# Trade Facilitation and Digital Transformation of Multimodal Transport and Trade in a Time of Crisis

**UN/CEFACT Semantics Standards for
Global Trade & Transport
Data Harmonisation
July 7th 2022**

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Chair, UN/CEFACT

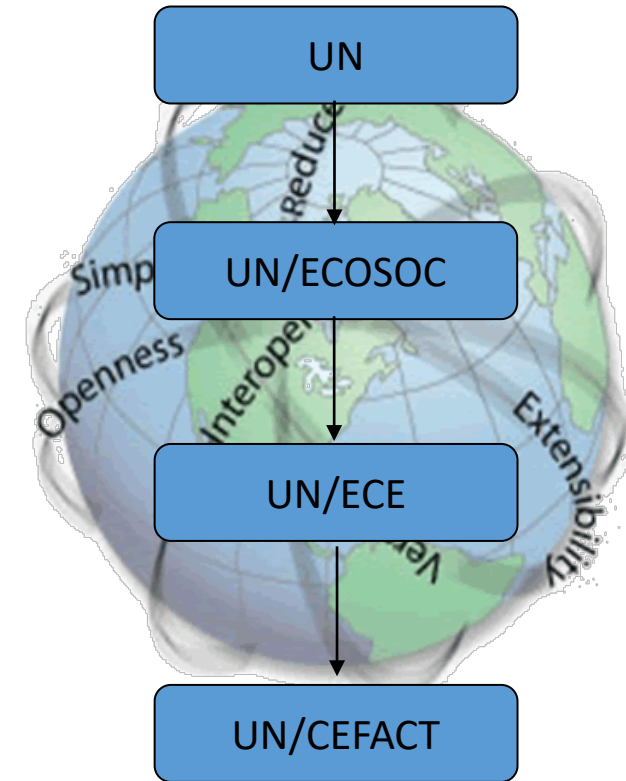suesiprobert@live.com

UN / CEFACT

# 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
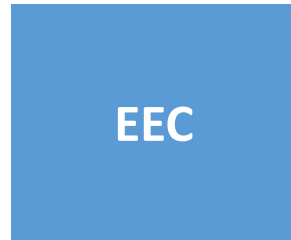
## Means

- 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)

UN

UN/ECOSOC
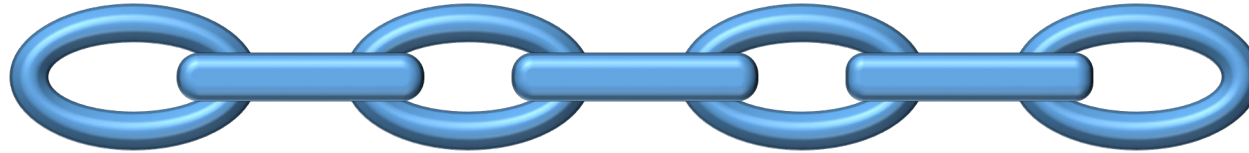
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**Global Remit**

2

# Cooperation / Collaboration



**EEC**

**EU**
**DG-MOVE**
**DG-TAXUD**
**DG-MARE**
**DG-DEVCO**
**DG-DIGIT**
**...**

**ISO**
**IEC**
**ITU**
**ICC**
**WTO**
**ITC**
**IATA**
**WCO**
**OECD**

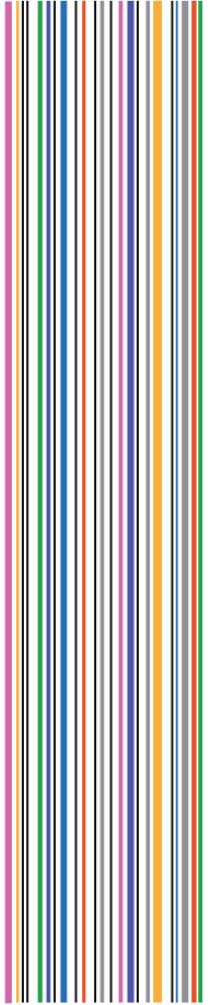**GS1**
**IPCSA**
**PROTECT**
**FIATA**
**SMDG**
**DCSA**
**...**

# 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 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 approach

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# UNTTC
# Transport & Trade Connectivity
# in the Age of Pandemics

- In 2020 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**:

  - Cross-modal project to develop modal guides on reuse 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)

# Phase 2 - Modal Specific Customisation
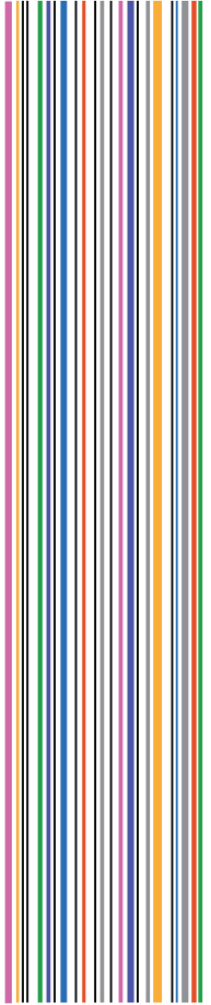
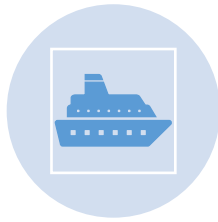Air Freight

Road Freight

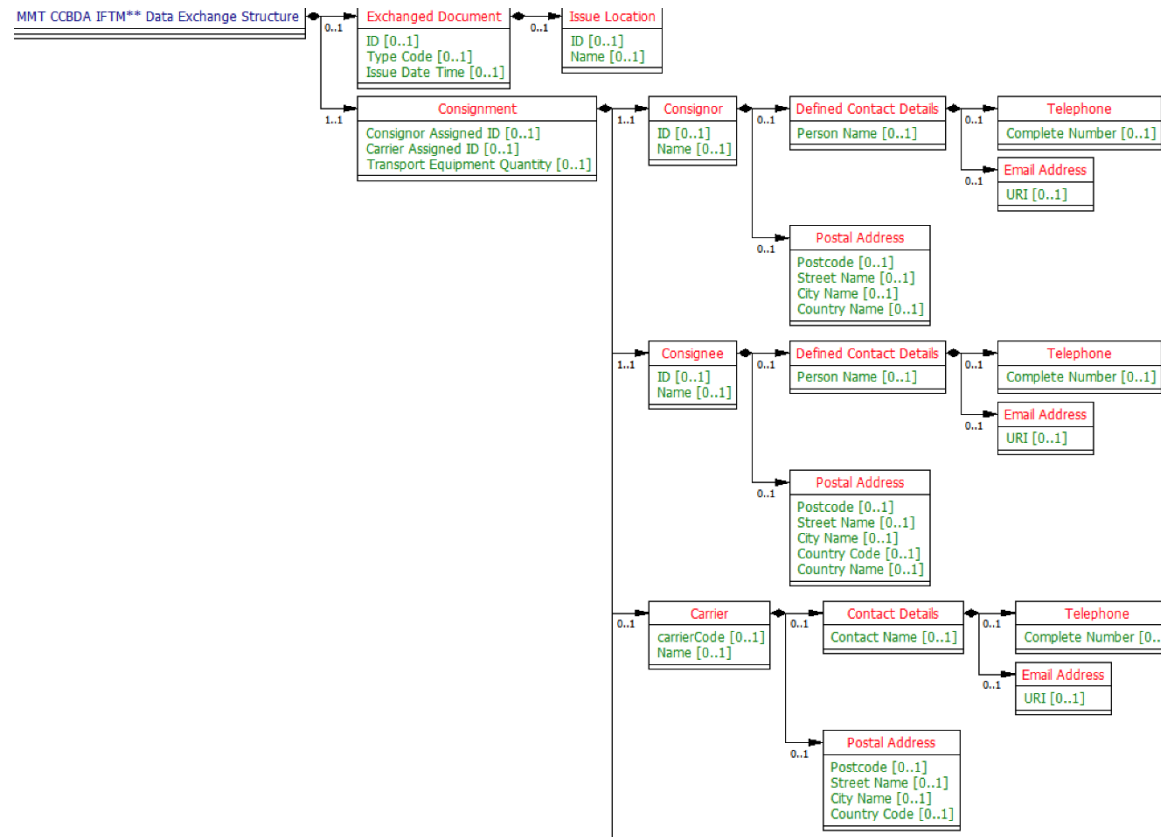Sea Freight

Rail

Inland Waterway
(tbc)

- Analysis of the CIM/SMGS ECN data structure in preparation for the mapping to IFTM subset

- Identified potential issue for mapping between the railway ECN and IFTM due to different structural representation

- Open discussion to describe and understand the issue

- Proposals for the next phase to reach a mapping exercise
  - Rearrange the structure of the railway ECN in the manner of MMT for seamless mappings and multimodal interoperability
  - Map only the possible data elements for the purpose of achieving multimodality

- Maritime specific subset of MMT created and re-used to model the **Ocean Bill of Lading**

- Project calls concluded last week on this work, results to be published good basis for industry eBill of Lading projects
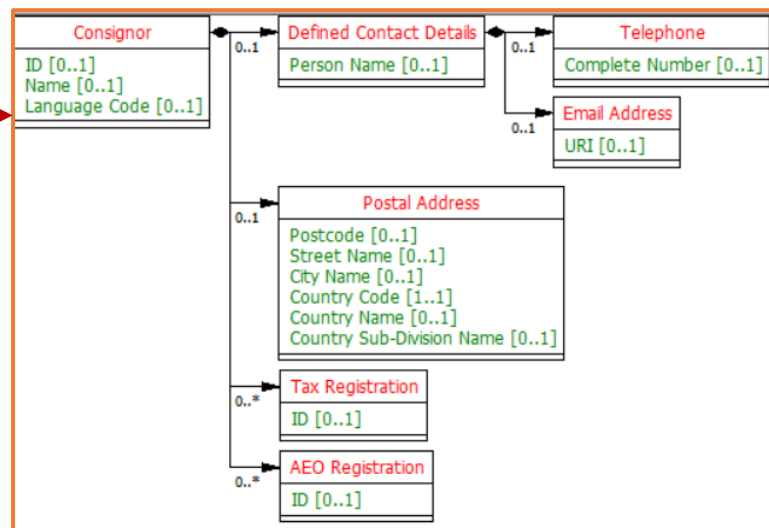
# Road Freight

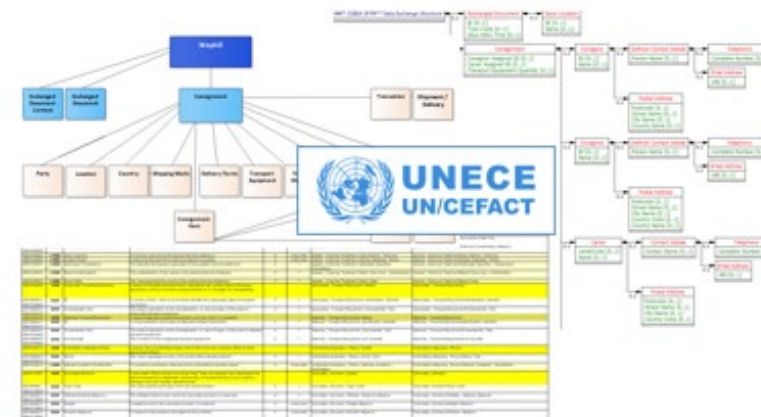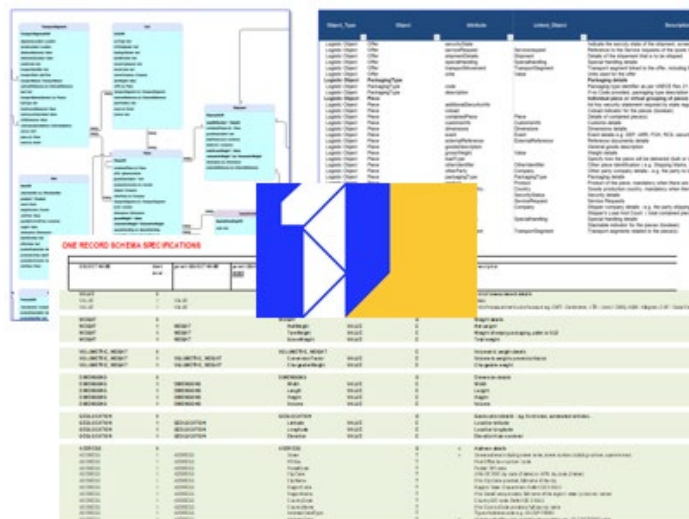## e-CMR model: CMR Convention data, taken into account



Each object in the eCMR structure has a unique Dictionary Entry Name plus a business short name for readability.

Based upon the UN/CEFACT Core Component Library (CCL), the MultiModal Transport Reference Data Model (MMT) and the Supply Chain Reference Data Model (SCRDM).

Airfreight domain supports multiple IATA standards for B2B & some B2G:

- Cargo-IMP: legacy, bespoke EDI

- Cargo-XML: current, UN/CEFACT aligned

- ONE Record: evolving, JSON-LD backwardly compatible



Review & mapping UN/CEFACT IFTM subset with **IATA ONE Record**

Enhanced data model for example supporting piece level

Bill of Lading (BOL) <> Air Waybill (AWB) baseline, others to be considered

Next steps: project team assembly & project calls
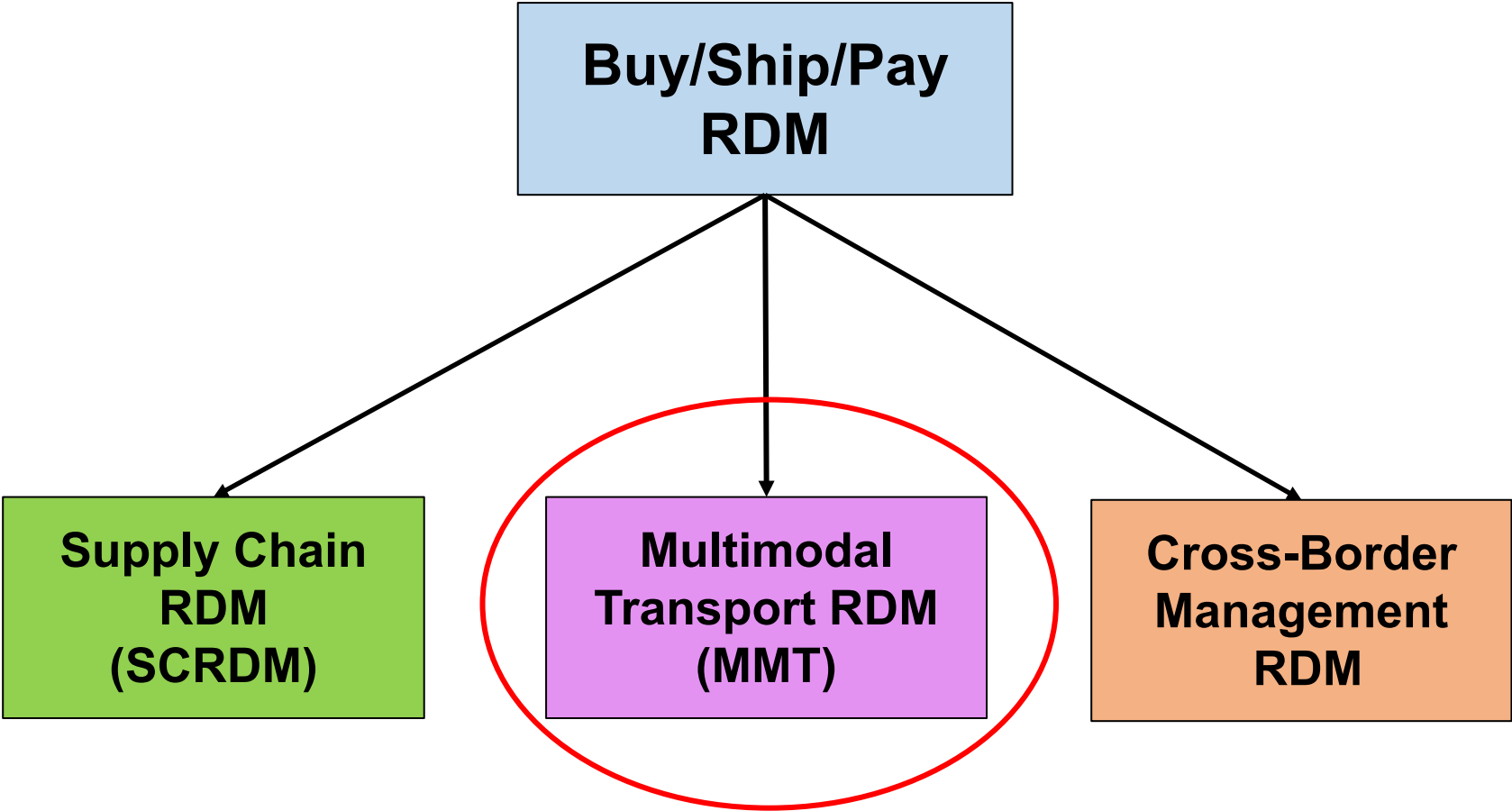
# Cross Modal Data Matrix
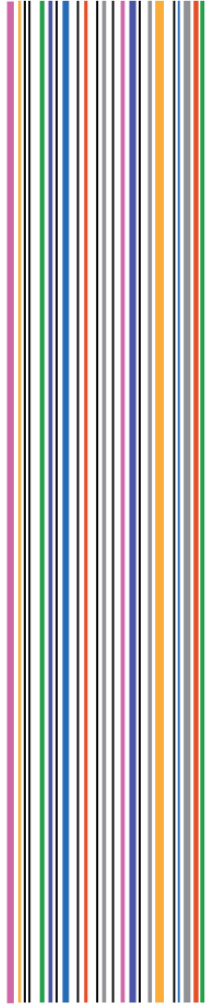## based on the UN/CEFACT Multi Modal Transport Reference Model (Auto-generated)



| | 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 Co | CIM-SMGS Co | Wagon list; CO | River Bill of Lading | Maritime BL | eCMR MMT; R | eFTI DESCopy | MMT Cont | Air Waybi | CSD; D21A | DG Declar |
| 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 | | | | | | | | | | |
| 22 | Note | | X | | | | | X | | | | X | |
| 23 | Subject Text | | | | | | | X | | | | | |
| 24 | Content Code | | | | | | | X | | | | | |
| 25 | Content Text | | 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 | | |

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# UN/CEFACT International Supply Chain Reference Data Model Family

# How the UNTTC cross-modal standards can help cross-border transport corridors?

- Provides harmonisation opportunities between modal specific operational data e.g. dangerous goods whilst not disturbing modal regulatory or convention requirements

- Supports digitilisation of accompanying documents through QR codes, APIs to access platform hosted background data

- Enables corridor pilot projects to build interoperable data exchanges reusing  published available global UN/CEFACT Reference Data standards providing:

  - Semantic structures

  - Data Exchange structures

  - International Code Sets

# Thank You

- 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

**For further information:**

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