



**World Customs  
Organization**

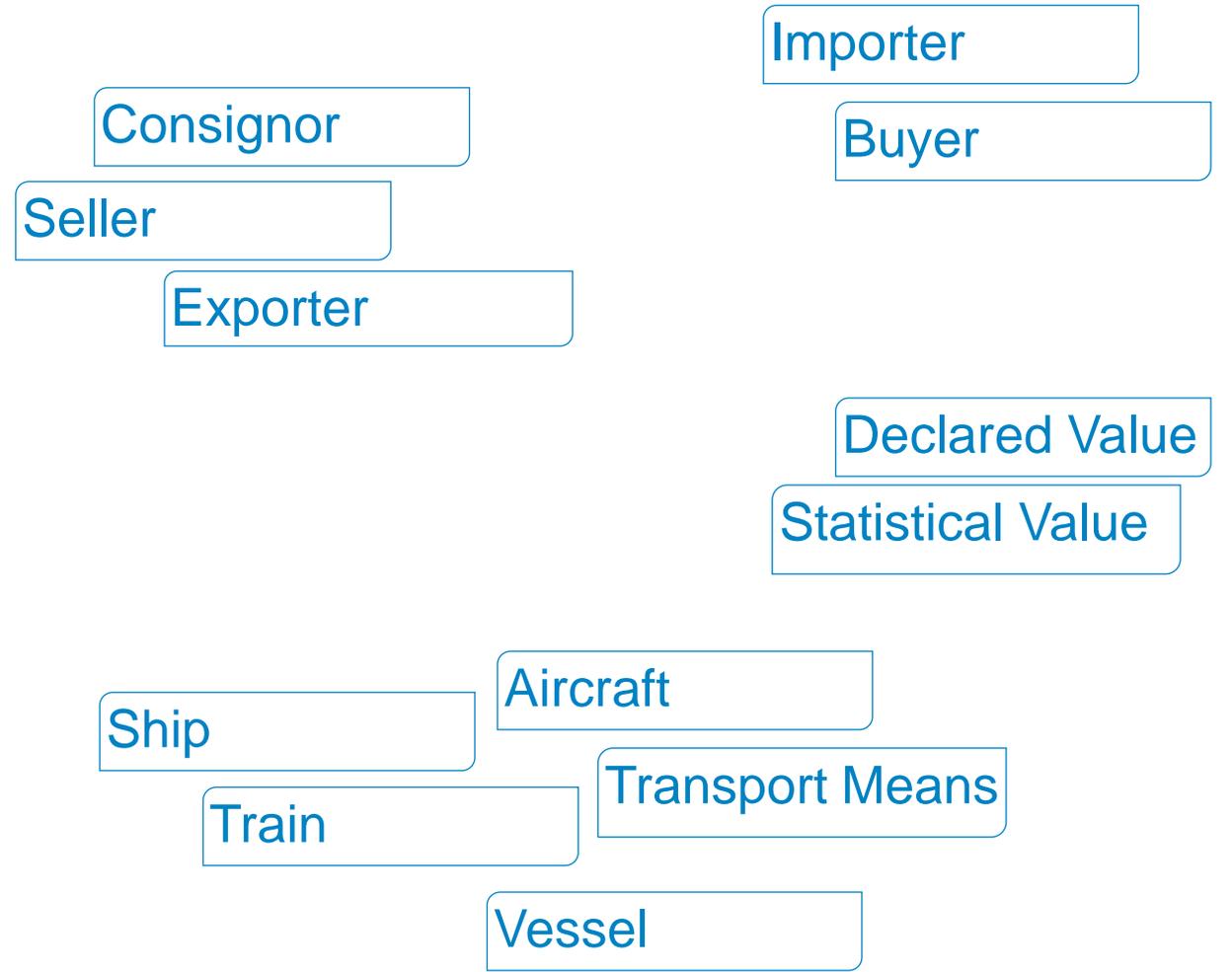
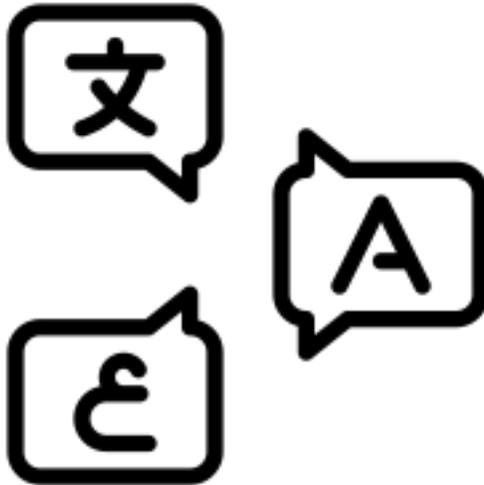
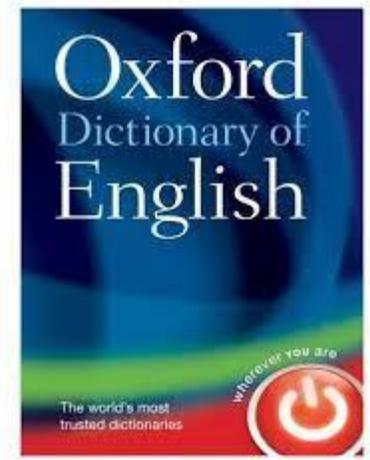
# Introduction to WCO Data Model

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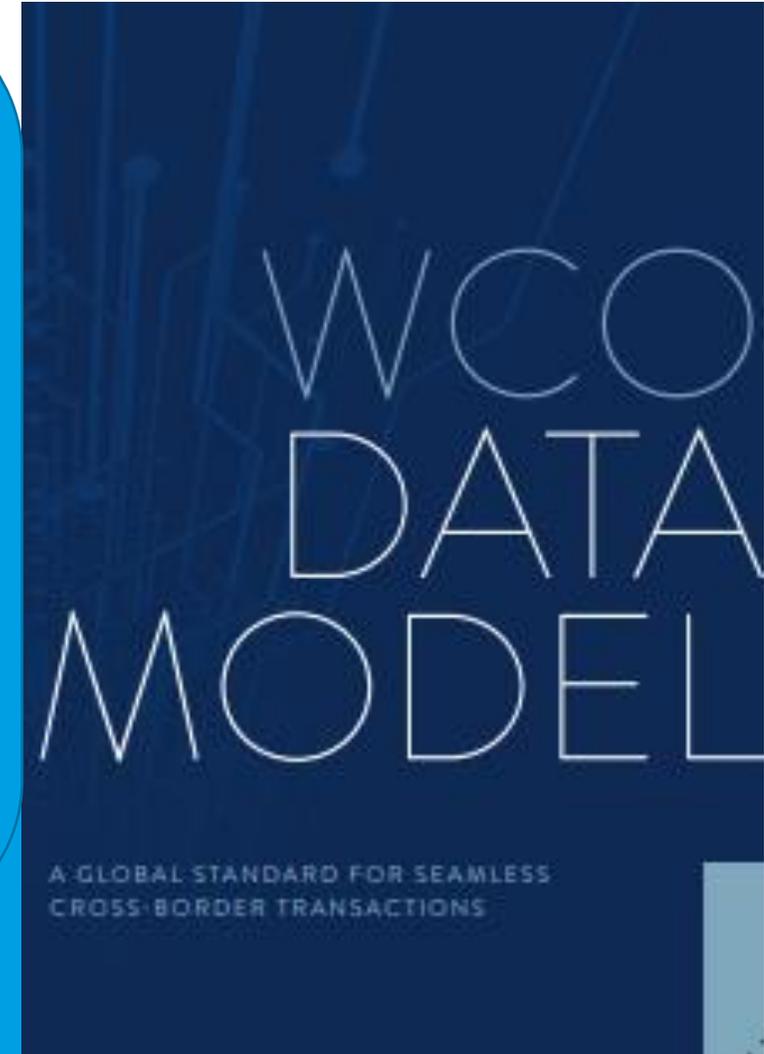
26-28 June 2023

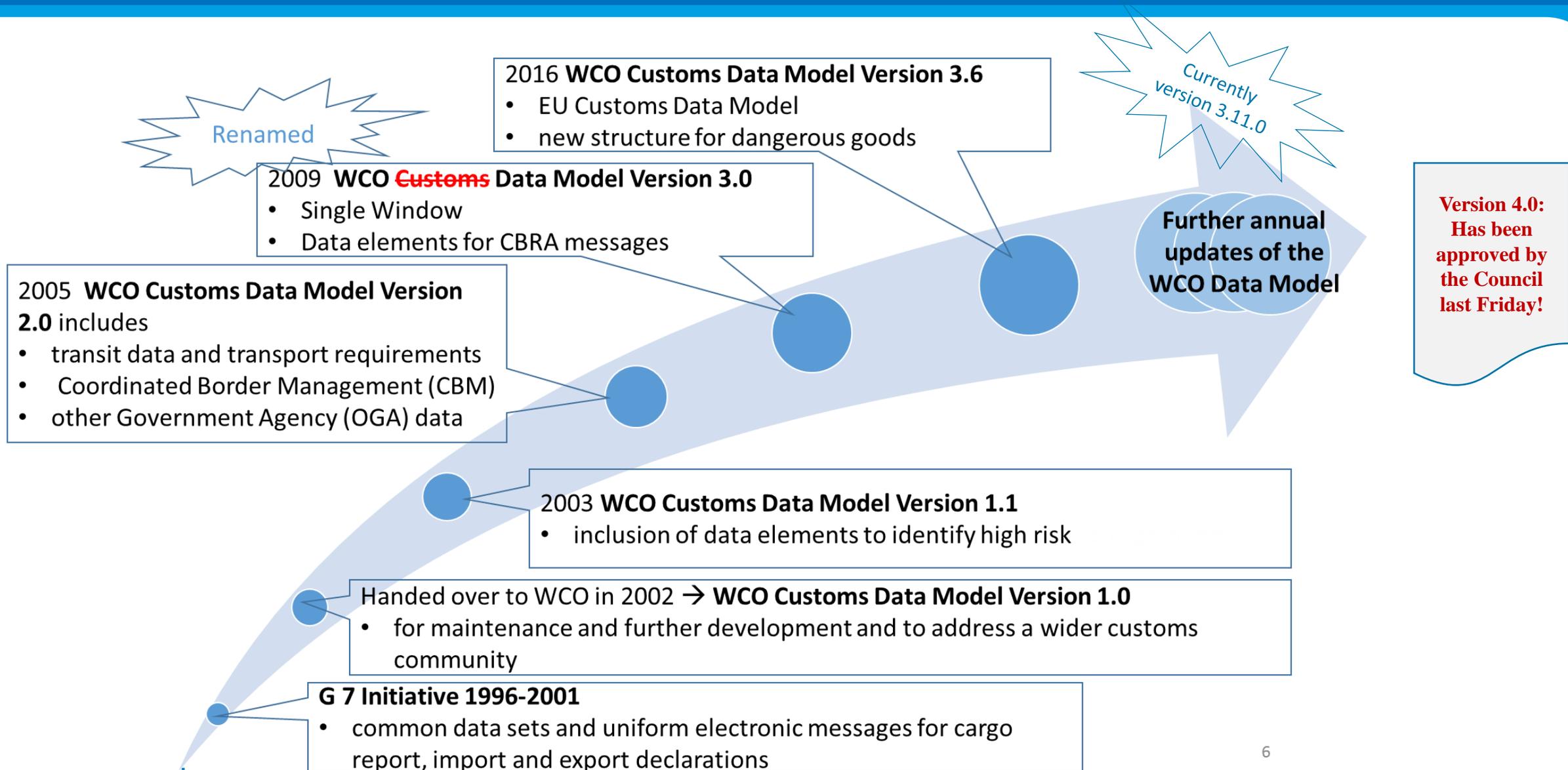
# What is the WCO Data Model?



- The WCO Data Model (DM) is the data foundation for global trade interoperability;
- The WCO DM is a universal language for cross-border data exchange enabling the implementation of Single Window systems and fuelling Data Analytics;
- It is a compilation of clearly structured, harmonized, standardized, and reusable sets of data definitions and electronic messages designed to meet the operational and legal requirements of Customs and other cross-border regulatory agencies (CBRAs) responsible for border management.

[www.wcoomd.org/DataModel](http://www.wcoomd.org/DataModel)





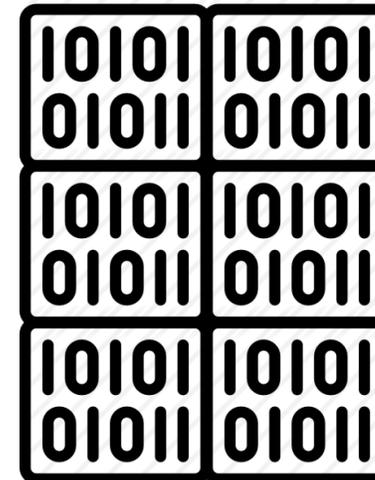
## General Annex Revised Kyoto Convention RKC 7.2:

- When introducing computer applications, the Customs shall use relevant internationally accepted standards.

### WCO Recommendation on the use of the WCO DM:

- Adopt the WCO Data Model for the **identification and definition** of all cross-border regulatory data requirements related to pre-arrival/pre-departure formalities and procedures for import, export and transit;
- Use the WCO data elements, their names and reference numbers (WCO ID's), the data element descriptions, the character representations in **describing and composing electronic messages**;
- Use the standard electronic messages described in the WCO Data Model in **Government to Government** and **Business to Government /Government to Business** electronic messages.

## Supply-chain objects



```
<?xml version="1.0"
<xs:schema xmlns="ur
xmlns:xs="http:/
xmlns:ds="urn:wc
targetNamespace=
elementFormDefau
<xs:import namespa
<xs:element name='
<xs:annotation>
<xs:documentat
<SuperClass]
<SuperClass]
```

# How do we maintain the WCO Data Model?

The WCO Data Model is managed by the DMPT;

An open forum for WCO Member Administrations, IOs, IGOs, as well as private sector;

Provides the maintenance mechanisms for work relating to the WCO DM;

Promotes the implementation of the WCO DM, in conjunction with the WCO CBD;

Meets regularly 3-4 times a year;

The DMPT is underway the development activities in the Session (offline) and in the intersession through online facility;

The DMPT reports to the PTC and supports the PTC in its efforts to assist Members in implementing the ICT .

- Establish and implement a Data Maintenance Request (DMR) process for the WCO DM;
  - *To reject\*, or to approve DMRs based on consensus + 2 Members support*
  - *(When DMRs are rejected, the DMPT will recommend the submitter to withdraw / defer the DMR)*
- The DMR should be submitted by Members 5 weeks prior to DMPT Meeting;
- Changes to the WCO DM impacted by the DMR will be published as new version;
- Submitters of the DMRs would be invited to help with the quality control of the changes;
- Establish ad-hoc focus groups to discuss and develop new uses for the WCO DM;
- Enhance the relevance and usefulness of the WCO DM through regular releases;
- Continue to promote the implementation of the WCO DM by CBRAs.

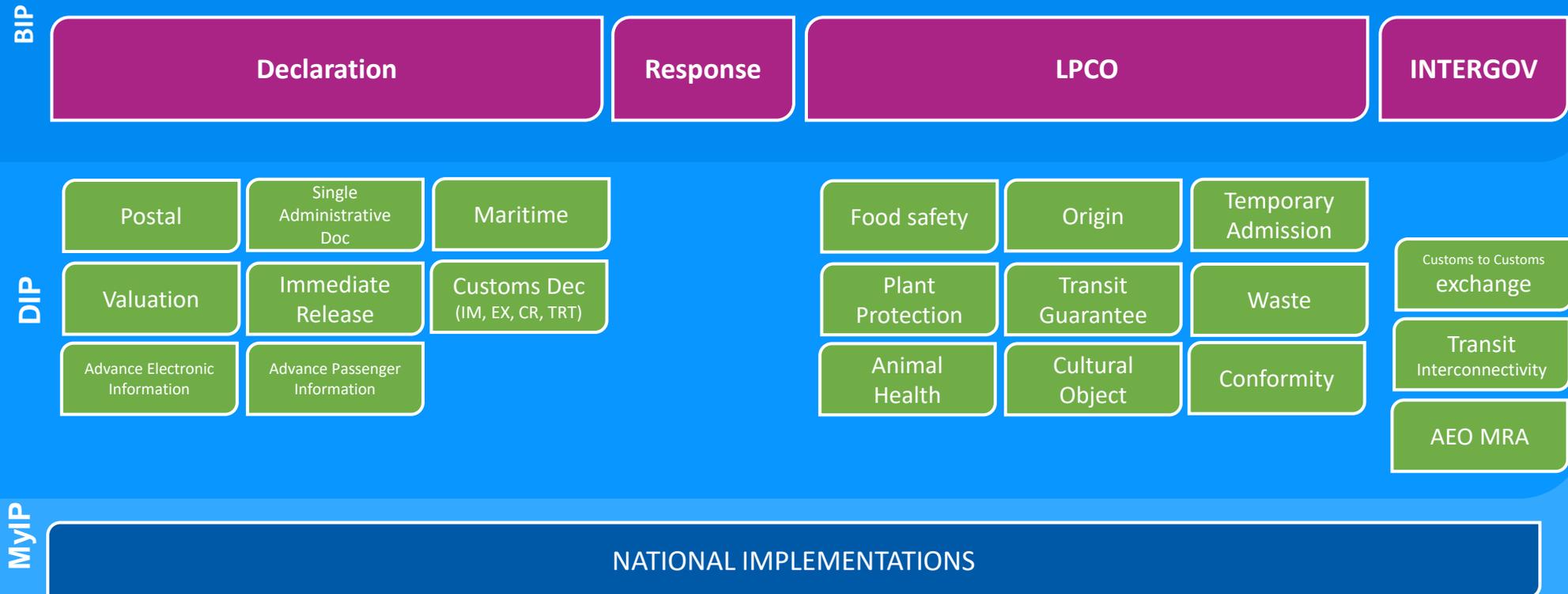
# Derived Information Package (DIP)

## Information Packages:

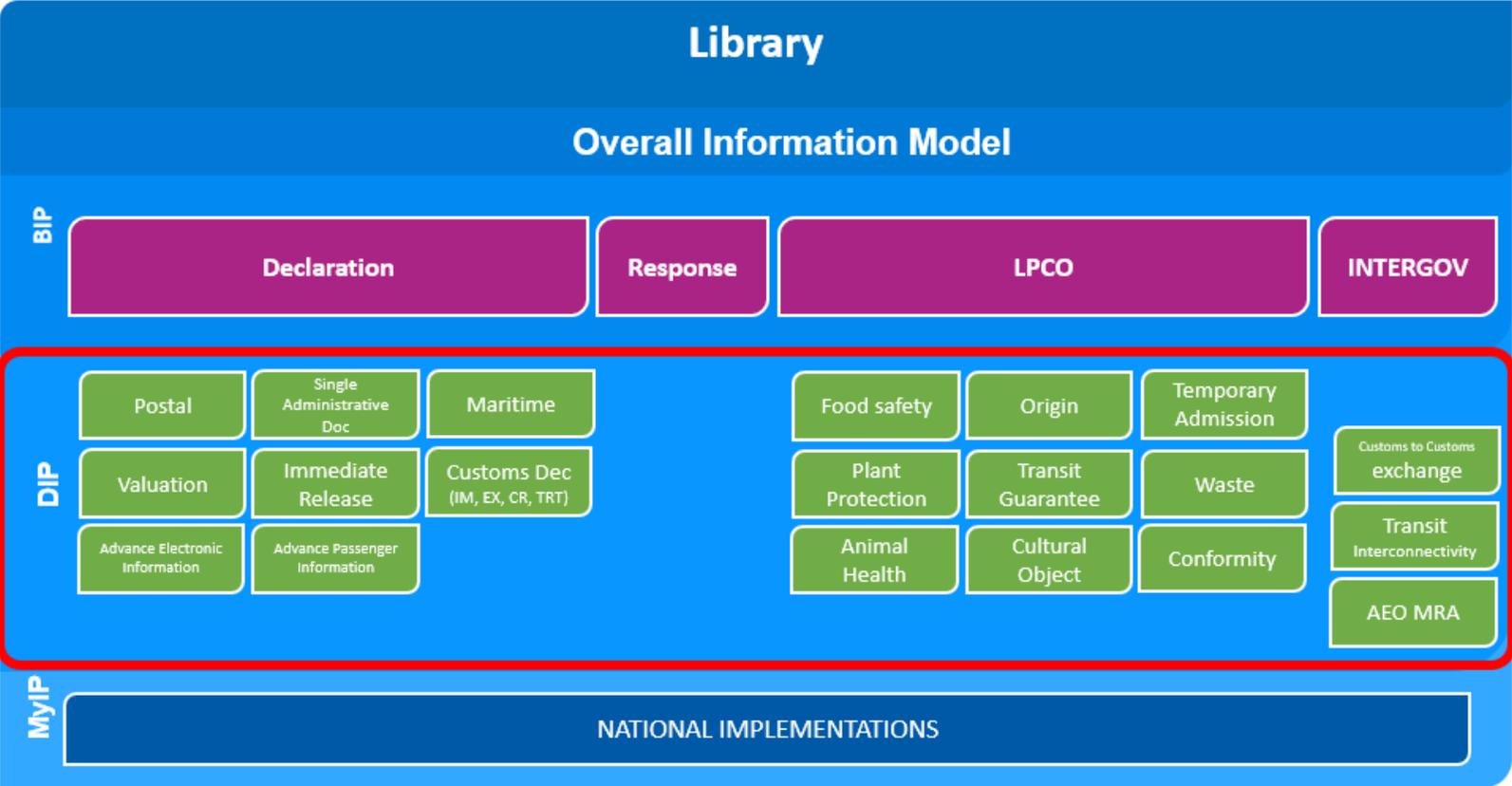
- WCO DM is a multipurpose regulatory data management framework;
- Information package is a tool to organize the subsets of the WCO DM based on their specific purposes;
- An IP may have additional details related to the procedures it is implemented;
- The basis to generate certain electronic messages / electronic messages' schemas.

## Library

### Overall Information Model



# Derived Information Package (DIP)



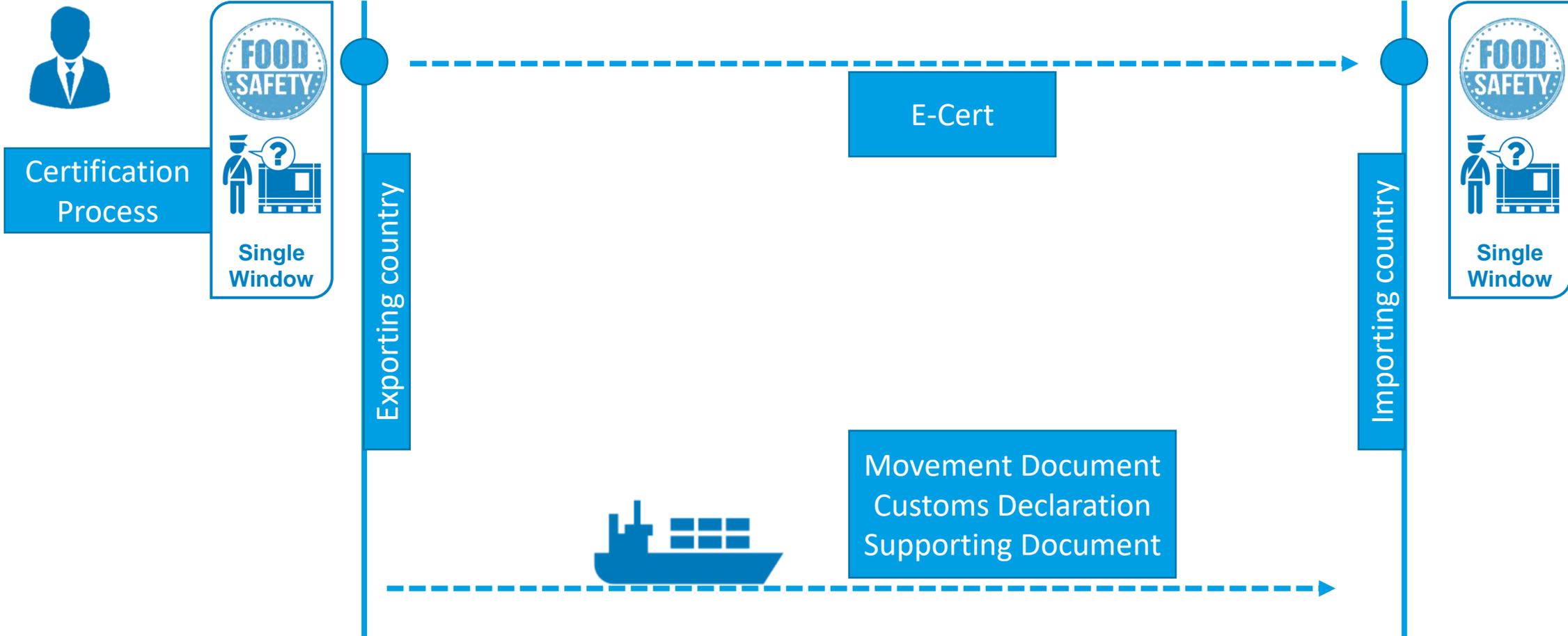
Each BIP can be reused and restricted to 'derive' several subset assemblies, the so-called DIP;

Every DIP must be based on a specific BIP and is related to a specific legal framework.

# International Organizations

## IMO - CODEX

# International Collaboration via a Cross-border Data Exchange



56th

## 56<sup>th</sup> DMPT – January 2020

CCFICS EWG presented initiative of Codex Alimentarius Commission in the area of electronic certification

61st

## 61<sup>st</sup> DMPT – September 2021

CCFICS EWG provided update on paperless use of electronic certificates in international food trade

63rd

## 63<sup>rd</sup> DMPT – May 2022

Highlighted the opportunity to initiate official cooperation with CODEX to work together on standardizing the digitalization of certificates

65th

## 65<sup>th</sup> DMPT – February 2023

Presented a draft mapping of the CODEX DIP conducted in cooperation with food-safety expert members of CODEX

66th

## 66<sup>th</sup> DMPT – May 2023

Endorsement of the draft CODEX Data Model based on the CODEX Dataset shared by CCFICS

# Mapping of the Codex DIP

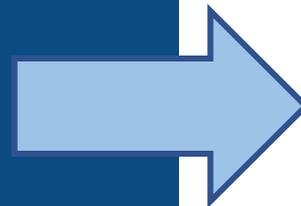
**LOGO/LITTERHEAD**  
**GENERIC MODEL OFFICIAL CERTIFICATE**

**COUNTRY:** \_\_\_\_\_ **CERTIFICATE TYPE:** \_\_\_\_\_

1. Consignor/Exporter:		2. Certificate number:	
		3. Competent authority:	
5. Consignee/Importer:		4. Certifying body:	
6. Country of origin:		ISO Code:	
7. Country of destination:		ISO Code:	
8. Place of loading:			
9. Means of transport:		10. Declared point of entry:	
11. Conditions for transport/storage:		12. Total quantity*	
13. Identification of container(s)/Seal number(s):		14. Total number of packages:	
15. Identification of food products as described below (multiple lines may be used for multiple products)			
No.	Nature of the food, commodity code (HS code) where appropriate	Species*	Intended purpose
No.	Producer/Manufacturer	Approval number of establishments*	Region or compartment of origin
No.	Name of the product	Lot Identifier*	Type of packaging
			Number of packages
			Net weight
16. Attestations:			
17. Certifying officer:		Official position:	
Name:		Signature:	
Date:			
Official Stamp:			

The Generic Model Official Certificate should be read in conjunction with the explanatory notes.

\* If required



## Mapping to the WCO DM

			BIP / Consignment / Consignment Item / Commodity	006	Sequence Number	Sequence number	
15	specified below	15. Identification of food product(s):	BIP / Consignment / Consignment Item / Commodity	006	Sequence Number	Sequence number	Number indicating the position in a sequence
15-a	TIM-Description	- Nature of the food (or description of product):	BIP / Consignment / Consignment Item / Commodity	137	Description	Description of goods	Plain language description of the nature of a goods item sufficient to identify it for cross-border regulatory purposes such as Customs, phytosanitary, statistical or transport.
15-b	TIM-IntendedUse	- Intended purpose (or Food products certified for):	BIP / Consignment / Consignment Item / Commodity	327	Intended Use	Intended Use, text	Statement describing the intended use of the commodity
15-c	TIM-Origin/OriginSubDivision/OriginLocation	- Region or compartment of origin:	BIP / Consignment / Consignment Item / Commodity / Source	286	Geographic Region	Source geographic region	To identify the source geographic region (non-political)
			BIP / Consignment / Consignment Item / Commodity / Source	396	Country Code	Source country, coded	Code of the source country
15-d	TIM-Package	- Type of packaging:	BIP / Consignment / Consignment Item / Packaging	141	Type Code	Type of packages identification, coded	Code specifying the type of package of an item
15-e	TIM-Classification (HS-codes)	- Commodity code (HS code)	BIP / Consignment / Consignment Item / Commodity / Classification	145	ID	Commodity Classification	The non-commercial categorization of a commodity by a standard-setting organization

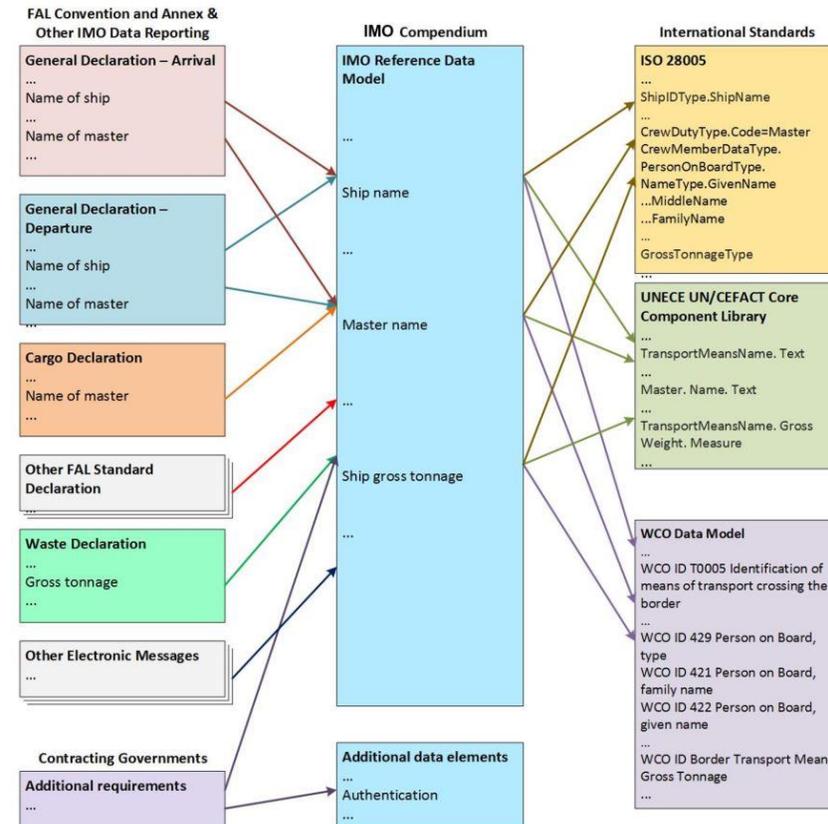
## Generic Model Official Certificate



## Compendium



The International Maritime Organization (IMO) Compendium serves as a reference which aims to facilitate and harmonize the implementation based on the three international standards (ISO 28005, UNECE UN/CEFACT Core Component Library and the WCO Data Model).



# Single Window and Data Model

## UN/CEFACT Recommendation 33:

- 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**.

### One-time submission

- Incremental submission of data;
- Harmonized regulatory declarations;
- Sharing of information amongst CBRAs;
- Harmonized CBRA response.

SW needs to be seen as an “**environment**” because it is not a monolithic structure, but an ecosystem of inter-dependent facilities and processes.

## Single Window Compendium

Guidelines on the harmonization of single window data for Single Window developers.

To support capacity-building efforts, the WCO developed a Compendium entitled "Creating a Single Window Environment", which was updated in 2017 and approved by the Council at its session in June 2017.

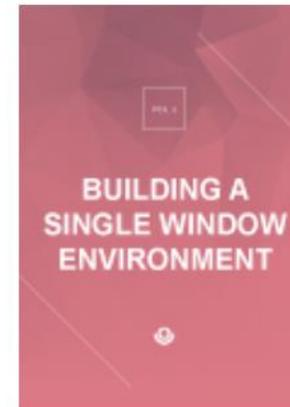
<https://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/single-window-guidelines.aspx>



Compendium V.1



V.1 - Part I

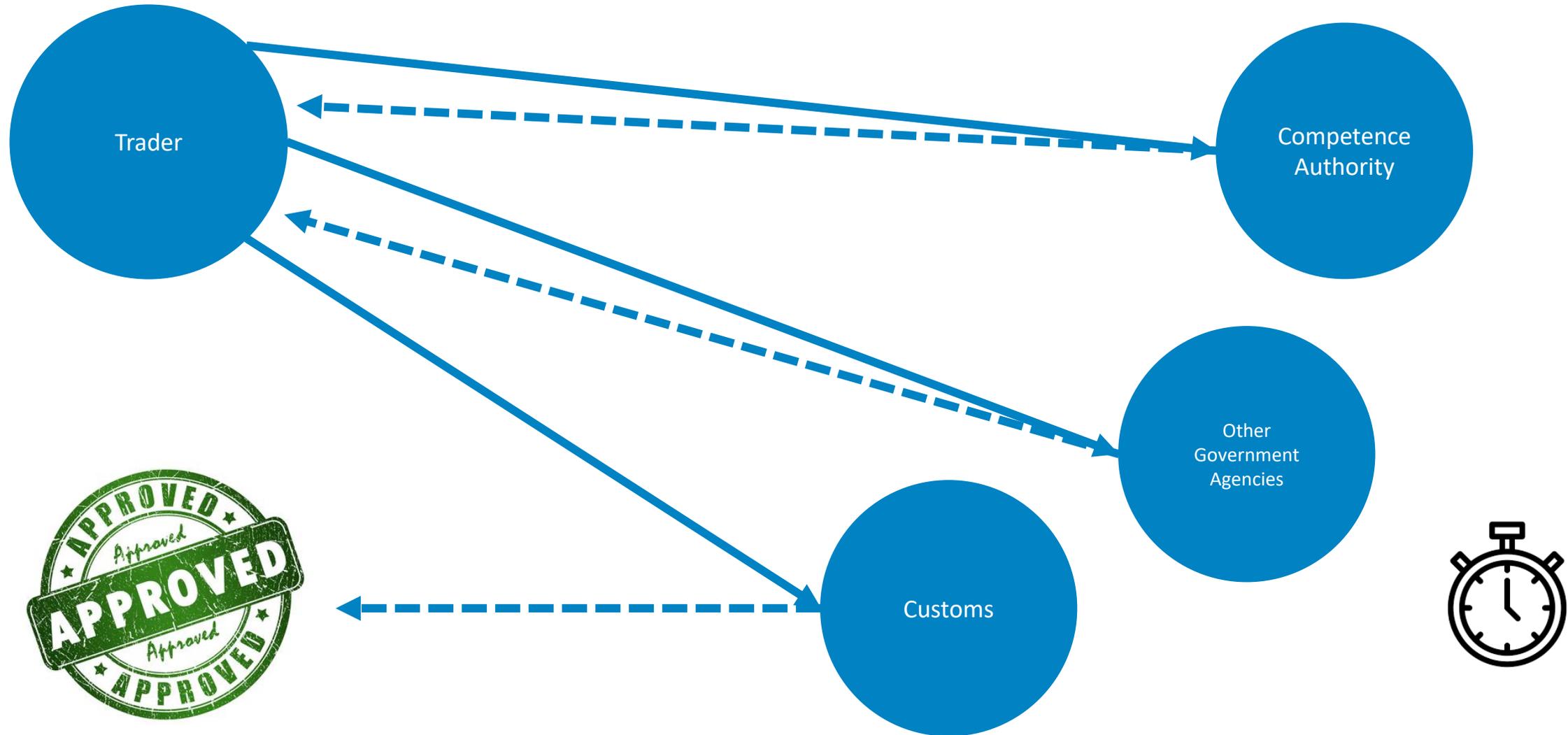


Compendium V.2

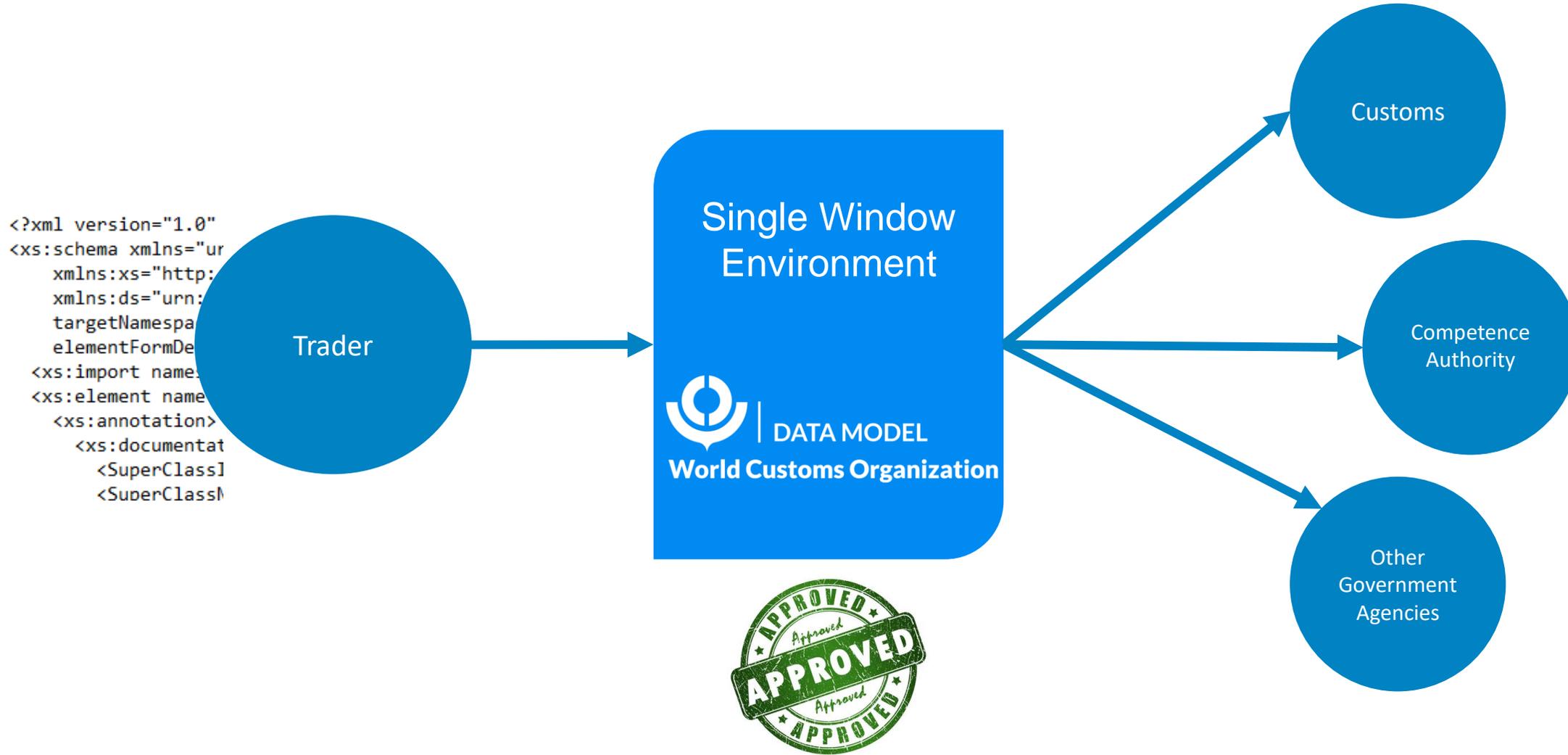


V.2 - Part I

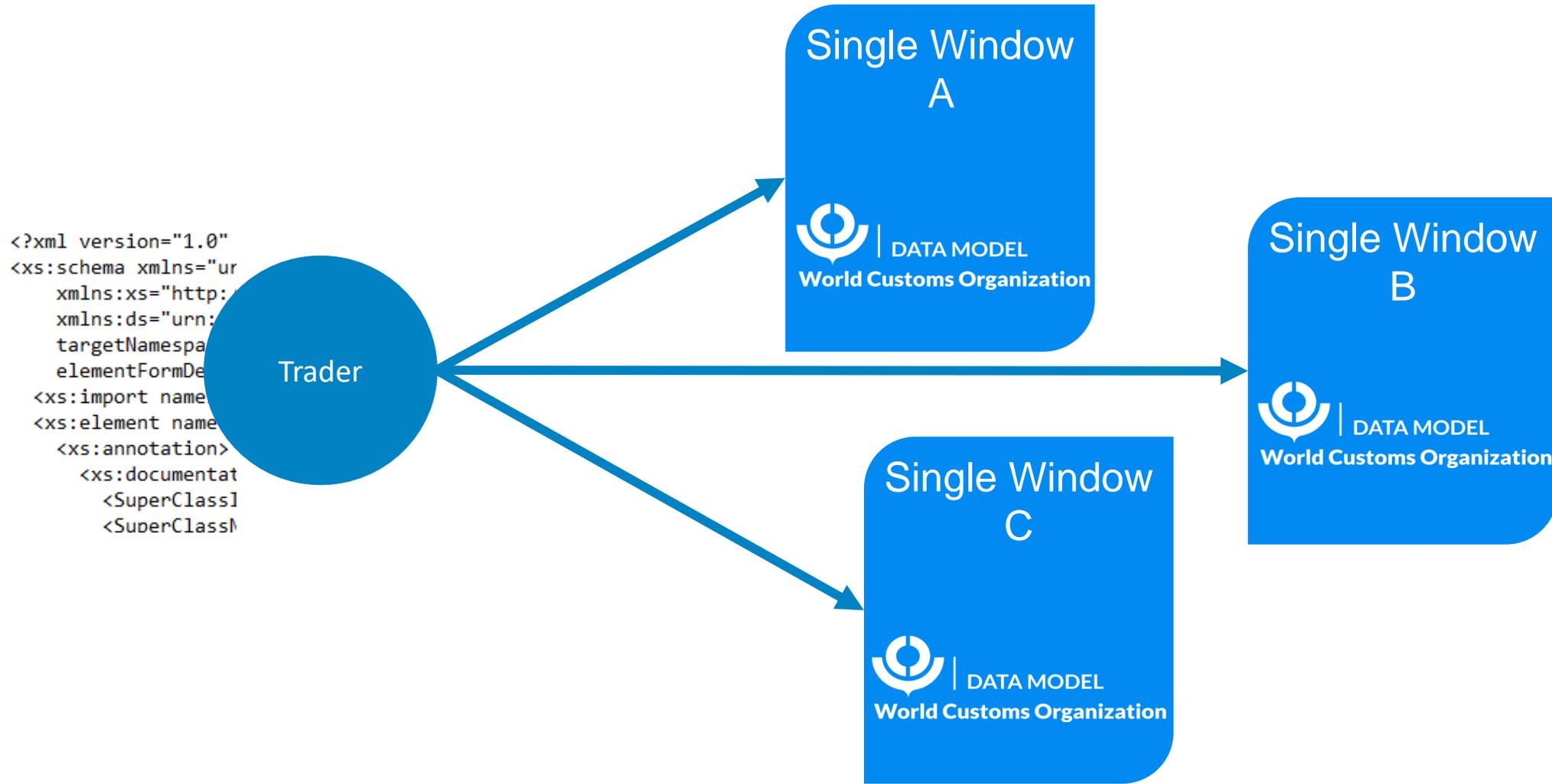
# WCO DM Enables Single Window Environment



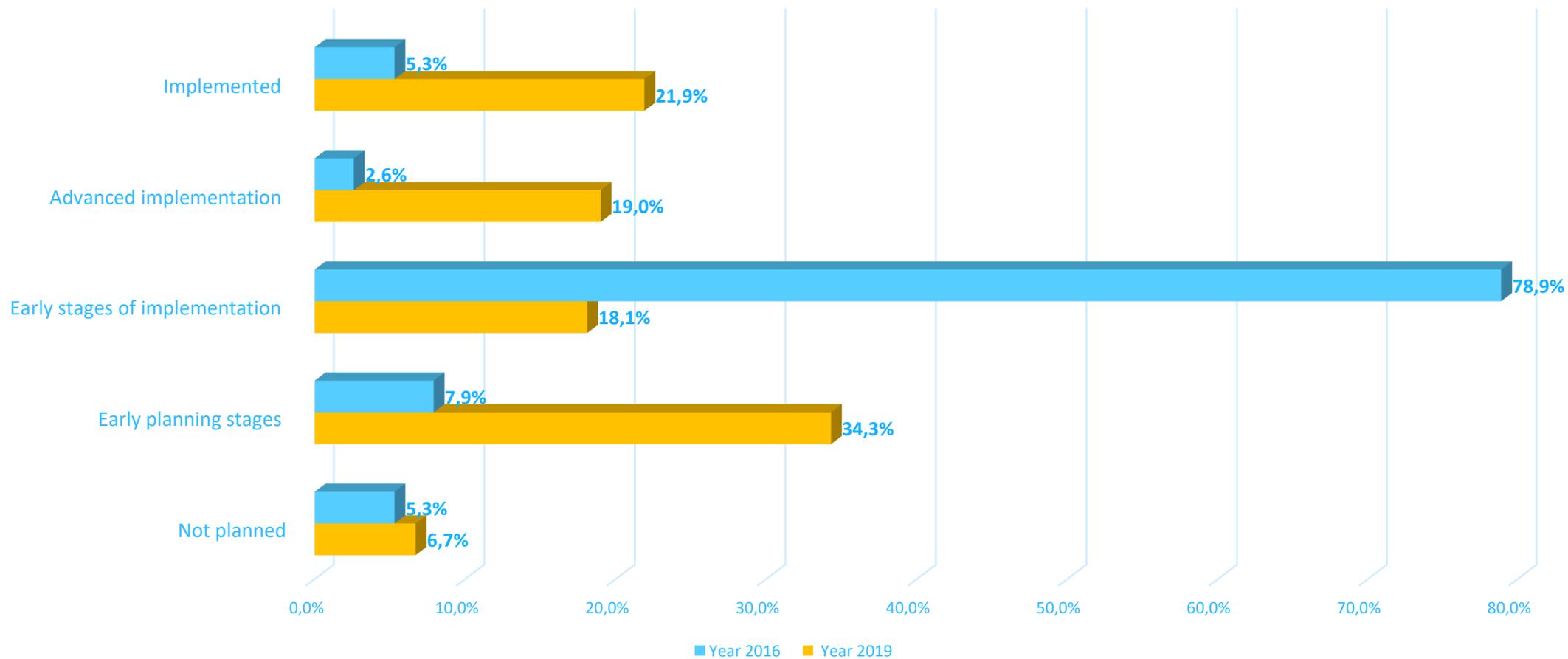
# WCO DM Enables Single Window Environment



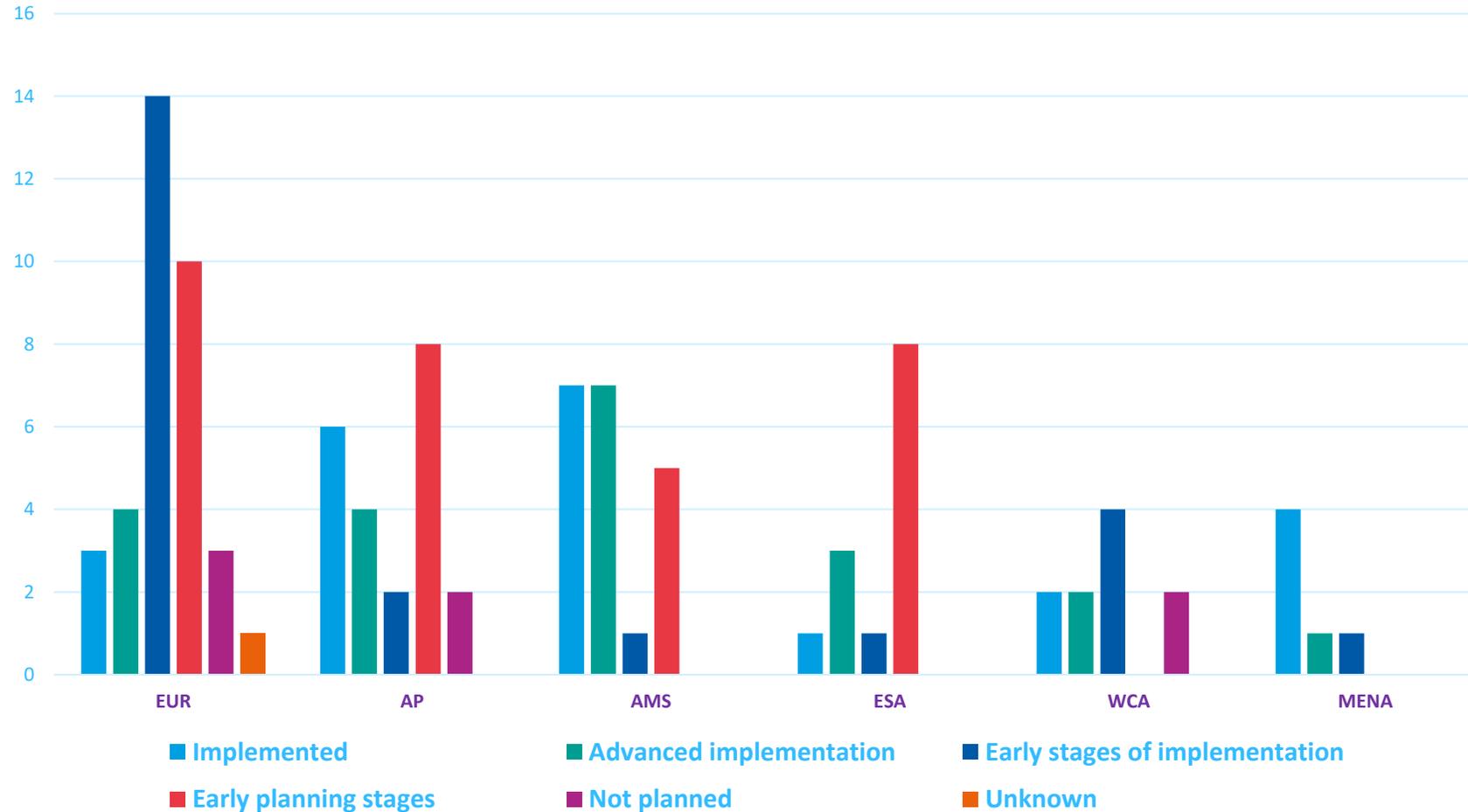
# WCO DM Enables Trade Facilitation



2016 to 2019 Single Window stages of implementation for the WCO Members



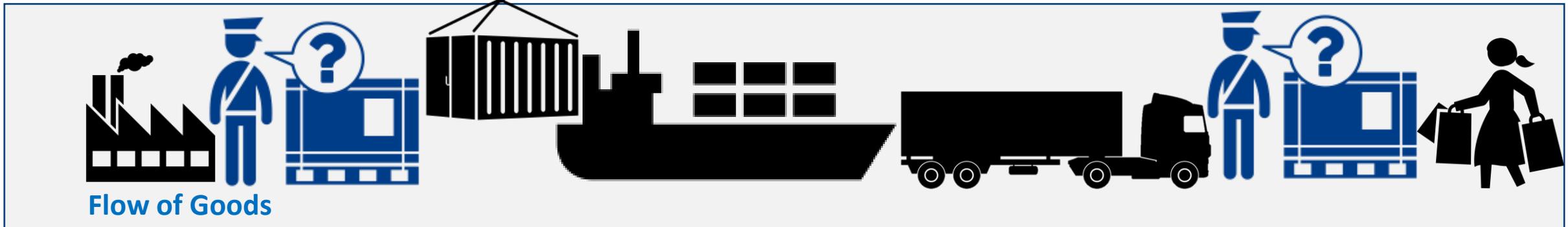
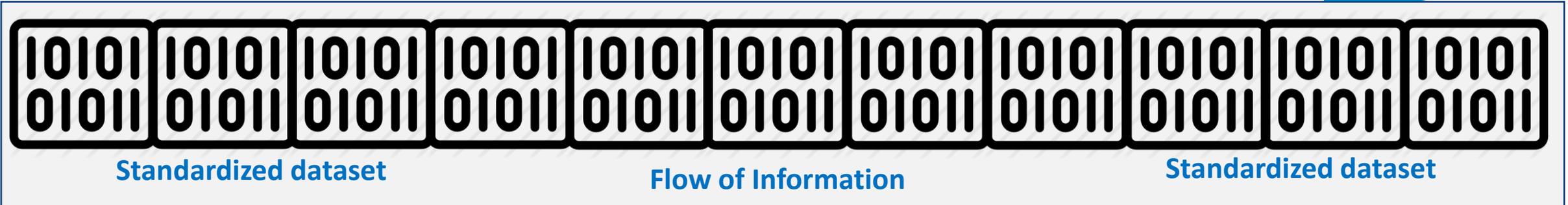
## Single Window stages of implementation per WCO region in 2019

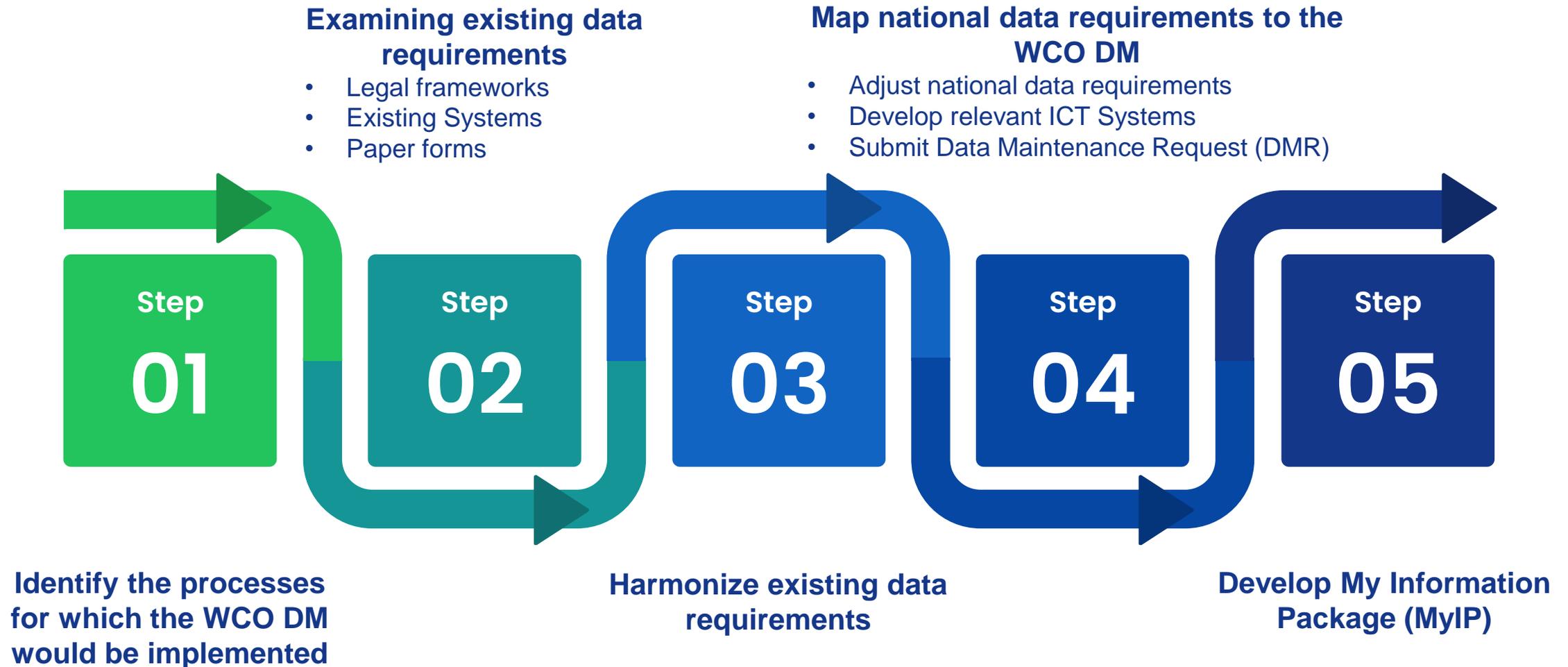


# Private Sector B2B

# The use of WCO DM by Private sectors

- The WCO DM is now available for free for all stakeholders;
- Private Sector may use the WCO DM to identify their commercial documents that are important for Customs.





# WCO Data Model: Top Benefits

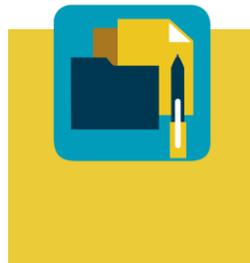


***Reduces costs to trade by simplifying data requirements***



***Improves reporting and compliance by improving the quality of data***

- Meets requirements of several international conventions;
- Aligned with widely used international standards.



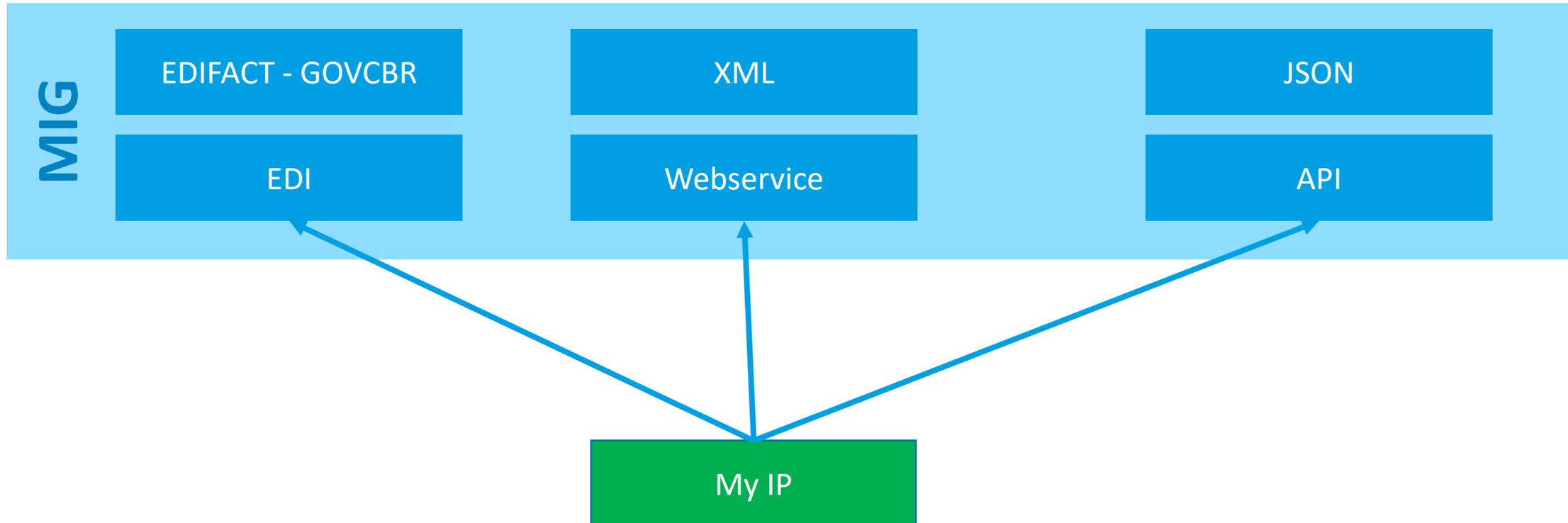
***Enables Single Window implementation***

- used as the basis for Data Harmonization;
- Includes data requirements from Customs, food, agriculture, environment & marine safety, as well as SPS;
- Provides an electronic messaging solution for Single Window.

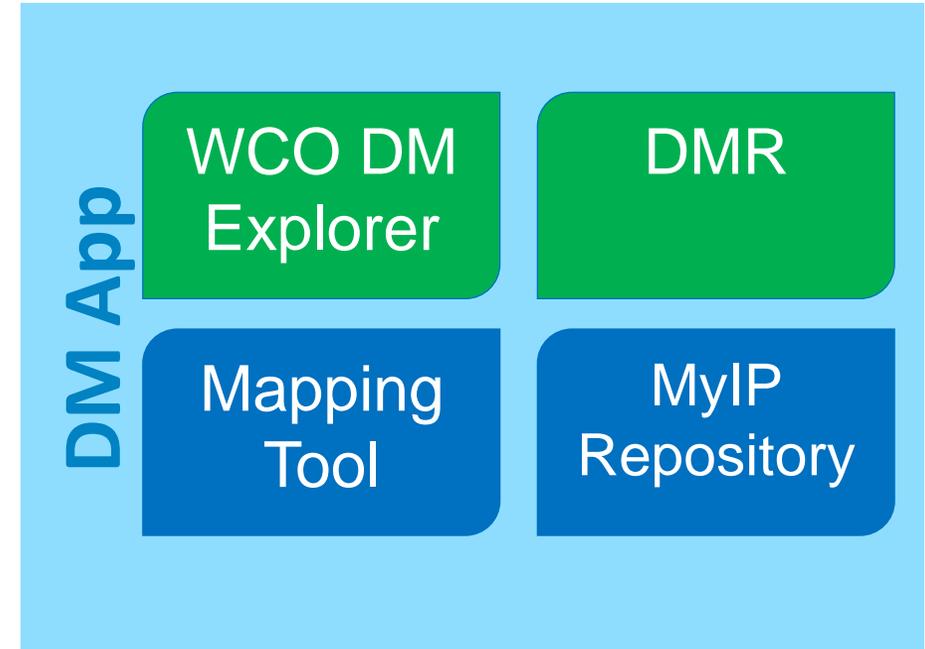
# My Information Packages

- ❖ Is a subset of the WCO DM, created on the basis of an existing DIP, or BIP;
- ❖ May contain additional information relating to national data requirements;
- ❖ Describes how the WCO DM is implemented at the national level;
- ❖ Is based on the WCO DM specifications;
- ❖ Is presented in a standard format following the MyIP Specifications;
- ❖ Enables comparison of different datasets ‘apple to apple’, facilitating their harmonization;
- ❖ Indicates the level of conformity of the national dataset to the WCO DM, allowing for the disclosure of any non-standard data elements using the ‘extension’ mechanism; and
- ❖ Enables comparison of different technical data exchange standards/protocols.

- MyIP as abstraction layer for different messaging protocols and message formats;
- MyIP makes the WCO DM “Technology neutral”.



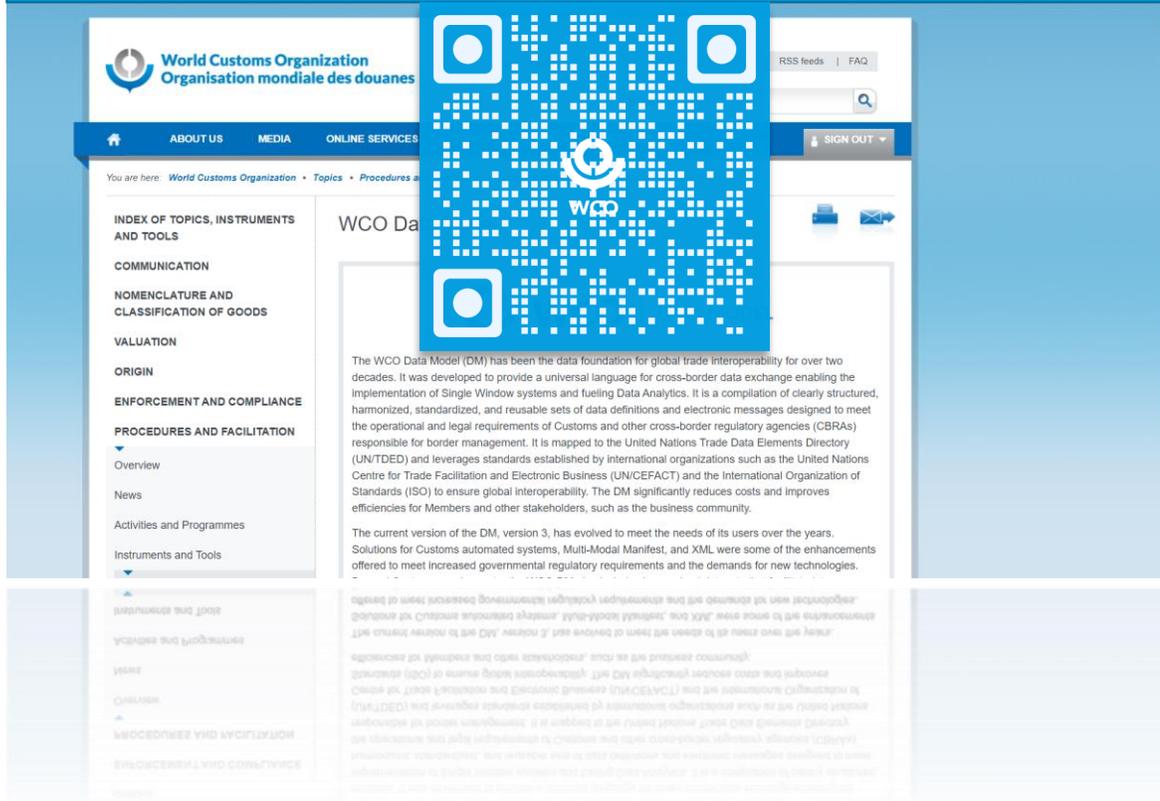
- Update of My IP Specification;
- WCO DM basic data mapping tool;
- Network of experts;
- MyIP repository;
- Capacity building:
  - Trainer of trainers
  - Need assessment
- PTC and DMPT Work Programme to monitor; and Member's implementation of MyIP.



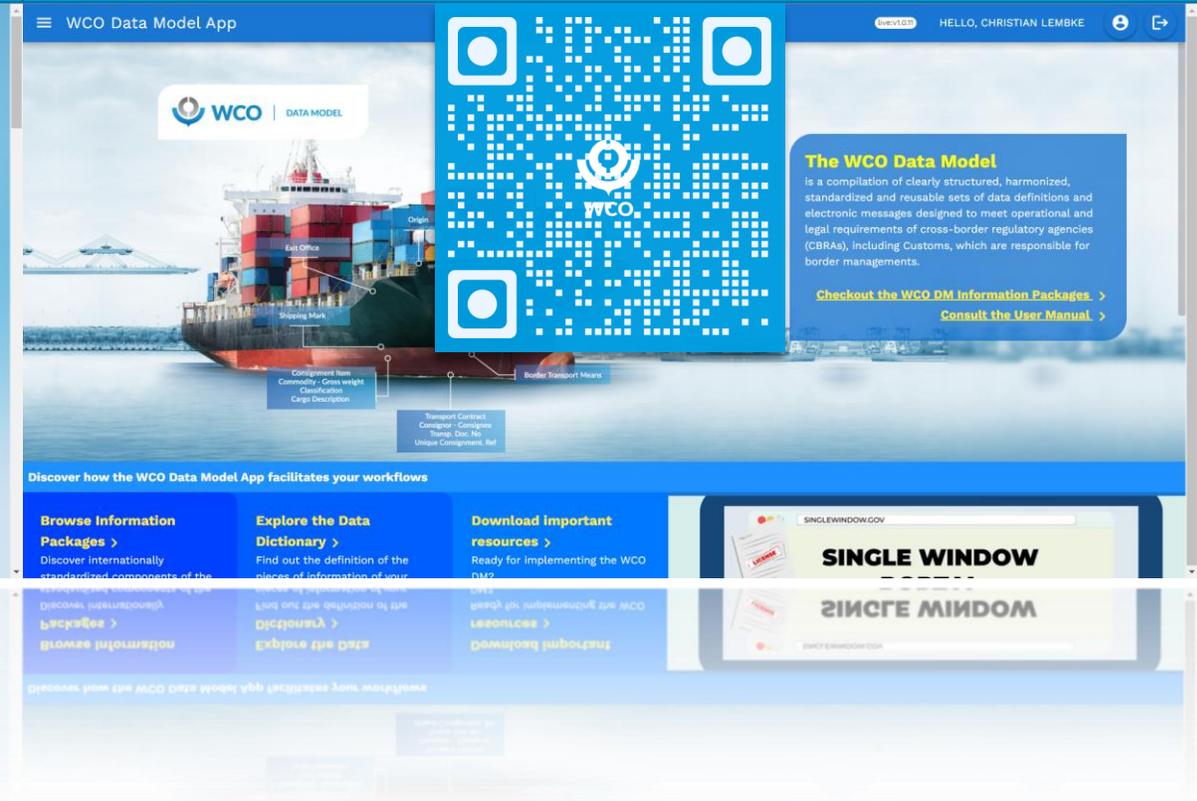
# Where can you find WCO Data Model?



wcoomd.org/DataModel



datamodel.wcoomd.org





**World Customs  
Organization**

**Thank you!**

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