CBM Reference Data Model

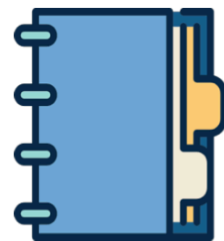Project Lead: Zisis Palaskas

ZISIS PALASKAS
UN/CEFACT CBM RDM PROJECT LEADER

Part 1

Introduction to the UN/CEFACT Cross-Border Management Reference Data Model (CBM RDM) project

Agenda

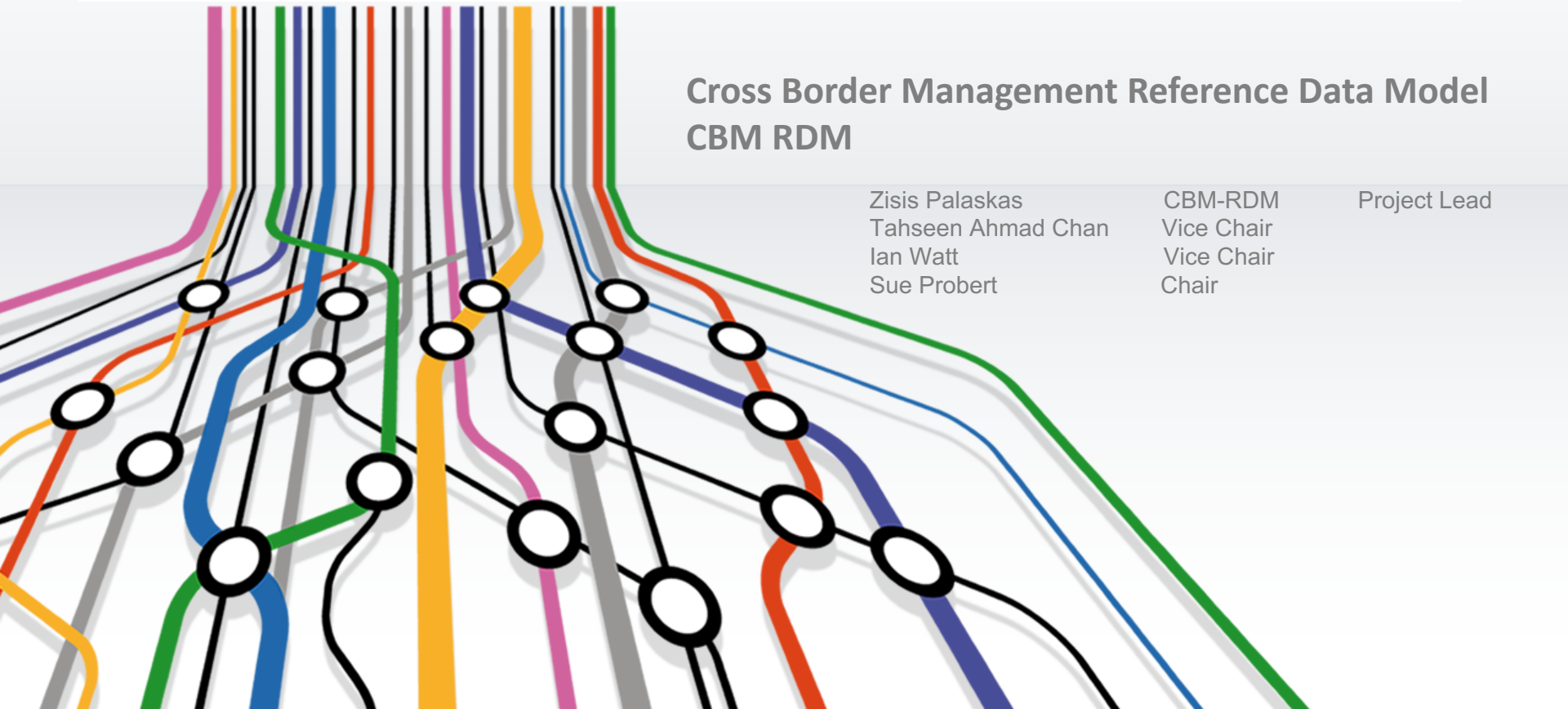CBM RDM and related EU Research projects

Part 2

UN/CEFACT
CBM RDM:
CROSS-BORDER MANAGEMENT Reference Data Model

Cross Border Management Reference Data Model CBM RDM

Zisis Palaskas	CBM-RDM	Project Lead
Tahseen Ahmad Chan	Vice Chair	
Ian Watt	Vice Chair	
Sue Probert	Chair	

CBM RDM Project Purpose

Provide a Regulatory Reference Data Model within the UN/CEFACT semantic library to:

- Assist authorities to link this information to the standards of other organizations.
- Complement harmoniously the existing RDMs for trade and transport.

https://uncefact.unece.org/display/uncefactpublic/Cross-Border+Management+Reference+Data+Model

CBM-RDM Objectives

Purpose

- UN/CEFACT Reference Data Models (RDMs) provide a comprehensive subset of the UN/CCL and Code Lists.
- Many Agencies use data which originate in well established
    - Buy-Ship-Pay (BSP) which is the top level;
    - Supply Chain Management (SCRDM);
    - Multimodal Transport (MMT RDM).

The CBM RDM will:

- **Link** the BSP, SCRDM and MMT RDM with **existing customs standards** based on the developing (EUCDM) standard, sharing base of components the UN Core Component Library (UN CCL).
- **Create a subset of the UN CCL** showing the shared aspects between the international supply chain and transport-logistics chains and the agency driven data models (EUCDM).
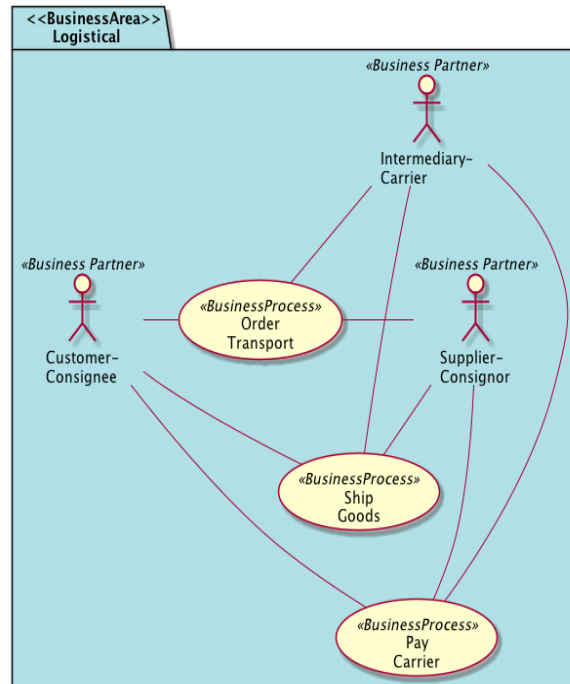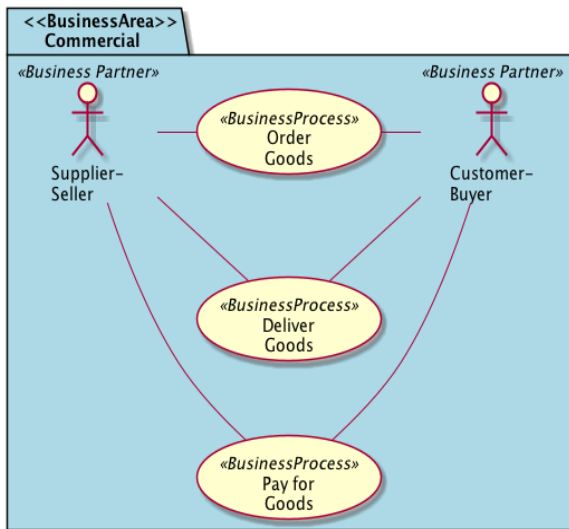
ISCRM model: Basis of RDMs
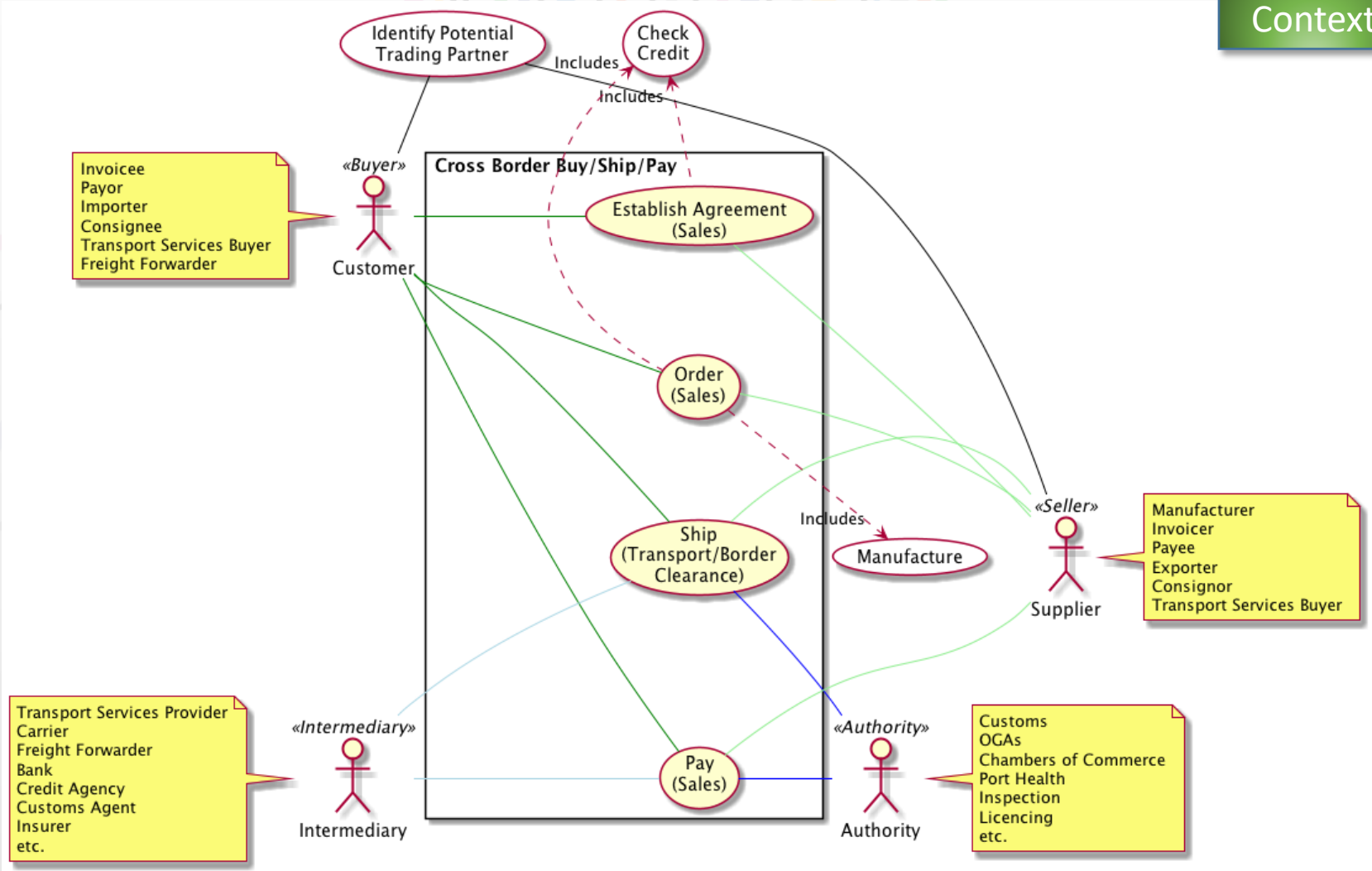
UN/CEFACT BSP model and the ISC procedures

Context

UNECE
United Nations Economic for Europe
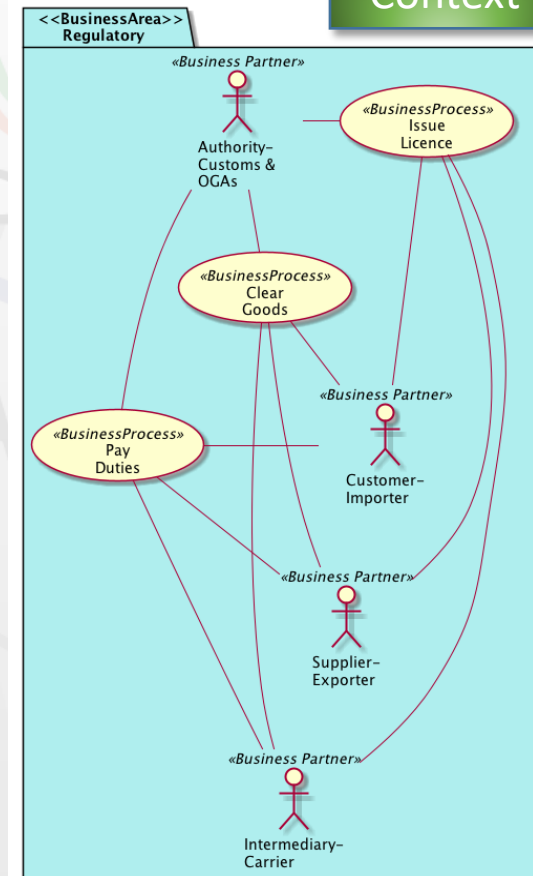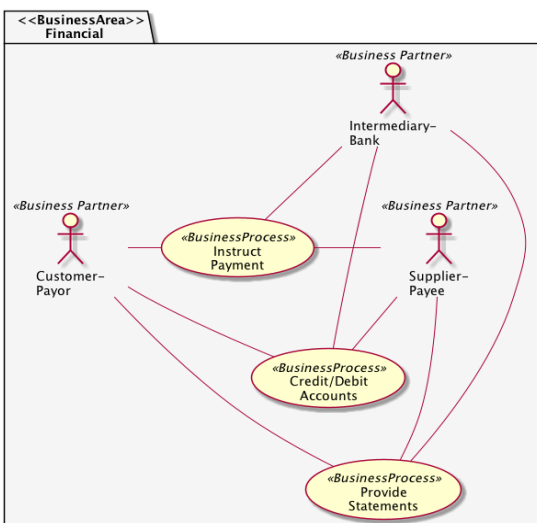
UN/CEFACT International Supply Chain Process Model

Context

BUY → SHIP → PAY

Prepare for Export → Export → Transport → Prepare for Import → Import

INVOLVES

Commercial Procedures

-Establish Contract
-Order Goods
-Advise On Delivery
-Request Payment
-Packing
-Inspection
-Certification
-Accreditation
-Warehousing

Transport Procedures

-Establish Transport Contract
-Collect, Transport and Deliver Goods
-Provide Waybills, Goods Receipts Status reports etc.

Regulatory Procedures

-Obtain Import/Export Licences etc.
-Provide Customs Declarations
-Provide Cargo Declarations
-Apply Trade Security Procedures
-Clear Goods for Export/Import
-Cross Border Management

Financial Procedures

-Provide Credit Rating
-Provide Insurance
-Provide Finance
-Execute Payment
-Issue Statements

TARIFF CUSTOMS

Copyright UNECE

International Supply Chain B2B Data Exchange Families

Context

Trade Documents – Quotation, Order, Invoice etc.

Materials Management Documents – Despatch Advice, Pick List, Packing List etc.

Transport Documents – Bill of Lading, Shipping Instructions etc.

Customs Documents – Export, Import, Transit Declarations, Cargo Reports etc.

Other Regulatory Documents – Cert of Origin, etc.
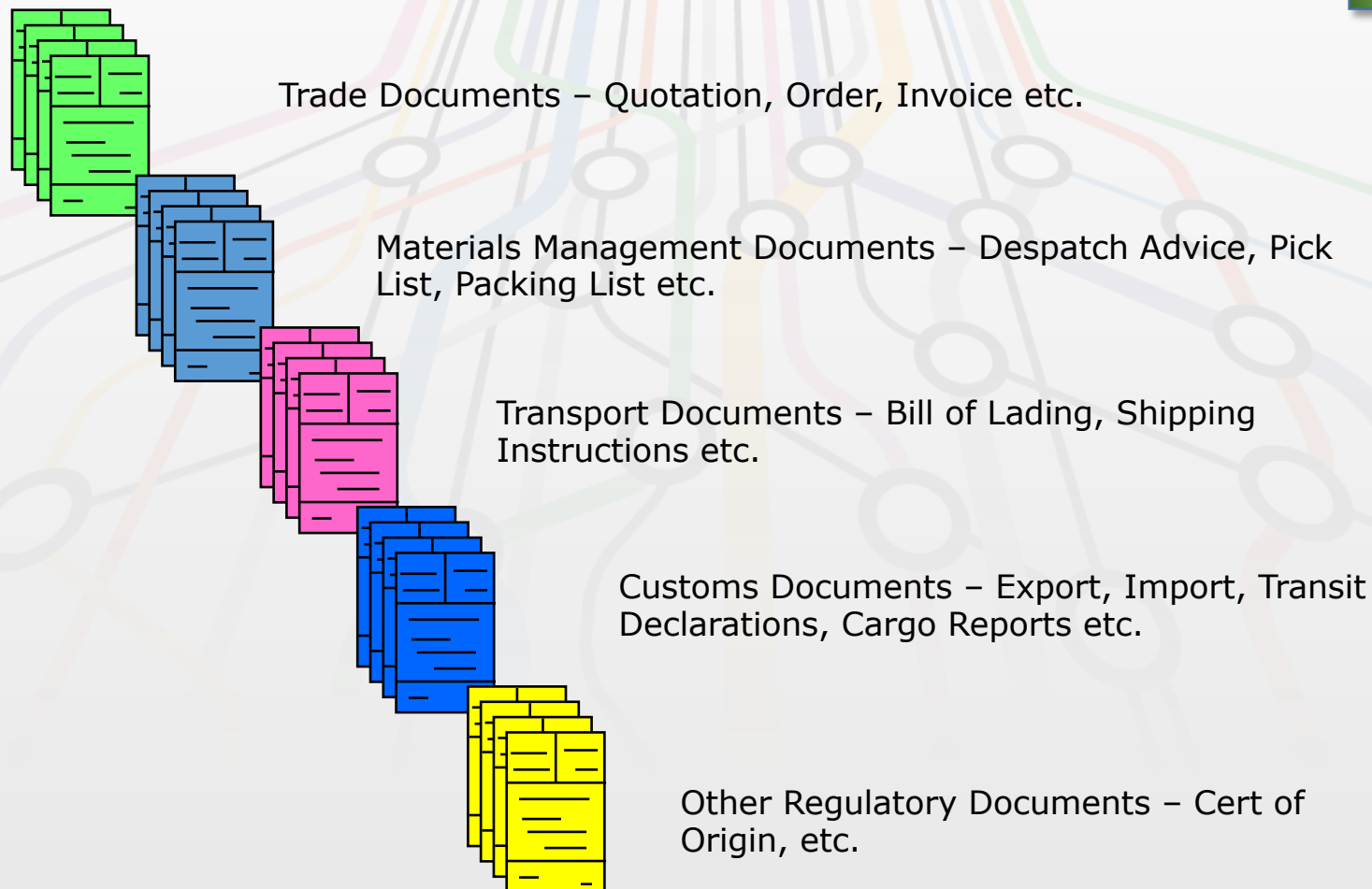
Document Families - Border Management Challenges

Context

Materials Management

Trade

Transport

Payment

Insurance

B2B

UN/CEFACT Buy/Ship/Pay

UN/CEFACT eCerts

Standard Customs Data Models

B2G
G2B

EUCDM Data Model

G2G

Other Cross-Border Agencies

Customs

Copyright UNECE

10
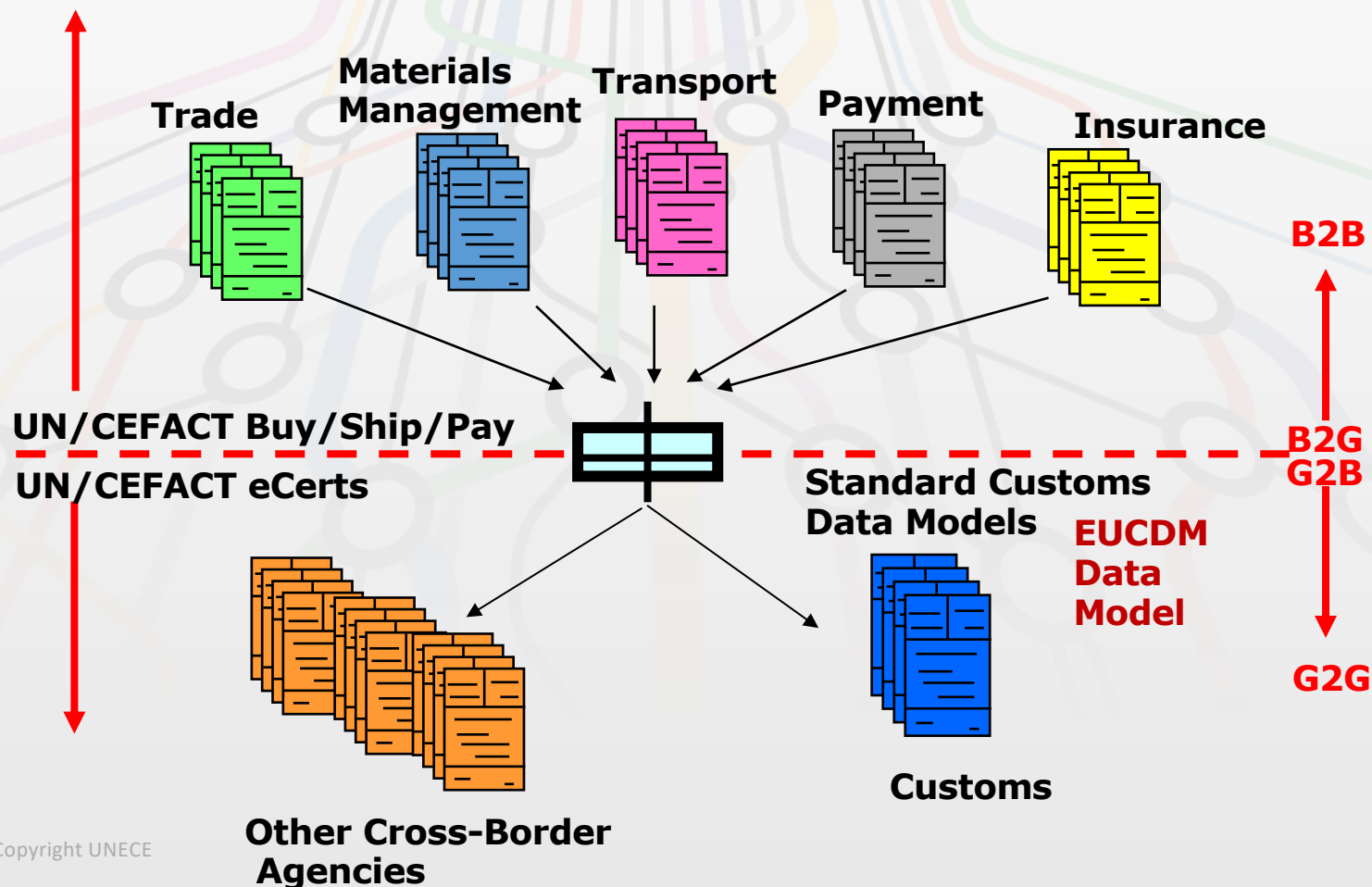
DG TAXUD – EUCDM

- The EUCDM **is the data model** for Customs trans-European systems such as NCTS (new computerized transit system), AES (automated export system), ICS (Import Control System) and for Member States national systems.

- Aims to provide **a** technical instrument and **source of information** for the different IT systems that are used for data processing by customs in the EU.

- The backbone of the EUCDM is the **data provided by traders to customs authorities** by means of the different declarations and notifications

- Requirements of data and formats and codes are defined in Annex B of the UCC-DA and of the UCC-IA respectively.
  - **DECLARATIONS, NOTIFICATIONS AND PROOF OF THE CUSTOMS STATUS OF UNION GOODS**

- Also EUCDM will be integrating data elements for the exchange of **data between customs authorities**, as well as those provided for in UCC-DA and UCC-IA Annex A.
  - **Applications and Decisions**

- The EUCDM has a global importance and achieves this by mapping to WCO to be fully compatible and to link data elements in the WCO Data Model so to reliably and unambiguously relate Customs needs and Economic Operators data.

The UCC and EUCDM

The Union Customs Code (UCC) The UCC entered into force on 1 May 2016 and is a key element of the ongoing actions to modernise EU customs.

- The Union Customs Code aims at a paperless and fully automated customs union.

- The EU Customs Data Model **(EUCDM) implements UCC**

UCC Legal Annex 12
UCC Legal Annex 12 Explanation-Guide
UCC Legal Annex 12 Explanation-Mapping
UCC Legal Annex 12_Codes

Common Data Requirements for the Registration of Economic Operators and other Persons

UCC Legal Annex A
UCC Legal Annex A Column-Mapping
UCC Legal Annex A Explanation-Guide
UCC Legal Annex A Explanation-Mapping
UCC Legal Annex A Guidance
UCC Legal Annex A_Codes

Common Data Requirements for Applications and Decisions

UCC Legal Annex B
UCC Legal Annex B Column-Mapping
UCC Legal Annex B Explanation-Guide
UCC Legal Annex B Explanation-Mapping
UCC Legal Annex B Guidance
UCC Legal Annex B Mapping
UCC Legal Annex B_Codes

Common Data Requirements for Declarations, Notifications and Proof of the Customs Status of Union Goods

- EU Customs data model is published and can be downloaded as html or in GEFEG FX format

Customs Processes on the web

REF: https://aris9.itsmtaxud.eu/businesspublisher

EUCDM analysis process and repository
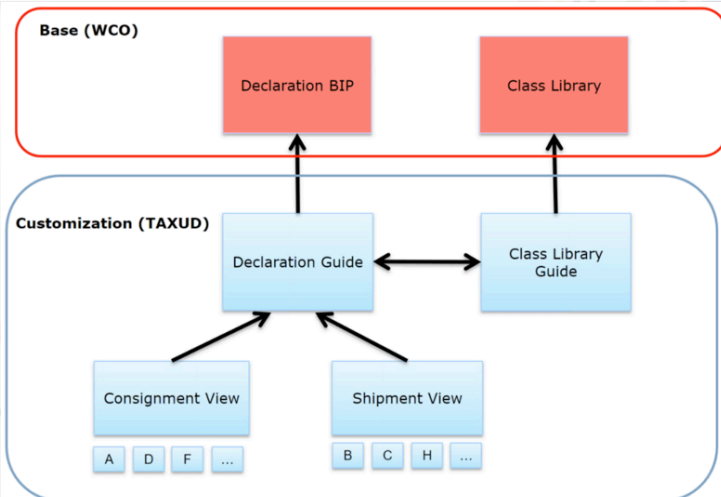
EUCDM 6.0 modelling

DECLARATION (D)

Goods Shipment (GS)

Goods shipment item (SI)

Shipment View

Consignment (MC)

Consignment item (MI)

Consignment View

House consignment (HC)

House consignment item (HI)
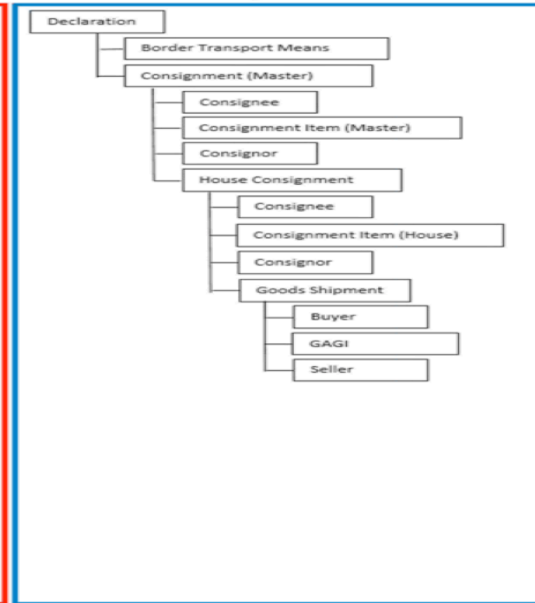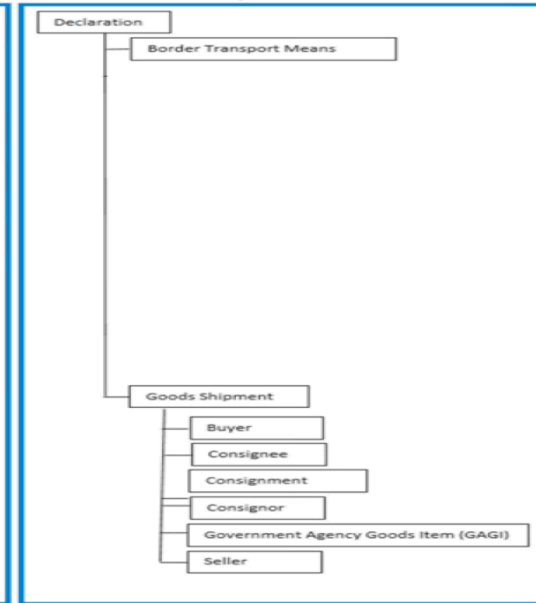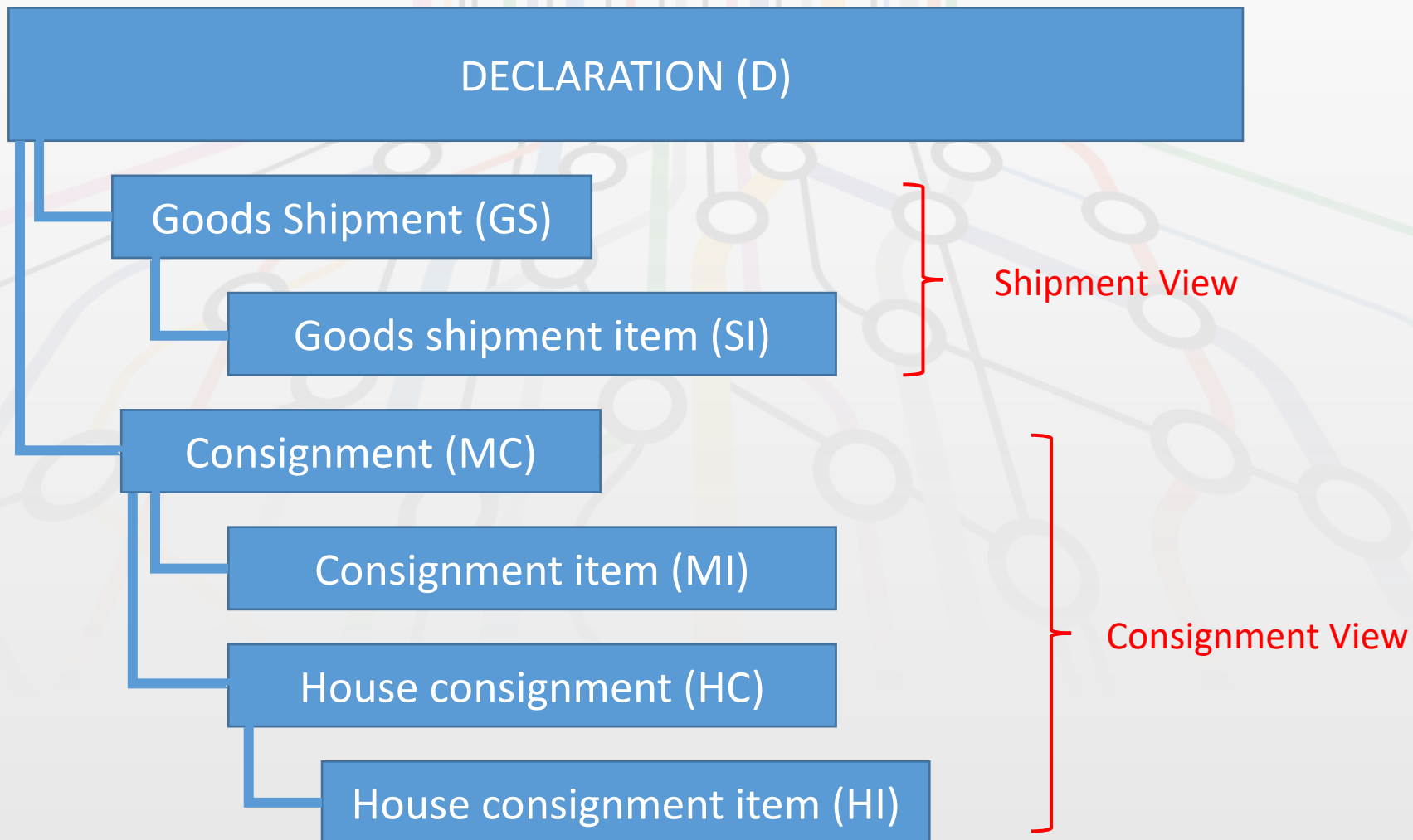
Copyright UNECE

EUCDM mappings

EUCDM (v6.0 draft) – UCC Annex B

UN/CEFACT Reference Data Models

Benefits of UN/CEFACT Semantic Reference Data Models

- Subsets of CCL Business Information Entities by Context.

- The support for **information sharing**, such as enabled by data pipelines, with the timely capture of quality data from original data sources ensuring supply chain visibility.

- **Standardized data exchange structures**, based on common master data exchange structure and independent of exchange syntax.

- **Reduction of administrative burden** by efficient reuse of data shared within a contextualized domain model i.e. CBM-RDM.

UN/CEFACT International Supply Chain RDM Family

Buy/Ship/Pay RDM

Supply Chain RDM

Multimodal Transport RDM

Cross-Border Management RDM
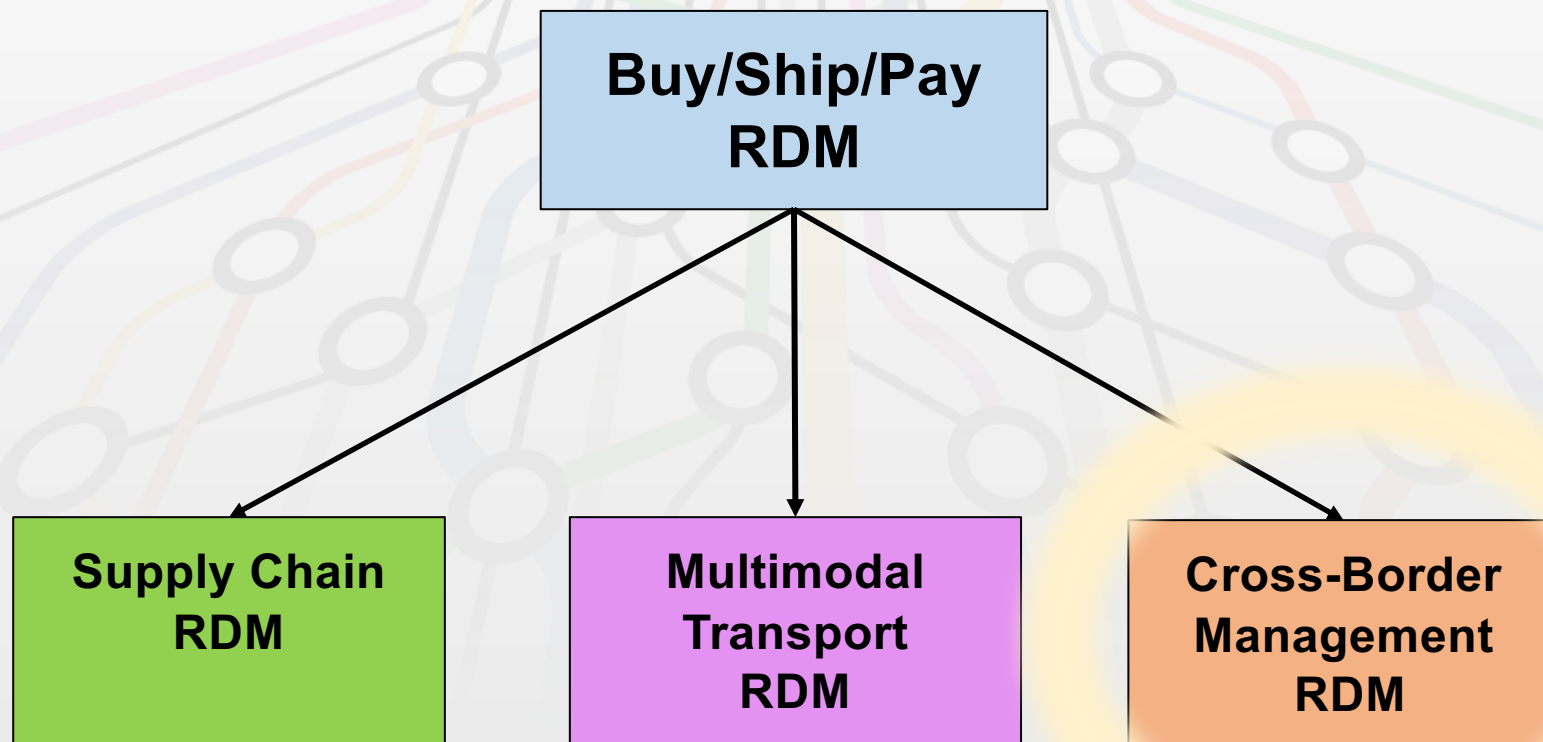
High Level Business Entities and how they relate
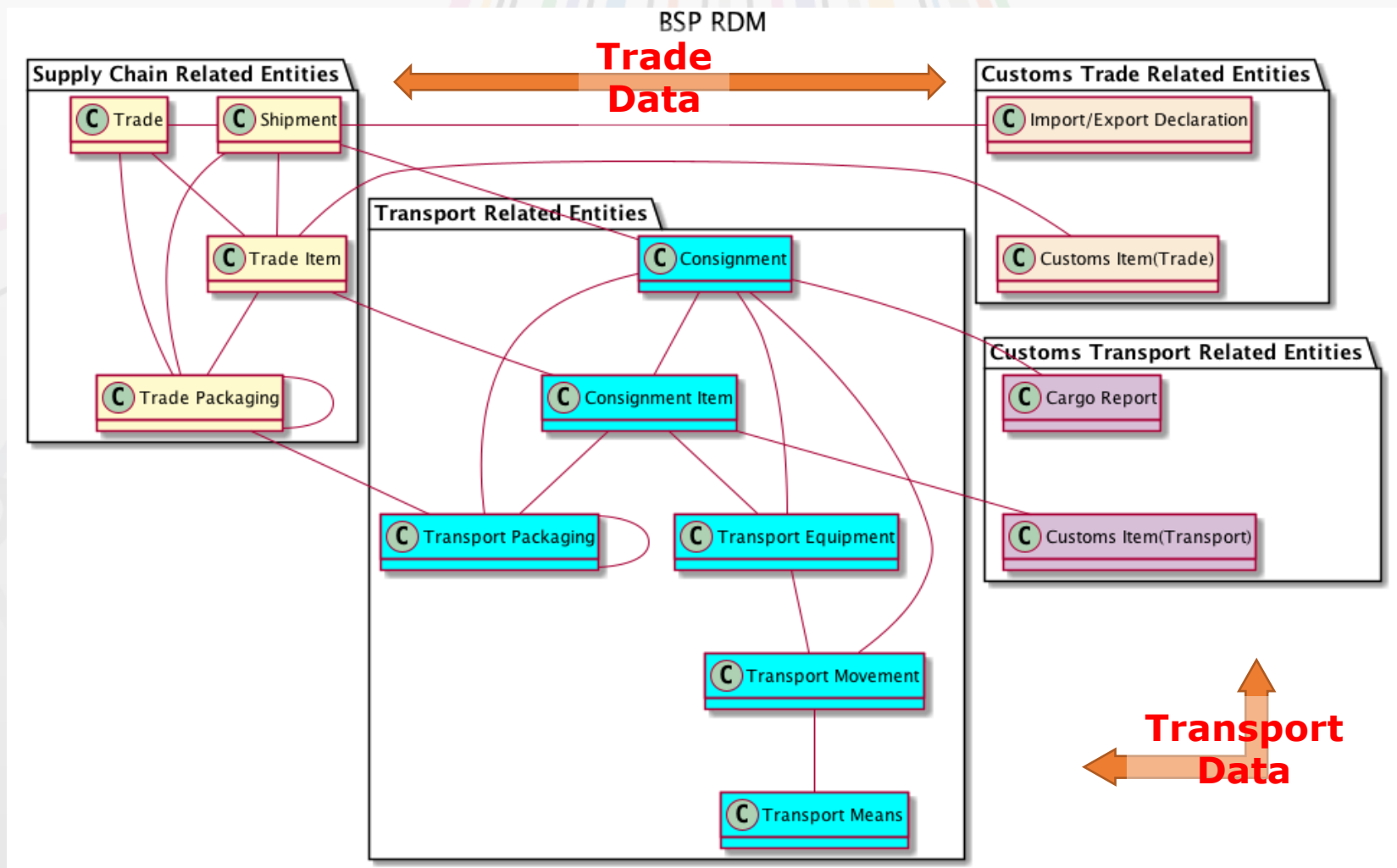
… an alternative view

Buy/Ship/Pay –
Cross-Border Trade, Transport & Customs
Business Entity Overview

Trade Data

Transport Data
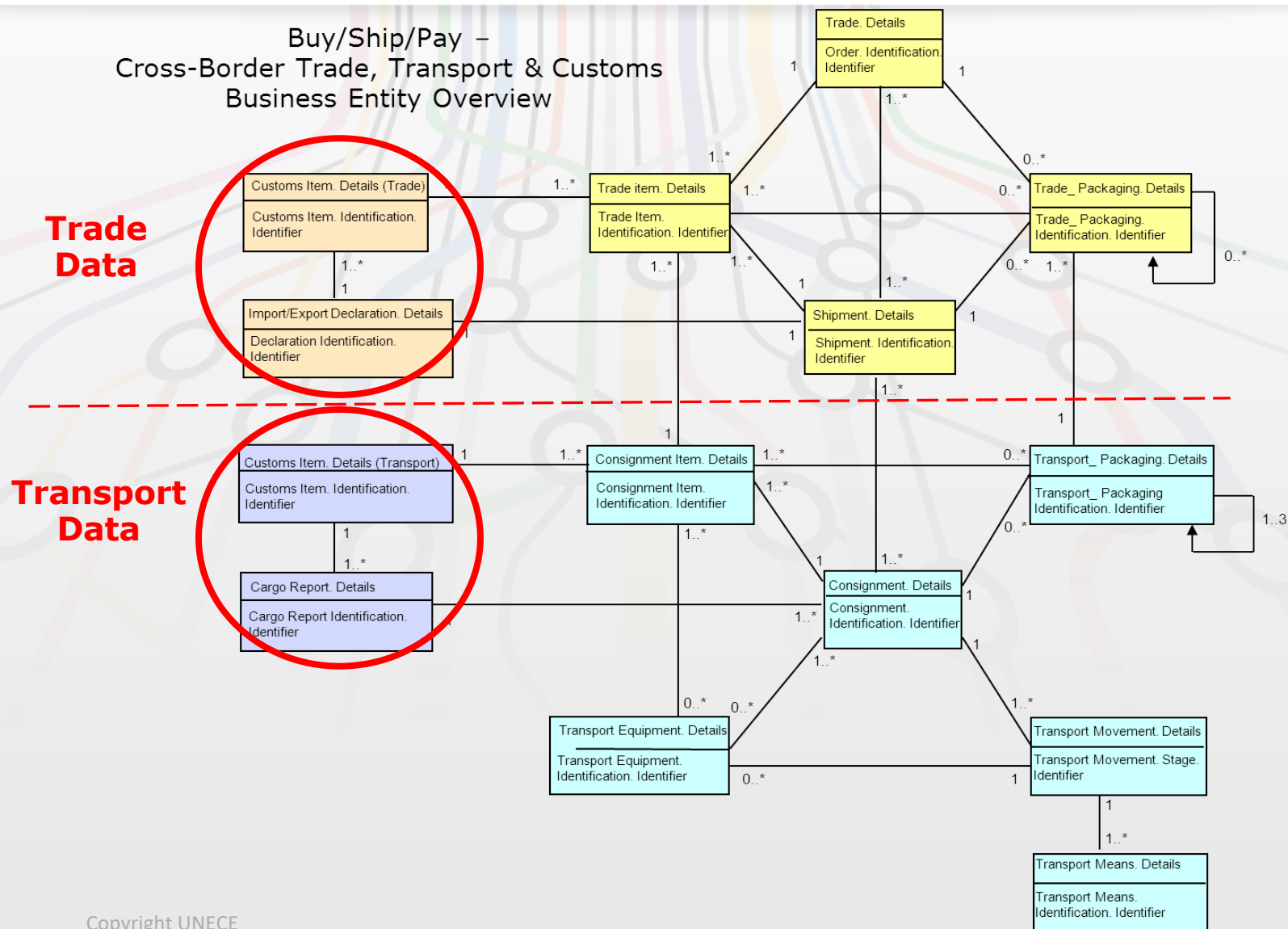
Copyright UNECE

Building semantic models using a common library

UN/CEFACT Core Component Library (CCL)

Based on and subset of

Supply Chain (BUY PAY Context) Reference Data Model	Based on	BUY SHIP PAY Reference Data Model	Based on	Multimodal Transport (SHIP Context) Reference Data Model

Based on

Based on

Based on

Based on

BUY SHIP PAY MASTER (Master message structure)

e.g. Invoice	e.g. Order	e.g. Quotation		e.g. Bill of Lading	e.g. Booking	e.g. BayPlan

Based on

Based on

Based on

Based on

Based on

Based on

Based on

BUY PAY Master (Master message structure)

SHIP Master (Master message structure)

Copyright UNECE

UN/CEFACT Core Components Library (CCL)

Copyright UNECE

https://www.unece.org/cefact/codesfortrade/unccl/ccl_index.html

UN/CEFACT Core Component Library

CCL Progression

Legend: ACCs, ABIEs, qDTs, Messages
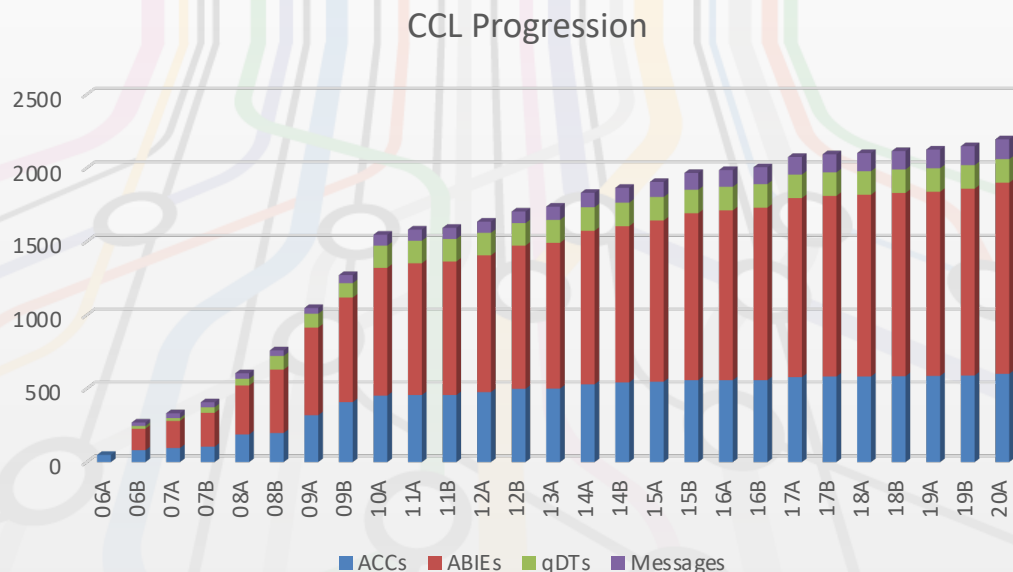
Business Information Entities (BIEs)

Reuses of Object Class Library in different business Contexts

(D20A ~ 1300 BIEs)

Semantic Foundation - Core Component (CCs)

Object Class Library

(D20A ~600 CCs)

Project Deliverables and Status

3. Project deliverables and 4. Exit Criteria

Required (check all that apply)

Please note that the Bureau may reassess and change a deliverable after its completion at its discretion.

	Project deliverables	Exit Criteria
☐	Policy Recommendation	Public Review logs demonstrating all comments have been satisfactorily resolved;
☒	Business Requirement Specification	
☐	Technical Specification	Final document ready for publication.
☐	White Paper	
☐	Green Paper	
☐	Requirement Specification Mapping	
☒	Core Component Business Document Assembly	Final document ready for publication.
☐	Guidelines	
☐	Executive Guide	
☐	Brochure	
☒	Entries/alignment to the Core Component Library	
☒	XML Schema	Final deliverable ready for publication.
☐	UN/EDIFACT message	
☐	Internal UN/CEFACT Document	Final document ready for Bureau approval.
☒	Other (specify): a new RDM structure in the library	Final deliverable ready for publication.

## 11. Milestones (repeat for each deliverable, if different)

The following are draft milestones of the project.

	ODP Stage		Expected Completion Date
Yes	Project Inception		1 month
Yes / No	Requirements gathering	☒	1 month
Yes	Draft development	☐	3 months (Very quick)
		☐	6 months (Quick)
		☒	12 months (Normal)
		☐	18 months (Normal)
		☐	24 months (Long)
Yes / No	Public Draft Review	☒	2 months
Yes	Project Exit		1 month

BRS-Requirements

CC - Business Document Assembly

Alignment to CCL

CB-RDM
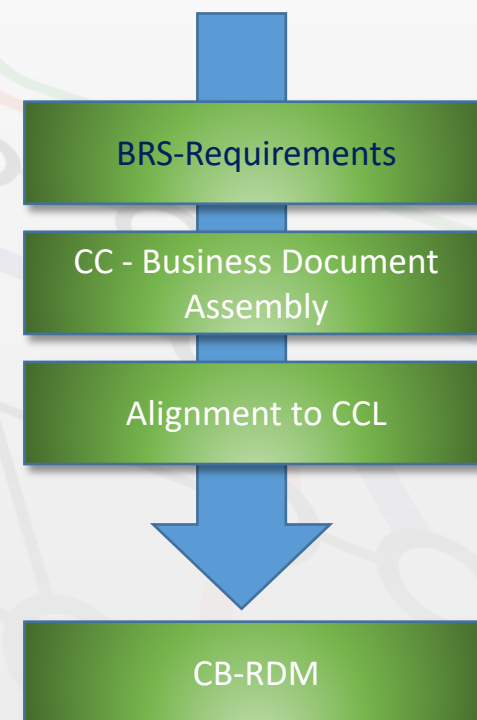
Please join the project

Site: https://uncefact.unece.org/display/uncefactpublic/Cross-Border+
Management+Reference+Data+Model

References

- CBM-RDM Project Proposal
- UN/CEFACT BSP Reference Data Model
- UN/CEFACT Multi-Modal Transport (MMT) Reference Data Model
- UN/CEFACT Supply Chain Reference Data Model (SCRDM)
- International Freight Forwarding BRS
- UN/CEFACT Modelling Methodology (UMM) v2.0
- UN/CEFACT Core Component Technical Specification v2.01 (CCS ISO15000-5)
- UN/CEFACT Core Component Library D20A (Apr 2020)
- United Nations Trade Data Elements Directory 2005 (UNTDED/ISO 7372)
- EUCDM guidance document https://ec.europa.eu/taxation_customs/sites/taxation/files/eucdm_guidance_document_en.pdf
- EUCDM web access to the model https://svn.taxud.gefeg.com/svn/Documentation/EUCDM/EN/index.htm

Discussion