

UN/CEFACT Standards for International Supply Chain Semantic Harmonisation & Trade Facilitation

Sue Probert
UN/CEFACT Chair
suesiprobert@live.com

**Intro to Maritime transport digitalization and UN/CEFACT
international supply chain reference data models and data
exchange standards**

July 2024



Objectives

- Simple, transparent and effective processes for global business
- Efficient and automated exchange of information
- Targeted support to SDGs 8, 12, and 17

Key tools

- 50 global trade facilitation recommendations
- 950 e-Business standards and guidelines

Means

- Public-Private Partnership
- Over 1600 volunteer experts working on 30 active projects
- Bi-annual Forums and annual Plenary sessions
- Regular Bureau calls



UN

UN/ECOSOC

UNECE

EXCOM

UN/CEFACT

Partnerships and Collaboration



EC
DG-MOVE
DG-TAXUD
DG-MARE
DG-INTPA
DG-DIGIT

EEC
OECD

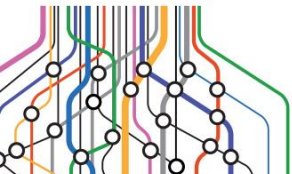
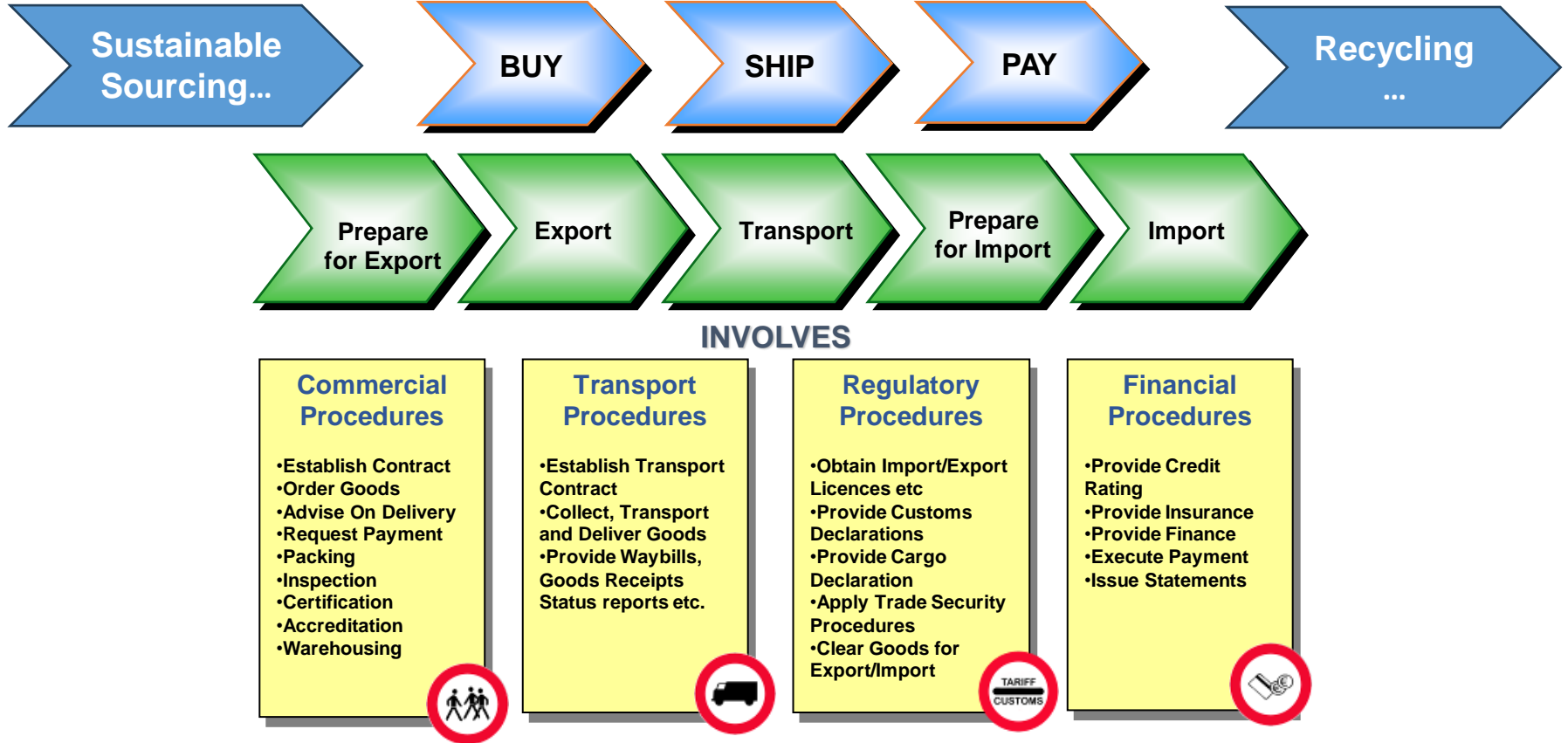
GS1
IPCSA
PROTECT
FIATA
SMDG
DCSA

ISO
IEC
ITU
WTO
ITC
IATA
WCO

UN / CEFACT

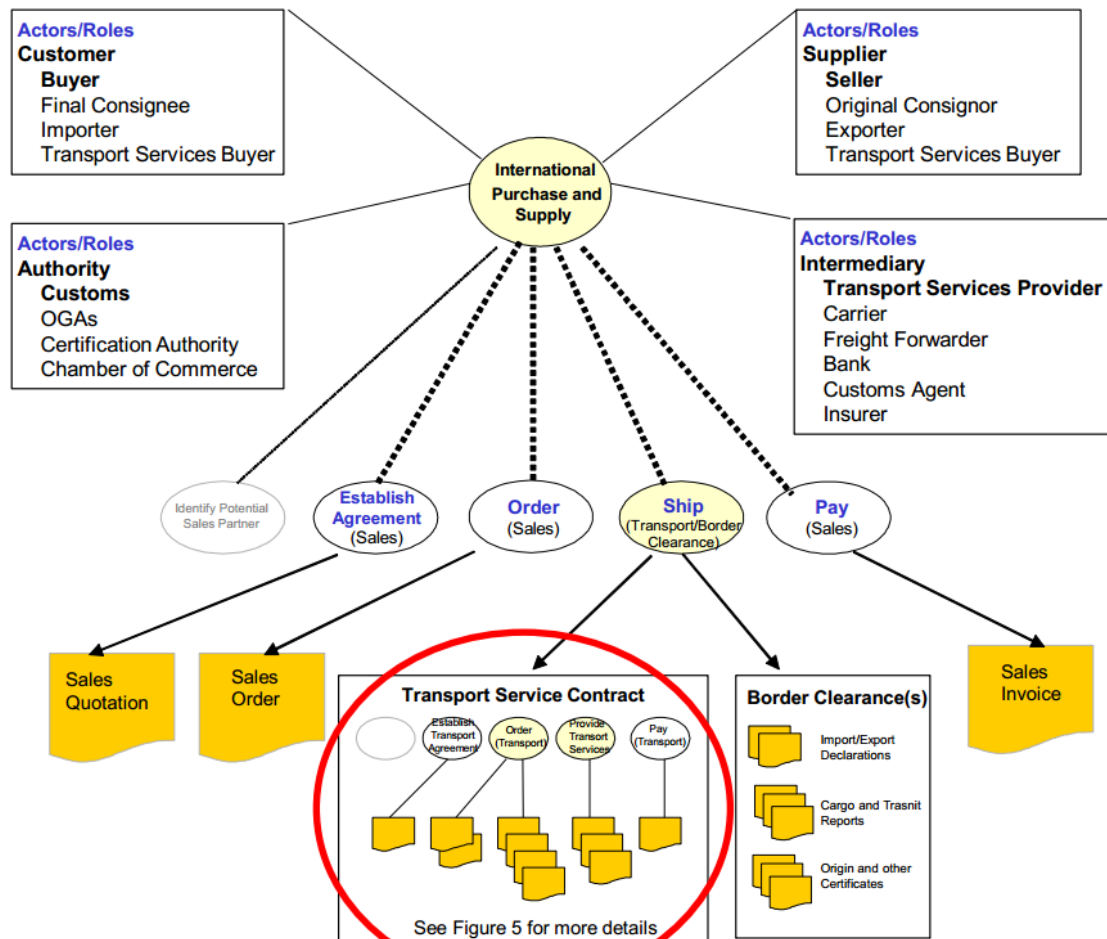


UN/CEFACT International Supply Chain Processes

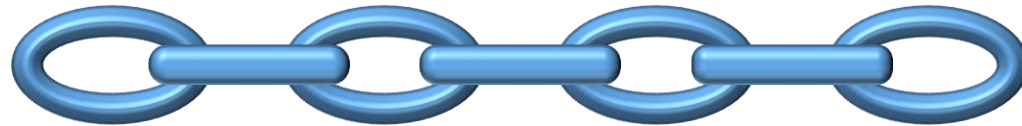


USP Focusing on the complete international Supply chain

The Sales Order Contract



Global Supply Chain Holistic Multimodal links



- Most dematerialization projects are only looking at one sectoral view
 - The international supply chain is very complex
 - Almost all sectoral views are just one part of a global supply chain
- A holistic view and approach are 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 trade facilitation approach
 - Cross Industry
 - MultiModal
 - Cross-border Management

History of Maritime Standards



- UN Trade Data Elements Directory (ISO 7372) and UN Layout Key Document Standards (1990...currently under review for 2025 version)
- UN/EDIFACT – 30 years of transport message development and increasing implementation (1992...)
- International Code Lists (250+)
- Multi Modal Transport Reference Data Model (2005...)
- UNTTC Transport & Trade Connectivity in the age of pandemics project (2021...)
- Current emerging technology and methodology projects for the industry

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

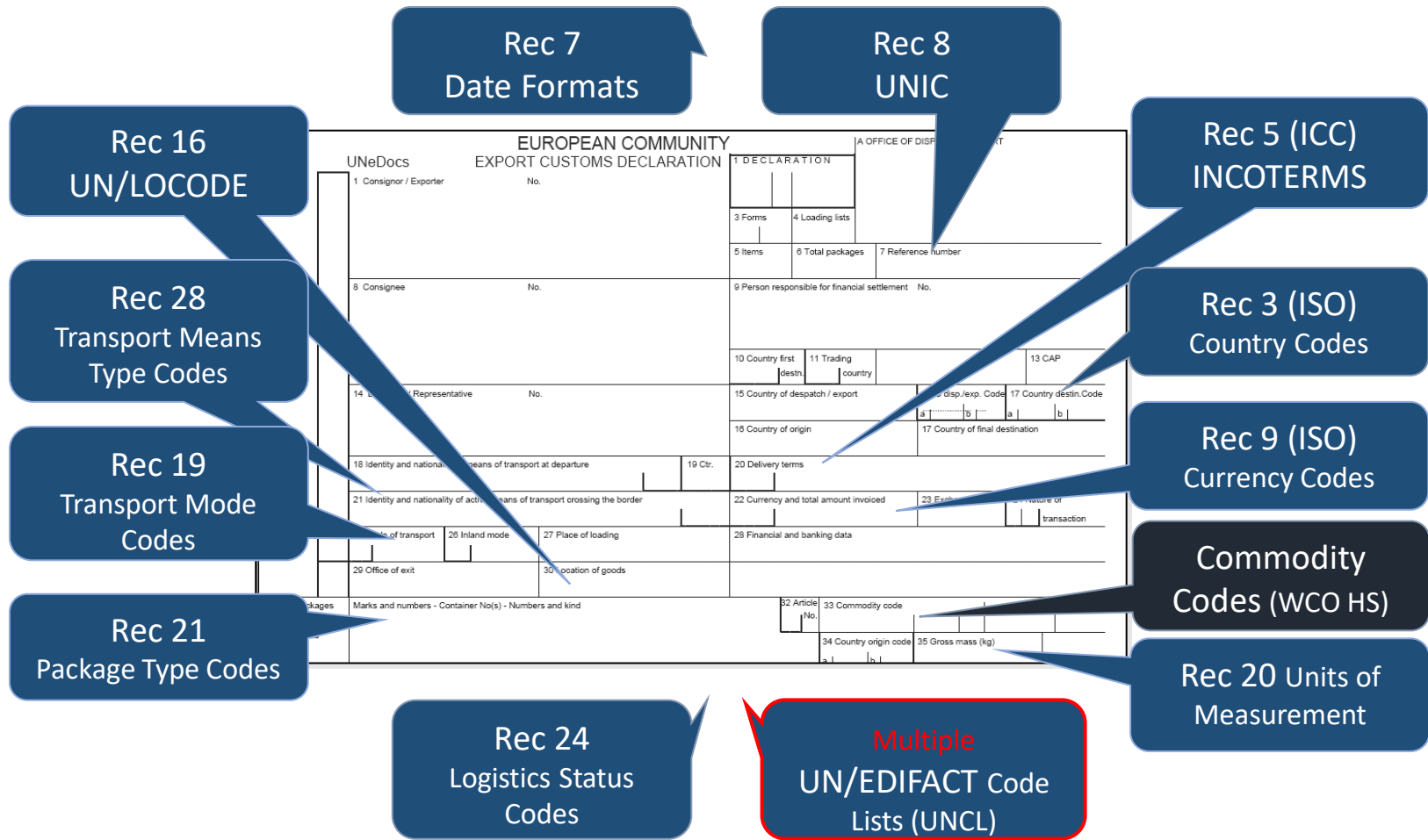
- A consignment is a separately identifiable collection of Consignment Items (available to be) transported from one Consignor to one Consignee via one or more modes of transport as specified in one single transport service contractual document:
 - A Consignment can only have one Transport Service Buyer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

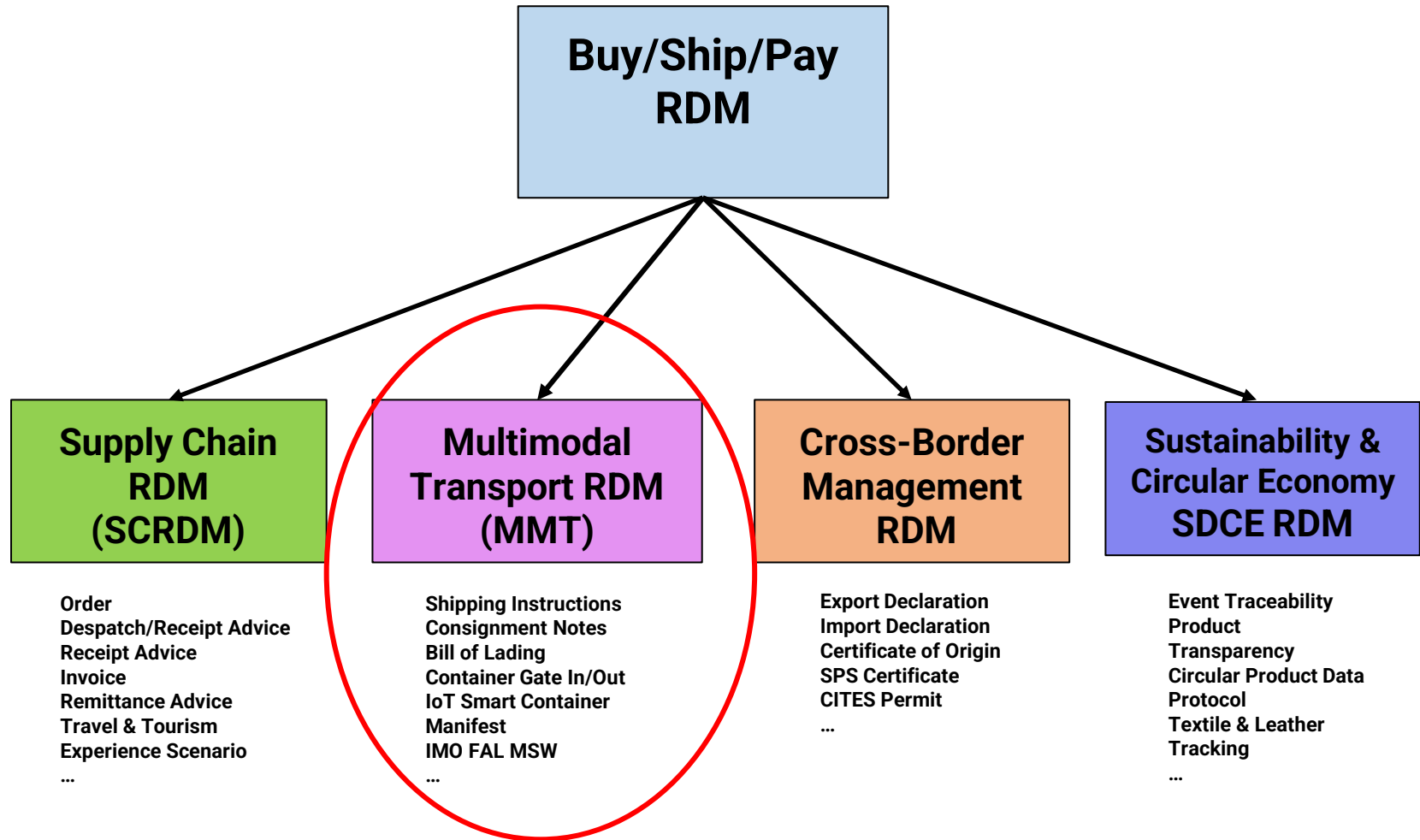
UN/CEFACT – International Code Lists



UN / CEFACT



UN/CEFACT Reference Data Model Family



Global Trade – Trace & Track Project

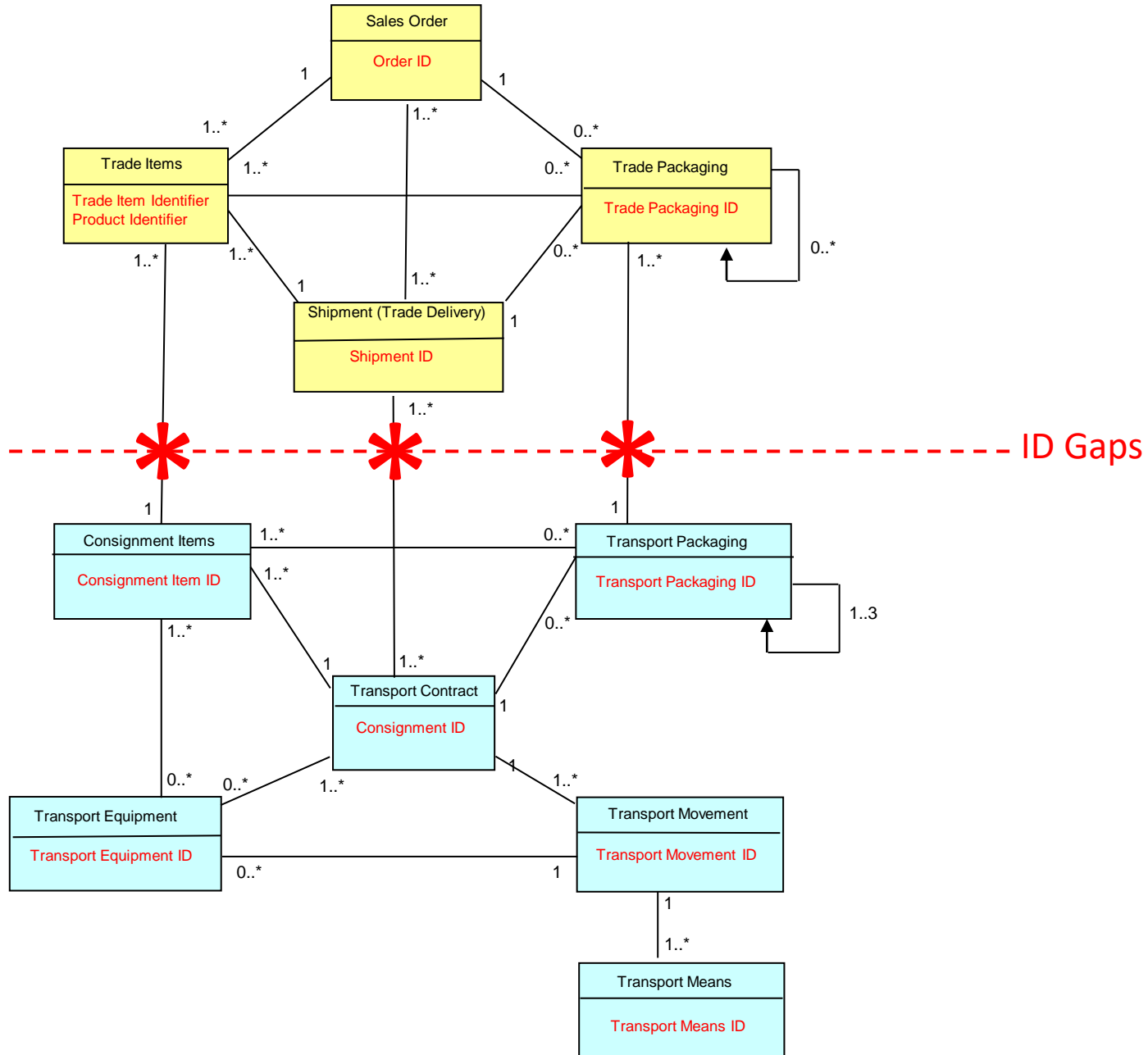


Trade
B2B Data
World

Transport
B2B Data
World

UN / CEFAC

Copyright UNECE



UNDA UNTTC (Transport & Trade Connectivity in the age of pandemics)

UNECE/CEFACT contribution: Modal Specific but Aligned MMT-based Customisations



✓ Maritime



✓ Air



✓ Road



✓ Rail



✓ Inland Waterway

Inter Modal Matrix using MMT as Reference Model (Auto-generated)



	C	D	E	F	G	H	I	J	K	L	M	N	O
1	BN	FIATA Bill	CIM-SMGS	CIM-SMGS URL	Wagon List	River B/L	Maritime B/L	eCMR	EFTI DR FEB2021	EFTI DG to	Air Waybill	Air CSD	Air DG
2	BN	FIATA Bill	CIM-SMGS	CIM-SMGS URL	Wagon List	River Bill of Lading	Maritime B/L	eCMR MMT; R	EFTI DESCopy	MMT Cont	Air Wayb	CSD; D21	DG Decla
3	MMT CCBDA IFTM** Data Exchange Structure	X	X	X	X	X	X	X	X	X	X	X	X
4	Exchanged Document Context							X					
10	Exchanged Document	X	X	X	X	X	X	X			X	X	X
11	ID	X	X	X	X	X	X	X			X	X	X
12	Name												
13	Type Code					X	X	X			X	X	X
14	Issue Date Time	X	X	X	X	X	X	X			X	X	X
15	Remark							X					
16	Original Issued Quantity	X				X							
17	Copy Issued Quantity	X				X							
18	Purpose Code		X	X							X	X	X
19	Sender Assigned ID		X	X									
20	Recipient Assigned ID		X	X									
21	Version ID	X	X										
22	Note		X	X				X				X	
23	Subject Text							X					
24	Content Code							X					
25	Content Text		X	X				X				X	
26	Subject Code							X				X	
27	Reference Document		X	X									
28	Type Code		X	X									
29	Issue Location	X				X	X	X			X		X
30	ID	X				X	X	X			X		X
31	Name	X				X	X	X			X		X
32	Country Code	X						X					
33	Contractual Clause	X	X	X							X		
34	ID	X									X		
35	Content Text	X	X	X							X		
36	Air Waybill Consignor Signatory Authentication	X	X	X	X						X		
37	Actual Date Time	X	X	X							X		

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

- Kamola Khusnutdinova kamola.khusnutdinova@un.org



The banner features a central graphic with a blue and white circuit-like design. To the left, the UN/CEFACT logo is displayed. The main text reads 'Sustainable and Digital Trade Facilitation Week'. To the right, a calendar icon indicates the dates '8-12 July 2024', and a location pin icon indicates 'Palais des Nations Geneva'. On the far right, two QR codes are provided, labeled '42nd FORUM' and '30th PLENARY'.