



TRADE

Standardization of data and documents in the context of multimodal transport based on UN/CEFACT standards.

UN project to respond to the COVID-19 crisis

64th session of the UNECE Working Party on Inland Water Transport, Geneva, 8 Oct. 2020



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UN responses to the COVID-19 crisis

1. Strengthening the preparedness and resilience of countries by developing a coherent regulatory framework;
2. Principles of sustainable trade and transport;
3. Limiting the infection by facilitating trade and e-business to reduce physical contacts between people;
4. Analysis of non-tariff measures to prevent them from becoming barriers;
5. The world's response to these challenges is fragmented;
6. The UN (Regional Commissions and UNCTAD): UN Development Account Project in response to the challenges of COVID-19 to connectivity;
7. The UNECE has a segment on harmonizing standards for electronic exchange of data and documents in multimodal corridors;
8. The mandate of the UNECE since 1947 is to ensure international cooperation to recover from a major crisis.

The concept of a multimodal data exchange project

Upgrading existing and developing new standards (Business requirements specification, schemas, subsets of data) for key documents accompanying cargo on multimodal transport

Based on UN/CEFACT semantic standards and reference data models (as common denominator)

Pilot applications (e.g. in a digital multimodal corridor): electronic documents, data model for the corridor

Multimodal corridor approach:

Ready standards or standards under preparation

Documents on which to work

pilot project

1. Standards (executive guide; business requirement specification; business name structure; subset; CCL structure; XLS guideline structure; HTML index, using as a model the e-CMR standard) www.unece.org/unecefact/mainstandards.html, already prepared for the following:

UML diagram;

- eCMR
- Cross Industry Invoice
- Cross Industry Delivery
- Cross Industry Catalogue
- Cross Industry Quotation
- Cross Industry Remittance Advice
- Cross Industry Scheduling
- Cross Industry Ordering Process
- Material Safety Data Sheet Details (MSDS)
- Contract Financial Execution Management
- Market Research Information
- Verified Gross Mass (VERMAS) documents
- International Forwarding and Transfer documents
- Smart container information
- A number of agricultural certificates, accounting and other r

- eCMR

These standards you can find at www.unece.org/unecefact/mainstandards.html

1. Standards to be finalized in Sept. 2020

- Provisional booking
- Firm booking
- Booking confirmation
- Shipping instructions
- Waybill
- Status report
- Status request
- Packing list
- RAS

- Bill of Lading (BoL) / maritime waybill)
- Packing list

1. Standards to be finalized in Sept. 2020

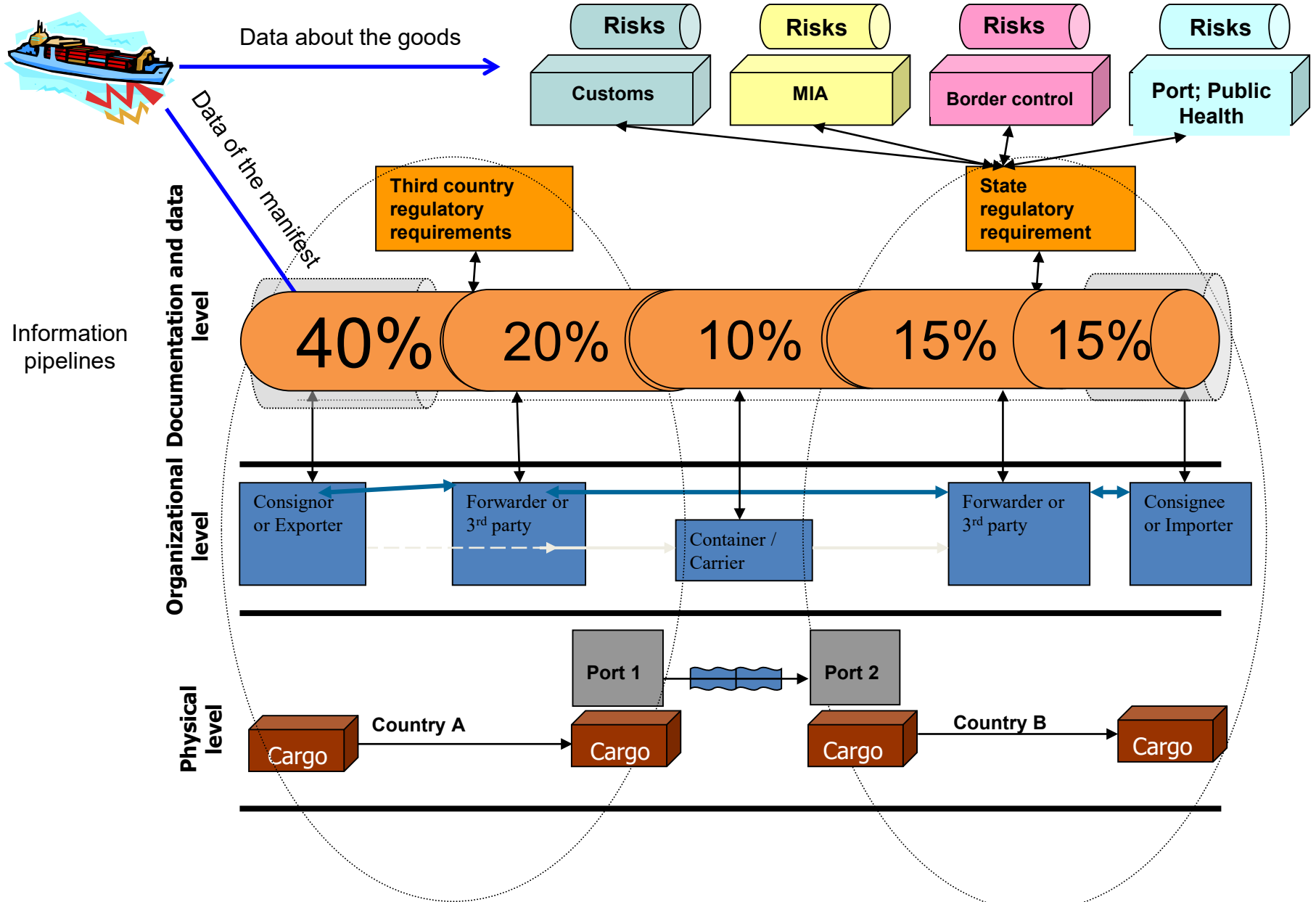
- Inland water transport documents
- Maritime documents
- CIM/SMGS Consignment Note;
- SMGS Consignment Note;
- CIM/SMGS Wagon List (freight manifest) (Appendix 7.2 to point 20, see <https://www.cit-rail.org/en/freight-traffic/manuals/>)
- Invoice for Customs
- eCERT (sanitary-phytosanitary certificates and basis for other certificates): Revise implementation guidelines (+ schema, subset) for the different certificates, aligned to the Buy-Ship-Pay Reference Data Model

- BoL / maritime waybill
- Invoice for Customs
- SMGS, CIM/SMGS or CIM Consignment Note
- CIM / SMGS Wagon List (Appendix 7.2 to point 20)
- Container List (Appendix 7.4 to point 20)
- Handover sheet (Appendix 3 to SI to SMGS) <https://osjd.org/api/media/resources/1603431>
- Inland water transport documents
- CO, C/O (preferential or non-preferential)

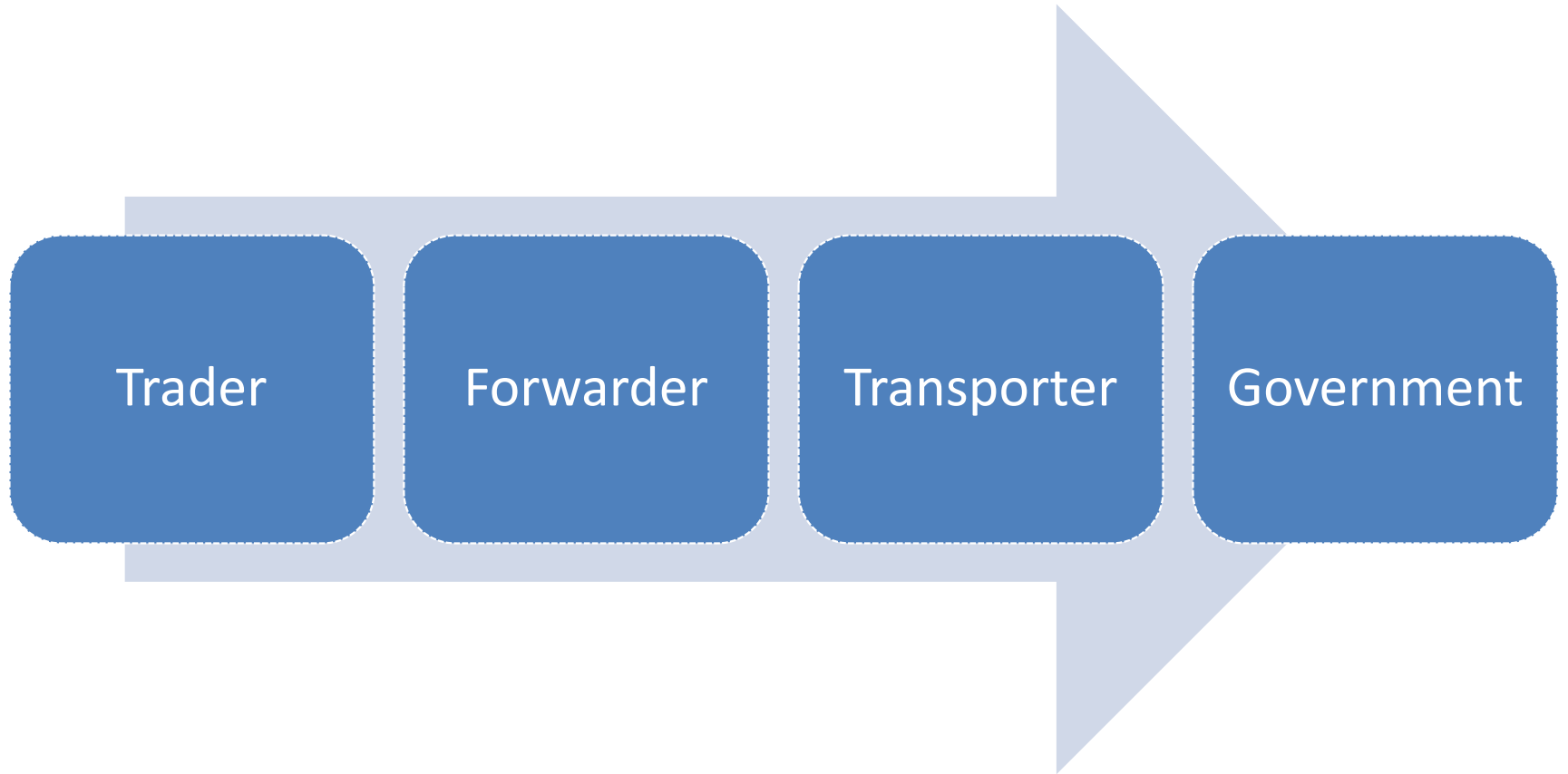
Align data in these documents with UN/CEFACT standards and reference data models

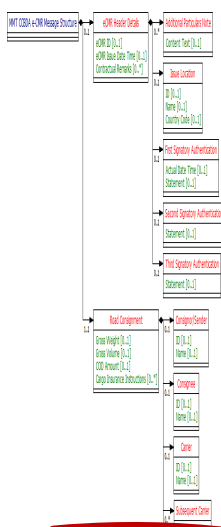
Related concepts : data pipeline

Future Customs and International trade systems (David Hesketh and others)



Data flows





Bill of lading



Invoice

Specification;

CIM, CIM/SMGS
and SMGS

Packing list;

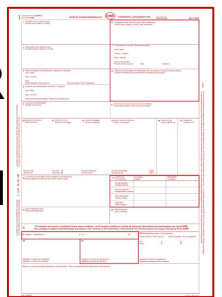
Customs documents:

- Export declaration (EX-1);
- Transit declaration (T-1);
- *Accompanying administrative documents*
- TIR Carnet;
- ATA carnet;
- Financial guarantee (for transit);

Principle: We look at seamless data sharing. The legal regime underlying each document is not affected - data can be introduced in any form. One can print it, sign it and submit it wherever and whenever necessary.

CMR

Airwaybill



Performance invoice;

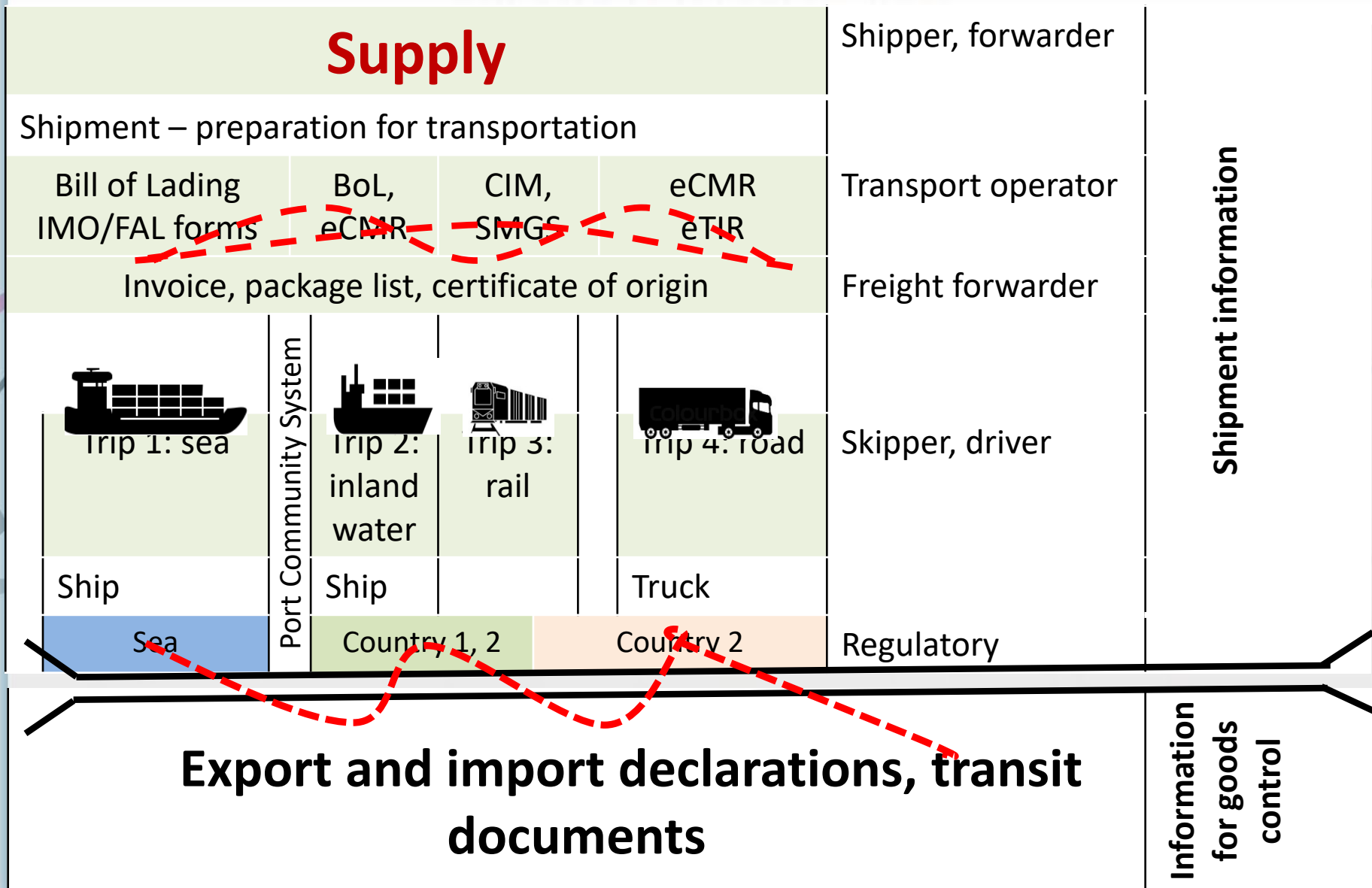
Quality certificate;

Shipping order

- Certificate of compliance;
- Carantine certificate;
- Veterinary certificate;
- Hygiene certificate;
- Fire safety certificate;
- Sanitary and phytosanitary certificate



Seamless multimodal supply chain



Linking data in one document (waybill, consignment note) with other modes of transport in different functional areas

(from the business requirement specification for multimodal lading)

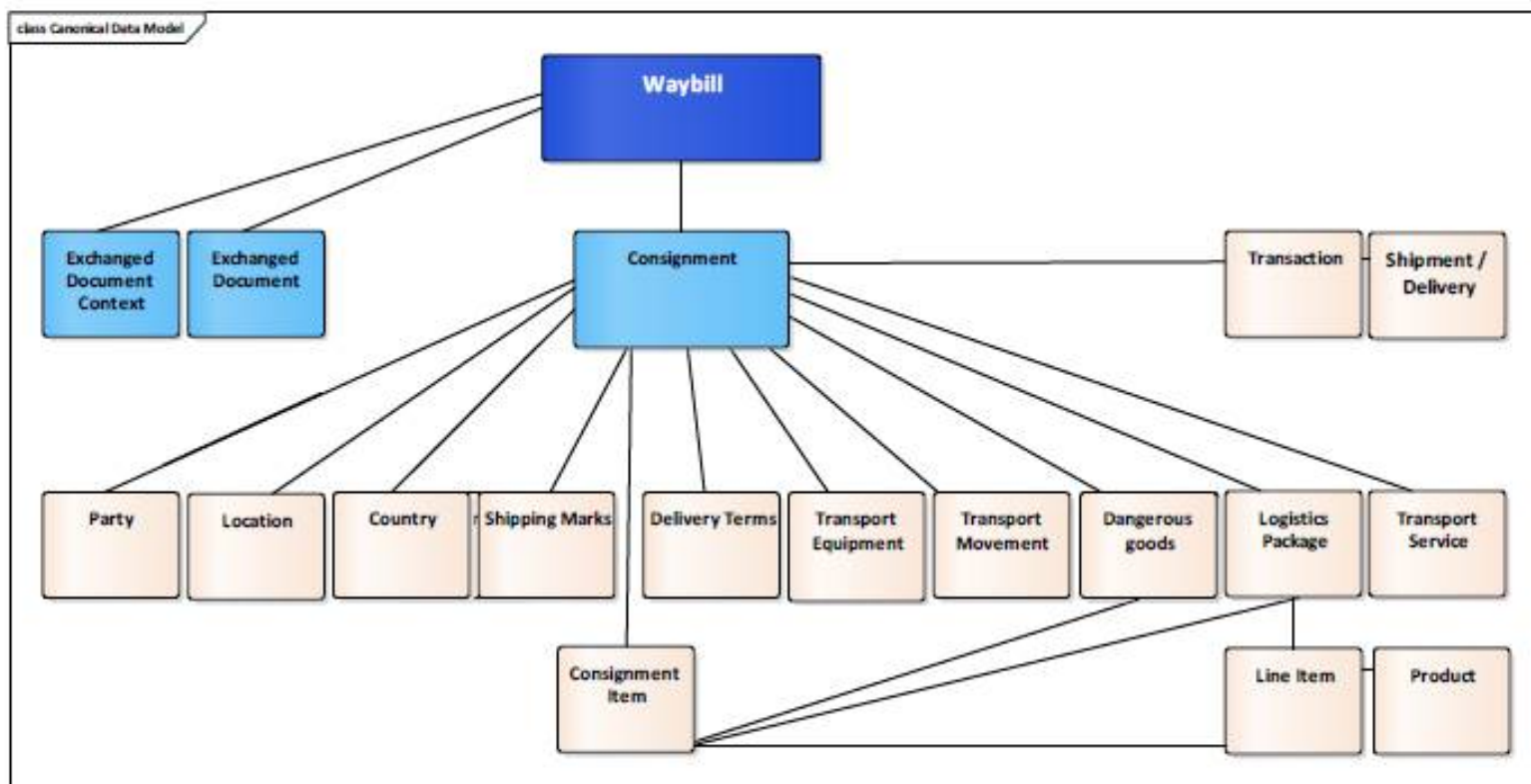



Figure 8b: Canonical Data Model - Waybill

Example: data mapping for CIM/SMGS, eCMR, eTIR

Cardinality Min	Cardinality Max	Business Name	CIM/SMGS Note	eCMR	eTIR	Wagon/Container List	Invoice for Customs	Certificate of Origin	Packing List
0	1	Exchanged Document Context							
0	1	Transaction ID		X					
0	1	Test Indicator	X				X		
0	1	Business Process							
0	1	ID		X					
0	1	Guideline							
0	1	ID		X					
0	1	Exchanged Document							
0	1	ID	X	X			X		
0	1	Name					X		
0	1	Type Code		X	X		X		
0	1	Issue Date Time		X			X	X	
0	1	Submission Date Time			X				
0	unbounded	Remark		X					
0	1	Language Code					X		
0	1	Purpose Code					X		
0	1	Revision Date Time					X		
0	1	Sender Assigned ID	X		X				
0	1	Recipient Assigned ID	X		X				
0	1	Version ID	X				X		
0	1	Category Code					X		
0	1	Creation Date Time	X						
0	unbounded	Note							
0	1	Subject Text		X			X		
0	1	Content Code		X			X		
0	1	Content Text		X			X	X	
0	unbounded	Subject Code		X			X		

Profile messages for multimodal transport

- International road consignment note eCMR
- See <https://www.unece.org/cefact/>

2 March 2018: UN/CEFACT is pleased to announce the publication of its [electronic Road Consignment Note \(eCMR\) standard](#) . This standard provides a free, open specification that will help parties to implement the UNECE Additional Protocol to the CMR Convention concerning the eCMR. For more information, please see the [press release](#).

Future developments:

- The structure of data sharing in data pipelines
- Messages of other monomodal transport contracts
- Container handling messages
- Processing messages Bayplan, Verified Gross Mass and Container
- Messages IMO FAL
- Cargo tracking messages

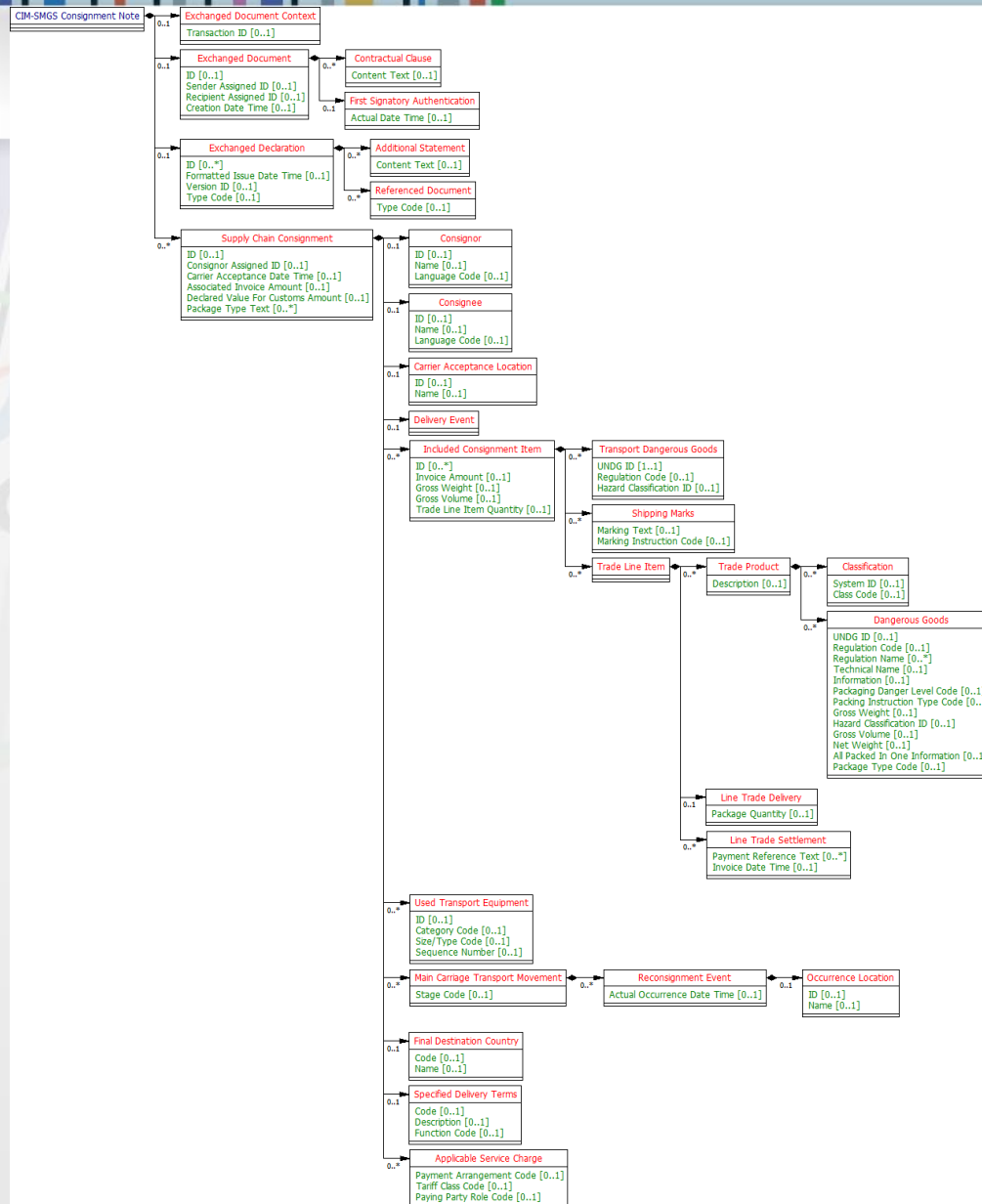
Goods cannot move faster than the information about them!
Make sure the flow of information can work seamlessly across transport modes by making sure that every data element with the same name has the same semantic meaning

Already analyzed data sets for the overall data set/model

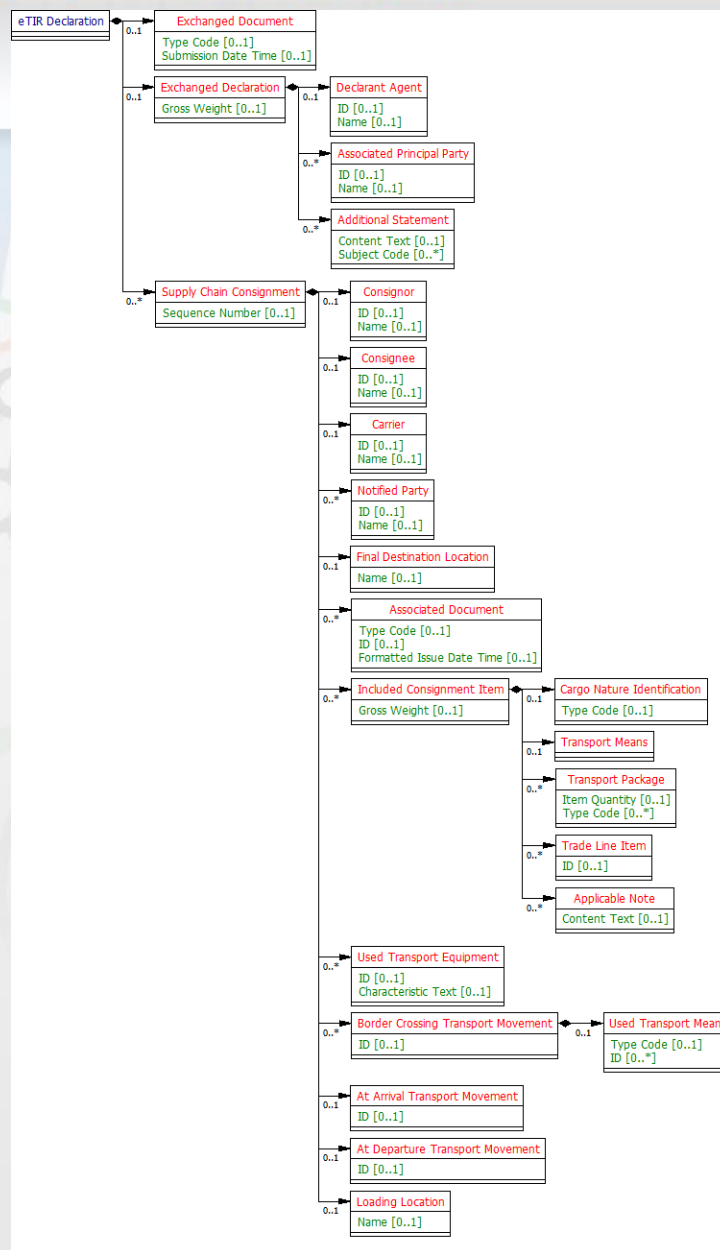
Document	Basic International Reference Standard
CIM/SMGS consignment note	UN/CEFACT Multimodal reference data model
CMR consignment note	UN/CEFACT Multimodal reference data model
eTIR	The UN/CEFACT multimodal reference data model created as a result of data mapping with eTIR schemas published by UNECE
Wagon list and container list	UN/CEFACT Multimodal reference data model
Invoice (for Customs)	UN/CEFACT cross-industry reference data model
Certificate of Origin (EUR 1)	UN/CEFACT Buy-Ship-Pay reference data model
Packing list	UN/CEFACT Buy-Ship-Pay reference data model

Note: The eTIR-related data elements included in the data set are the result of data mapping to the UN/CEFACT multi-modal transport reference data model (MMTRDM) reflected in an XML schema, published by the UNECE and aligned with the WCO Data Model, which is the reference for the EU Customs Data Model. Data sets for railway documents are based on paper documents used nationally and globally to simplify rail transactions plus the XML schemas. The data sets indicate the use of names and terms in the paper documents aligned with international standards, code lists and directories. Box numbers are reflected wherever appropriate.

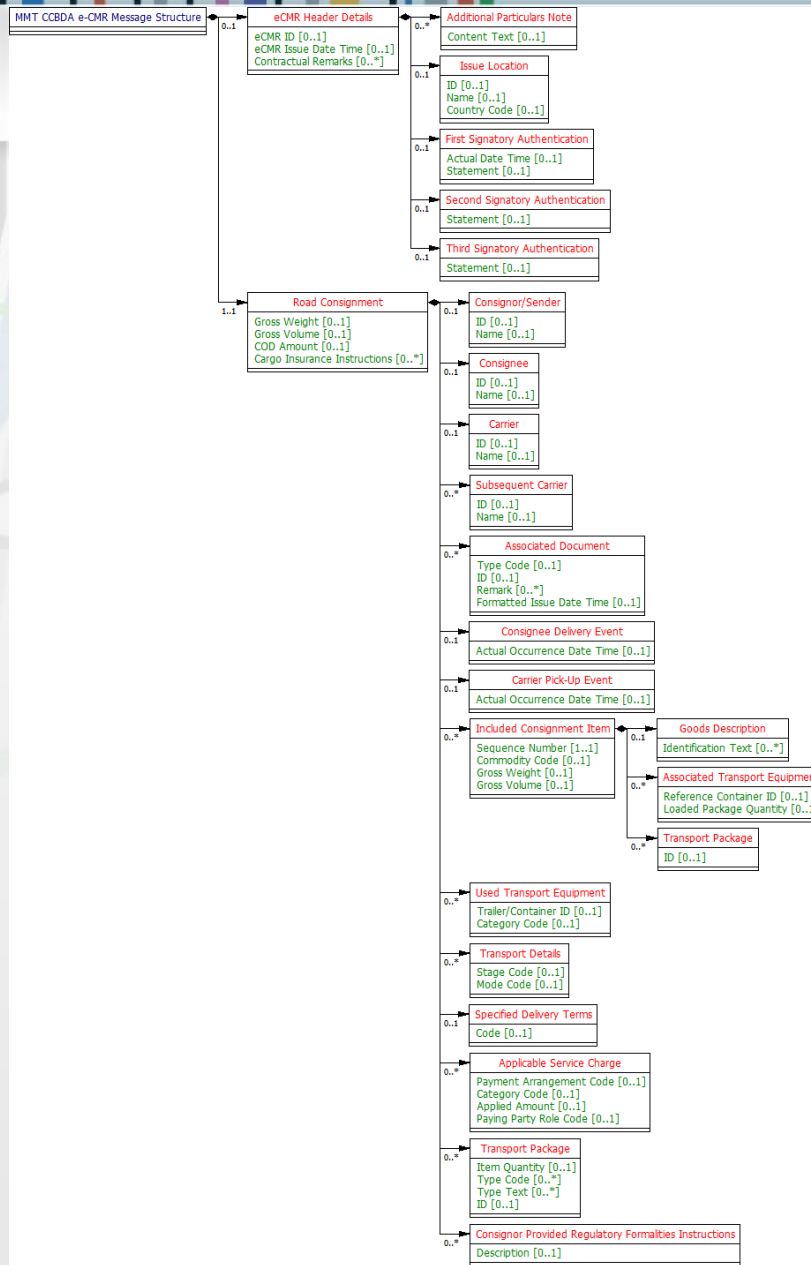
CIM-SMGS consignment note based on the reference data model for multimodal transport, according to the prepared XML schema for CIM-SMGS



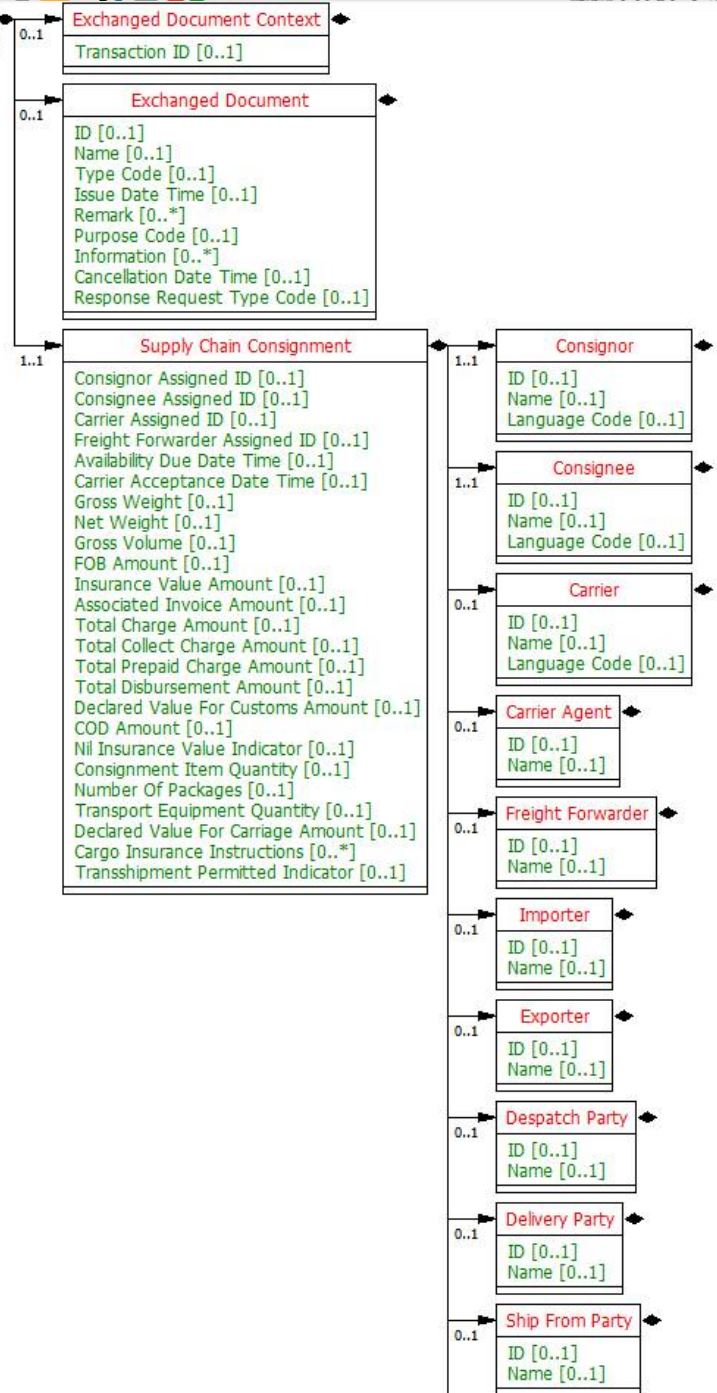
eTIR, based on the UN/CEFACT multimodal transport reference data model, in compliance with the eTIR subset of the WCO Data Model



eCMR consignment note based on the UN/CEFACT multimodal transport reference data model; XML schema for eCMR developed jointly by UNECE and IRU to support the requirements of the eCMR protocol in the CMR Convention



Electronic multimodal waybill based on the UN/CEFACT multimodal transport reference data model to support any multimodal transport contract document: consignment note or waybill



Legal aspects of data sharing for multimodal transport

Government agencies and business partners used to accept paper forms and their regulatory framework correspond to those requirements. This base needs to be revised.

Some points about using datasets:

- Benefits for all parties;
- Accessibility, accuracy and completeness of data;
- Possibility for multi-purpose use of documents, including in courts;
- Information exchanged to be used only for specified purposes;
- Data exchange based on international standards, on non-profit basis;
- Transparent use of data, based on agreements bet. the countries;
- Participation of international organizations that manage the relevant documents.

Electronic document accompanying goods on inland waterways

- Budapest Convention on inland water transportation (CMNI), provisions on possible documents to use in the inland water transportation of goods (Chapter III: pp. 63-64)

<http://www.unece.org/fileadmin/DAM/trans/main/sc3/cmnicof/cmni.pdf>

- Bratislava Agreements

http://www.unece.org/trans/main/sc3/standards_regional_agreements.html

- Inland waterways UA-BY

Plans under the UNDA project

- Collect the forms and info
 - Analyze and develop a flat data set
 - Using the BRS for multimodal waybill, develop subset, XML schema, JSON API
- blockchain

BY

Приложение 1

Форма коносамента

Календарный штамп с датой приема груза к перевозке Seal about receiving the cargo for transportation	Страница 1 Page 1 (лицевая сторона)
Грузоотправитель и его адрес Shipper and their address	КОНОСАМЕНТ № _____ BILL OF LADING № _____
Грузополучатель и его адрес Consignee and their address	
Судно, судовладелец Ship, ship-owner	Экспедитор и его адрес Forwarding agent and their address
Флаг Flag	Национальный гарант финансового обеспечения National guarantor of financial maintenance
Пункт отправления Port of loading	Оговорки Clauses
Пункт перевалки Port of transshipment	
Пункт назначения Port of discharge	

Наименование груза Name of a cargo	Вид тары и упаковки Kind of container and packing	Количество мест Amount of places	Масса брутто или объем Weight gross or volume
			Способ взвешивания Way measurements of the mass

Платежи и сборы Payments and charges	Дата и место составления Piece and date of issue
	Подписи, печать грузоотправителя Shipper signature and stamp

Страница 2
Page 2 (лицевая сторона)

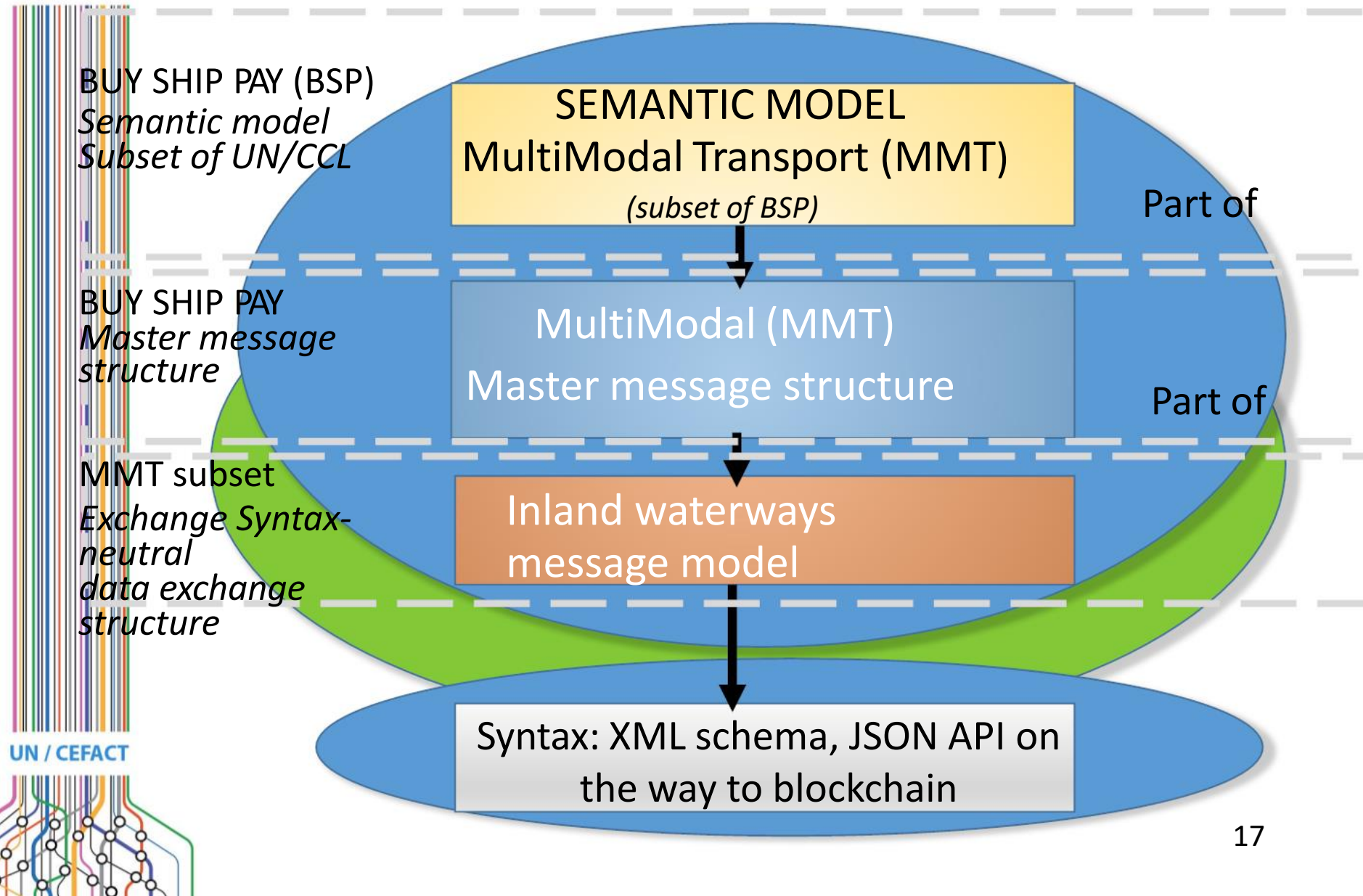
Прилагаемые документы Exhibits	Недостатки тары (упаковки) Defect of the tare
Пломбирование Do seal	заявленные грузовладельцем/from consignor
Объявленная ценность груза Value cargo	установленные перевозчиком/from ship-carrier

Отметки грузоотправителя Shipper marks	Отметки перевозчика Ship-carrier marks
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Переадресовка Change the point of destination cargo
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Отметки порта о заводе груза в пункт отправления Mark about delivery cargo in point of departure	Груз выдан Cargo is issued
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Possible: UN/CEFACT standards for an electronic consignment note for inland waterways



Inland waterways



Thank you!

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