Introduction to the UN/CEFACT Package of Standards and how they can be found and used

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Chair, UN/CEFACT

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Actau Capacity Building Seminar

About UN/CEFACT

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

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UN | UN/ECOSOC | UNECE | EXCOM | UN/CEFACT

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UN/CEFACT Mandate & Objectives

MANDATE

to develop and facilitate the use of global standards for electronic business, trade facilitation, and related areas.

OBJECTIVES

enhance international trade efficiency and effectiveness

contribute to the advancement of the Sustainable Development Goals

Development of Standards

Harmonization & Interoperability

Capacity Building

Advocacy for Best Practices

Collaboration & Cooperation

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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

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UN/CEFACT Unique Credentials

- Global Reach
- UN Blue Badge - SDGs
- Transparency and Independence
- Voluntary Expert Contributions
- Open Development Process
- International Supply Chain = Holistic Focus
- Free-for-use Deliverables
- Trustability - Quality and Longevity

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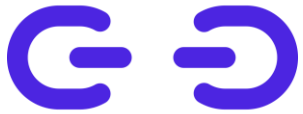
UN/CEFACT Focus:
Semantic Standards Bridging Trade & Transport Views



The **disconnect** between trade and transport data for the goods being transported using different modes of transport.
e.g., Tracing the goods offer evidences of the place of origin of the products supporting ESG goals.

Stakeholders involved in trade and transportation of goods **use terms and definitions in different ways**.
e.g., consignments versus trade deliveries (trade shipments)

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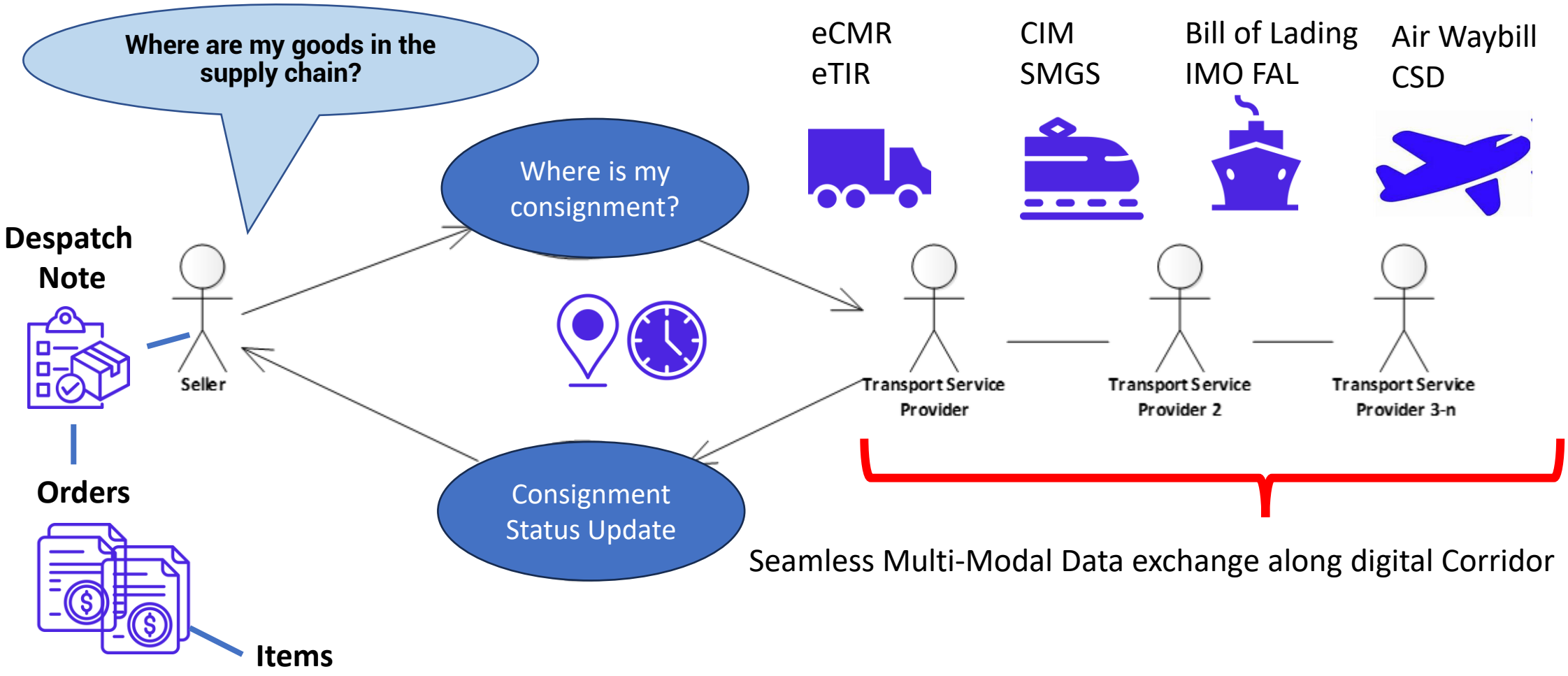
UN/CEFACT Focus:
Semantic Standards Bridging Multi-Modal Views



Seamless Multi-Modal Data exchange along digital Corridor

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Key Semantic Outputs

- Internationally developed and agreed Trade Facilitation Recommendation Code Lists
- Internationally developed and agreed Business Standards
- UNTDED (ISO 7372)
- Reference Data Models (Buy/Ship/Pay)
- Continually Maintained Libraries
  - UN Core Component Library (CCL)
  - UN/EDIFACT directories
  - UN/XML Schemas
  - Globally applicable Code Sets (UNCL)

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Global Trade – Global Supply Chain 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 (Transport Contract)

- 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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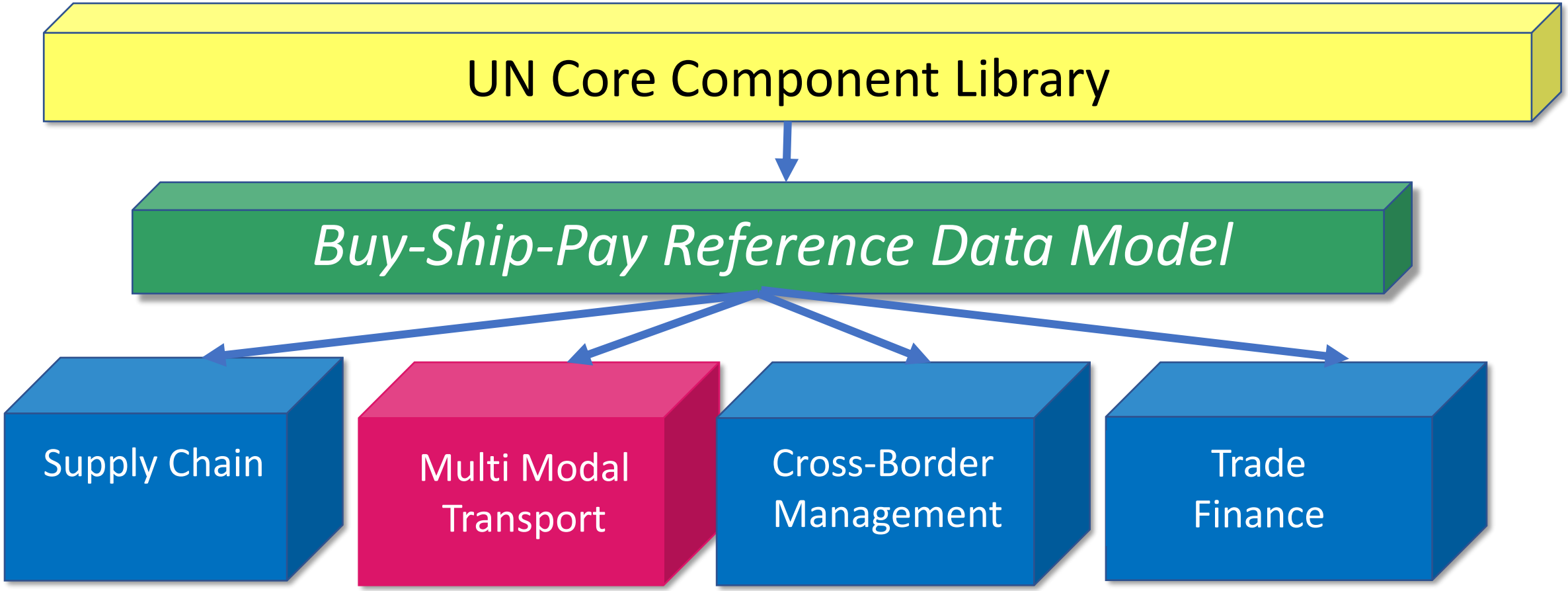
UN/CEFACT Deliverables: Data Exchange Standards



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UN/CEFACT – Benefits of the Reference Data Models

RDM provides a consolidated list of standardized data and processes for use in a particular business domain, which are globally understandable and exchangeable between parties using common standard data exchange structures

This enables having

1. The simplification and harmonization of trade data
2. The interoperability of data across the supply chain
3. Common basis for implementing chosen data exchange syntax(es)
4. Reduction of administrative burden by efficient reuse of data shared within the BUY SHIP PAY domain model
5. Standard data exchange structure requirements, which can contribute significantly to reducing the time and costs of international trade transactions

➔ RDM is a key tool in the development of modern Information exchange standards

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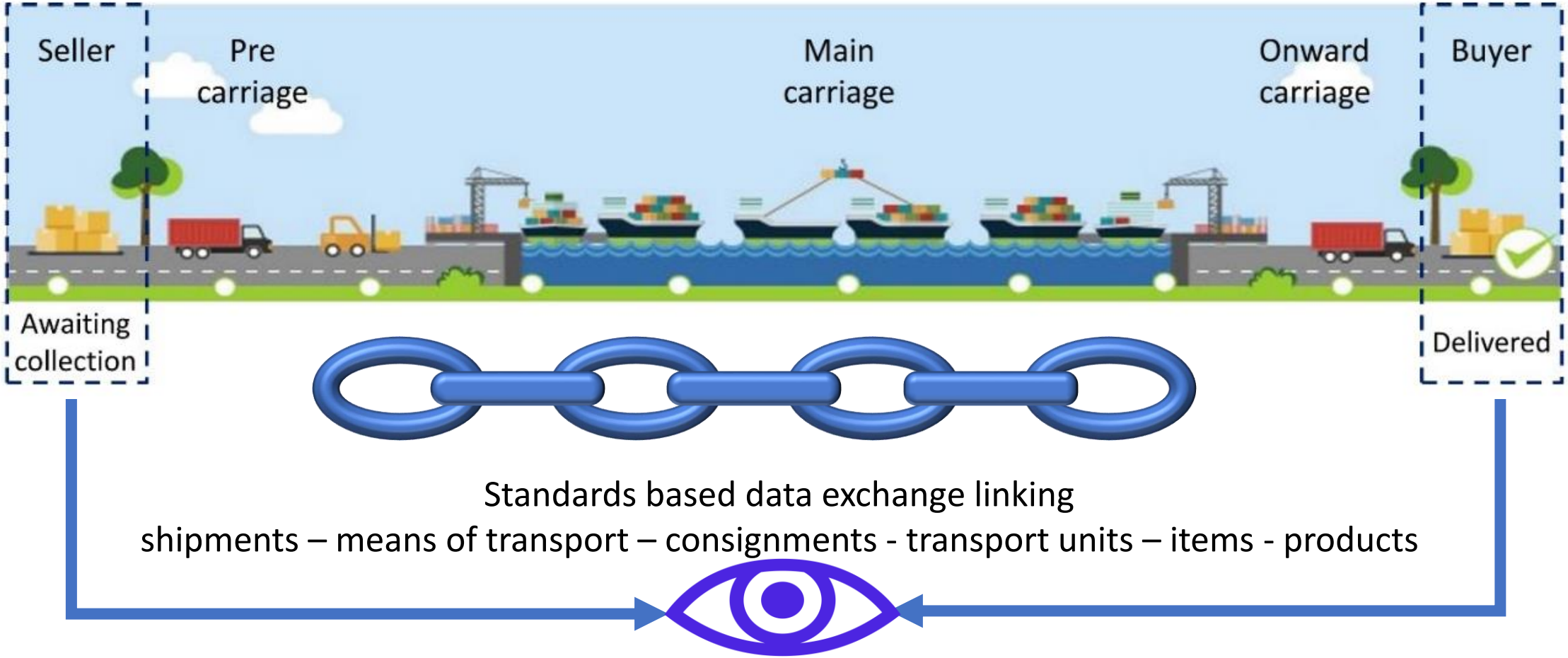
UN/CEFACT Focus: Unifying Global, Cross-Industry, Cross-Border & Multimodal Supply Chains



Holistic focus for a better visibility and communication for enhanced synchro-modality and collaboration

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

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

✓Maritime

✓Air

✓Road

✓Rail

✓Inland Waterway

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

	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; C	River Bill of Lading	Maritime BL	eCMR MMT; R	eFTI DESCopy	MMT Cont	Air Wayb	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				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		

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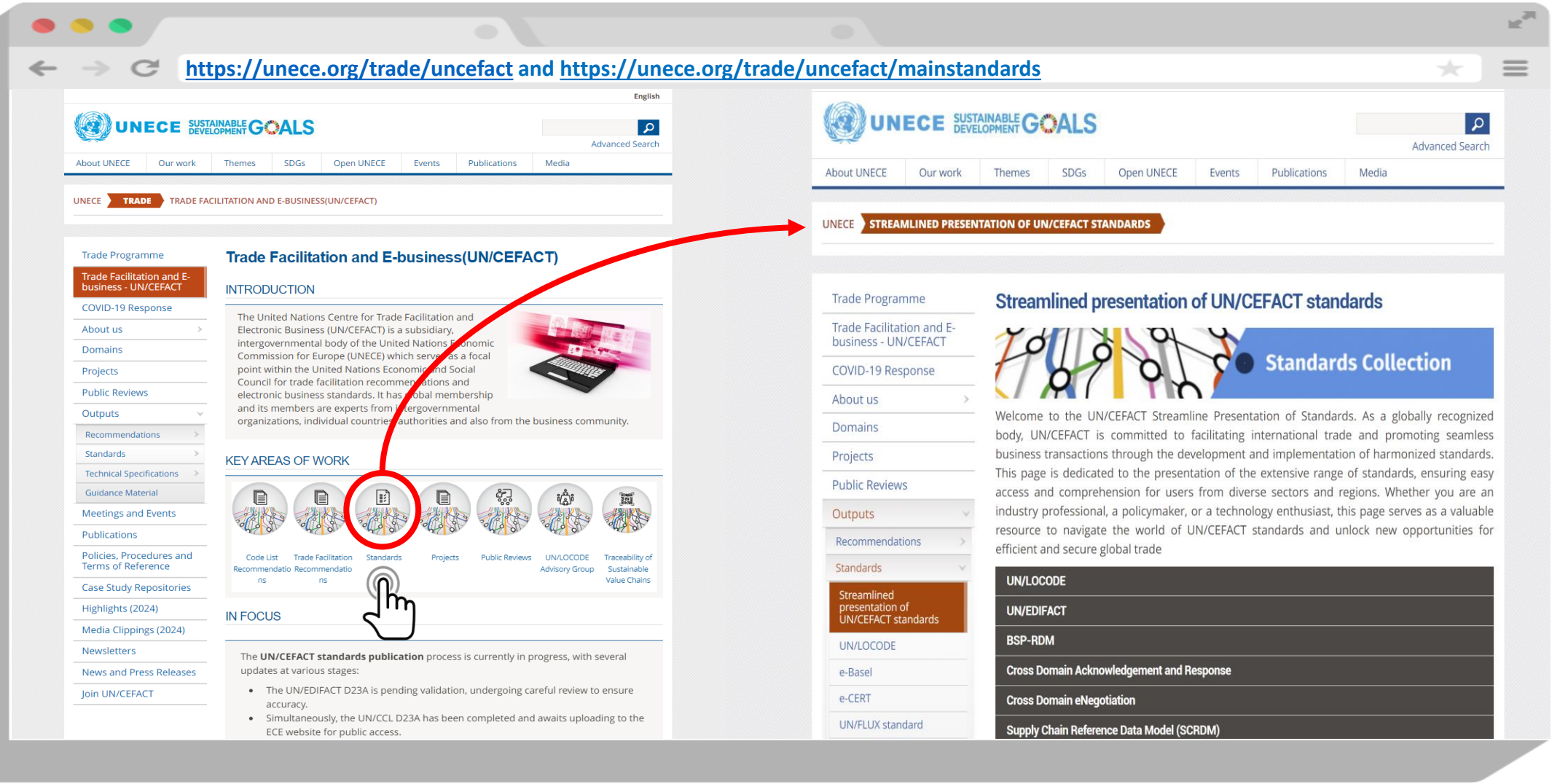
Where can you access and find the standards?

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



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Where can you access and find the standards?

Streamlined presentation of UN/CEFACT standards

Welcome to the UN/CEFACT Streamline Presentation of Standards. As a globally recognized body, UN/CEFACT is committed to facilitating international trade and promoting seamless business transactions through the development and implementation of harmonized standards. This page is dedicated to the presentation of the extensive range of standards, ensuring easy access and comprehension for users from diverse sectors and regions. Whether you are an industry professional, a policymaker, or a technology enthusiast, this page serves as a valuable resource to navigate the world of UN/CEFACT standards and unlock new opportunities for efficient and secure global trade

Multi-Modal Transport Reference Data Model (MMT-RDM)

- White Paper on RDM English French Russian
- RDM Guidelines
- BRS
- Executive Guide on RDM English French Russian
- Structure Report / Data Elements
- XSD Schema
- UML Diagram
- HTML index

RDM Artefacts

- International Forwarding and Transfer
- Multimodal Booking
- Multimodal Shipping Instruction
- Multimodal Waybill
- Multimodal Status Report / Request
- Road Consignment Note (eCMR)
- Maritime Bill of Lading
- Inland Waterway Bill
- Rail CIM-SMGS (URL)
- Rail SMGS
- Rail Wagon List
- Air Waybill
- Air Dangerous Goods Declaration
- Air Consignment Security Declaration
- Smart Containers
- Pipeline Data Exchange Standard (PDES)
- IMO FAL Compendium

CCBDA Subset Business Standards

Based on MMT RDM

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

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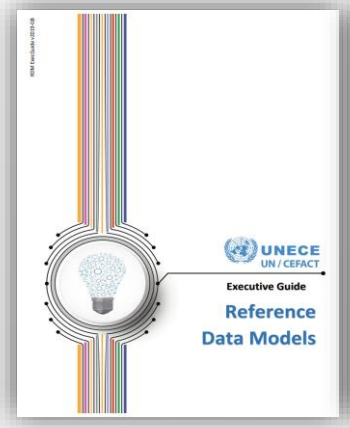
Types of formats available and their uses

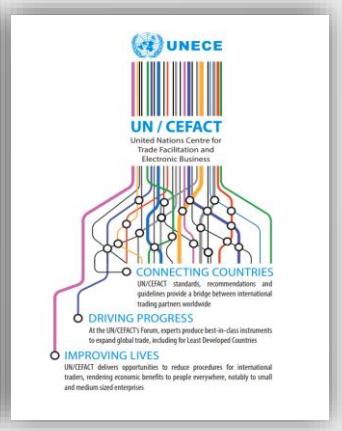
Document Artefacts

Business Requirements Specifications (BRS)

White Papers, Green Papers and Briefing Notes



Executive Guides



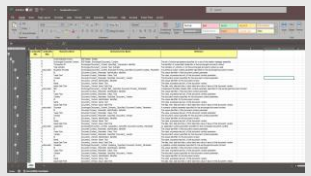
Brochures

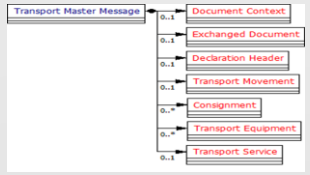
Technical Artefacts: UN/CEFACT Reference Data Models (RDMs)

represented as

Buy/Ship/Pay RDM

Supply Chain RDM (SCRDM)	Multimodal Transport RDM (MMT)	Trade Finance RDM (TF RDM)	Cross-Border Management RDM	Sustainability & Circular Economy SDCE RDM
Order Despatch/Receipt Advice Receipt Advice Invoice Remittance Advice Travel & Tourism Experience Scenario ...	Shipping Instructions Consignment Note Bill of Lading Container Gate In/Out IoT Smart Container Manifest ...	MLETR Digital Documents ...	Export Declaration Import Declaration Certificate of Origin SPS Certificate CITES Permit ...	Event Traceability Product Transparency Circular Product Data Protocol Textile & Leather Tracking ...





Microsoft Excel Spreadsheet (XLS)	Unified Modelling Language UML	XML Schema Definition (XSD)	Hypertext Markup Language (HTML Index)

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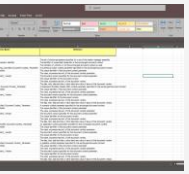
Technical implementation of the standards



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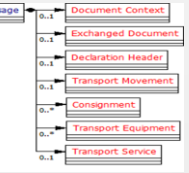

d Modelling
nguage
UML

L Schema
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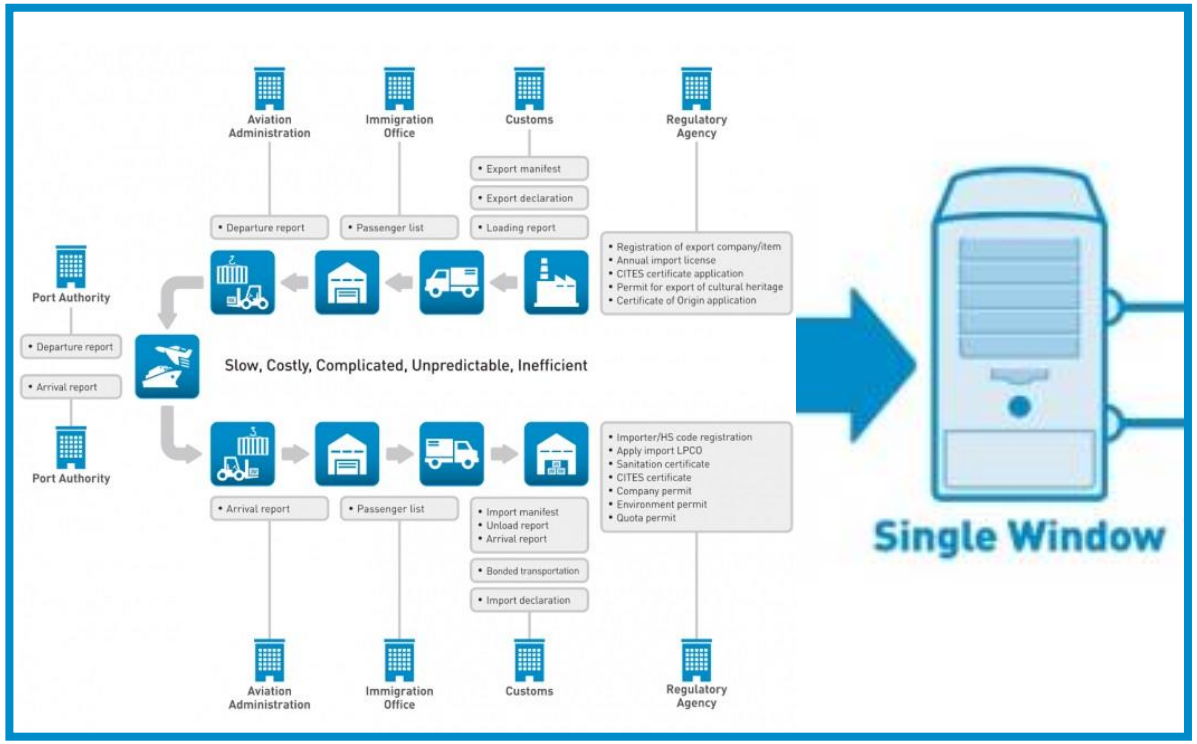
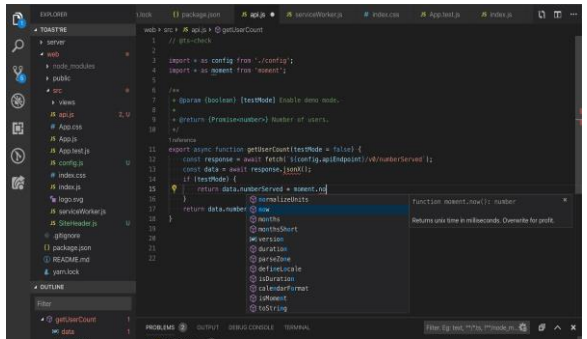
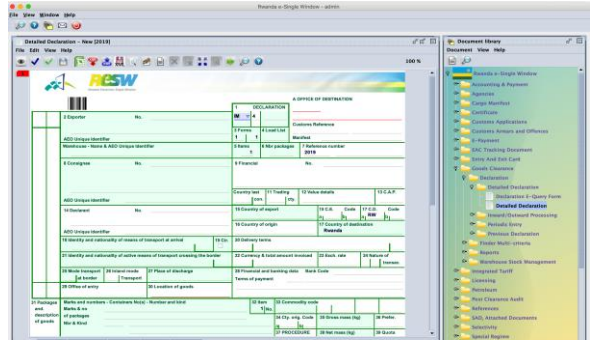
(XSD)

What can policymakers do to ensure that recognized standards are used in national applications (I.T Systems):

- Mandating the use of UN/CEFACT standardized data models and core component libraries in national application systems.
  - Ensure that contracted software developers reuse the syntax in the development of applications.
- Foster collaboration and coordination among government agencies responsible for different national application systems.
- Establish mechanisms for monitoring and evaluating compliance with regulations and policies related to standardized data modeling practices and core component libraries reuse in applications.
- Engage in collaborations and pilots to align national standards and practices with global standards. ***(This will facilitate data exchange, interoperability, and compatibility with the system in other countries.)***







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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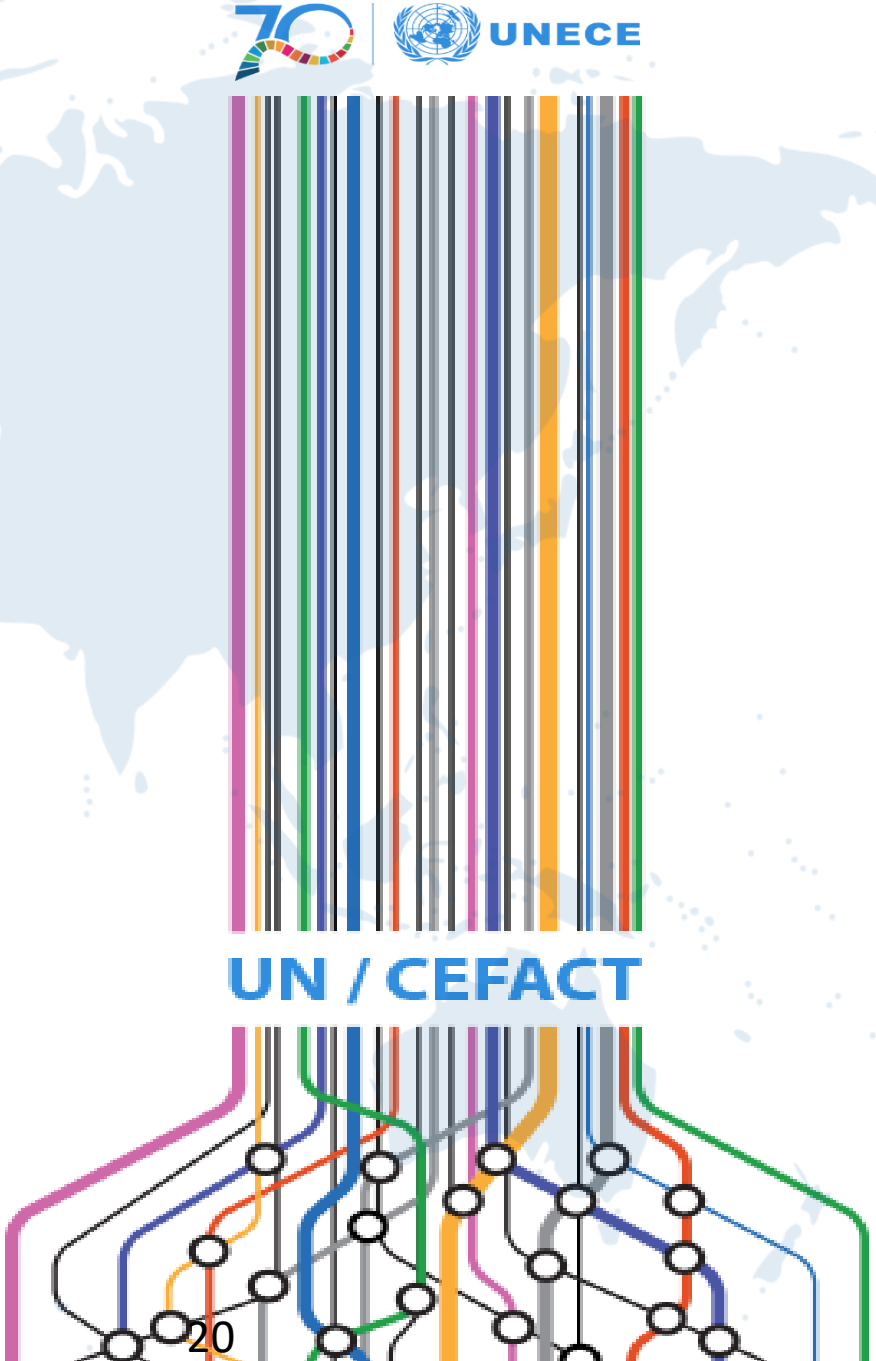
Thank you