



**World Customs
Organization**

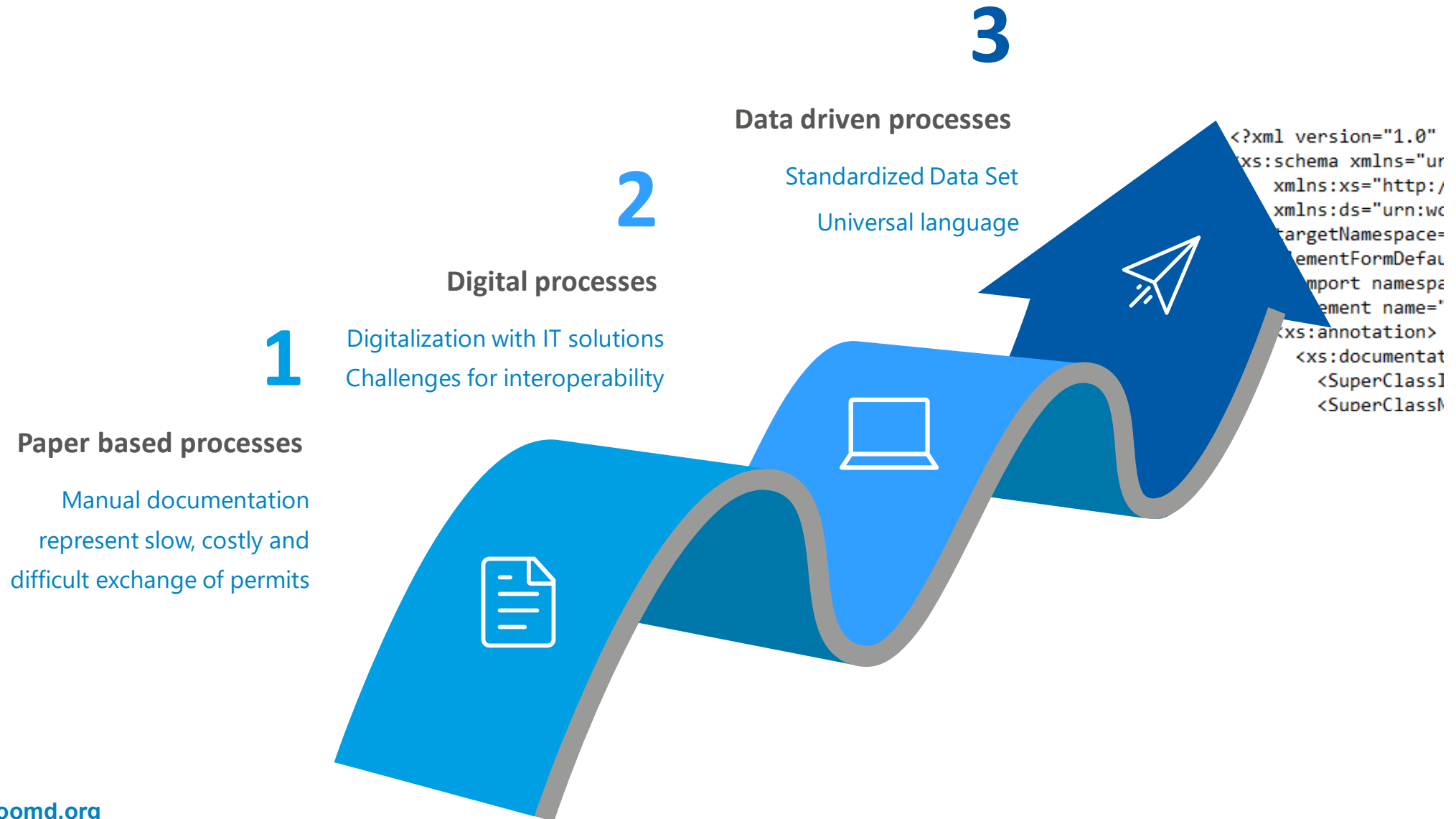
WCO Data Model

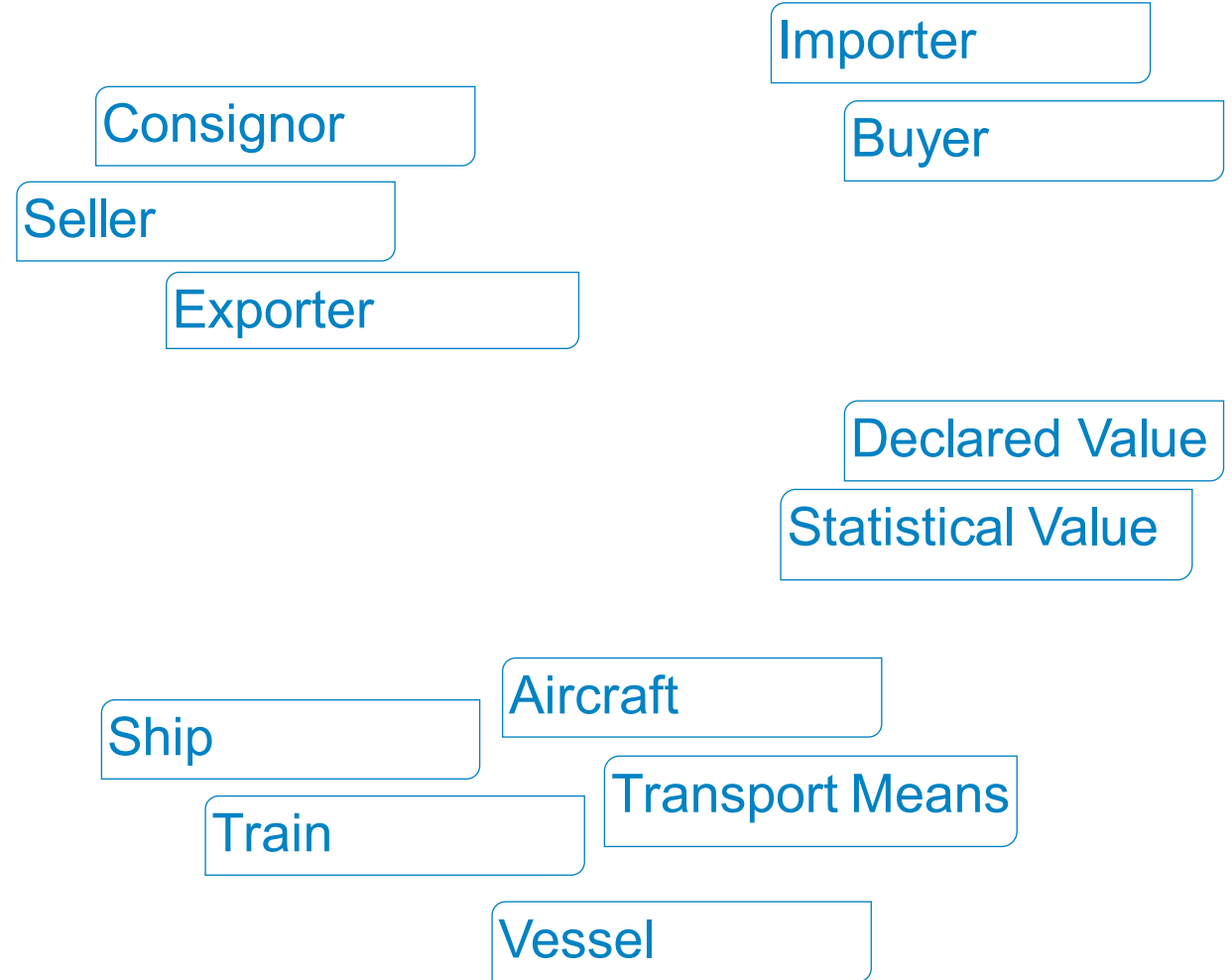
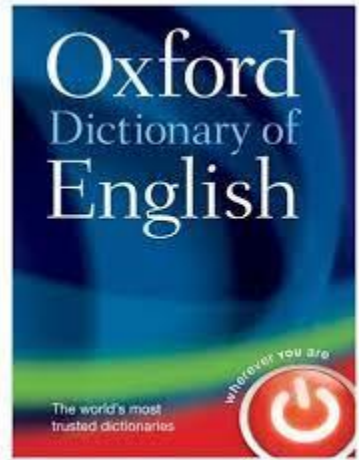
Juan Diego Chavarría

Technical Officer
Procedure and Facilitation, Compliance and Facilitation
World Customs Organization

**Enhancing Regional Trade Facilitation through
National Single Window: Pakistan's Experience**

02 November 2023

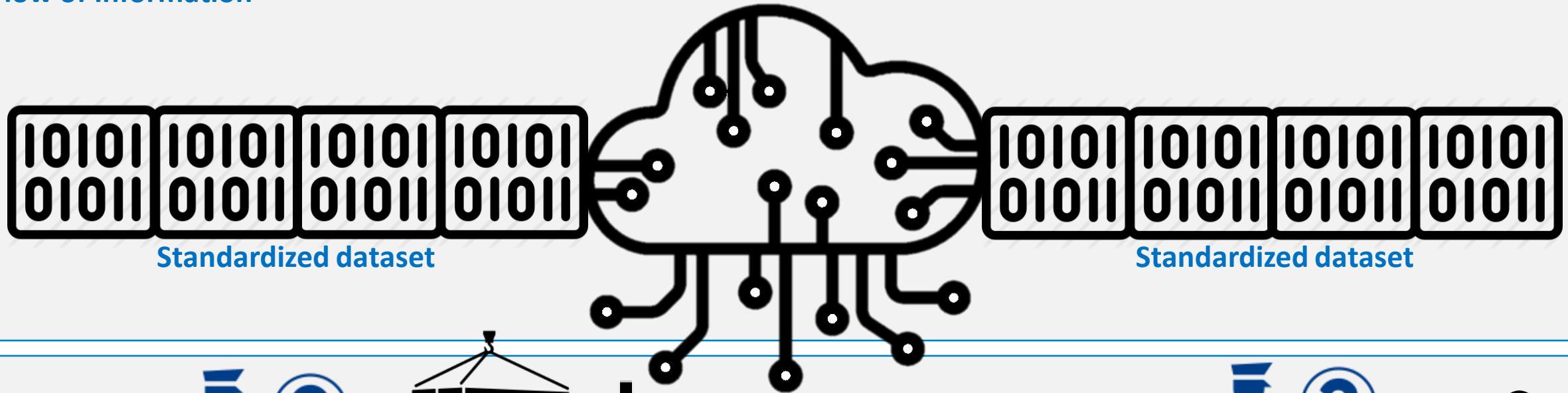




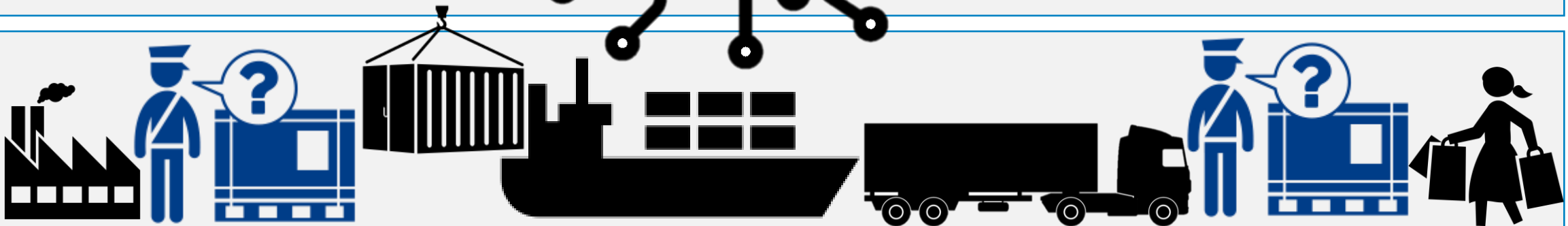
Streamlining flow of goods and flow of information

Digitalization → Standardization

Flow of Information

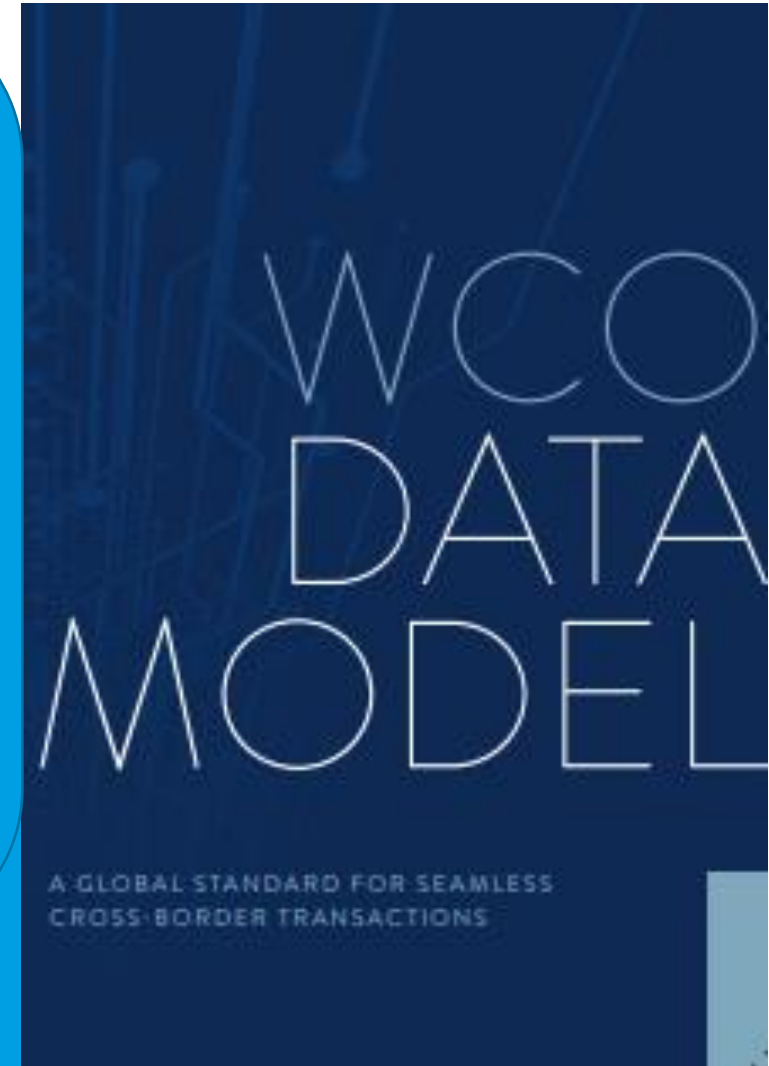


Flow of Goods



- 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



What is the WCO DM?

Supply-chain Information



WCO DM Library



Information Model



Attribute Name

Identification issuing country, code **R147**

To achieve a globally unique standardised TIN format for cross-border exchanges, add this separate 2-digit alpha numeric ISO Country Code attribute as a qualifier to the existing national identifier.

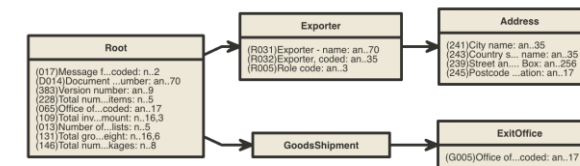
Role code **R005**

Code giving specific meaning to a party

Exporter, coded **R032**

To identify the party who makes, or on whose behalf the export declaration is made, and who is the owner of the goods or has similar rights of disposal over them at the time when the declaration is accepted

Exporter - name **R031**



Electronic Messages

```

<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns="urn:wco:datamodel:WCO:AEI:1"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:ds="urn:wco:datamodel:WCO:AEI_DS:1"
  targetNamespace="urn:wco:datamodel:WCO:AEI:1"
  elementFormDefault="qualified">
  <xs:import namespace="urn:wco:datamodel:WCO:AEI_DS:1"
    schemaLocation="AEI_lp0_urn_wco_datamodel_WCO_AEI_DS_1_1"
    <xs:element name="Declaration">
    <xs:annotation>
    <xs:documentation>
    <SuperClassID>SC1</SuperClassID>
    <SuperClassName>RootDocument</SuperClassName>
    </xs:documentation>
    <xs:documentation xml:lang="EN">
    <WCOClassID>42A</WCOClassID>
    <WCOClassName>Declaration</WCOClassName>
    </xs:documentation>
    <xs:documentation>
    <DictionaryEntryName>Content Information Struct<
    <UniqueDecClassID>#001D</UniqueDecClassID>
    <BIPUsageDeclaration>X</BIPUsageDeclaration>
    </xs:documentation>
    </xs:annotation>
    <xs:complexType>
    <xs:sequence>
    <xs:element name="InvoiceAmount" type="ds:Decla
    <xs:annotation>
    
```

Organizing the WCO DM: Information Package

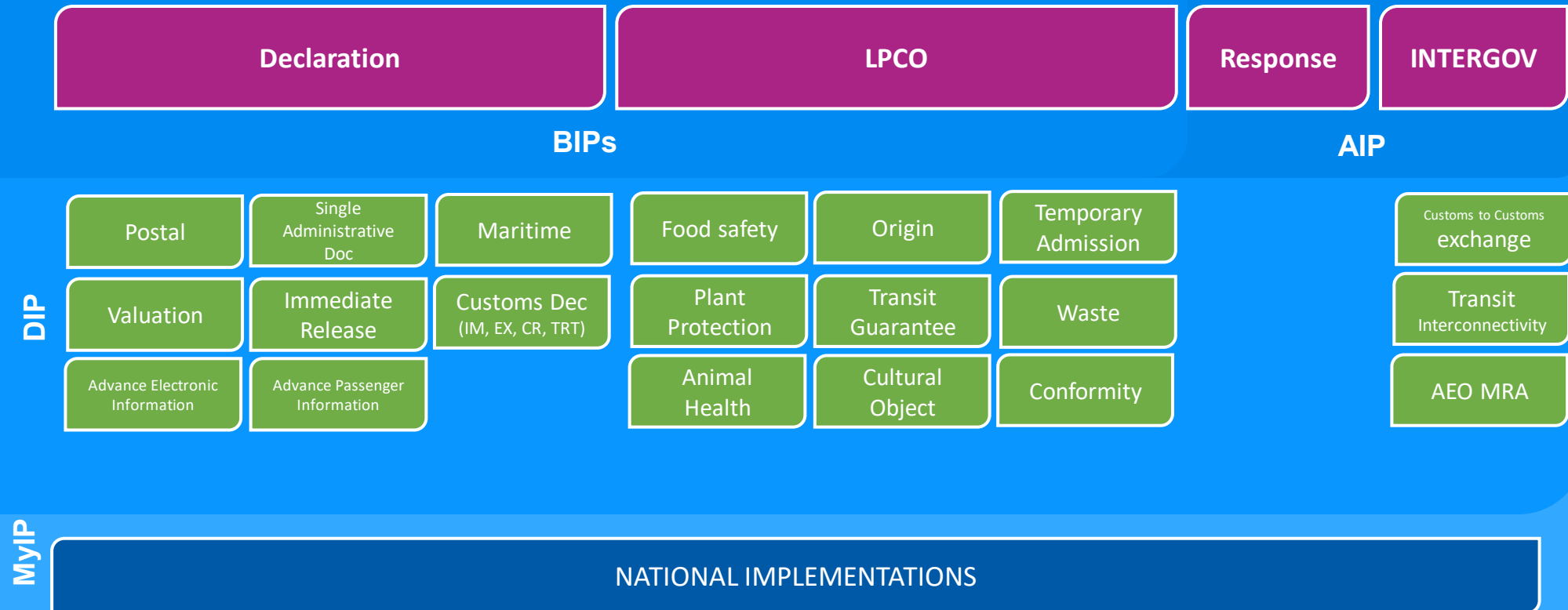


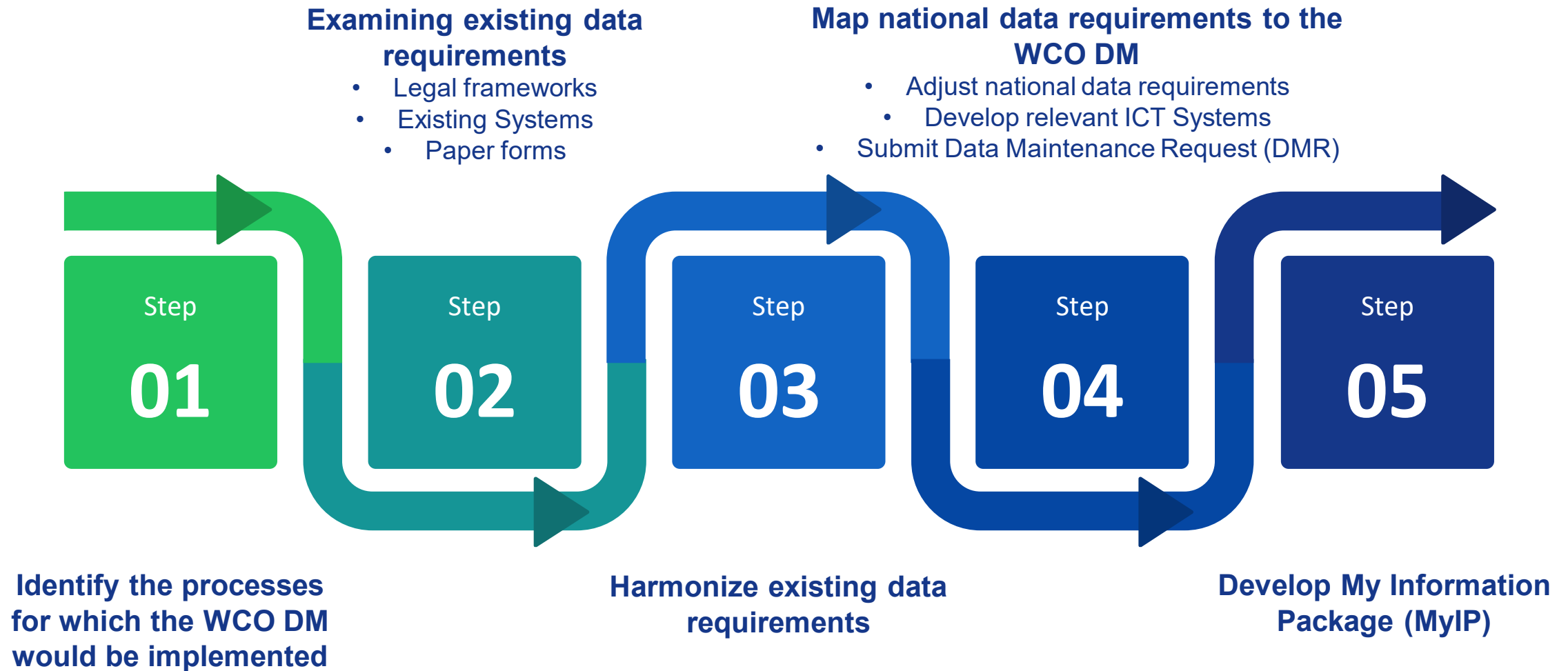
Information Packages:

- 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





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

Establish and implement a Data Maintenance Request (DMR) process for the WCO DM

Changes to the WCO DM impacted by the DMR will be published as new version

Meets regularly 3-4 times a year

1

Introduction of the WCO DM App

Interactive web-based application providing ease of use for free

2

Improved quality & simplification

Removing inconsistencies that have emerged over the years in previous versions

3

Increased guidance and support

Increasing the usage guidance and making it available in the DM App

4

Support for modern technologies

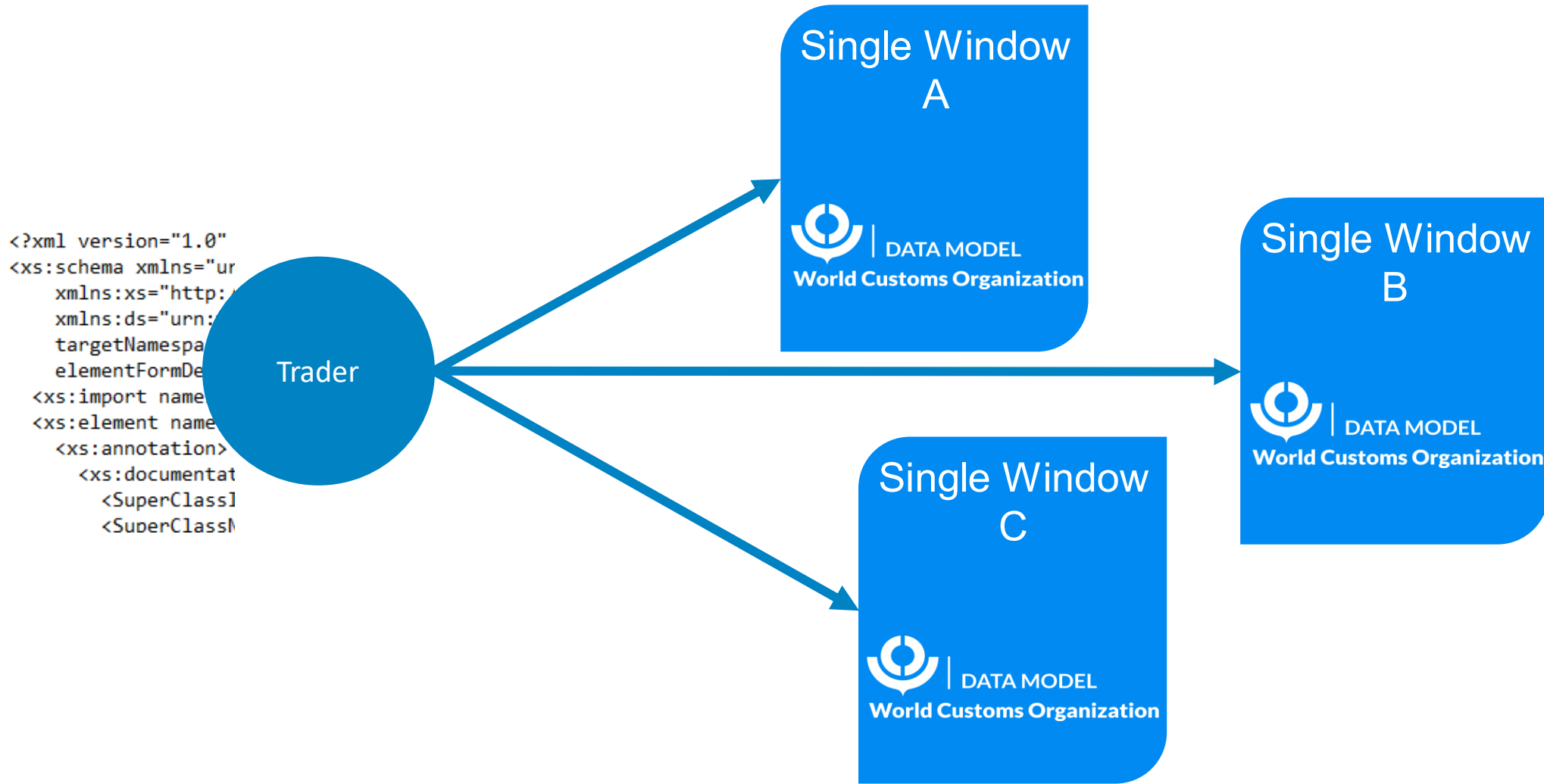
Supporting the **JSON** message format and **Open API**.

4.0

Version 4.0

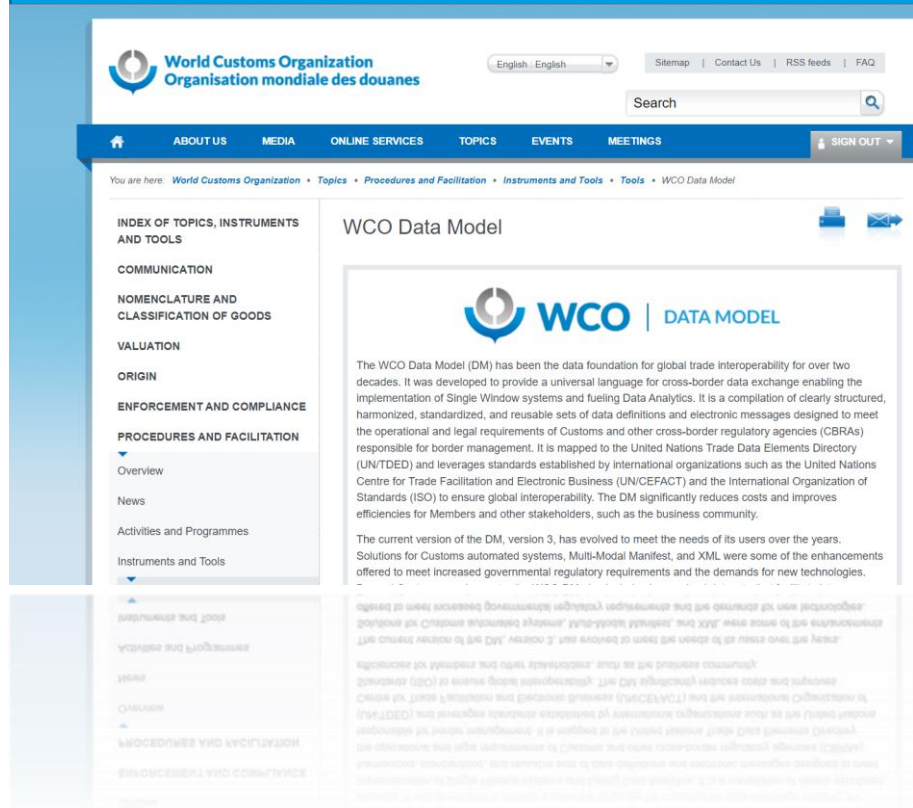
Version 4 keep the DM at the forefront by supporting cutting edge technologies and making vast improvements to the mode

WCO DM Enables Trade Facilitation



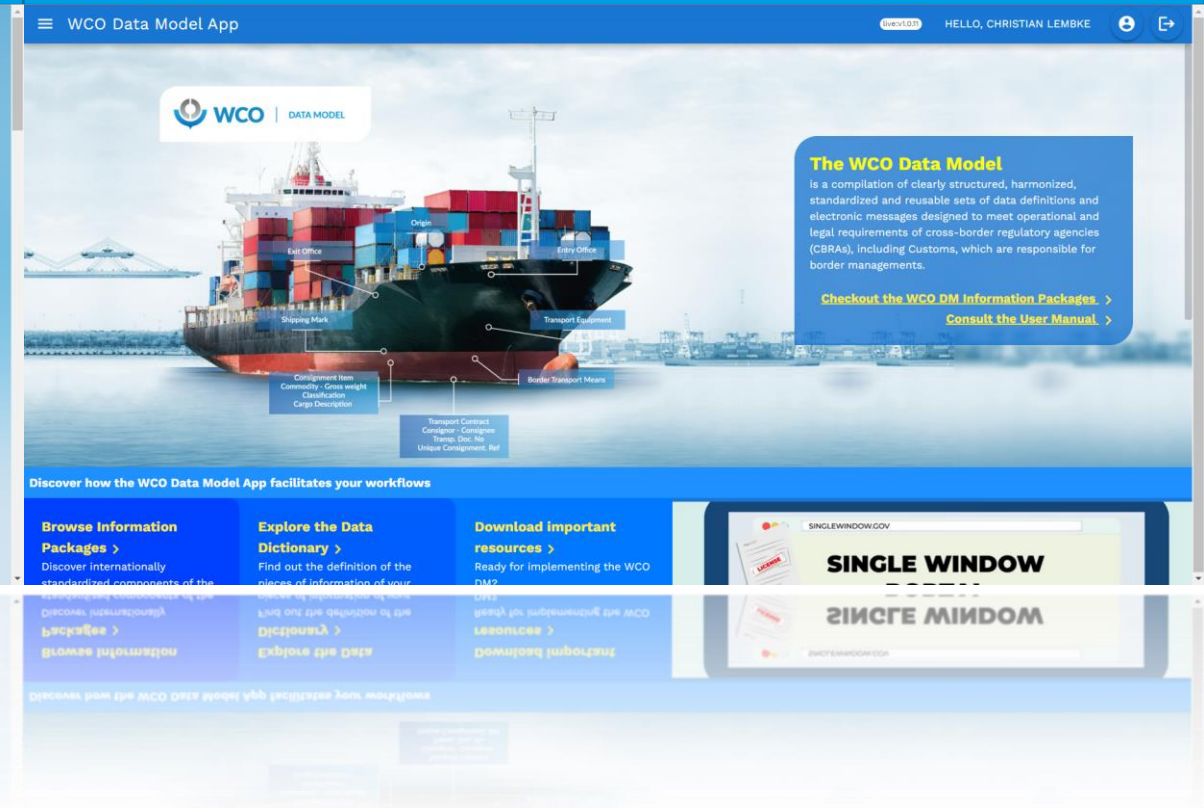
Where can you find the WCO Data Model?

wcoomd.org/DataModel



The screenshot shows the WCO website's navigation menu and a sidebar with categories like COMMUNICATION, NOMENCLATURE AND CLASSIFICATION OF GOODS, VALUATION, ORIGIN, ENFORCEMENT AND COMPLIANCE, and PROCEDURES AND FACILITATION. The main content area is titled 'WCO Data Model' and features the WCO logo and introductory text about the model's history and purpose.

datamodel.wcoomd.org



The screenshot shows the 'WCO Data Model App' interface. It features a large image of a cargo ship with callouts for various data points: Exit Office, Entry Office, Shipping Mark, Transport Equipment, Consignment Item, Commodity, Gross weight, Classification, Cargo Description, Transport Contract, Container, Commodity, Trade, Date, No, Unique Commodity, Ref, and Border Transport Means. A text box on the right explains 'The WCO Data Model' as a compilation of standardized data definitions and messages. Below the ship image are three columns of links: 'Browse Information Packages', 'Explore the Data Dictionary', and 'Download Important resources'. At the bottom right, there is a 'SINGLE WINDOW' logo.



**World Customs
Organization**

Thank you

Juan Diego Chavarria

Technical Officer
Procedure and Facilitation, Compliance and Facilitation
World Customs Organization

juan.chavarria@wcoomd.org

