Inland Transport Week
Digitalization and eDocuments

United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)

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UNECE – UN/CEFACT
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UNECE Work Areas

- Sustainable Transport Division
- Environment Division
- Sustainable Energy Division
- Economic Cooperation and Trade Division
- Forest, Land and Housing Division
- Statistical Division
UN/CEFACT – UN Centre for Trade Facilitation and Electronic Business

**Objectives**
- Simple, transparent and effective processes for global business
- Efficient and automated exchange of information

**Key tools**
- Global trade facilitation recommendations
- eBusiness standards
- Guidelines

**Means**
- Public-Private Partnership – over 500 experts
- Meet virtually practically every weeks

Trade facilitation is discussed at three levels: all complementary
Smart connectivity through clear semantics
UN/CEFACT –
Semantic Hub for Standardization

Buy

Commercial Procedures
- Establish sales contract
- Order goods
- Advise on delivery
- Request payment

Transport Procedures
- Establish transport contract
- Collect, transport and deliver goods
- Provide waybills, Goods receipts, etc.

Pay

Regulatory Procedures
- Obtain im/export licenses etc.
- Provide Customs Declarations
- Provide cargo Declarations
- Apply security measures
- Clear goods

Financial Procedures
- Provide credit rating
- Insurance
- Execute payment
- Issue statements
Smart connectivity with standardized documentation
Many trade documents

Enquiry Order  Despatch advice  Collection order
Payment order Letter of credit  Forwarding
instructions Forwarder's invoice  Goods receipt  Air
waybill Freight invoice  Road consignment note  Transit
manifest Export licence  Bill of lading  Cargo manifest
Exchange control doc Phytosanitary certificate  TIR
carnet Rail consignment note  Veterinary
certificate Goods declaration  Examples of trade documents
Packing note Certificate of origin  Consular invoice  Dangerous
goods declaration Import/Export licence
Customs delivery note
Recommendation 1
UN Layout Key

- Specifically endorsed in the WCO Revised Kyoto Convention and the WTO TF Agreement
- Provides a common basis for the layout of trade-related documents and the information they contain
  - Basis for international transport conventions and customs
  - Endorsed by key international organizations
- All data elements in UNLK aligned documents have electronic equivalents in UN/EDIFACT, ebXML, ...
- Recommendation has recently been revised
Digitalization and eDocuments means that information must be **structured**

(no free text)
UN/CEFACT – Code Lists

- Rec 7 Date Formats
- Rec 8 UNIC
- Rec 5 INCOTERMS
- Rec 3 Country Codes
- Rec 9 Currency Code
- Rec 20 Units of Measurement
- Rec 16 UN/Locode
- Rec 28 Means of Transport
- Rec 19 Mode of Transport
- Rec 21 Package Codes
- Rec 15 Shipping Marks
- Rec 24 Status Codes
- Other EDIFACT Code Lists
UN/EDIFACT standard

- Global Electronic Data Interchange (EDI) standard developed and maintained by the UN/CEFACT
- Standardized representation of semantics
- Concise data format
- Since approximately 1990
- Over 200 messages covering multiple domains. For example:
  - Customs (customs declaration, cargo report, …)
  - Commercial (orders, invoices, remittance advice, …)
  - Transport (Bill of Lading, manifest, …)
  - Logistics (dispatch advice, shipping instruction, inventory report…)
  - Master data (price catalogue, …)
  - Many industries (retail, DIY, container handling, …)
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
International Supply Chain Contracts
UN/CEFACT Process driven approach

UN/CEFACT evolution

• From Document centric to Process driven artefacts
  (*Contextualized Business Artefacts*)

• Supports Document centric & Process driven workflows

• Standardized syntax-neutral data exchange structures, based on common Master data exchange structure
  (*from which complete documents and/or snippets of documents can be created in any chosen syntax e.g. XML, JSON or UN/EDIFACT etc.*)
UN/CEFACT

Multi-Modal Transport Reference Data Model

MMT-RDM

Core Component Library

Supply Chain RDM

Invoice
Offer
Quotation
Catalogue
Remittance
Delivery
Scheduling

Bill of Lading
Flight Manifest
Despatch Advice
Pre-Arrival Security Dec.
Rail Consignment Note
Container Operations
Packing Instruction
CMR & Road Consignment
Trace & Track
Dangerous Goods Dec
Forwarding Instruction
Arrival Notice
Despatch Advice
Delivery Note
Air Waybill
Forwarding Instruction
Transit & TIR
CMR & Road Consignment
Warehouse Receipt
UN/CEFACT standards for transport and logistics
Key Problems challenges by the Private Sector when executing international transactions

- Too many legal requirements still mandating use of paper documents
- Modal specific international transport conventions in an increasingly intermodal or synchromodal transport & logistics world
- Multiple regulatory requirements with unharmonised data definitions and exchange protocols
- Legal goods held back at borders or en route by Customs, Port Health or other cross-border agency due to:
  - Unavailability of accurate data at inspection point
  - Lack of pre-arrival accurate targeting information
History of Transport Message Exchange Standards

• UN Trade Data Elements Directory and UN Layout Key Document Standards
• UN/EDIFACT – 30 years of message development and increasing implementation
• International Code Lists
• Multi Modal Transport Reference Data Model (supporting e-Contracts, eCMR, eIMO-FAL, Traceability)
• Current emerging technology and methodology projects for the industry (e.g. Smart Container [Internet of Things], Data Pipelines)
For more information...
Where to find documents
www.unece.org/cefact
Pipeline Data Exchange Standard Project

- Supply Chain data extracts sent to regulatory agencies at key time points
- Standardised overall data exchange structure
- Quality data from the original source at earliest time
- Regulatory and supply chain visibility benefits

https://uncefact.unece.org/display/uncefactpublic/Pipeline+Data+Carrier
- Road transport consignment note – CMR convention
  - Albania
  - Georgia
  - Kazakhstan
  - Moldova
  - Serbia
  - Ukraine
  - Azerbaijan
  - Hungary
  - Kyrgyzstan
  - Montenegro
  - Turkmenistan

- Electronic road consignment note
  - Moldova
  - Several messages including the original declaration, the hand over of goods, the proof of delivery and status messages

http://www.unece.org/fileadmin/DAM/cefact/brs/eCMR-BRS-V_01.zip
e-IMO FAL Ship Reporting project

- IMO Electronic ship reporting regulation from 2019
- Updated IMO FAL Convention and Compendium to be published 2019
- New Compendium includes port call regulatory requirements data model
- UN/CEFACT Annex project to map the IMO FAL data model to the Multi Modal Reference Data Model and UN/EDIFACT (updated)
- Project members include carriers and port community system providers
- Links to Maritime Single Window initiatives (e.g. EU MSW)

https://uncefact.unece.org/display/uncefactpublic/IMO+FAL+electronic+compendium+mapping
UN/CEFACT & Internet of Things

• Smart Container project
  • Looking at the data which would be shared with the rest of the supply chain
  • This could trigger smart contracts and events like invoicing

• IoT general project
  • Launching early 2019 will be looking at other use cases of IoT and how they relate to UN/CEFACT standards
  • Could potentially have the same type of events triggered

https://uncefact.unece.org/display/uncefactpublic/Smart+Containers
• UN/ECE - UN/CEFACT work on Traceability
  • Traceability framework
  • Textile Traceability
  • Electronic Interchange of fisheries catch data (FLUX)
  • Animal traceability data exchange
  • Rapid Alert System for Food and Feed (RASFF) Notification Exchange
  • eQuality certificate (work in progress)
Where to find documents

tfig.unece.org
UN/CEFACT

more information & contacts

All UNECE and UN/CEFACT Recommendations, codes, standards and publications are available for free on our website at:

- www.unece.org/
- www.unece.org/trade
- www.unece.org/cefact/
- tfig.unece.org

- Secretary of UN/CEFACT:
  - Lance THOMPSON, UNECE, ECTD, TFS
  - lance.thompson@un.org
Upcoming events of UN/CEFACT

• UN/CEFACT 33rd Forum
  • 1-5 April 2019, Geneva, Switzerland

• UN/CEFACT 24th Plenary
  • 7-8 April 2019, Geneva, Switzerland
Thank you

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