



**UNECE**

United Nations Economic Commission for Europe

**62<sup>nd</sup> session of the UNECE Working Party on Inland Water Transport  
DIGITALIZATION IN INLAND WATER TRANSPORT  
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# **UNCEFACT work on Streamlining document procedures, Single Window and data harmonization**

**Mario Apostolov, Regional Adviser,  
UNECE Economic Cooperation and Trade Division,  
[mario.apostolov@unece.org](mailto:mario.apostolov@unece.org)**



## UNECE and CEFAC in trade facilitation

- UNECE - 57 years experience in trade facilitation
- UN Centre for TF and e-Business (UNCEFACT):
  - Standards: UNEDIFACT, UNTDED, Core Components
  - over 35 TF recommendations (UNLK, Single Window), half of them on codes (e.g. UNLOCODE)
- Trade Facilitation is about rationalizing trade information flows (goods cannot move faster than the information about them)
- UNCEFACT – focus on semantics

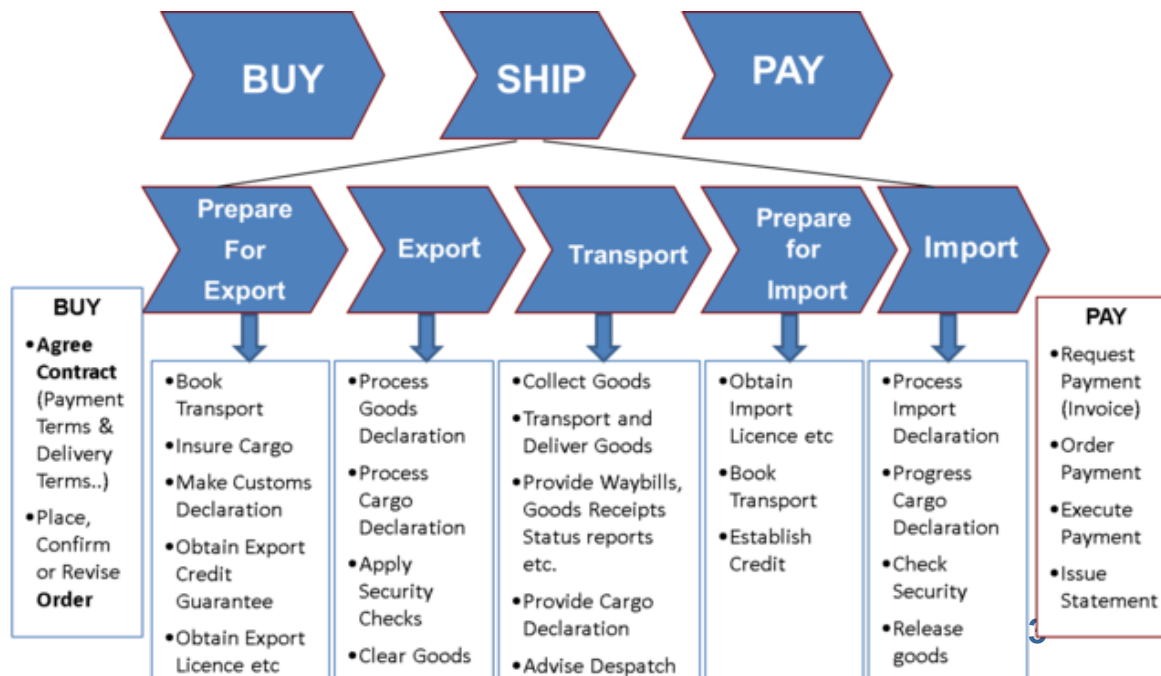


# UNCEFACT: Trade Facilitation in the Supply Chain

*An international Supply Chain is the end-to-end Business Process that delivers goods from the seller to the buyer.*

The UN/CEFACT supply chain reference model:

## The Buy-Ship-Pay Model



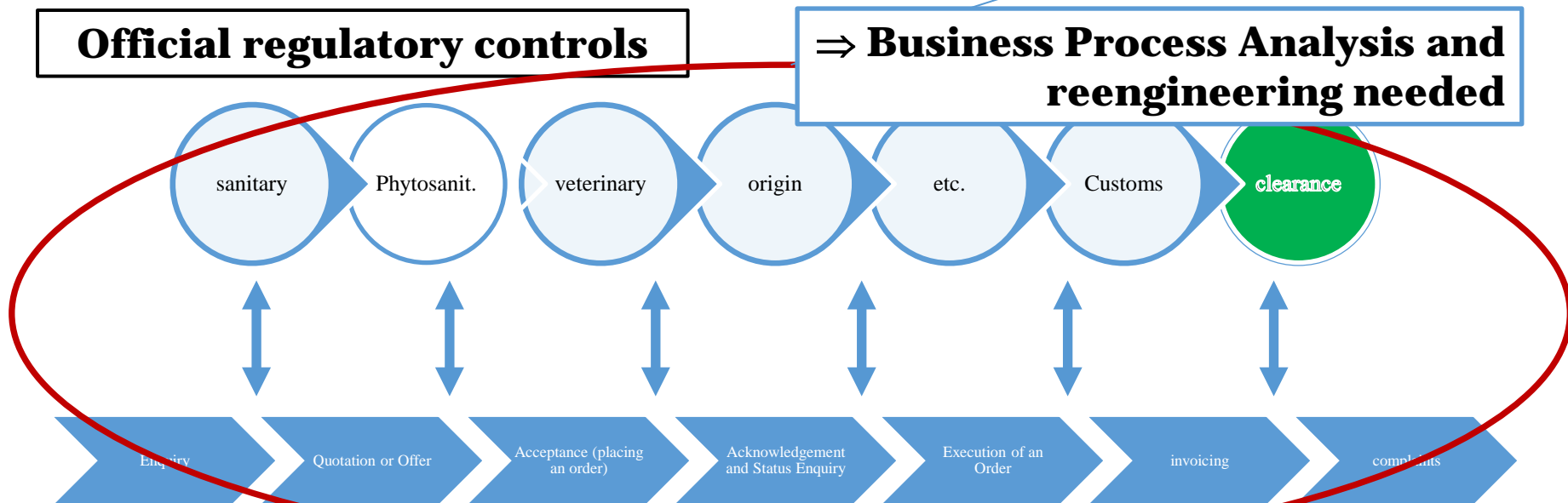


# Trade Transaction

This involves «business process»

Official regulatory controls

⇒ Business Process Analysis and reengineering needed



**Formalities and documentation requirements should be: (1) kept to the minimum – what is really required by the need of society to regulate trade; (2) periodically reviewed with a view to decrease them and simplify them, so that they allow for:**

- **rapid clearance and release of goods (esp. perishables);**
- **time and cost of compliance to be constantly reduced;**
- **abolishing when no longer required by society.**

**And interests of society (safety and security) should be attended to.**



# **UNCEFACT standards foundation for data and document harmonization & SW**

- UNCEFACT Multimodal Transport reference Data Model
- UNCEFACT Unified Business Process Modelling Methodology – UMM
- UNCEFACT Core Components Technical Specification - CCTS v2.01 (ISO 15000-5/CCS)
- UNCEFACT Core Component Library
- UNCEFACT XML Naming and Design Rules
- UNCEFACT UN/EDIFACT Directory
- United Nations Trade Data Elements Directory (UNTDDED)
- United Nations Layout Key (UNLK) – UNECE Rec. 1

**Used in e-CMR and e-TIR**

**Project Rhein–Danube e-corridor based on EDIFACT**



# Implementation of electronic Cross-Border reporting in Europe

Joint document of COMPRIS WP6 and ERI

Inland Waterway Transport  
Electronic Reporting International — European River Information Services

Version 0.7.2\_2009UN

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## Foreword

The purpose of this document is to give an overview of the possibilities of Electronic Reporting in Inland River Transport and the advantages and benefits to be gained by the introduction thereof.

The document is intended to be used as a reference by administrations, governmental agencies and commercial parties involved in inland river transport and engaged in simplifying, harmonizing and rationalizing procedures and processes.

The document gives an overview of the experience gained and the available solutions and contains an inventory of the available standards, rules and regulations. It reflects the present situation in the transport over inland waterways regarding information flows, the official rules and regulations in the various countries the resulting documentary requirements and electronic reporting possibilities.

The document also provides the instruments and vision for the enhancement of procedures in inland waterway transport and in what way the introduction of River Information Services will contribute to better control possibilities by the various authorities and faster availability of the necessary information to manage traffic and transport.

Electronic Reporting International has set standards for a common approach towards these services and the instruments mentioned will facilitate introduction and harmonised usage of River Information Services throughout Europe.

Inland Waterway Transport  
Electronic Reporting International — European River Information Services

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# **UN Layout Key for Trade and Transport Documents: UNLK – UNECE Rec. 1**

- First published 1973
- Flexible aligned data presentation which has become *de facto* standard for most international trade and transport documents
- Application methodology for defining national, regional and industry specific document layouts
- Foundation for international transport conventions e.g. Maritime B/L (ICS), Airwaybill (IATA), Road CMR (IRU), Rail CIM (UIC), etc.
- Foundation of Customs and other Regulatory Procedures e.g. SAD, Phyto-Sanitary Certificates, Cert of Origins etc.
- Thousands of document formats based on UNLK across trade, transport, finance, customs, insurance, inspection etc.
- Latest revision of Rec.1 – UNLK for electronic documents



### Various trade and transport documents – to a UNLK

UNCTAD/ASYCUDAWorld		1. Декларация (номер-название, адрес, страна)		ORIGINAL No.	
Manifest		1. DECLARATION		CERTIFICATE OF ORIGIN	
Customs Reference C 1 01/02/2008		IM 4		Issued in the Russian Federation	
7 Reference number 2008 #1		3 Forms 02/02		A OFFICE OF DESTINATION	
31 Packages and description of goods		32 Item 2		CUO01	
Marks and numbers - Containers No(s) - Number and kind		33 Commodity code		Inland Office	
Marks & no of packages marks2		No. 41011000		00	
		34 Chapter Code		35 Gross mass (kg)	

**LOGA 3**

**VZOREC OBRAZCA EUL (osemlistni set)**

**EVROPSKA SKUPNOST**

**1** 2 Pošilatelj/izvoznik St.

3 Obrazi 4 Nakladnice

5 Postavke 6 Število tovorov 7 Opravilna številka

8 Prejemnik St.

9 Odgovori za plačilni promet St.

10 Prva namembna država 11 Država trg.

14 Deklarant/zastopnik St.

15 Država odpreme/izvoza 16 Država porekla

17 Namembna država

18 Registracija in država prevoznega sredstva ob odhodu 19 Zab. 20 Dobavni pogoji

**A URAD ODPREME/IZVOZA**

ASEAN COMMON EFFECTIVE PREFERENTIAL TARIFF/ASEAN INDUSTRIAL COOPERATION SCHEME CERTIFICATE OF ORIGIN (Combined Declaration and Certificate) FORM D THAILAND (Country)

ASEAN No. 408905

S CO.,LTD. ADBUALUANG RD., 0, THA LAND.

C. TREET, TONDO, NES.

4. For Official Use

Preferential Treatment Given Under ASEAN Common Effective Preferential Tariff Scheme

Preferential Treatment Given Under ASEAN Industrial Cooperation Scheme

Preferential Treatment Not Given (Please state reason/s)

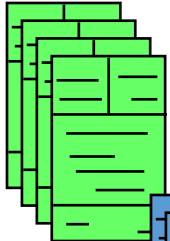
Signature of Authorised Signatory of the Importing Country

5. Item number	6. Marks and numbers on	7. Number and type of packages, description of goods including quantity where appropriate and HS number	8. Origin criterion	9. Gross weight or other	10. Number and date of inv
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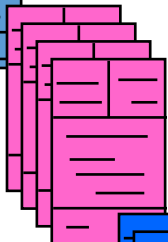
# UNLK Form Families



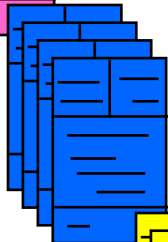
**Trade Documents – Quotation, Order, Invoice etc.**



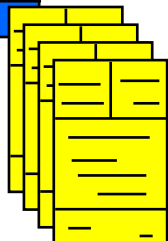
**Materials Management Documents – Despatch Advice, Pick List, Packing List etc.**



**Transport Documents – Bill of Lading, Shipping Instructions etc.**



**Customs Documents – Export, Import, Transit Declarations, Cargo Reports etc.**



**Other Regulatory Documents – Cert of Origin, DGN etc.**



# UN Layout Mapping Example

UN FORM 1992 EXPORT CARGO SHIPPING INSTRUCTIONS

Approved for DATA

To

From

Other UN transport details

Shipment details

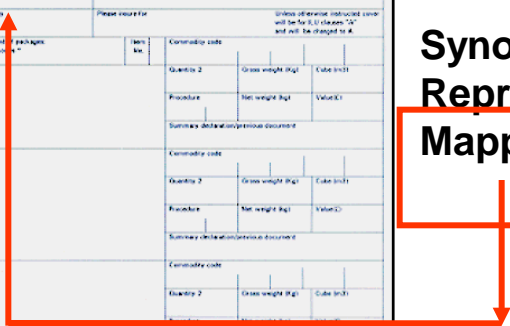
Classification of merchandise

Documentation

STATUS

ST/90/Rev. 9, 2000

UID 2280  
 Name Transport Means. Actual Departure. Date  
 Definition Time  
 Date and or time of the departure of means  
 of transport  
 Repr. Flight Date, Sailing Date  
 Mapping an..17  
 UNLK: L 17, P 16





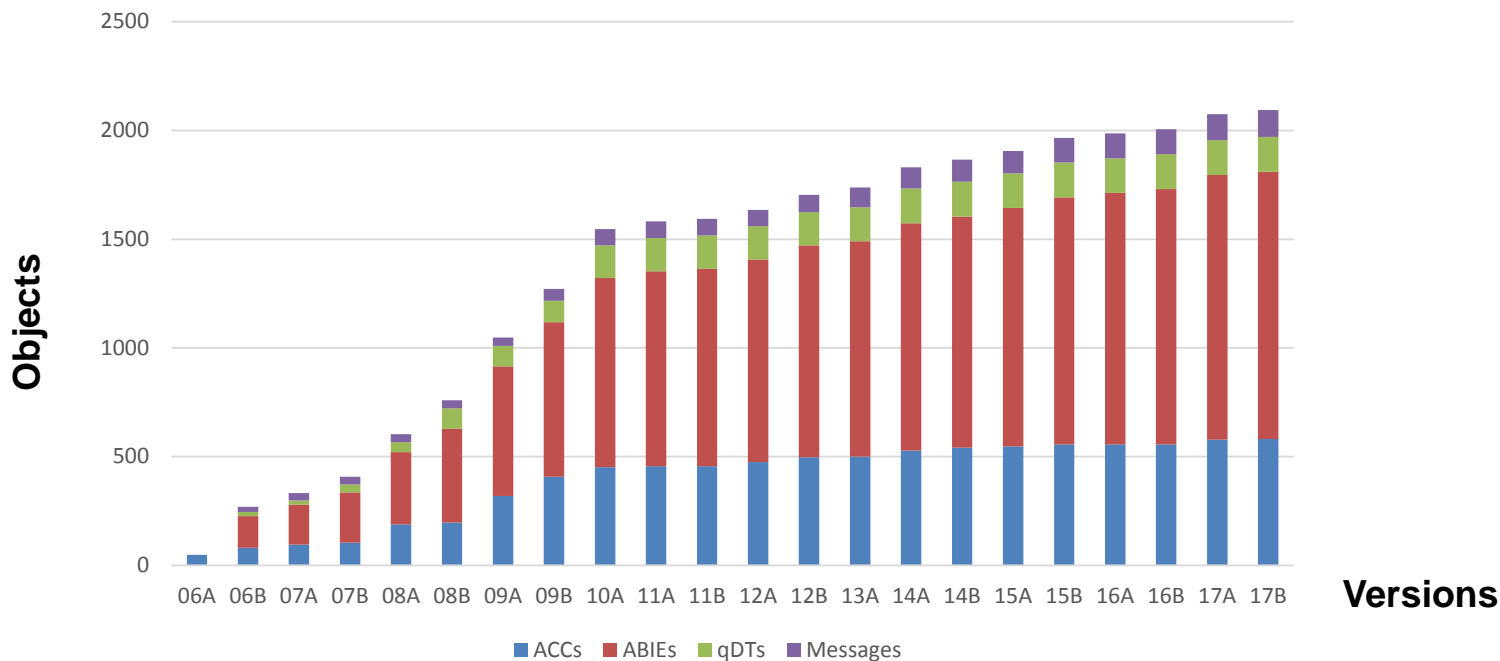
# UN Trade Data Element Directory UNTDDED – underpins all UNLK docs

B2		Document. Type Name.Text		
A	B	C	D	E
	<b>UID</b> ISO7372 TDED Name	<b>Definition</b>	<b>TDED repr.</b>	<b>Locations, Bridges</b>
1				
2	<b>1000</b> Document. Type Name.Text	<b>Free text name of a document such as 352 for Proforma invoice, 380 for Commercial invoice.</b>	an..35	UNLK: L 02, P 45-80 MAR: IMO/FAL 1-7
3	<b>1001</b> Document. Type.Code	<b>Code specifying the name of a document such as 352 for Proforma invoice, 380 for Commercial invoice.</b>	an..3	UNLK: L 04, P 41-45 CIMP: (120): a1 SAD: (SAD 1(first to third subdivision))
4	<b>1099</b> Transport Means. Stay.Identifier	<b>Identifier of the stay of a means of transport in a port or airport</b>	an..35	
5	<b>4219</b> Transport Service. Priority.Code	<b>Code specifying the priority of a transport service.</b>	an..3	CIMP: (704):a1
6	<b>5068</b> Invoice. Line Item. Amount	<b>Total sum charged with respect to a single line item of an invoice.</b>	n..18	UNLK: L 56, P 63-80
7	<b>5070</b> Consignment. For Customs Total.Amount	<b>Total amount for customs purposes of all goods in a consignment, whether or not they are subject to the same customs procedure, and have the same tariff/statistical heading, country information and duty regime</b>	n..18	AWB: L 24, P 71-81 CIMP: (509):n..12, or the letters 'NCV'
8	<b>6094</b> Consolidation. Package.Quantity	<b>Count of the total number of packages in all of the consignments referred to as one consolidation.</b>	n..16	
9	<b>6292</b> Goods Item. Gross Weight.Measure	<b>Weight (mass) of goods including packaging but excluding the carrier's equipment.</b>	n..14	AWB: L 33-44, P 13-19 CIM: L 28-33, P 63-74 (CIM 26) CIMP: (600):n..7 CMR: L 28-42, P 63-71 (CMR 11) SAD: (SAD 35) UNLK: L 28-52, P 63-74
10				



# UN/CEFACT Core Component Library

### CCL Progress



**Key:**  
ACC - Aggregate Core Component  
ABIE - Aggregate Business Information Entities  
qDT - Qualified DataType



# **UN/CEFACT Core Component Status**

## **Latest Version D18A**

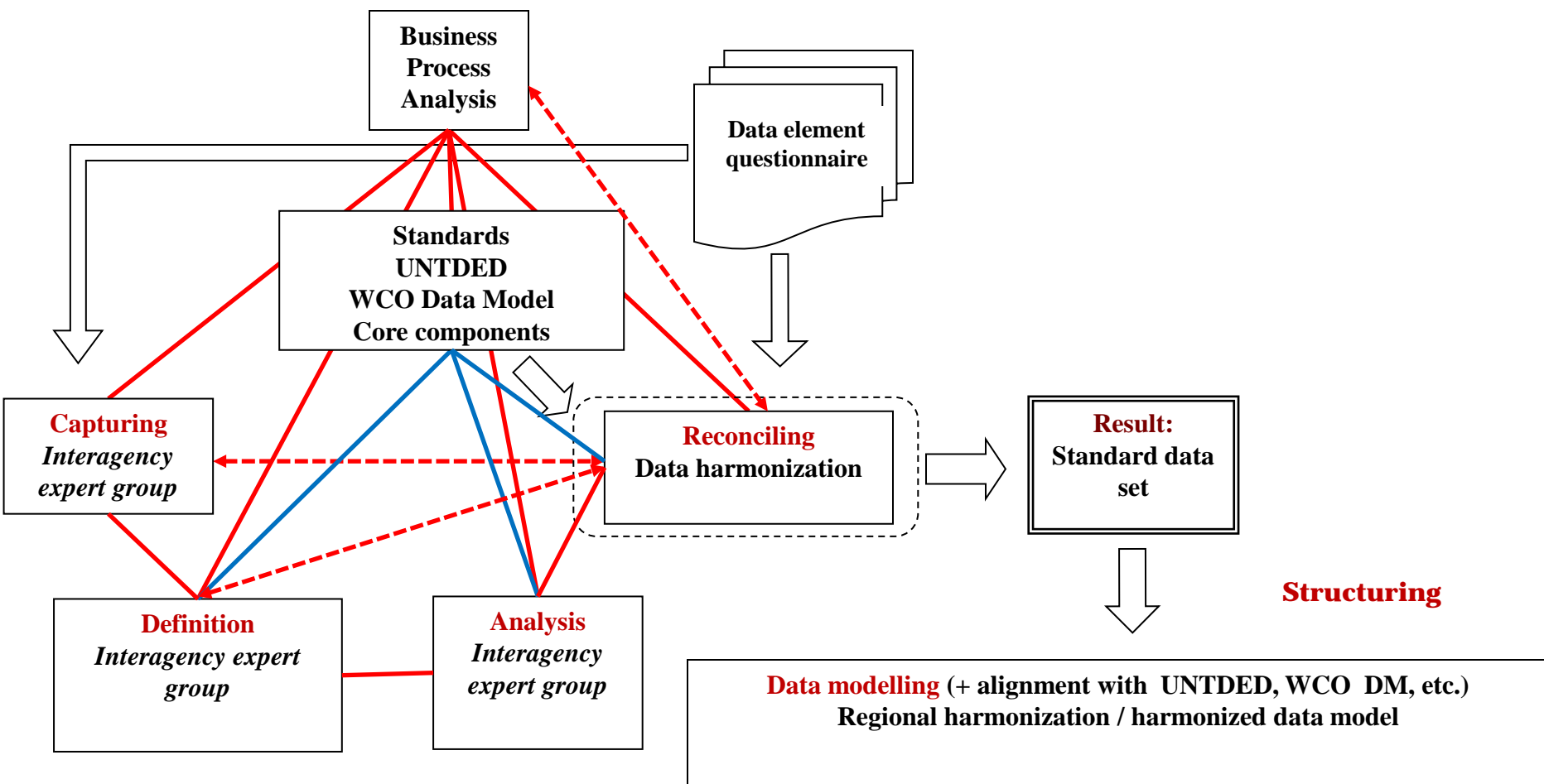
- **1228 Aggregated Business Entities (ABIEs)**
- **Only 164 ABIEs needed to cover the business processes of Supply Chain plus Transport & Logistics (Buy/Ship/Pay)**

## **Reuses of CCL subsets for Transport & Logistics and Supply Chain initiatives include:**

- **Cross Industry Supply Chain messages**
- **Agricultural eCert and Animal Passports**
- **FLUX Fisheries messages**
- **IATA CargoXML**
- **CITES ePermit**
- **EU CORE Project (WP10 – data pipeline carrier pilots)**
- **WCO Data Model cooperation**



# Data Harmonization in four stages ("manual" or automated, e.g. GEFEG)





# The Single Window

“A **Single Window** is a facility that allows parties involved in trade and transport to lodge **standardized information** and **documents** with **a single entry point** to fulfill all import, export, and transit-related regulatory requirements. If information is **electronic**, then individual data elements should **only be submitted once**”.

UNECE Recommendation 33

## 5 key elements of the definition

- Single submission of individual data
- Fulfilling regulatory requirements
- Single entry point
- Standardized information and documents
- The parties involved in trade and transport



# Types of interorganizational information exchange

## Trade SW

## Transport SW

eCustoms



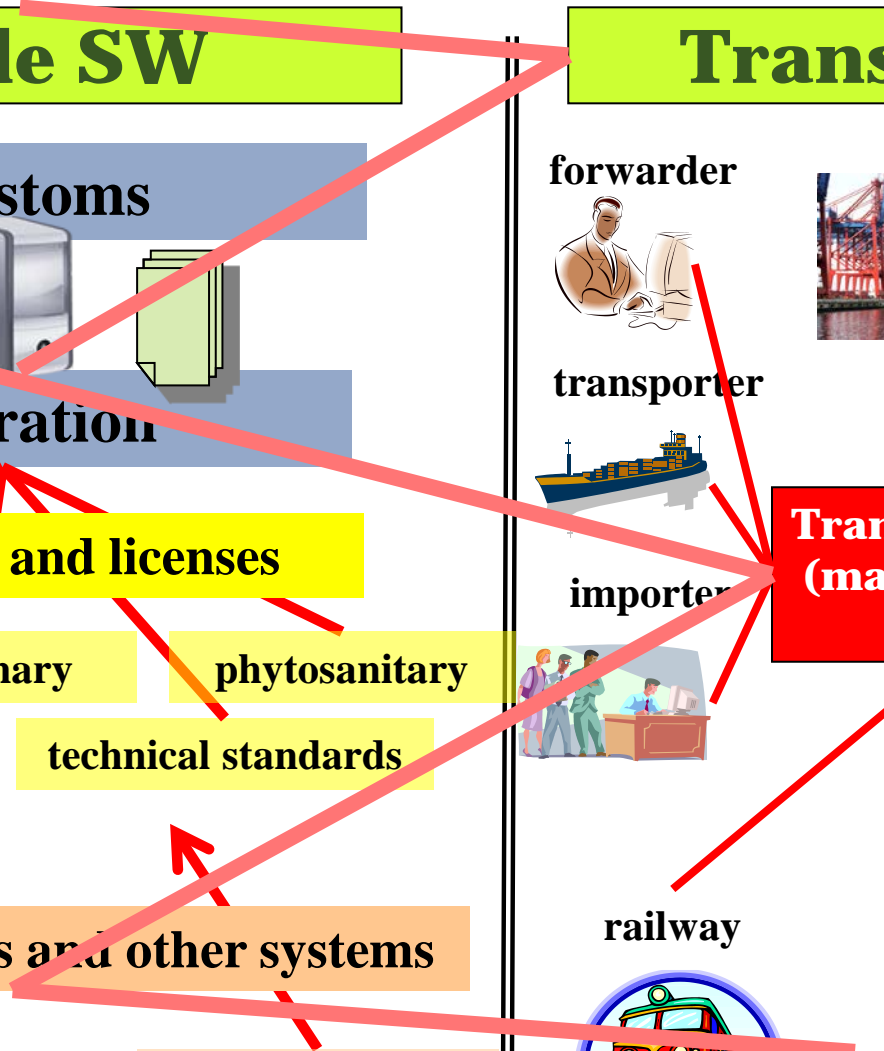
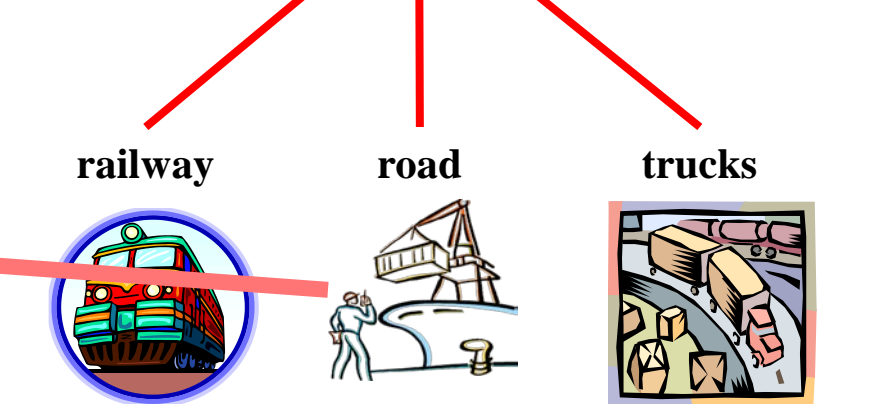
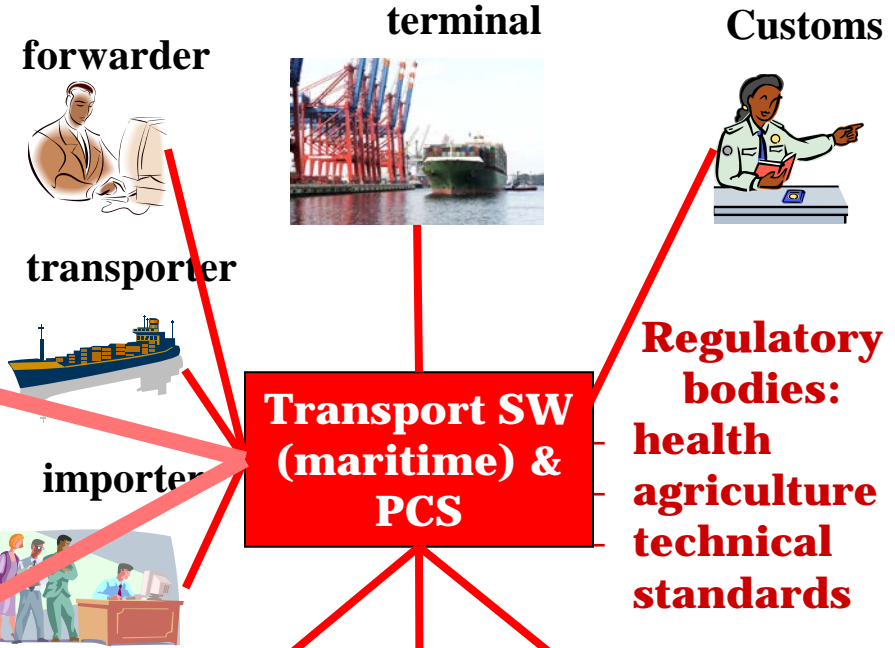
declaration

Certificates and licenses

- health
- origin
- veterinary
- technical standards
- phytosanitary

Info from business and other systems

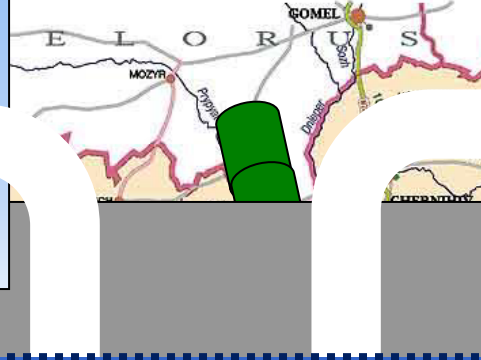
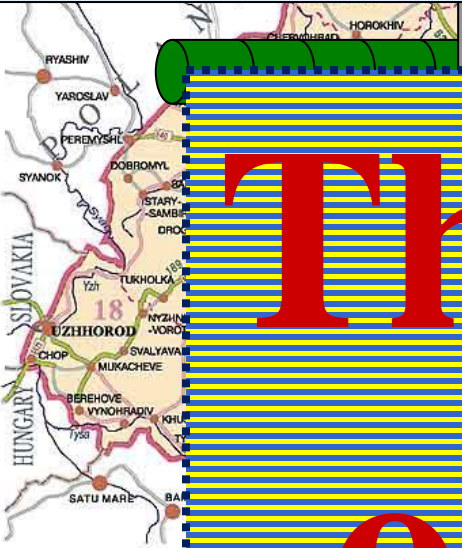
- forwarder
- consignor
- transporters
- Port community systems





**Interagency TF WG;  
National TF Committee**  
addressing policy and legal  
issues

**National TF  
Strategy**



# The example of Ukraine



**Consignor, exporter,  
consignee, freight  
forwarder**

**Port Community  
System**

**Cargo**

**w**

**ndow**

# Single Window building algorithm in 5 stages (data exchange) – embed SW interoperability

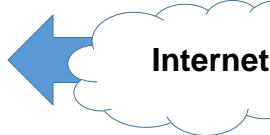
Stage 1: Paperless Customs + electronic payment of Customs duties + electronic container packing list + risk management

Stage 2: Connection to the IT systems of other regulatory agencies (link of paperless Customs to other documents – electronic certificates and licenses)

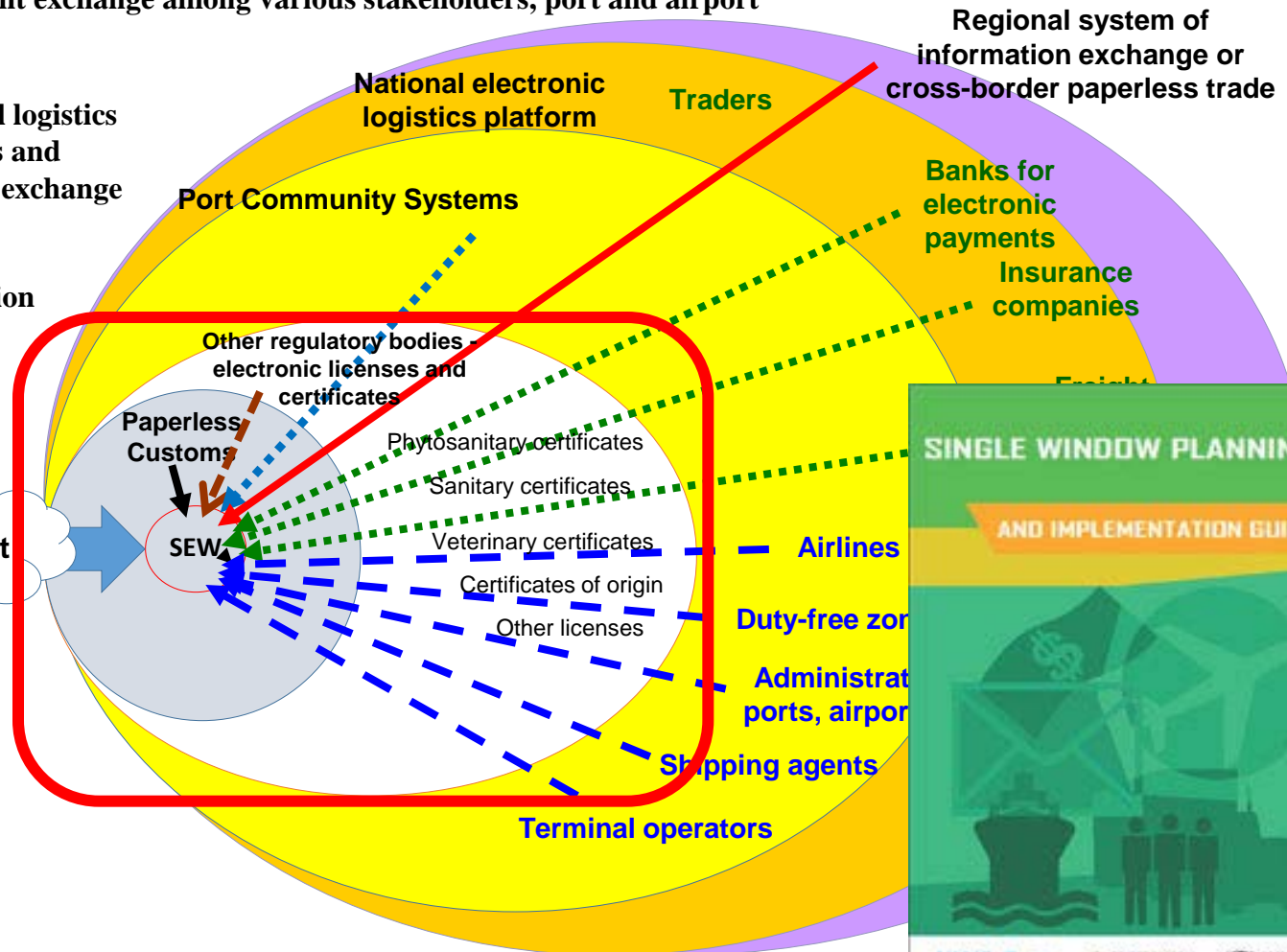
Stage 3: Electronic document exchange among various stakeholders, port and airport community systems

Stage 4: Integrated national logistics platform, in which traders and logistics service providers exchange information

Stage 5: Regional information exchange



Importer/exporter/ Customs broker/ Representative/ other interested partners



Note: in many countries level 3 was developed before level 2





## 4 major pillars of interoperability (covered by Rec.36): BSEC initiative; EC SW initiative

### SW uses

- international standards for trade data and document exchange
- data harmonization
- alignment with international standards

### Interoperability on different levels:

- semantics
- business processes
- message syntax (IT systems)
- legal systems

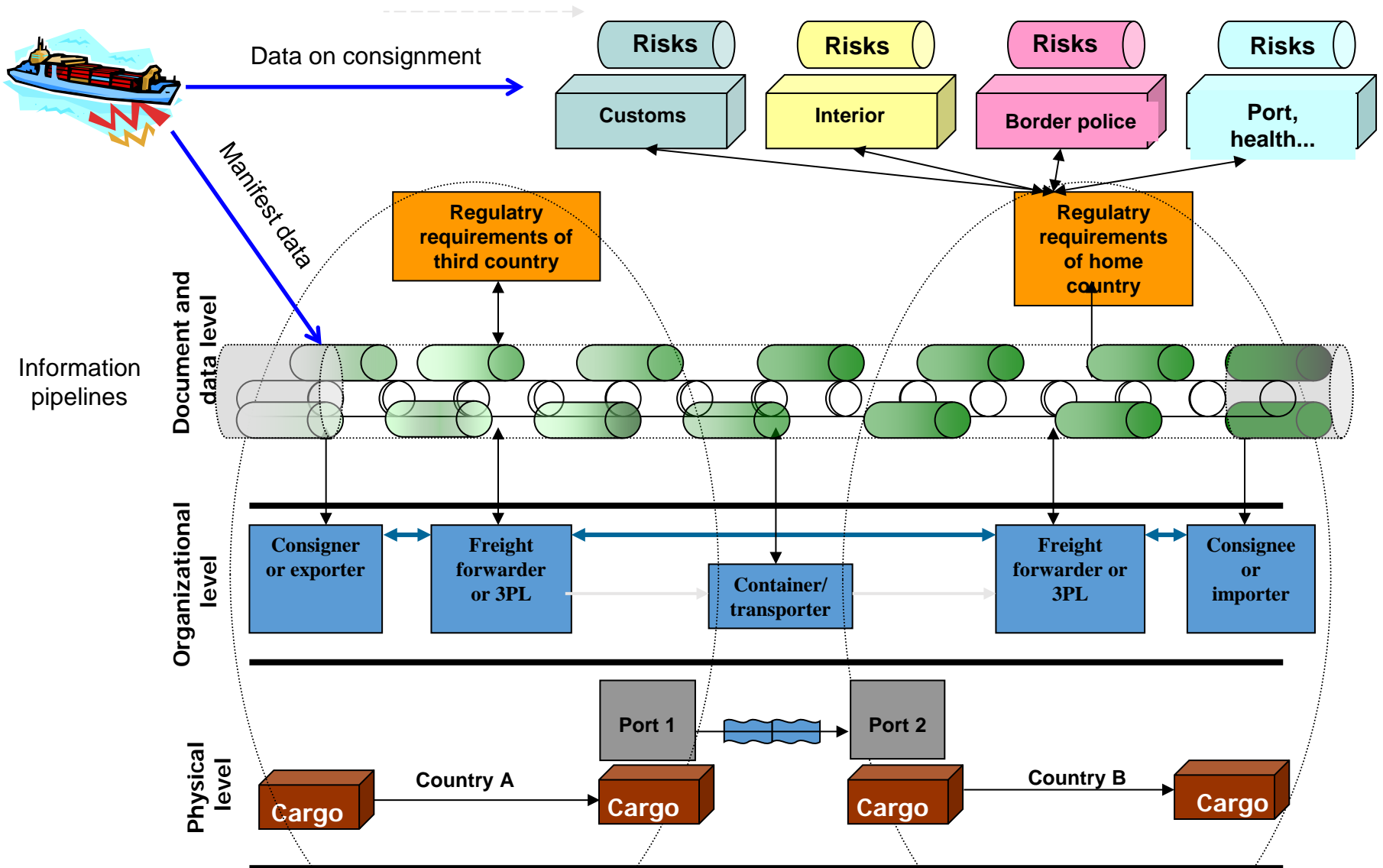
Legal basis for exchange with other SW systems to be created in each SW

A governance structure to be established for SW interoperability

## Move from document based to process based approach

# Information Pipeline

Future Customs and International Trading Systems (David Hasket et al.)





**Thanks !**

**Mario Apostolov**

**Regional Adviser UNECE Trade**

**Palais des Nations, Room 431**

**CH-1211 Geneva 10, Switzerland**

**tel.: +41 22 9171134**

**fax: +41 22 9170037**

**e-mail: [mario.apostolov@unece.org](mailto:mario.apostolov@unece.org)**

**[www.unece.org/trade](http://www.unece.org/trade) & [www.unece.org/cefact](http://www.unece.org/cefact)**