

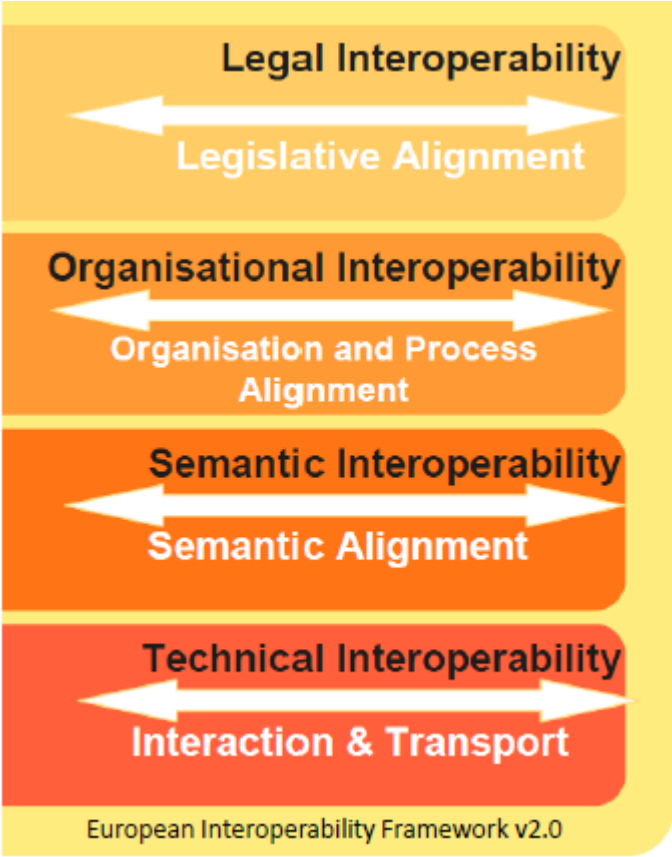
**A tour of UN/CEFACT issues relating to
Single Windows and Semantic
Interoperability in a few slides**

.... and future considerations

UN/CEFACT Standards Foundation for International Trade

- [United Nations Layout Key \(UNLK\) – UN/ECE Rec. 1](#)
- [United Nations Trade Data Elements Directory \(UNTDED\)](#)
- UN/CEFACT Trade Reference Model for the International Purchase and Supply Chain
- UN/CEFACT Code Recommendations
- UN/CEFACT Unified Modelling Methodology (UMM)
- UN/CEFACT Core Components Technical Specification 2.01
- [UN/CEFACT Core Component Library \(TBG17\)](#)
- UN/CEFACT XML Naming and Design Rules
- [UN/CEFACT UN/EDIFACT Directory](#)

UN/CEFACT Single Window Recommendations (Rec)



Rec 35

Alignment of two or more legal framework with Regulatory and private facets

Rec 33

Business process instantiation, Partners and roles

Rec 34

TDED, UN/EDIFACT, CCL Libraries + WCO Data Model

AS1, AS2, AS3, ebMS2, ebMS3, SOAP etc.

UN/CEFACT Open Development Process (ODP)

Business Process and Semantic Data Models – Exchange-Syntax Neutral

1. UMM and BRS (Business Requirements Specification)
2. RSM (Requirements Specification Mapping)

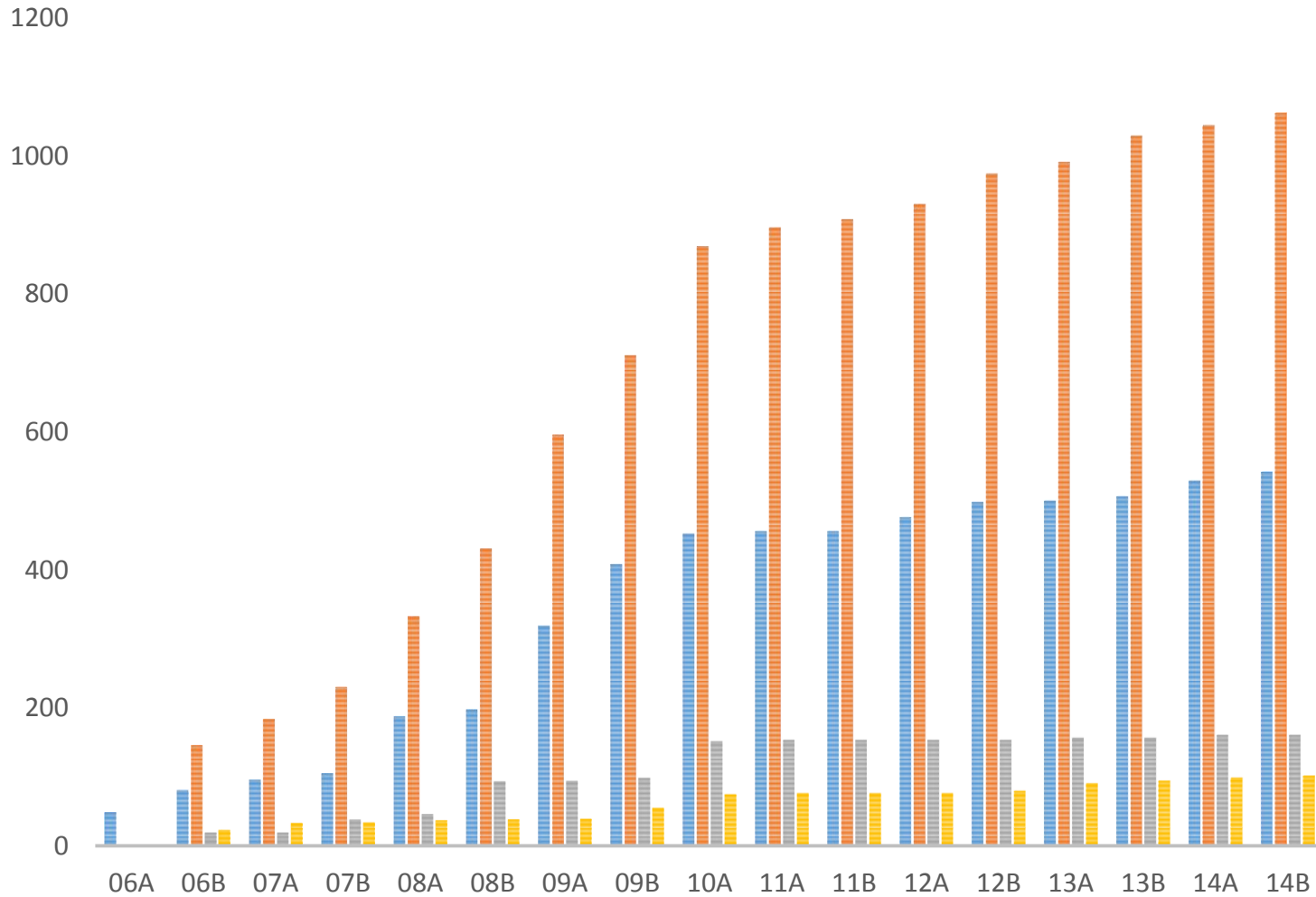
Production of electronic documents – Syntax specific bindings

1. UN/EDIFACT – Initiated 1987
2. XML Naming and Design Rules – UN/CEFACT NDR 2.1



CCL PROGRESS 2006 - 2014

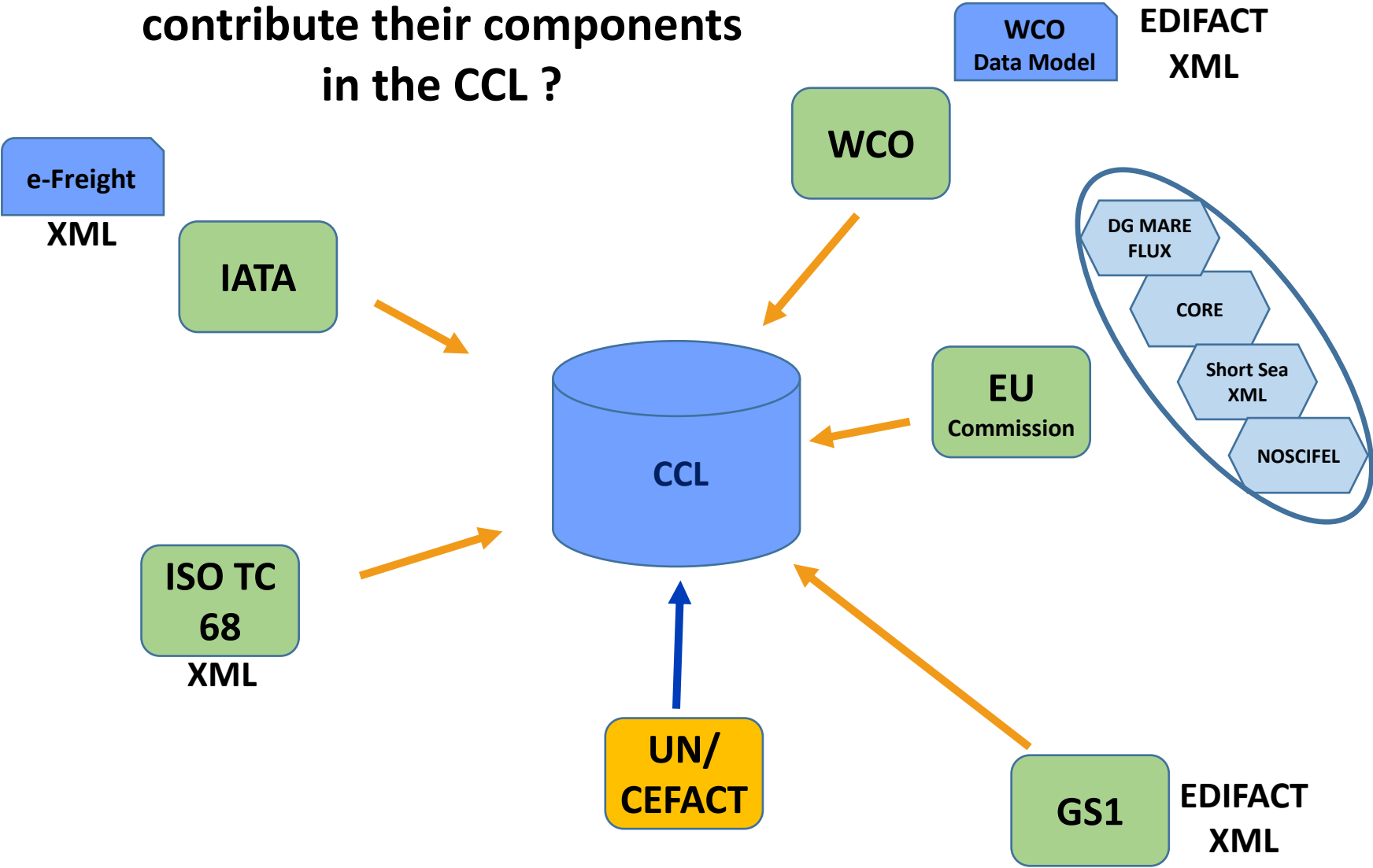
ACCs ABIEs qDTs Messages



UN/CEFACT Core Component Library

	Submitter Domains
CCL	
06A	Construction, EANUCC, ebXML Asia, EDIFrance, Environmental, Eurofer, Finance, Health, HR, Insurance, TDED MA, OAGi, Supply Chain, SWIFT, Transport, Travel, UBL, US Government
06B	Construction, Supply Chain, Travel
07A	Construction, Supply Chain
07B	GS1, eDocs, GS1, Transport, US Government
08A	Accounting, Agriculture, eDocs, Government, Insurance, SWIFT, Supply Chain, Transport
08B	Accounting, Construction, eDocs, Supply Chain, Transport
09A	Accounting, Construction, Environmental, Insurance, Supply Chain, Travel, US Government
09B	Construction, Supply Chain, IATA
10A	Accounting, Agriculture, Construction, Supply Chain, WCO
11A	Accounting, Agriculture, Insurance
11B	Accounting, Agriculture
12A	SDMX
12B	Agriculture, Plant Auctions, Travel
13A	Agriculture, Transport, Travel, OECD Waste Movement (Basel)
13B	Agriculture FLUX (1) and RASFF
14A	Agriculture FLUX (2) and eLabs Result
14B	Insurance, Agriculture FLUX (3), TDED Alignment Project
15A	Under Construction Multimodal Transport, Insurance, Agriculture Animal Tracking and FLUX (4)

Which organisations contribute their components in the CCL ?



UNTDDED/ISO 7372 (the TDED since 1990)

- An internationally accepted standard *repository of data elements for the semantics* used in international trade
- A method to describe information requirements from business perspective (*a non-technical description of trade information*).
- The definition is *exchange syntax-neutral*
- Defining the data content in terms of the UNTDED makes *different trade documents become directly comparable*, which helps identify duplication and reduce the number of documents to the strict minimum.

TDED 2005 Example Page

B2		= Document. Type Name.Text		
A	B	C	D	E
UID	ISO7372 TDED Name	Definition	TDED repr.	Locations, Bridges
1				
2	1000 Document. Type Name.Text	Free text name of a document such as 352 for Proforma invoice, 380 for Commercial invoice.	an..35	UNLK: L 02, P 45-80 MAR: IMO/FAL 1-7
3	1001 Document. Type.Code	Code specifying the name of a document such as 352 for Proforma invoice, 380 for Commercial invoice.	an..3	UNLK: L 04, P 41-45 CIMP: (120): a1 SAD: (SAD 1(first to third subdivision))
4	1099 Transport Means. Stay.Identifier	Identifier of the stay of a means of transport in a port or airport	an..35	
5	4219 Transport Service. Priority.Code	Code specifying the priority of a transport service.	an..3	CIMP: (704):a1
6	5068 Invoice. Line Item. Amount	Total sum charged with respect to a single line item of an invoice.	n..18	UNLK: L 56, P 63-80
7	5070 Consignment. For Customs Total.Amount	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	n..18	AWB: L 24, P 71-81 CIMP: (509):n..12, or the letters 'NCV'
8	6094 Consolidation. Package.Quantity	Count of the total number of packages in all of the consignments referred to as one consolidation.	n..16	
9	6292 Goods Item. Gross Weight.Measure	Weight (mass) of goods including packaging but excluding the carrier's equipment.	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				

Which organizations are members of the TDED Maintenance Agency?

- UN/CEFACT
- UNCTAD
- European Union Commission
- International Chamber of Commerce **ICC**
- OASIS
- Maritime Transport : Int Maritime Org **IMO** + Int Chamber of Shipping **ICS**
- Air Transport : **IATA**
- Rail Transport : Union Int Chemins de fer **UIC**
- Road Transport : **IRU**
- Universal Postal Union: **UPU**
- International Federation of Freight Forwarders Associations **FIATA**
- World Custom Organisation **WCO**
- Various **ISO TCs** including ISO/TC37 + TC46 + TC68 + TC154 + TC184 + TC204 + TC215 + ISO/IEC JTC1/SC31 + SC32



UNECE Code List

Recommendations

UNECE Rec 3	UNECE publication of ISO 3166-1 (Country Codes)
UNECE Rec 5	UNECE publication of ICC Incoterms
UNECE Rec 9	UNECE publication of ISO 4215 (Currency Codes)
UNECE Rec 16	Code for Trade and Transport Locations (LOCODE)
UNECE Rec 19	Code for Modes of Transport
UNECE Rec 20	Codes for Units of Measure Used in International Trade
UNECE Rec 21	Codes for Passengers, Types of Cargo, Packages and Packaging Materials
UNECE Rec 23	Freight Cost Codes
UNECE Rec 24	Trade and Transport Status Codes
UNECE Rec 28	Codes for Types of Means of Transport

UN Layout Key (Rec. 1) + UNECE Code List Recs

The image shows a screenshot of the Adobe Acrobat Professional interface displaying a PDF document titled 'UN Layout Key (Rec. 1) + UNECE Code List Recs'. The document is a form with various fields and sections. Several fields are highlighted with blue callout boxes, each containing a reference code and a description:

- Rec:16 UN/Locode**: Points to the 'UN/Locode' field.
- ISO Country Code**: Points to the 'ISO Country Code' field.
- Rec:19 Mode of Transport**: Points to the 'Mode of Transport' field.
- Rec:17 Payment Terms**: Points to the 'Payment Terms' field.
- Rec:9 Currency Code**: Points to the 'Currency Code' field.
- Commodity Code**: Points to the 'Commodity Code' field.
- Rec:28 Means of Transport**: Points to the 'Means of Transport' field.
- Rec:21 Package Codes**: Points to the 'Package Codes' field.
- Rec:20 Units of Measurement**: Points to the 'Units of Measurement' field.

The form itself contains the following fields and sections:

- UNeDocs
- EXPORT CUSTOMS
- 1 Consignor / Exporter No.
- 3
- 5 Items
- 6 Pages
- 7 Reference number
- 8 Consignee No.
- 9 Person for financial settlement No.
- 10 Country first
- 11 Trading country
- 12
- 13
- 14 Declarant / Representative No.
- 15 Country of despatch / export
- 16 Country of origin
- 17 Country of final destination
- 18
- 19 Ctr.
- 20 Delivery terms
- 21 Identity and nationality of active means of transport crossing the border
- 22 Currency and total amount (invoice)
- 23
- 24
- 25 Means of transport
- 26 Inland mode
- 27 Place of loading
- 28 Financial and banking data
- 29
- 30 Location of goods
- 31 Packages and numbers - Container No(s) - Numbers and kind
- 32 Article No.
- 33 Commodity code
- 34 Country origin code
- 35 Gross mass (kg)

Rec:19
Mode of Transport

Rec:16
UN/Locode

ISO Country Code

Rec:17
Payment Terms

Rec:9
Currency Code

Commodity
Code

Rec:28
Means of Transport

Rec:21
Package Codes

Rec:20 Units of
Measurement

UN/EDIFACT

Biannual Publications since 1988

1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
UN D. 12A S3
UN D. 12A S3 Codes
UN D. 12A S4
UN D. 12A S4 Codes
UN D. 12A S4i
UN D. 12B S3
UN D. 12B S3 Codes
UN D. 12B S4
UN D. 12B S4 Codes
UN D. 12B S4i

FINPAY	2	Multiple interbank funds transfer message
FINSTA	1	Financial statement of an account message
GENERAL	3	General purpose message
GESMES	3	Generic statistical message
GOVCBR	3	Government Cross Border Regulatory message
HANMOV	7	Cargo/goods handling and movement message
ICASRP	2	Insurance claim assessment and reporting message
ICSOLI	2	Insurance claim solicitor's instruction message
IFCSUM	16	Forwarding and consolidation summary message
IFTCCA	4	Forwarding and transport shipment charge calculation message
IFTDGN	8	Dangerous goods notification message
IFTFCC	3	International transport freight costs and other charges message
IFTICL	1	Cargo insurance claims message
IFTMAN	11	Arrival notice message
IFTMBC	10	Booking confirmation message
IFTMBF	12	Firm booking message
IFTMBP	10	Provisional booking message
IFTMCA	3	Consignment advice message
IFTMCS	12	Instruction contract status message
IFTMIN	16	Instruction message
IFTRIN	4	Forwarding and transport rate information message
IFTSAI	10	Forwarding and transport schedule and availability information message
IFTSTA	16	International multimodal status report message
IFTSTQ	4	International multimodal status request message
IMPDEF	2	EDI implementation guide definition message
INFCON	1	Infrastructure condition message
INFENT	2	Enterprise accounting information message
INSDDES	3	Instruction to despatch message
INSPRE	1	Insurance premium message
INSREQ	2	Inspection request message

UNSMs

UN/EDIFACT

Segments				Data Elements	
ADR	Address				
AGR	Agreement identification				
AJT	Adjustment details				
ALC	Allowance or charge	9175	an..3	X	Data element usage type code
ALI	Additional information	9213	an..3	X	Duty regime type code
APP	Applicability	9280	an..35		Validation result text
APR	Additional price information	9282	an..35		Validation key identifier
ARD	Monetary amount function	9285	an..3	X	Validation criteria code
ARR	Array information	9302	an..35		Sealing party name
ASI	Array structure identification	9303	an..3	X	Sealing party name code
ATT	Attribute	9308	an..35		Transport unit seal identifier
AUT	Authentication result	9321	an..8		Application error code
BAS	Basis	9352	an..256		Government Procedure
BGM	Beginning of message	9353	an..3	X	Government procedure code
BII	Structure identification	9411	an..3	X	Government involvement code
BUS	Business function	9415	an..3	X	Government agency identification code
CAV	Characteristic value	9416	an..256		Government action
CCD	Credit cover details	9417	an..3	X	Government action code
CCI	Characteristic/class id	9419	an..3		Service layer code
CDI	Physical or logical state	9421	an..3	X	Process stage code qualifie
CDS	Code set identification	9422	an..512		Value text
CDV	Code value definition	9424	an..512		Array cell data description
CED	Computer environment details	9426	an..35		Code value text
CIN	Clinical information	9428	an..35		Array cell structure identifie
CLA	Clause identification	9430	an..35		Footnote set identifier
CLI	Clinical intervention	9432	an..35		Footnote identifier
CMP	Composite data element identification				
CNI	Consignment information				
CNT	Control total				
COD	Component details				
COM	Communication contact				

Code	Name
1	Clearance
2	Detention
3	Fumigation
4	Inspection
5	Security
6	Means of transport admittance
7	Cargo hold inspection
8	Container inspection
9	Cargo packaging inspection
10	Export certificate not required

Code	Name
1	Clearance
2	Detention
3	Fumigation
4	Inspection
5	Security
6	Means of transport admittance
7	Cargo hold inspection
8	Container inspection
9	Cargo packaging inspection
10	Export certificate not required

Relationship between UN/CEFACT Libraries and WCO Data Model and EU Single Administrative Document (SAD)

The image shows two screenshots of the SAP ABAP transaction 'Main/ABIE/Supply Chain_Consignment.Details/Supply Chain_Consignment.Consignor Assigned.Identifier'. The top screenshot shows the 'Pub Refs' table with the following data:

Source	D08A
Identifier	UN00001764
Version	1.0
TDED	1140
Status	
Usage Rules	
Example	
Ref qDT ID	

The bottom screenshot shows the 'CCTS' table with the following data:

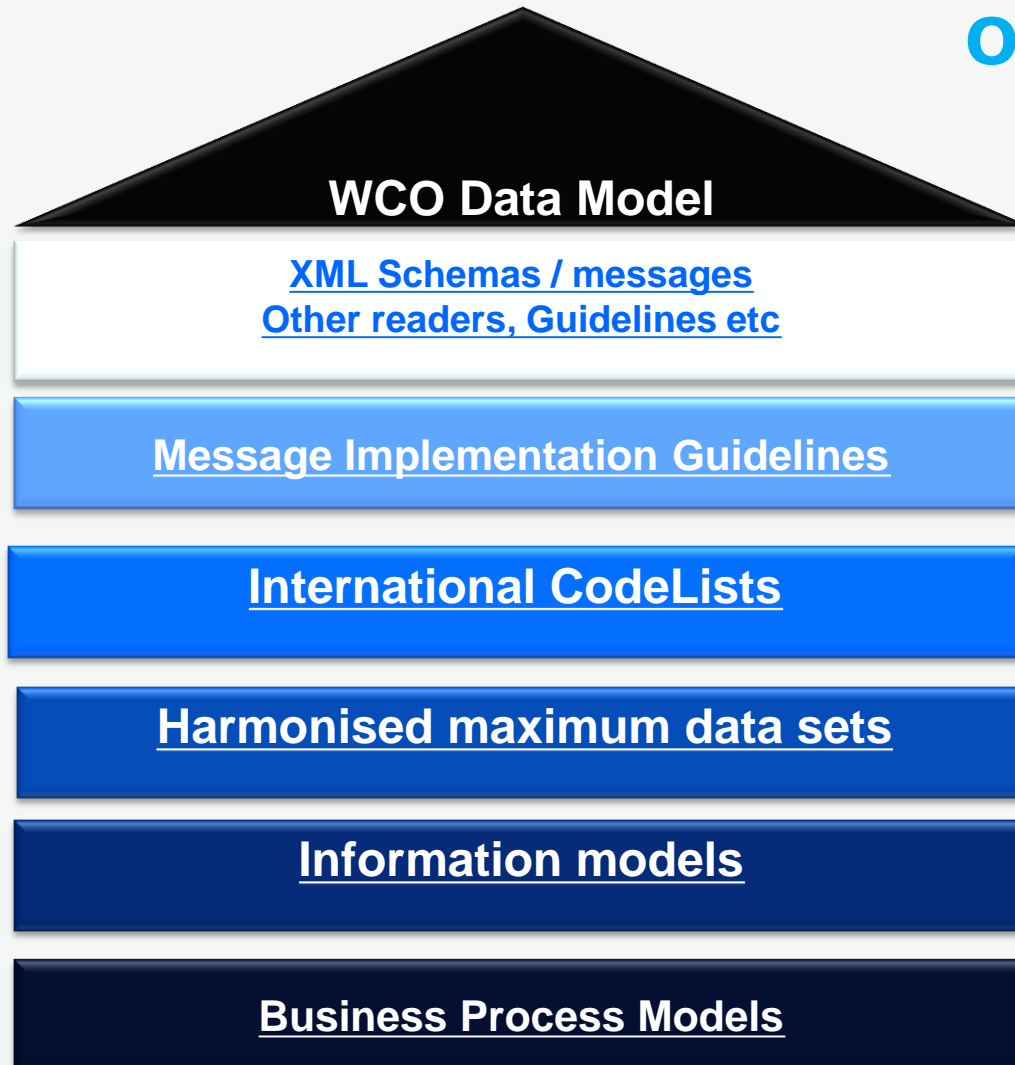
CCTS type	BBIE
DictionaryEntryName	Supply Chain_Consignment.Consignor Assigned.Identifier
ObjectClassTerm	Consignment
ObjectClassTermQualifier(s)	Supply Chain
PropertyTerm	Consignor Assigned
PropertyTermQualifier	
RepresentationTerm	Identifier
BusinessTerm	
Definition	The unique identifier assigned by the consignator to this supply chain consignment.

Red arrows indicate the following relationships:

- TDED: 1140** = **UNLK : an..17 L 06, P 63-80**
- UNLK : an..17 L 06, P 63-80** = **CCL : Supply Chain_Consignment.Consignor Assigned.Identifier**
- CCL : Supply Chain_Consignment.Consignor Assigned.Identifier** = **WCO DM: ID 009**
- CCL : Supply Chain_Consignment.Consignor Assigned.Identifier** = **EU SAD : Box 7**



WCO Data Model Overview





WCO Data Model Components

WCO Class Library

- [-] ClassLibrary
 - [+] Data Model; R1

WCO Information Packages

- [-] BaseInformationPackages
 - [+] Declaration; R1
 - [-] InterGov; R1
 - [+] LPCO; R1
 - [+] MetaData; R1
 - [+] Response; R1
 - [-] DerivedInformationPackages
 - [+] DV1; R1
 - [+] GuaranteeOperation; R1
 - [+] IMO; R1
 - [+] SAD; R1
 - [+] Value

Code Lists

- [-] Code lists
 - [-] Distribution
 - [-] WCO
 - [+] GOVCBR; R1
 - [+] WCOCodeLists; R1
 - [+] OtherCodeLists; R1
 - [+] UN D.11B S3 Codes
 - [+] UserCodeLists; R1

EDIFACT

- [-] WCO
 - [+] GOVCBR; R1
 - [+] GOVCBR; R1; Response

XML

DerivedInformationPackages

- DV1; R1
- Guar...
- IMO; R1
- SAD; R1
- Value...

UserDocum...

WCOClassLi...

1

NZ TSV

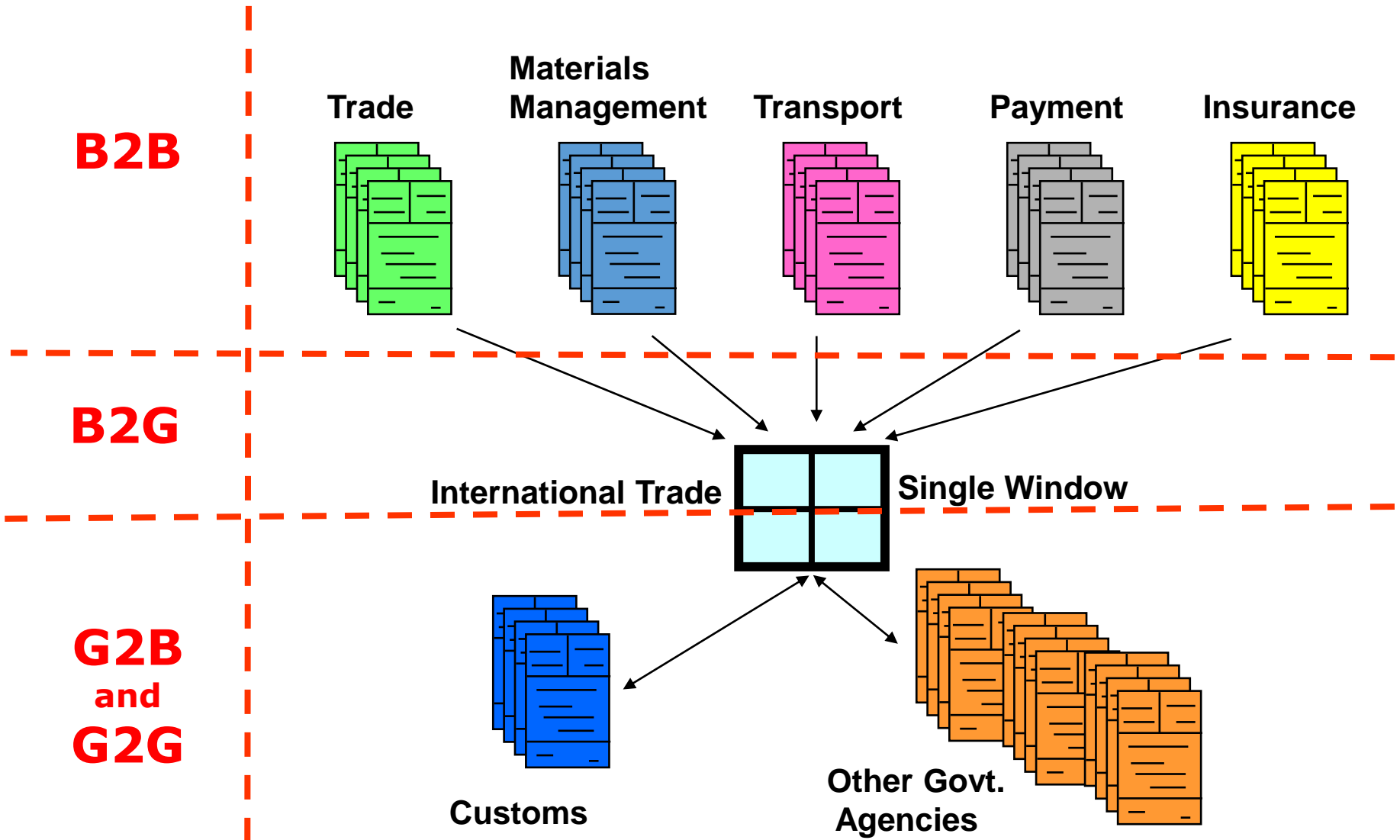
NZ TSV

Properties... Register... Unre...

Open Edit Docum...

- GEFEG.FX archive (*.zef)...
- GEFEG.FX meta file...
- WCO 3.3 GEFEG.FX XML schema...
- WCO GEFEG.FX XML schema...

Global Trade Single Window



UN/CEFACT CCL and WCO Data Model for International Trade Single Windows

