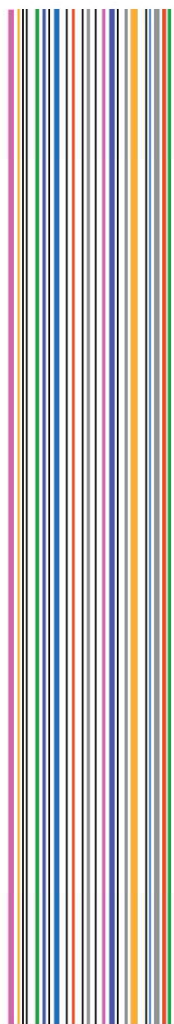


CITES COP Blockchain Side Event

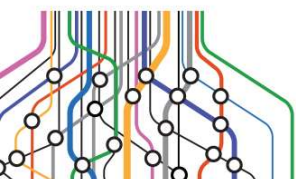
Standards and interoperability

Lance THOMPSON
Secretary, UN/CEFACT
lance.thompson@un.org
UNECE – UN/CEFACT
19 August 2019

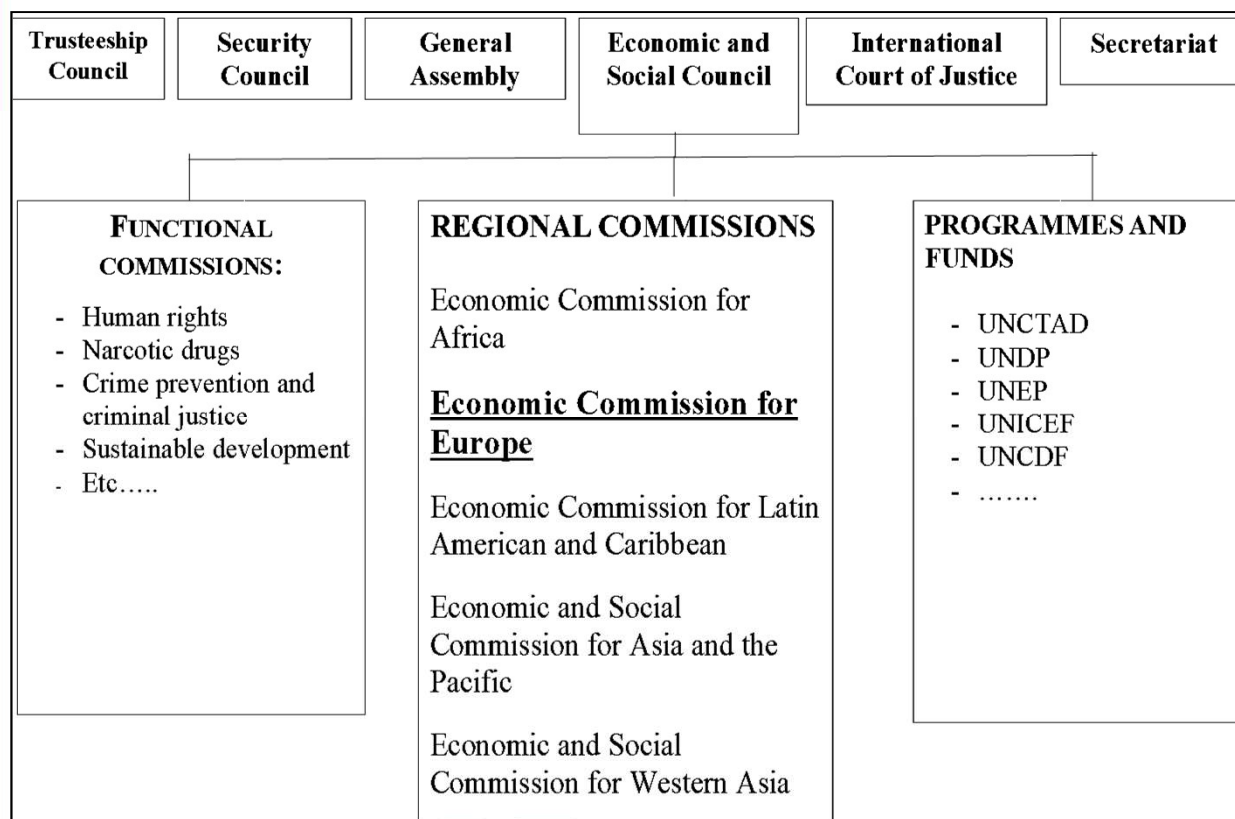




UN / CEFAC



UN Economic Commission for Europe (UNECE)



Economic Cooperation & Trade Division

Transport Division

Environment Division

Sustainable Energy Division

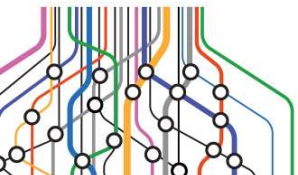
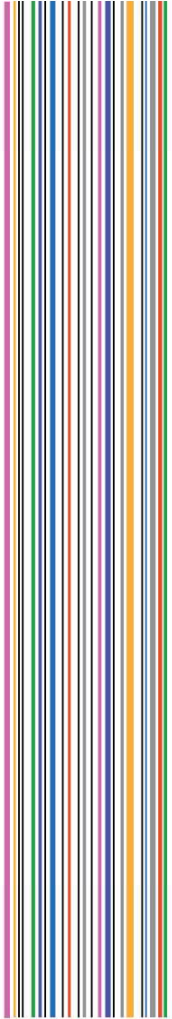
Housing & Forestry Division

Statistics Division

Smart Connectivity

- Uses clear, free, openly available and harmonized standards, recommendations, guidance, regulations, conventions... in order to promote seamless exchanges
- Applies Information and Communication Technologies (ICT) and innovative processes to improve interactions (between people, companies, governments, economies, objects)
- Brings together public service needs with private sector innovation and financing capabilities





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

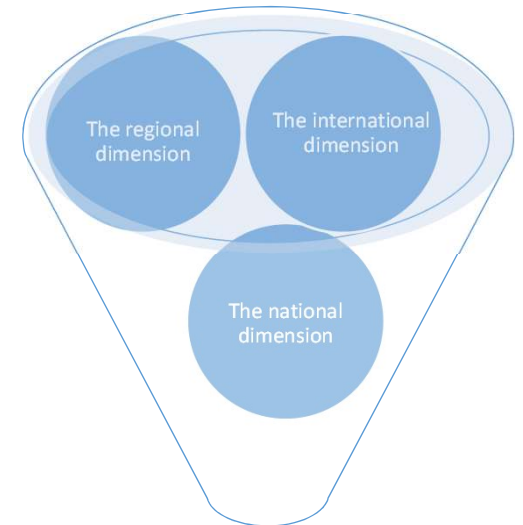
Trade facilitation is discussed at three levels: all complementary

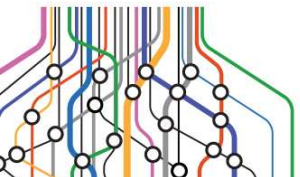
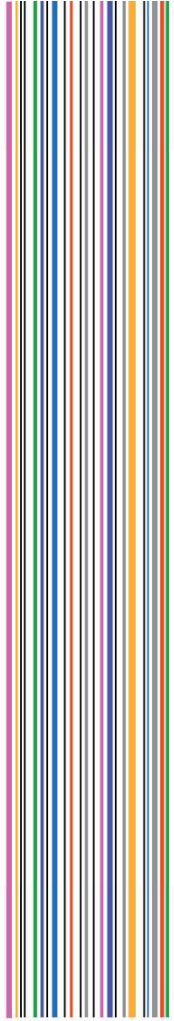
Key tools

- Global trade facilitation recommendations
- eBusiness standards
- Guidelines

Means

- Public-Private Partnership – over 1000 experts
- Meeting virtually practically every week



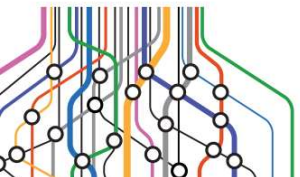
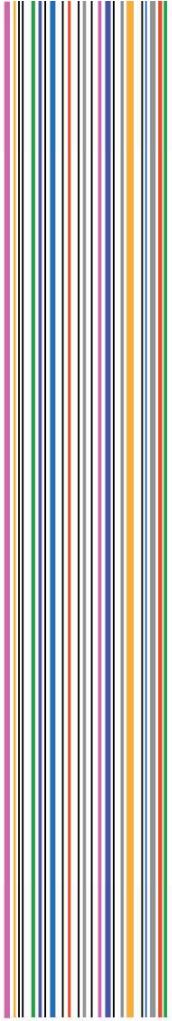


UN/CEFACT Work on Blockchain

- [White Paper on Trade Facilitation Processes](#)
 - Presenting the functionalities blockchain offers that can't be achieved by other means
- [White Paper on Standards](#)
 - Considering relationships with current standards
 - Studying what new standards are necessary

Work in progress:

- [Sectoral Use Cases](#)
 - Presenting 31 case studies in 10 Industry sectors
- [Cross-border Inter-ledger exchange](#)
 - For Preferential Certificates of Origin using Blockchain
 - Looking at key issues to consider while creating, administering and using such platforms



Blockchain considerations

- The chosen method of authentication should be “as reliable as was appropriate for the purpose for which the data message was generated or communicated, in the light of all the circumstances, including any relevant agreement.”
- Blockchain is a very high level of reliability and not all data transactions require the highest level of reliability



UN/CEFACT Recommendation 14 (2014), paragraph 37.

Article 7.1, UNCITRAL “Model Law on Electronic Commerce with Guide to Enactment 1996 with additional article 5 bis as adopted in 1998” United Nations, New York, 1999, p.5-6.



Blockchain challenges

- Not all blockchains are equal. They can vary in:
 - Vulnerability, robustness, cost, speed and ability to scale up, degree of privacy
- Cannot reasonably expect all data exchanges to use the same blockchain solution. Creating -interoperability issues:
 - Semantics, syntax, programs, consensus protocols
- Implied cost of using blockchain may in fact create new barriers to trade

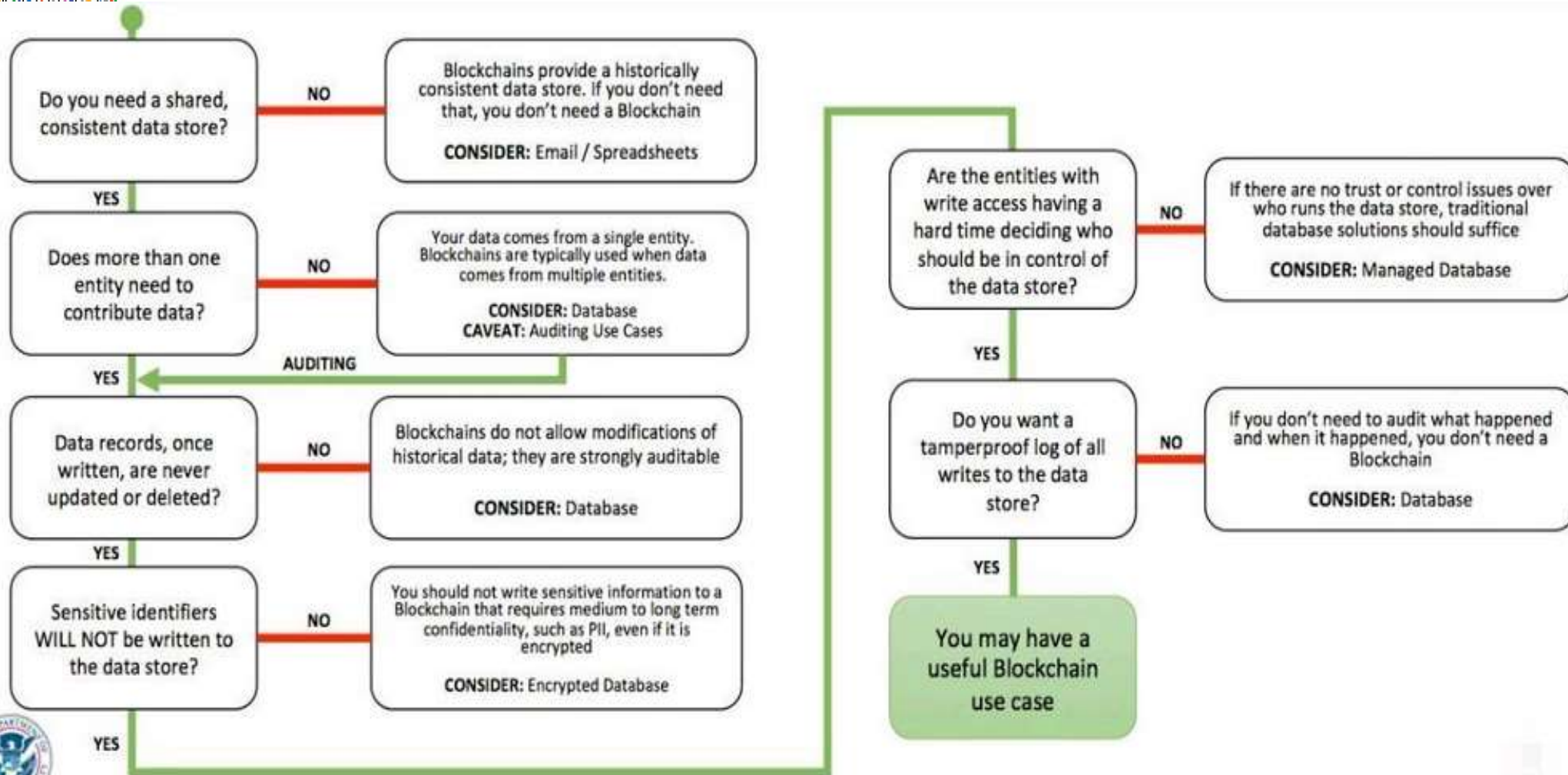


Blockchain Use Cases

- Many Pilot Projects exist
 - Often dissociated, not based on standards
 - Everyone basically creating their own blockchains
- Countries are looking into use of blockchain
 - Still a lot of hype – real added value being studied



Blockchain: When to Use



Source: US Dept. of Homeland Security, author unknown, [Sebastien Meunier](https://medium.com/@sbmeunier/when-do-you-need-blockchain-decision-models-a5c40e7c9ba1), published on Medium, <https://medium.com/@sbmeunier/when-do-you-need-blockchain-decision-models-a5c40e7c9ba1>

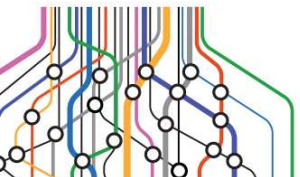


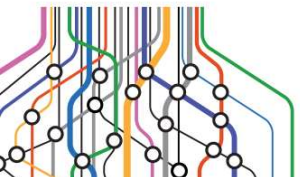
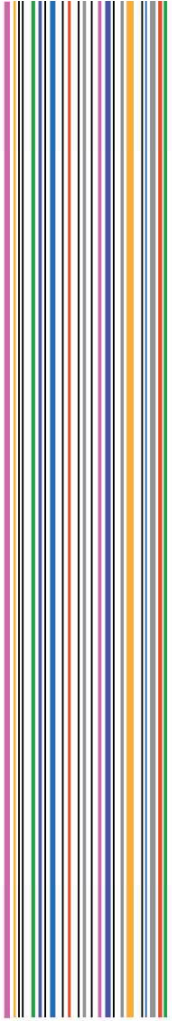
Semantic interoperability

- Need to ensure that everyone understands the same data in the same way
- Simple terms like Country of Origin can be interpreted differently depending on
 - Preferential / Non-Preferential
 - Country of declaration
 - Transformation
 - ...
- Blockchain can help secure the data and help parties collaborate... but they need to understand the same thing the same way

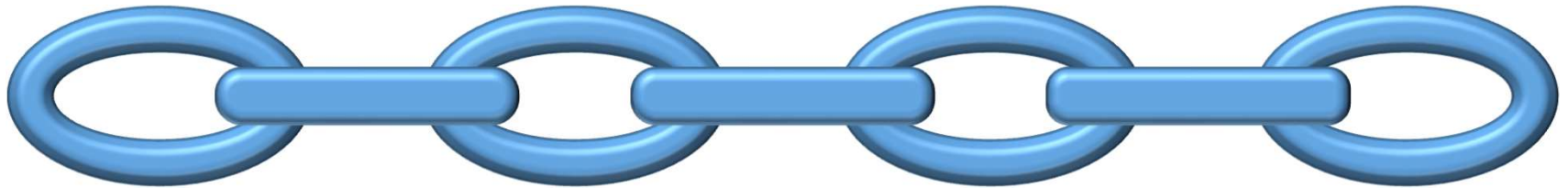
ABC-123

XYZ-987





One link in a global supply chain



- CITES Permits are one link in a global supply chain
 - The information needs to be interoperable with Transport information, Commercial information, Other Regulatory information...
 - The international supply chain is very complex (multiple actors and multiple relations in data exchanges)
- A wholistic view and approach are needed
 - Information will not be purely goods-related or purely transport or purely regulatory...
 - There are clear links between the information in each part of the global supply chain

UN/CEFACT brings it all together

- Under the United Nations umbrella
 - Non-competitive; inclusive by nature; free to participate and free for use
- Base semantic definitions
 - Developed in an open, public-private partnership
 - Mature, robust and trusted; developed over twenty years
 - Covers the entire international supply chain; all sectors and all countries
- Base technical specifications
 - Reused by many organizations, promoting interoperability
- International code lists
- Standard messages and processes



**For more
information...**



Some UN/CEFACT work

SINGLE WINDOW

UN/CEFACT developed the first guidance on Single Window and that definition has been used as the basis for all subsequent work. Our guidance covers implementation, data, legal, interoperability.

DOCUMENT LAYOUT

Since the 1960s UN/CEFACT and its predecessors have provided standards for the standardization of the layout of trade documents. The UN Layout Key is the basis of almost all cross border trade documents.

eINVOICING

The UN/CEFACT Cross-Industry Invoice has been chosen as one of the obligatory formats for all public procurement for certain countries and its use will facilitate cross border exchanges.

PROCESS DRIVEN

Traditional electronic messages reflect their original paper documents rather than supporting modern process collaborations such as blockchain. UN/CEFACT is leading the path in this new approach.

These are some examples of UN/CEFACT's deliverables. The full list can be found and downloaded free of charge on our website: www.unece.org/cefact

UN/EDIFACT

The first global electronic data interchange format, UN/EDIFACT is still today the most important centrally developed and maintained EDI standard covering transport, regulatory, supply chain and more.

NTFB (National Trade Facilitation Bodies)

Trade facilitation is not just the domain of the public sector. To be truly effective, private sector concerns and input must be fully considered. This is reflected in UN/CEFACT Recommendations 4 & 40.

TOURISM

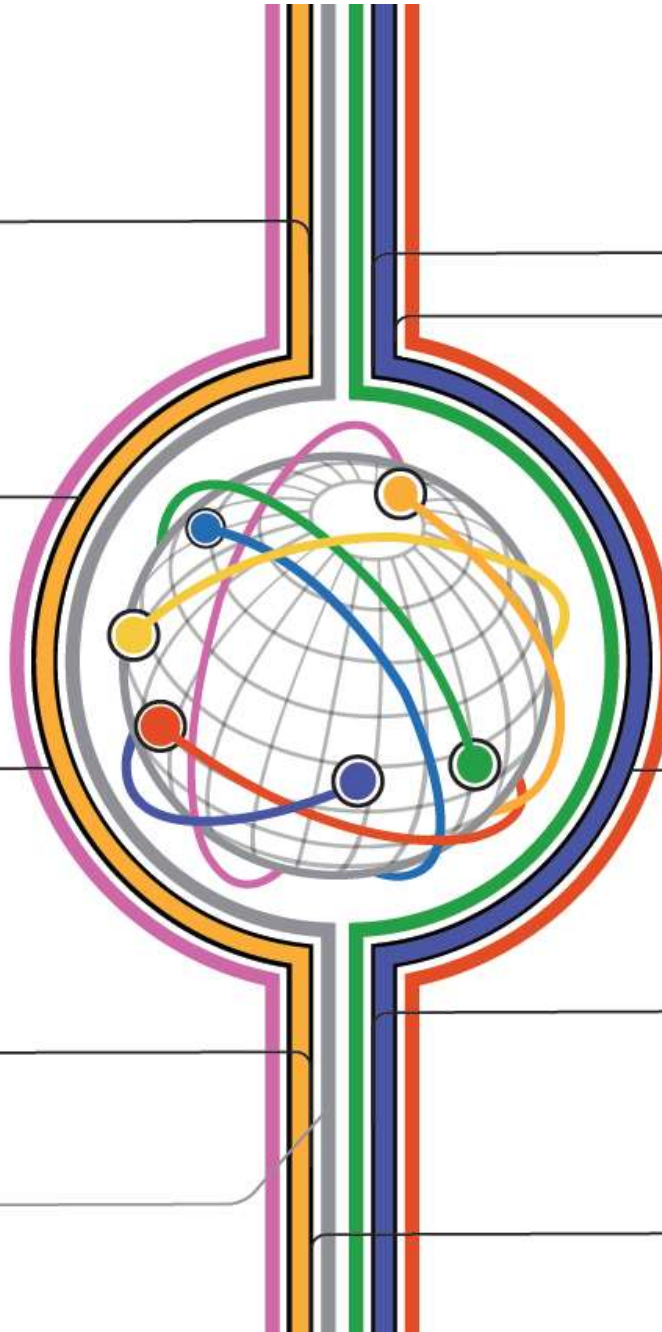
Improving tourism capabilities at a local level helps to improve lives and economies. UN/CEFACT develops and maintains a series of messages designed to enable small scale lodgings to enter markets.

SUSTAINABLE FISHERY

The UN/CEFACT FLUX messages are used in more and more countries to declare fish catches, conformity to regulations & port entries. Their use allow cross-border communication of the information seamlessly.

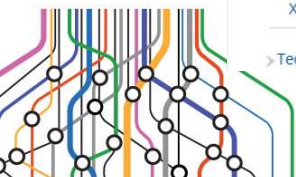
eSPS CERTIFICATES

Sanitary and Phytosanitary certificates are a regular part of imports and exports. The UN/CEFACT eCert is used to communicate these in international trade.





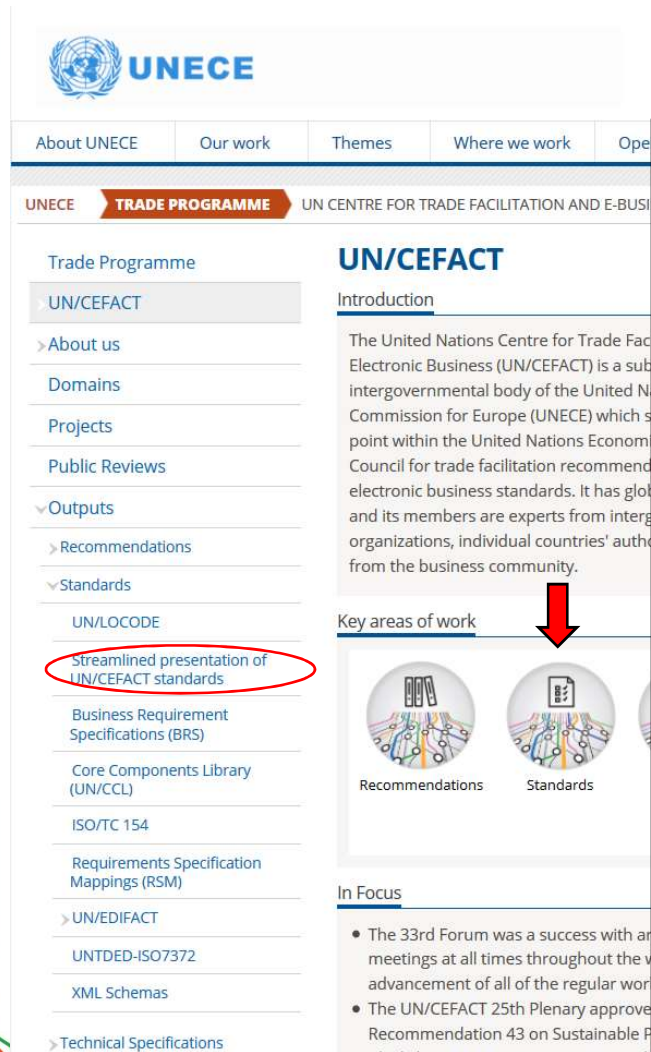
UN / CEFAC



UN/CEFACT

Where to find documents

www.unece.org/cefact



The screenshot shows the UN/CEFACT website. The top navigation bar includes 'About UNECE', 'Our work', 'Themes', 'Where we work', and 'Open'. Below this is a search bar. The main header features the UNECE logo and the text 'UN CENTRE FOR TRADE FACILITATION AND E-BUSINESS'. A sidebar on the left lists various categories under 'Trade Programme', including 'UN/CEFACT', 'About us', 'Domains', 'Projects', 'Public Reviews', 'Outputs', 'Recommendations', 'Standards', 'UN/LOCODE', 'Business Requirement Specifications (BRS)', 'Core Components Library (UN/CCL)', 'ISO/TC 154', 'Requirements Specification Mappings (RSM)', 'UN/EDIFACT', 'UNTDED-ISO7372', 'XML Schemas', and 'Technical Specifications'. The main content area is titled 'UN/CEFACT' and includes an 'Introduction' section, a 'Key areas of work' section with icons for 'Recommendations' and 'Standards', and an 'In Focus' section. A red arrow points from the 'Standards' icon to a callout box.

Streamlined presentation of UN/CEFACT standards

United Nations Code for Trade and Transport Locations (UN/LOCODE)

[UN/LOCODE](#)

United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT)

[UN/EDIFACT](#)

Supply Chain Management

[Supply Chain Reference Data Model \(SCRDM\)](#)

[Cross Industry Invoice](#)

[Cross Industry Delivery](#)

[Cross Industry Catalogue](#)

[Material Safety Data Sheet Data](#)

[Cross Industry Quotation](#)

[Cross Industry Remittance Advice](#)

[Cross Industry Scheduling](#)

[Contract Financial Execution Management](#)

[Cross Industry Ordering Process](#)

[Market Research Information](#)

Transport and Logistics

[Multi-model Transport \(MMT\)](#)

[Transport & Logistics - eCMR](#)

[Verified Gross Mass \(VERMAS\)](#)

[International Forwarding and Transfer](#)

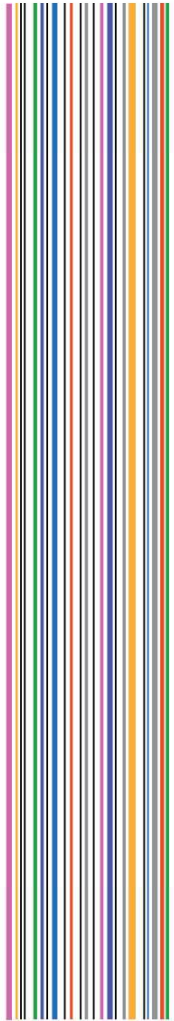
Transport and Logistics

Multi-model Transport (MMT)

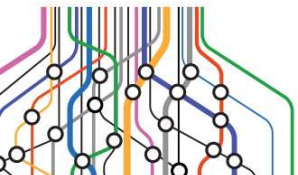
Multi-Model Transport and Logistics (MMT) Reference Data Model

- White Paper on RDM [English](#) [French](#) [Russian](#)
- RDM Guidelines [PDF](#)
- BRS [PDF](#)
- Executive Guide
- Structure Report / Data Elements [PDF](#)
- XSD Schema [PDF](#)
- UML Diagram [PDF](#)
- HTML index

Transport & Logistics - eCMR



UN / CEFAC



UN/CEFACT

Where to find documents

tfig.unece.org

The screenshot shows the homepage of the Trade Facilitation Implementation Guide (TFIG) website. The header features the title "TRADE FACILITATION IMPLEMENTATION GUIDE" and the UNECE logo. A navigation menu includes links for Home, About, Intro, Domains, Itineraries, Instruments, Organizations, Case Stories, and Training, along with a language dropdown set to English. The main content area has a large graphic of colorful lines and nodes, followed by a welcome message: "Welcome to the Trade Facilitation Implementation Guide. A tool for simplifying cross-border trade." A button labeled "Introduction to Trade Facilitation" is present. Below this, four categories are displayed: Domains (with a network icon), Itineraries (with a path icon), Instruments (with a gear icon), and Organizations (with a group of people icon). A "WTO TF Agreement" badge is also visible. The footer contains the text "Trade Facilitation Implementation Guide" and the UNECE logo, with a copyright notice for 2012.

TRADE
FACILITATION
IMPLEMENTATION GUIDE

UNECE
United Nations Economic Commission for Europe

Home About Intro Domains Itineraries Instruments Organizations Case Stories Training English

Welcome to the **Trade Facilitation Implementation** Guide
A tool for simplifying cross-border trade

WTO TF Agreement

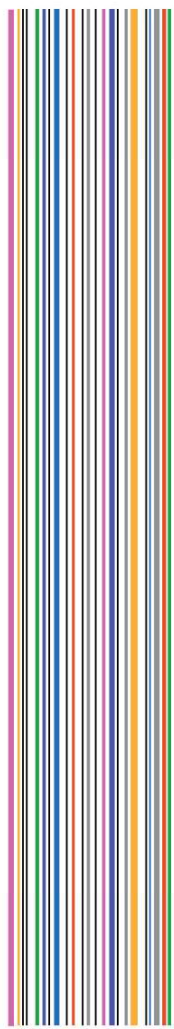
Introduction to Trade Facilitation

Domains Itineraries Instruments Organizations

Trade Facilitation Implementation Guide

UNECE
United Nations Economic Commission for Europe

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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, Head of UN/CEFACT Support Unit:
 - Lance THOMPSON, UNECE
 - lance.thompson@un.org

Rhamat

Дякую

Ďakujem



UNECE

Merci

Рақмет сізге

Hvala

Obrigado

Tack

Çox sağ ol

Dziękuję Ci

Dankon

Ευχαριστώ

მადლობა

Gracias

Хвала вам

Aitäh

Diolch

Спасибо

Danke

Faleminderit

Thank you

Paldies

Grazzi

Mulțumesc

Ačiū

Благодаря ти

Grazie

Շնորհակալություն

Takk skal du ha

Ви благодарам

Köszönöm

Дзякуй

Děkuji

Tak skal du have

Gràcies

תודה

UN / CEFAC

Раҳмат сара

Go raibh maith agat

Kiitos

Lance THOMPSON

Head, UN/CEFACT Support Unit

lance.thompson@un.org

UNECE – UN/CEFACT

Geneva, 2 August 2019

teşekkür ederim Dank je

Þakka þér fyrir

