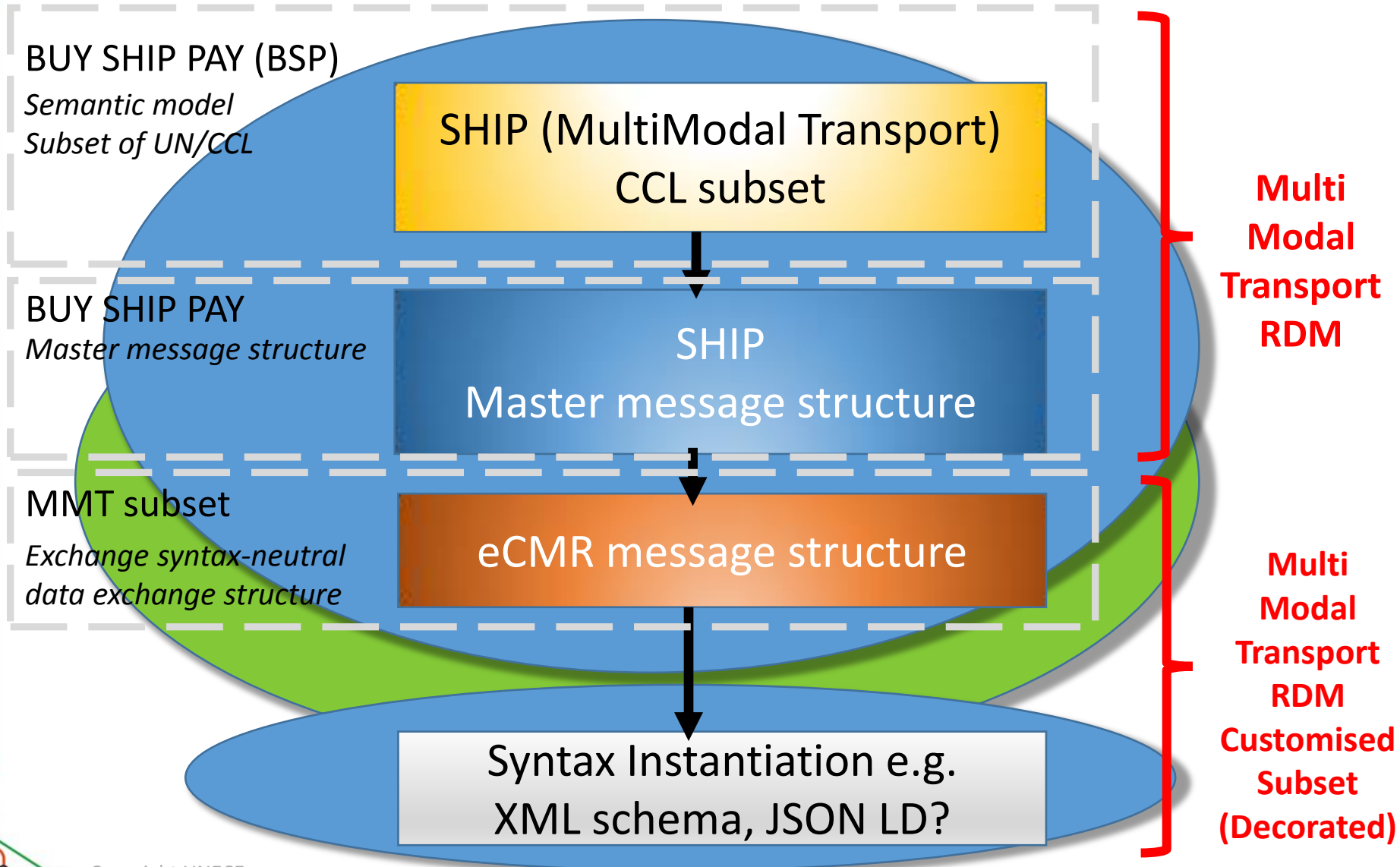
EU SAD

ASEAN SAD

UN/CEFACT Reference Data Model Family



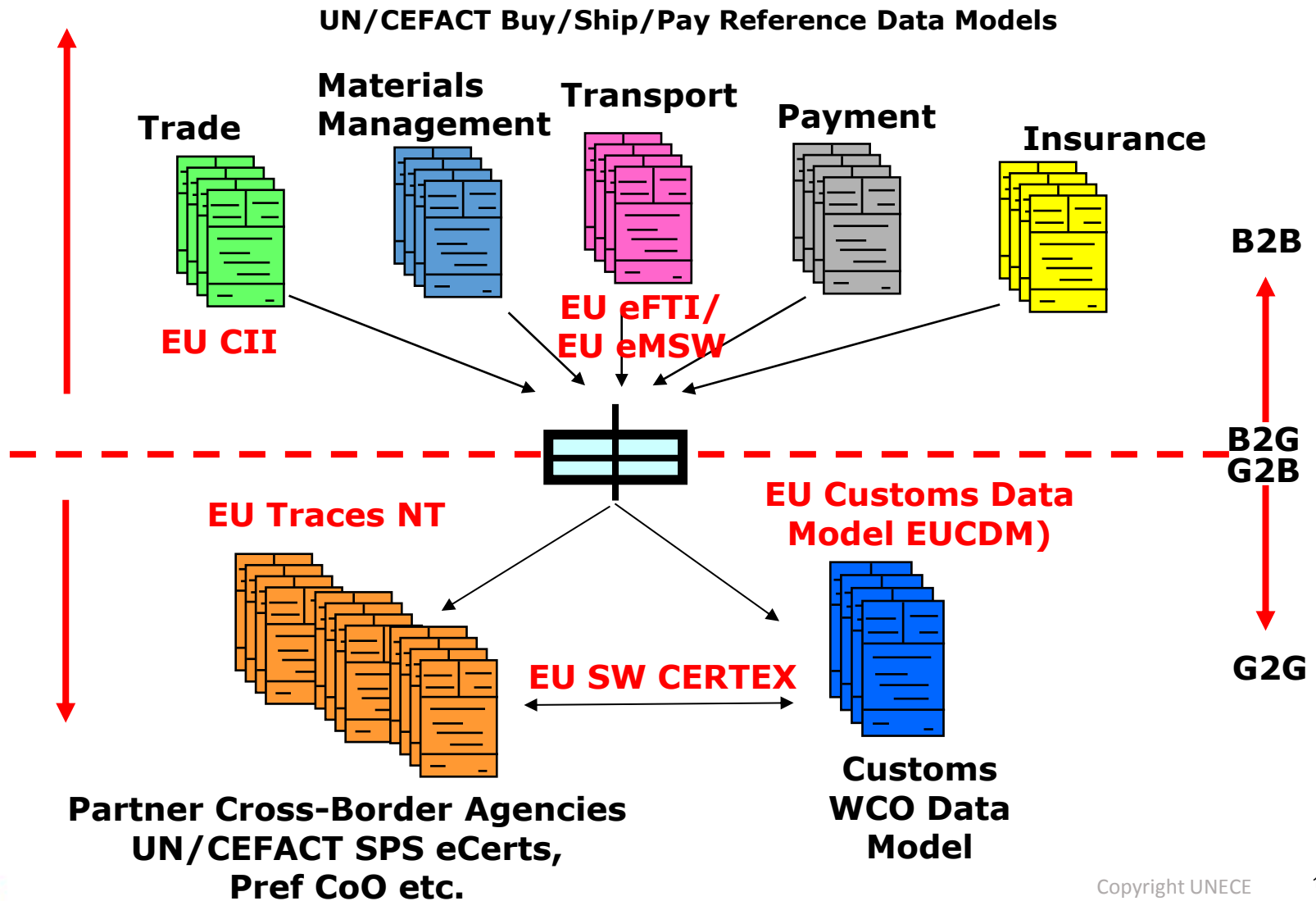
UN/CEFACT Publication Transport Example: electronic Road Consignment Note (eCMR)



UN / CEFACT

Copyright UNECE

Single Windows Document Families – European Union Perspective





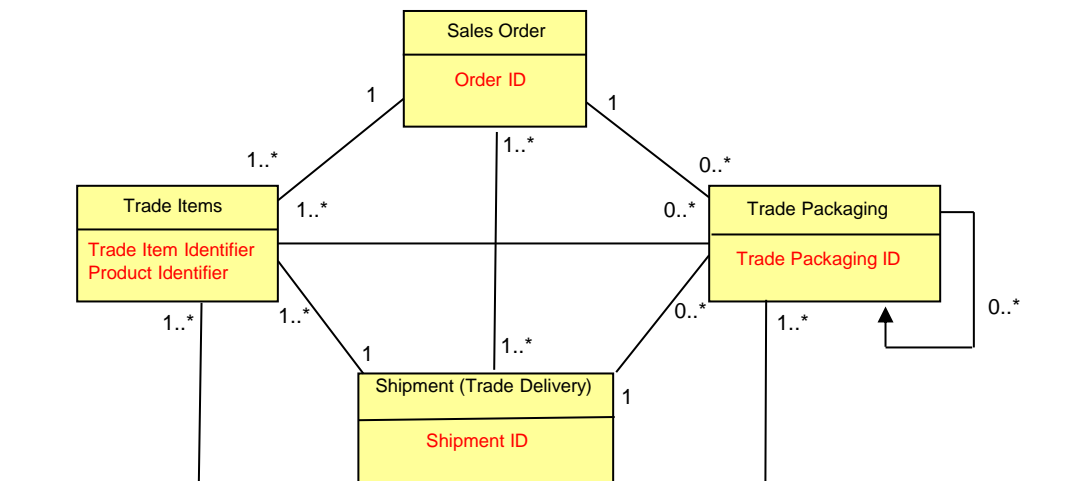
Key Single Window Semantic Aspects

- 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

Global Trade – Trace & Track Project

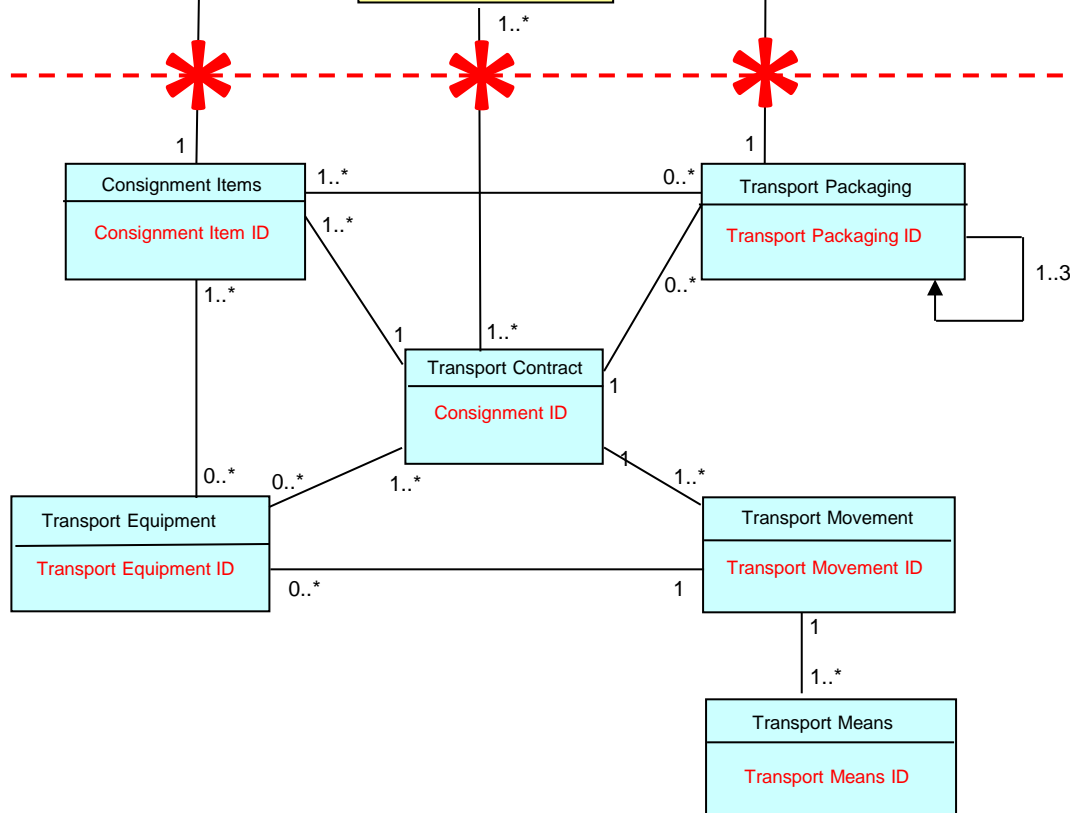


Trade
B2B Data
World

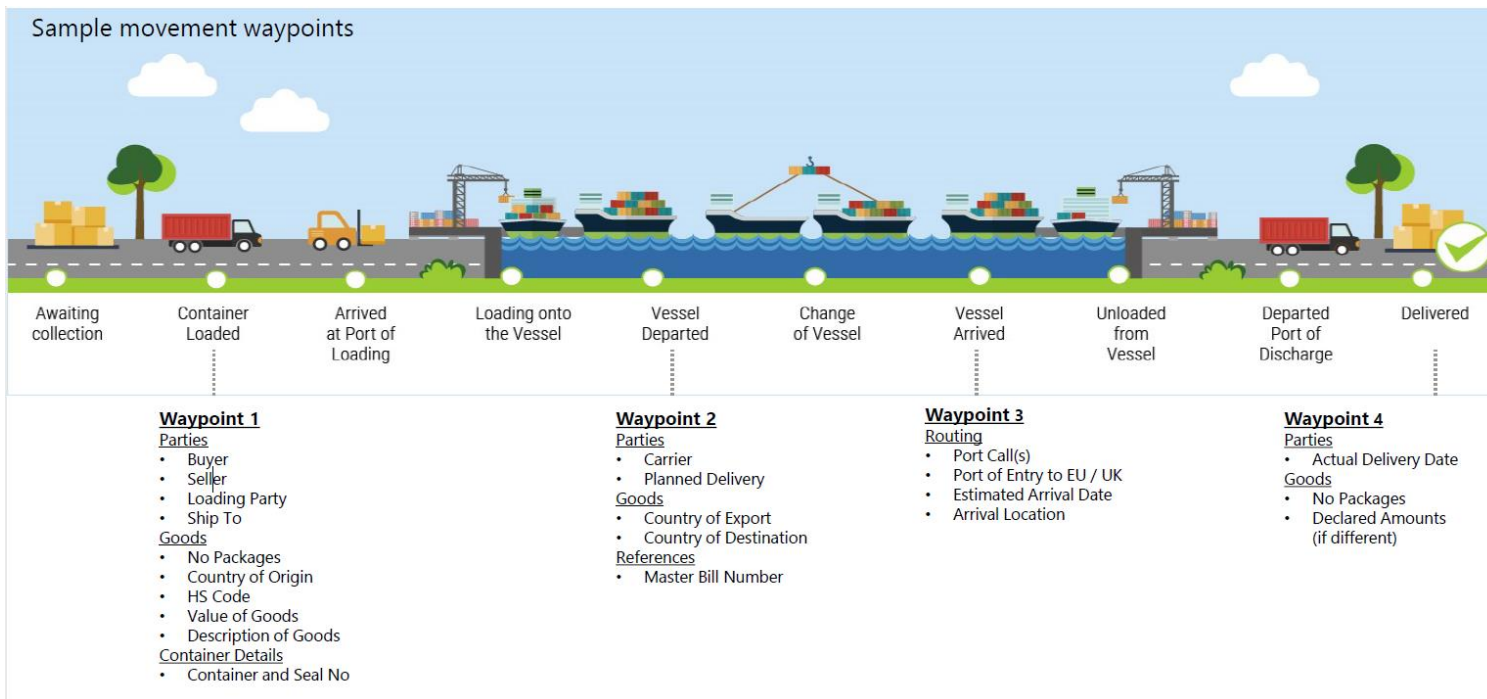


ID Gaps

Transport
B2B Data
World



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

UNTTTC

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 UNTTTC website

Dangerous Goods MMT-based Customisations



✓ Maritime



✓ Inland Waterway



✓ Road



✓ Air



✓ Rail

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



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 (UNTTTC) – 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>

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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