



# Introduction to UNeDocs

UNeDocs is all about

**Cross Border**

**Trade Facilitation**

**Non-tariff trade barriers – Conventions & Regulation -  
Security - Fraud – Corruption**

**Standardization = part of Trade Facilitation +  
Rationalization + Simplification**

**Michael Dill**



# Instead of an Introduction into the Introduction

A UNeDocs and ISO Core Components  
Crash Training Course

-

in four pictures!

# Reuse of ebXML Core Components



**Easy to read – Easy to understand**

UNEDocs Ship BIM. Transport Contract. Cross-Border\_ Consignment

- +
- A Cross-Border\_ Consignment. Unique. Identifier
- +
- A Cross-Border\_ Consignment. Carrier Assigned. Identifier
- +
- A Cross-Border\_ Consignment. Sequence. Numeric
- +
- A Cross-Border\_ Consignment. Actual Pick Up. Date Time
- +
- A Cross-Border\_ Consignment. Loading. Date Time
- +
- A Cross-Border\_ Consignment. Exportation. Date Time
- +
- A Cross-Border\_ Consignment. Gross Weight. Measure
- +
- A Cross-Border\_ Consignment. Invoice. Amount
- +
- A Cross-Border\_ Consignment. Total Freight Related Charges. Amount
- +
- A Cross-Border\_ Consignment. Exit To Entry Charge. Amount
- +
- A Cross-Border\_ Consignment. Containerized. Indicator
- +
- A Cross-Border\_ Consignment. Consignment Items. Quantity
- +
- A Cross-Border\_ Consignment. Package. Quantity
- +
- A Cross-Border\_ Consignment. Package Type. Code
- +
- A Cross-Border\_ Consignment. Loading Lists. Quantity
- +
- C Cross-Border\_ Consignment. Consignor. Cross-Border\_ Party

2 English View

# Use of ebXML Core Components



**Easy to read – Easy to understand**

Component	Value
CCTS type	BBIE
DictionaryEntryName	Cross-Border_ Consignment. Gross Weight. Measure
ObjectClassTerm	Consignment
ObjectClassTermQualifier(s)	Cross-Border
PropertyTerm	Gross Weight
PropertyTermQualifier	
RepresentationTerm	Measure
RepresentationTermQualifier(s)	Weight
BusinessTerm	
Definition	The measure of the total gross weight (mass) of all consignment items in this cross-border consignment of goods including packaging but excluding any associated transport equipment (ASEAN SAD Box 36).

Replace object name with DictionaryEntryName

# References to UNTDED and International Conventions



**Easy to read – Easy to understand**

BBIE	CCTS	Notes	Enhanced	Children
TC154				
UID			6012	
TDED repr.			n..16	
Locations, Bridges			AWB: n..7; L 46, P 13-19 CIMP: (600):n..7 MAR: IMO/FAL 2, 7 UNLK: L 34 P 64-71	
Dictionary Entry Name			Consignment. Gross Weight.Measure	
Definition			Total gross weight (mass) of all goods items referred to as one consignment including packaging but excluding any transport equipment.	
CustomsMap				
WCO			131	
EU SAD				
ASEAN SAD				

# An Autogenerated XML Schema



**Easy to read – ??? to understand**

```
xsd:complexType name="CrossBorderConsignmentType">
  <xsd:sequence>
    <xsd:element name="UniqueID" type="udt:IDType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="CarrierAssignedID" type="udt:IDType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="SequenceNumeric" type="udt:NumericType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="ActualPickUpDateTime" type="udt:DateTimeType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="LoadingDateTime" type="udt:DateTimeType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="ExportationDateTime" type="udt:DateTimeType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="GrossWeightMeasure" type="qdt:WeightMeasureType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="InvoiceAmount" type="udt:AmountType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="TotalFreightRelatedChargesAmount" type="udt:AmountType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="ExitToEntryChargeAmount" type="udt:AmountType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="ContainerizedIndicator" type="udt:IndicatorType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="ConsignmentItemsQuantity" type="udt:QuantityType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="PackageQuantity" type="udt:QuantityType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="PackageTypeCode" type="udt:CodeType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="LoadingListsQuantity" type="udt:QuantityType" minOccurs="0" maxOccurs="1" />
    <xsd:element name="ConsignorCrossBorderParty" type="ram:CrossBorderParty" minOccurs="0" maxOccurs="1" />
    <xsd:element name="ConsigneeReferencedParty" type="ram:ReferencedParty" minOccurs="0" maxOccurs="1" />
  </xsd:sequence>
</xsd:complexType>
```

Um Hilfe zu erhalten Zeile 44, Spalte 43, C0 DOS Änd: 04.12.2007 00:03 Dateigröße: 24120 EINF



# Combined Approach for Interoperability

**EXPORT CARGO SHIPPING INSTRUCTIONS**

**A** Consignee name, VAT no., Billing number, Consignee reference, Consignee reference

**B** Consignee name, VAT no., D Other address, VAT no., Forwarder reference

**C** Freight forwarder name, VAT no., Proposed consignee may be used for some addresses, eg. from office of destination address, additional consignor, Country of origin of goods, Country of final destination

**E** Proposed consignee may be used for some addresses or other information

UN/EDIFACT Transport details

Weight/height and date, Piece of goods, Piece of delivery, Piece of invoice, Unless otherwise instructed consignee will be for a 100 kg weight "1" and not the opposite "0"

Shipping order number, Number and serial of package description of goods, No. of boxes, Container code, Quantity, Gross weight kg, Cubic meter, Pallets, Net weight kg, Volume, Summary declaration reference document, Container code, Quantity, Gross weight kg, Cubic meter, Pallets, Net weight kg, Volume, Summary declaration reference document, Container code, Quantity, Gross weight kg, Cubic meter, Pallets, Net weight kg, Volume, Summary declaration reference document

Identification of destination, Freight, Documentation, Special instructions, Transport as per, Transcode (UN)

Signature

## Electronic Document Exchange XML or UN/EDIFACT

```
<?xml version="1.0" encoding="UTF-8"?>
<n:Invoice
  xmlns:n="urn:oasis:names:tc:ubl:Invoice:1.0:0.70"
  xsi:schemaLocation="urn:oasis:names:tc:ubl:Invoice:1.0:0.70
    UBL_Library_0p70_Invoice.xsd">
  <cat:ID>token</cat:ID>
  <cat:IssueDate>2003-02-14</cat:IssueDate>
  <n:TaxPointDate>2003-02-14</n:TaxPointDate>
  <cat:BuyerParty>
    <cat:PartyName>
      <cat:Name>Bills
    </cat:PartyName>
  </cat:BuyerParty>
  <cat:SellerParty>
    <cat:PartyName>
      <cat:Name>Joes Office
    </cat:PartyName>
  </cat:SellerParty>
  <cat:InvoiceLine>
    <cat:ID>1</cat:ID>
    <cat:InvoicedQuantity>
      unitCode="token">5</cat:InvoicedQuantity>
    <cat:Item>
      <cat:Description>Pencils, box #2
    </cat:Item>
  </cat:InvoiceLine>
</n:Invoice>
```

**FIATA Freight Forwarding Instructions**

Consignee reference number: DD-0599-22

Consignee: LK Logistics GmbH, Bismarckstrasse 19, DE-D-69115 Heidelberg, Germany, ID: 362 / 8

Freight forwarder: Strauss Transport Limited, 88 and 89, Rue de la Confédération, CH-8005 Zurich, Switzerland, ID: FIATA IR-2484/234

Country of origin: DE (Germany)

Conditions of sale: C.O.S. (Not applicable now)

Made of transport: Rail

Transport Insurance: Covered by Consignee

Freight: Prepaid

Place of destination: FFPAR - Paris

Freight and value insured: 20.000 ; CHF

Markings and numbers	No. and type of packages	Description of goods	Commodity code	Gross weight	Cubic
1 ADILMA Trading NR. 1-6 Order-SS/1	6 Cases	Cylinder-Press Completely Assembled	94452224	325 KG	350 MTQ

## Electronic Edit Form

Paper Document aligned to UN Layout Key



# UNeDocs – from yesterday through to tomorrow – Migration Paths



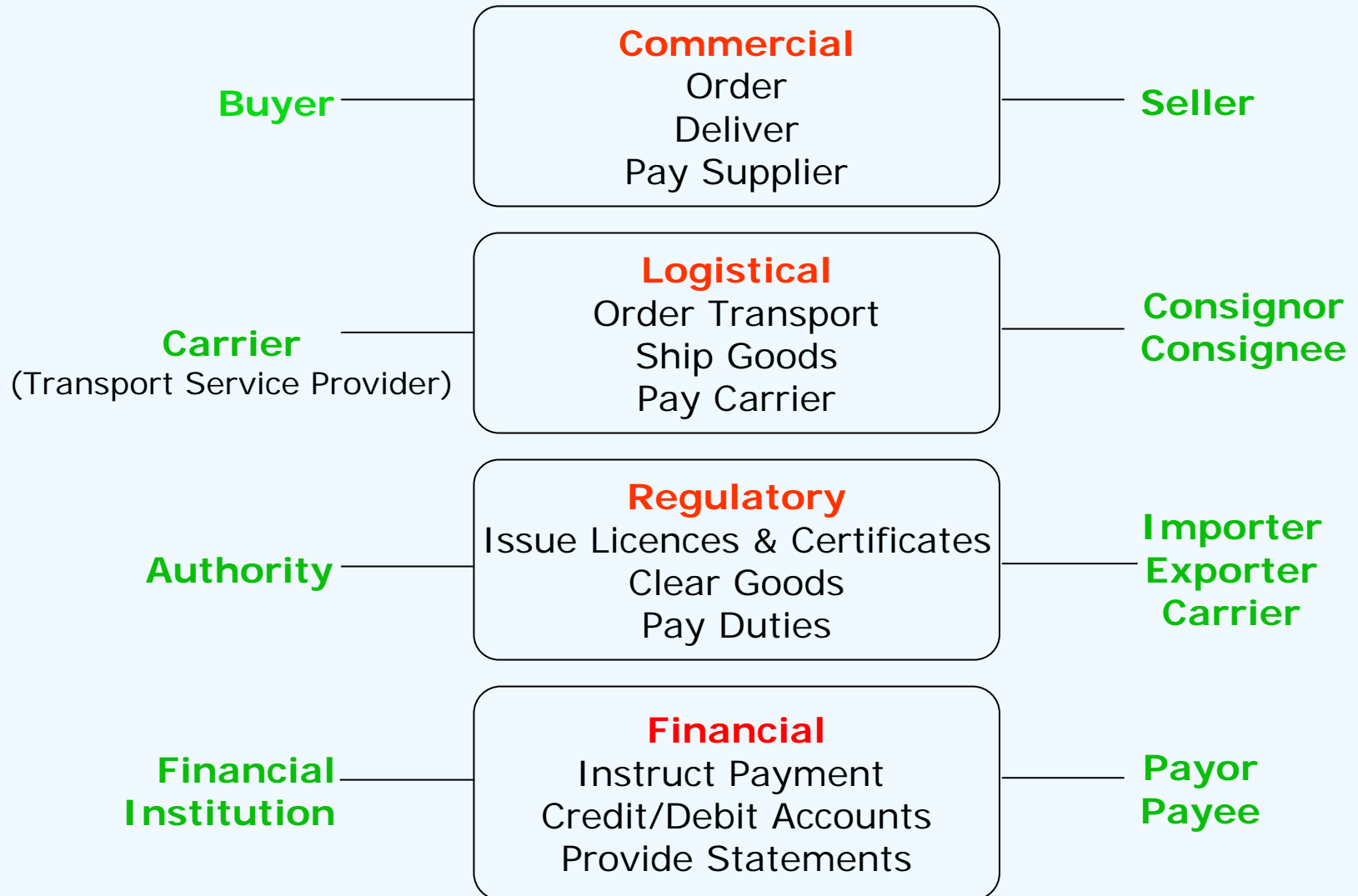
PURCHASE ORDER					Page 1 of 1
Seller Meyer Hardware Inc. South Hollow Road London UK		Purchase order number 4500004875			
		Date 2001-12-17		Seller's reference	
		Buyer's reference		Other reference	
Consignee IDES Retail INC US West Chester Pike Parsippany, NY US		Buyer IDES Retail INC US West Chester Pike Parsippany, NY US			
		Buyer's bank			
		Country of origin US		Country of destination US	
Mode of transport	Date of despatch	Terms of delivery		Location	
Means of transport	Place of despatch	Time of delivery		Transport Charges	
Vessel/flight no.	Place of loading	Terms of payment		Currency of payment	
Place of discharge	Place of delivery				
Shipping marks	Container No.	Number and kind of packages, description of goods		Total gross wt(Kg) 50	Total cube(m3) 7
Item 1 of 1	Description Tuner X300	Quantity UOM 10	Unit price 350.00	Amount 3,500.00	
Invoice classes				Total amount USD 3,500.00	





# International Supply Chain

## UNeDocs Cross Border Scope



# UNeDocs Project Objectives



- To facilitate international trade by providing a migration path towards paperless trade by:
  - developing a cross-domain, multimodal cross-border Core Component data model mapped to the United Nations Trade Data Element Directory (UNTDDED)
  - publishing and maintaining a set of UNCEFACT syntax implementation standards including EDIFACT, XML and aligned paper document layouts
- To support maintainable national, regional and industry-focussed contextual implementations by:
  - delivering Capacity Building Workshops
  - developing and publishing UNeDocs implementation guidance documentation.

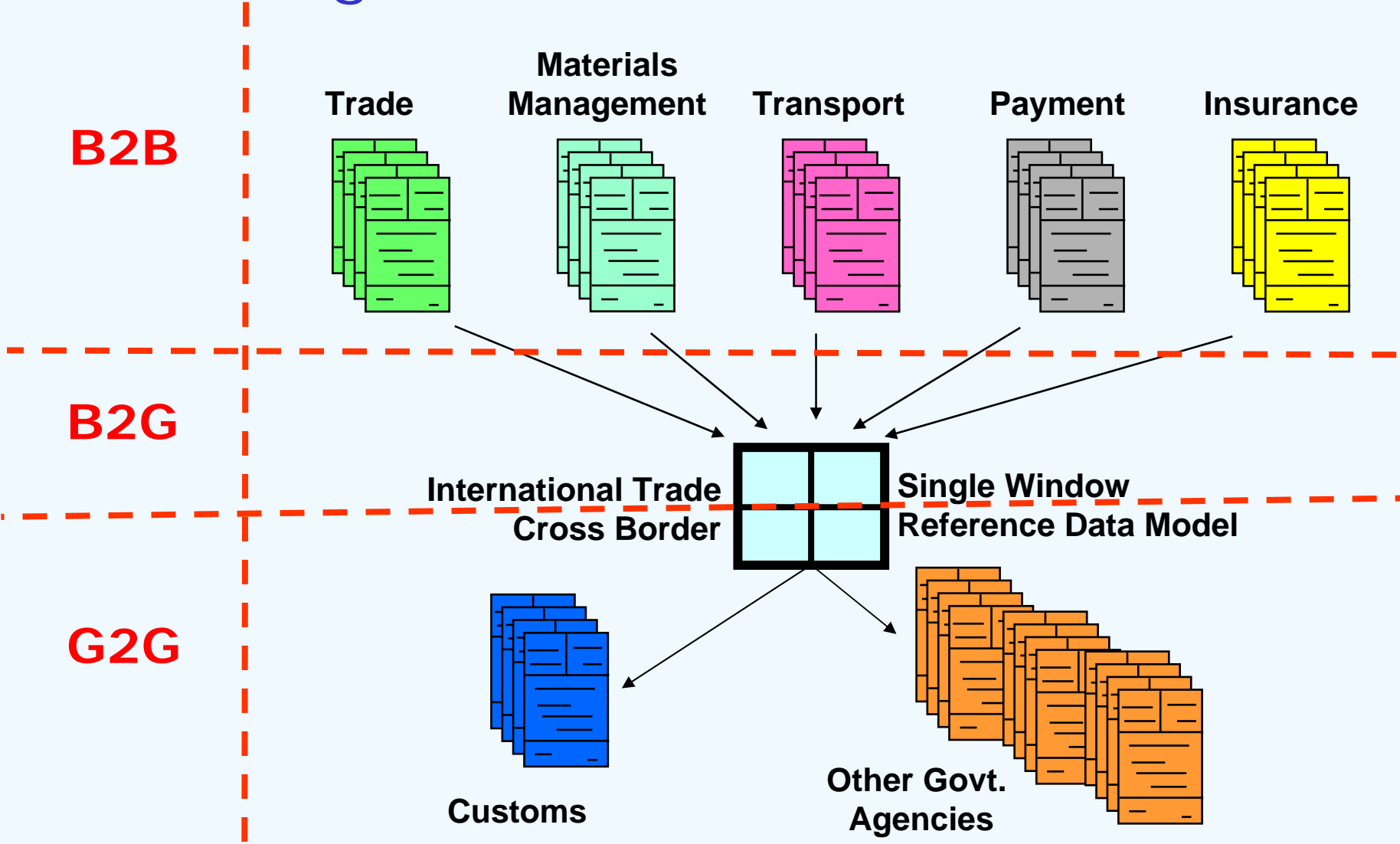
# UNeDocs – The Core Element



## A single **data modelling** approach for:

- Paper documents
- Electronic documents which are simply equivalent to paper documents
- Structured electronic documents  
UNEDIFACT, Cargoimp, VDA, XML etc.
- Snippets, e.g. Web/Service Orientated eTransactions

# New challenges – Global Trade Single Windows



# Objectives



To provide a smooth migration path towards 'Digital Paper' by

- Aligning data elements across Cross-Border Trade, Transport, International Payments, Customs & other Regulatory 'Documents'
- Delivering the electronic successor of the paper-based UN Layout Key (UNECE Recommendation No 1)
- Increasing achievable semantic interoperability through reuse of the UNCEFACT Core Component Library mapped to the UNTDED
- Enabling syntactic interoperability across Core Components, EDIFACT, XML, document layouts and box completion guidelines
- Providing maintainability through future versions
- Development of Customisation Methodology to allow user configurability by contextual refinement

# Project Deliverables



- A Business Process Model illustrating where the UNeDocs documents fit into the operation of the International Supply Chain based on the UNCEFACT International Supply Chain Reference Model.
- A ISO 15000 Part 5 compliant Common Data Model based on candidate or published UNCEFACT Core Components that are linked to the UNTDED/ISO 7372.
- Methodology for the presentation of data contained in electronic data exchanges onto electronic or paper forms and the update of UNLK to become eUNLK.
- For each document the project will develop:
  - o A class diagram and document structure
  - o The paper and electronic, re-usable layout description of the document based on the UN Layout Key
  - o Box Completion Guideline
  - o XML profiles
  - o UN/EDIFACT message implementation guide

# Summary



- A combination of cross-border business requirements collected from the TBG domain Working Groups and the necessary international regulatory requirements collated in conjunction with the WCO, paper-based Convention stakeholders and the Trade Facilitation work of UNCEFACT
- A harmonised, multimodal cross-domain data model based on the reuse of the UNCEFACT Core Component Library plus pre-harmonised contributions to the further development of the Library
- The application of a holistic approach which incorporates the deployment of all relevant UNCEFACT instruments and standards
- The development of coordinated implementation specifications for paper, eforms, UN/EDIFACT and XML document formats and structures



# UNeDocs ODP step 6 Application Projects



- Confirmed - 4
  - SITPRO – UNeDocsUK
  - TNL, Dagang Net, SITPRO – Customs Data Exchange between Malaysia and UK
  - APEC – WCO DM/UNeDocs Single Window Verification Project (2008)
  - TBG3 - EU Short Sea Project
- To be Confirmed – 8 so far
  - Korean Customs – Customs Cargo Report
  - TBG18 eCert Project Team – Sanitary Certificates
  - UNECE – Conformity Certificate
  - Sri Lanka – Certificate of Origin
  - SAARC – eSAD
  - EU eTEN Project – Exchange of Customs Invoice, Certificate of Origin, Phytosanitary Certificate, Packing List between up to 4 Member States
  - Vietnam – Electronic Certificate of Origin System (eCoSys)
  - IATA e-freight project – Certificate of Origin, Phytosanitary Certificate, Packing Lists and Customs Invoice

# Contacts



Michael Dill  
CEO GEFEG mbH, Berlin  
ISO TC154 HoD Germany  
UN/CEFACT/TBG2 Chair  
UNeDocs Project co-leader  
WCO DMPT

[dill@gefeg.com](mailto:dill@gefeg.com)

UNeDocs co-project leader: Sue Probert  
[sue.probert@dial.pipex.com](mailto:sue.probert@dial.pipex.com)