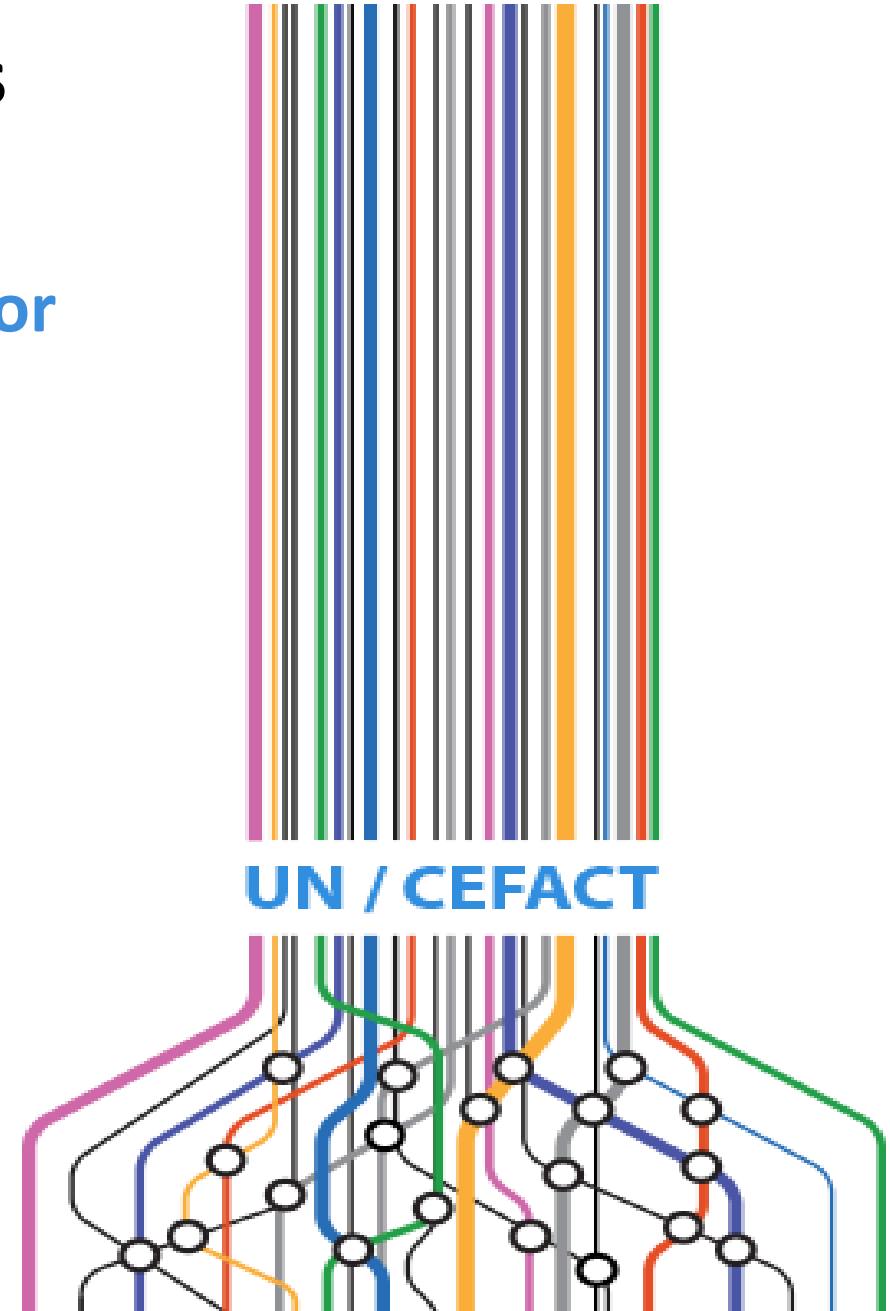


WP6: Digital and Green Transformations

UN/CEFACT international semantic standards for
global supply chain data exchanges and how
digitalization can contribute to better quality
infrastructure

Sue Probert
Chair, UN/CEFACT
suesiprobert@live.com

Geneva, 9th November 2022





UNECE UN/CEFACT

Objectives

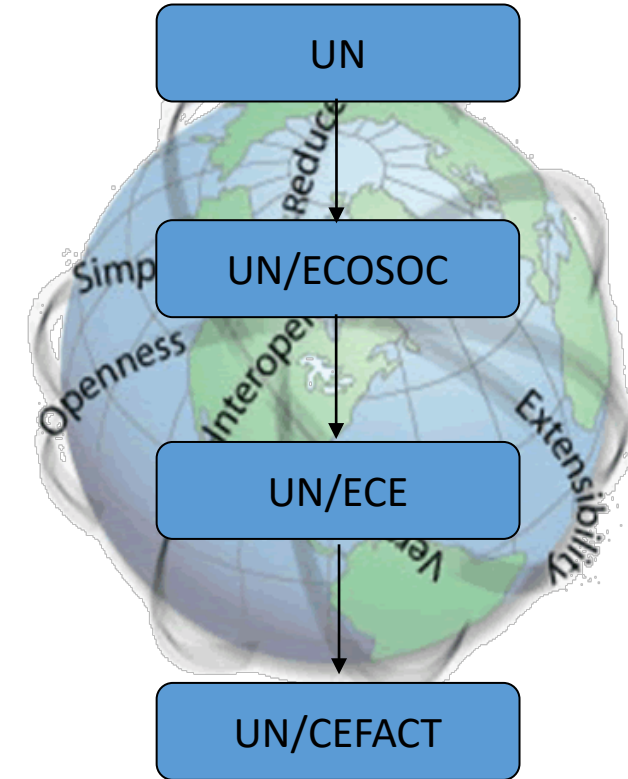
- Simple, transparent and effective processes for global business
- Efficient and automated exchange of information

Outputs

- Global Trade Facilitation and Electronic Business Recommendations and Standards

Means

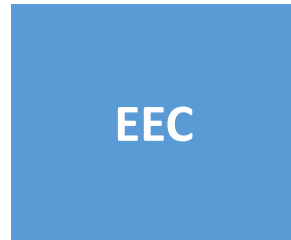
- Public Private Sector Partnership
 - over 400 experts from government and business
- Experts meet via internet every week plus two Face-to-Face Forums per year (hopefully)



Global Remit



Cooperation / Collaboration



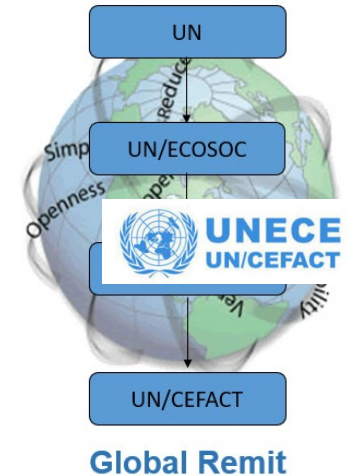
UN / CEFAC



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UN/CEFACT helps global trade go digital as shown in the WTO-ICC Standards Toolkit

- The **World Trade Organization (WTO)** regulates and facilitates international trade (establish, revise, and enforce the rules that govern international trade).
- **UNECE** through **UN/CEFACT** serves as a focal point within the United Nations Economic and Social Council (ECOSOC) for trade facilitation recommendations and electronic business standards.
- Through its new generation of digital standards and artefacts **UN/CEFACT** provides interoperability for the digital exchange of data between modes of transport, sectors, companies, government agencies, and countries.





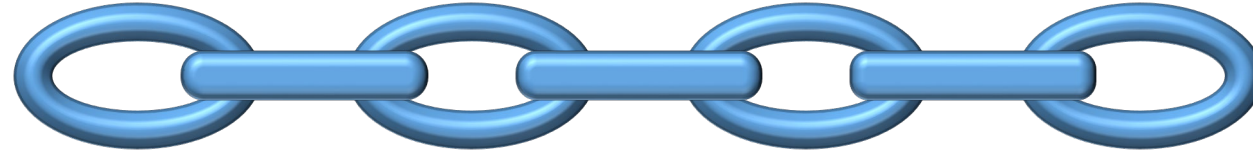
UN/CEFACT Deliverables

- Internationally agreed recommendations
- Internationally agreed e-business standards
- Common Libraries
- Common Directories
- Code Lists

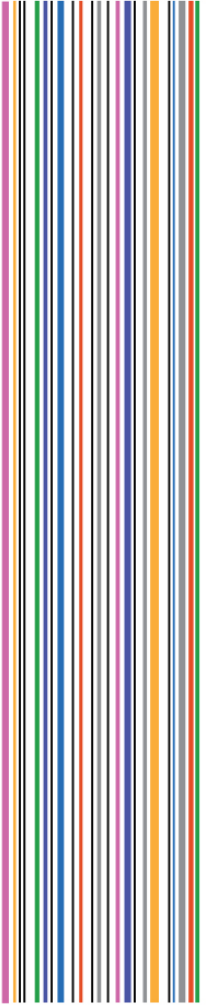




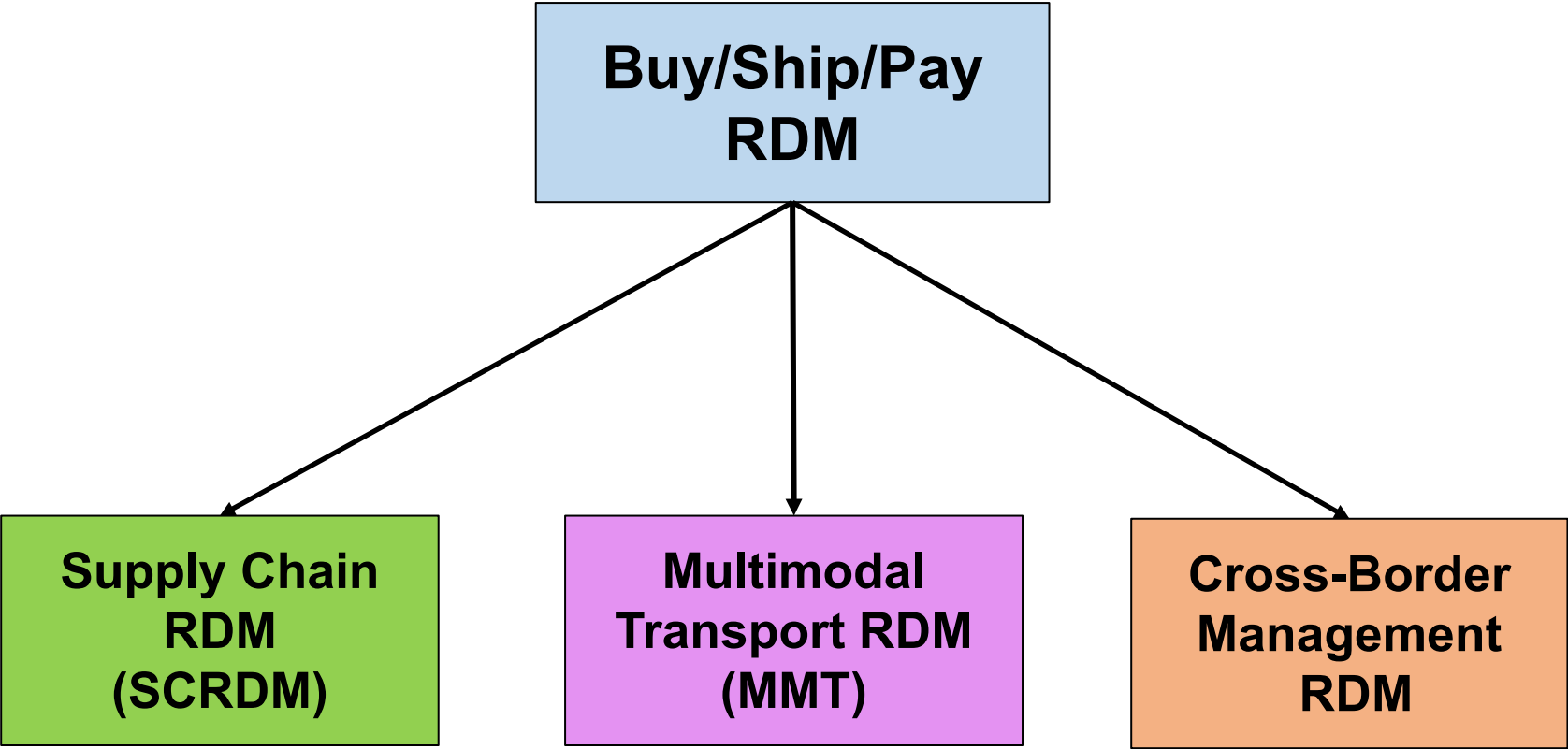
One link in a global supply chain



- 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
- MultiModal
- Cross-Industry
- UN/CEFACT deliverables all take this holistic approach



UN/CEFACT International Supply Chain Reference Data Model Family





Product quality compliance traceability



Basic principles

- Are regulated products and their components compliant with all relevant product quality requirements?
- As regulated products are traced, digitization can provide additional product quality traceability information about the what (i.e. organic or not?), the who (i.e. certified or not?) and the why/how (i.e. a clean manufacturing process or not?)



Product quality compliance traceability

Key concepts

- Enhance visibility and transparency in value chains
- Ensure regulated products conform with policy requirements, such as:
 - Conformance with applicable laws and regulations
 - Ensure product quality and safety
 - Combat counterfeits
 - Protect cultural and industrial heritage
 - No human rights violations
 - No adverse environmental effects
 - No human health hazards
 - Verification of origin
- Ensure regulated products have conformed with sustainability, quality and circularity requirements





Product quality compliance traceability

UN/CEFACT eBusiness standards in this area

- Sustainable Textile and Leather Traceability and Transparency Project
- eQuality
- Electronic SPS Certificate (eCERT)
- Fisheries Language for Universal eXchange (UN/FLUX)
- Animal Traceability
- Electronic Animal Passport
- Traceability of Primary Natural Products

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Publications: <https://unece.org/trade/uncefact/mainstandards>
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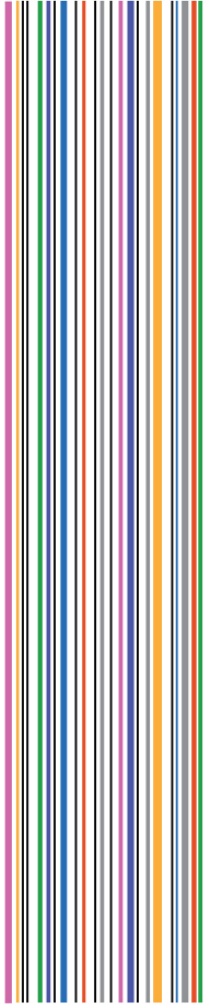




Logistics traceability supporting quality standards

- Artificial intelligence supporting trade facilitation:
 - smart IoT transport equipment devices to monitor and report quality parameters such as temperature (potential product spoiling) and door opening (potential product tampering)
 - Can report logistics information on the condition/status of the traceable asset (cargo / products)
 - Involves tracking of logistics units and not products





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Logistics traceability supporting quality standards

UN/CEFACT deliverables in this area

- Smart Container eBusiness Standard
- Multi-Modal Transport Reference Data Model
- Cross-Industry Supply Chain Track and Trace project
- Cross Border Management Reference Data Model

Publications: <https://unece.org/trade/uncefact/mainstandards>



UN/CEFACT

- All experts are welcome to join the work of UN/CEFACT as independent volunteer experts after registration:
 - <https://uncefact.unece.org/display/uncefactpublic/UNCEFACT+Expert+Registration>
- All deliverables of UN/CEFACT are available free of charge on our website
 - <http://www.unece.org/tradewelcome/un-centre-for-trade-facilitation-and-e-business-uncefact/outputs.html>
- All UN Member States are welcome to participate in the approval processes

