



eInvoicing Workshop

Rome, Italy

11th December 2019

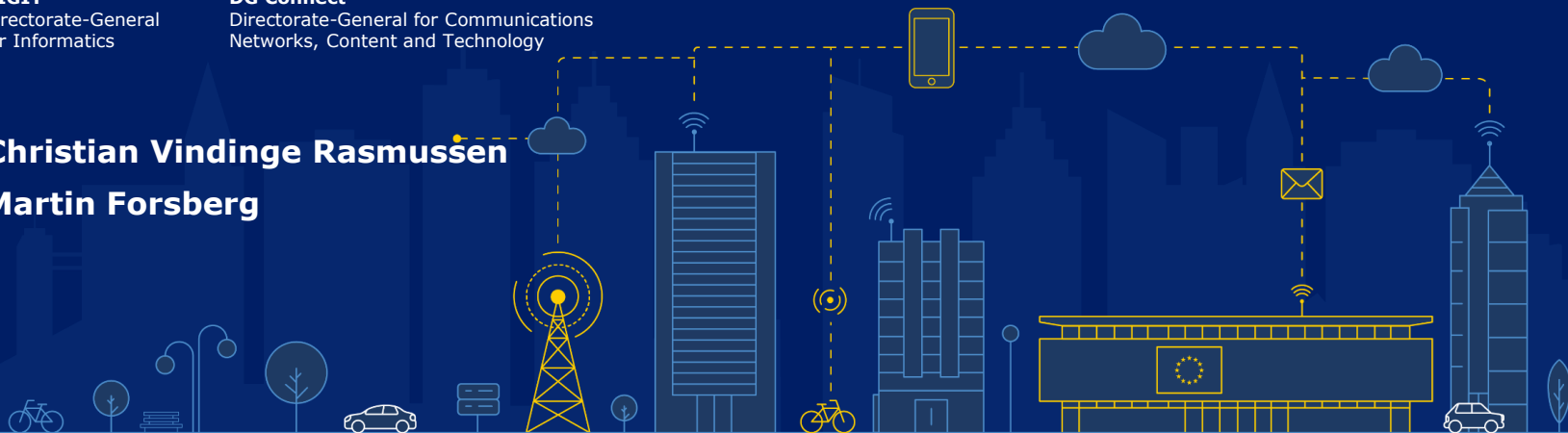
Connecting Europe Facility

DIGIT
Directorate-General
for Informatics

DG Connect
Directorate-General for Communications
Networks, Content and Technology

Christian Vindinge Rasmussen

Martin Forsberg



Today's speakers

Christian Vindinge Rasmussen

Christian is an experienced eProcurement Expert specialized in the execution of large scale ICT projects with past experience from the Nordic region. Christian has been involved in the past EU-funded large scale pilots PEPPOL.eu and eSENS.eu as Work packager leader with focus on new eProcurement and eDelivery development.

Christian works as a business development manager for e-Boks, Denmark.

Martin Forsberg

Martin Forsberg works as a subject matter expert in the area of electronic business, customs and financial processes. Martin was involved in the PEPPOL and eSENS Large Scale Pilots. He is active in standardization committees such as CEN TC434 and OASIS UBL.

Martin works as a consultant for ECRU, Sweden across EU.

Today's agenda

**Introduction to CEF, the tools
and supporting service**

And

**Introduction to the European
Standard on e-Invoicing**

**Taking E-Invoicing to
the next level**

10:00

11:15

12:00

13:00

**Methods for exchange
electronic invoices including
Peppol**

Open discussion

Mentimeter

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What is an implementation workshop?

- Build knowledge on the European standard
- Share best practices
- Strong cross-border perspective
- Help with roadmap on mass adoption
- Give practical input to implementation projects
- Give ideas on how to proceed and prioritize
- Learn about CEF services



A short retrospect

A short retrospect

Workshops so far...

- Finland
- Cyprus
- Poland
- Estonia
- Greece
- Sweden
- Austria
- Denmark
- Exchange Summits
- Malta
- Ireland
- Lithuania
- Czech Republic
- Germany
- Romania
- Latvia
- Hungary
- EESPA



Common themes brought up by the participants

- What are other countries doing?
- What does it mean to comply with the European Standard?
- Intellectual Property Rights and Copyright
- Cross border exchange of eInvoices
- Policy – what is necessary for smooth adoption



Level of Readiness

- Growing sense of urgency
- Plans are getting more and more concrete
- Still focus on technical aspects
- Lack of appreciation of the change process
- Focus on compliance rather than potential gains



Look ahead and reap the benefits

Focus for 2019, 2020

- Take advantage of the investments made
- Strategies for supplier onboarding
- Digitalization of the full procurement process
- ***Beyond compliance - bring e-Invoicing to the next level***

e-Invoicing from a user perspective



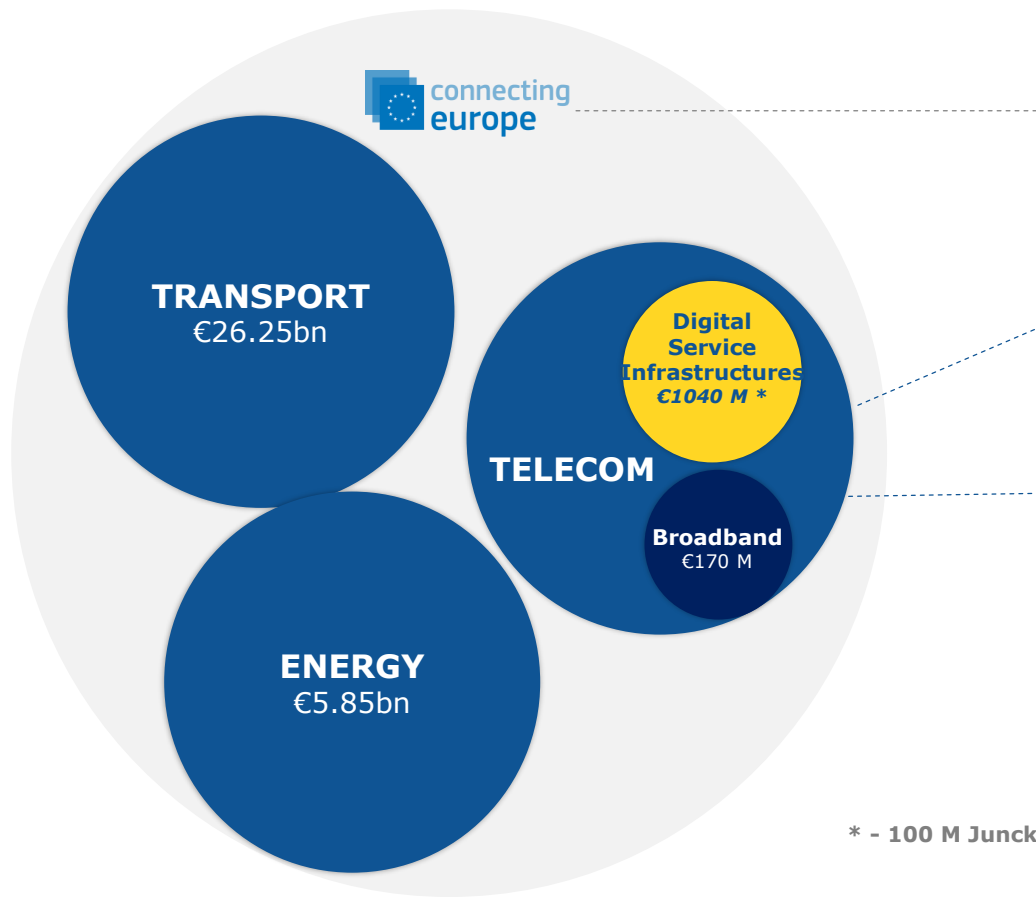
Introduction to CEF, our tools and supporting service

Christian Vindinge Rasmussen
DIGIT

What are

the CEF building blocks?

What is CEF?



HOW IS IT REGULATED?

CEF Regulation

The Connecting Europe Facility (CEF) is a regulation that defines how the Commission can finance support for the establishment of trans-European networks to reinforce an interconnected Europe.

CEF Telecom Guidelines

The CEF Telecom guidelines cover the specific objectives and priorities as well as eligibility criteria for funding of broadband networks and Digital Service Infrastructures (DSIs).

CEF Work Programmes

Translates the CEF Telecom Guidelines in general objectives and actions planned on a yearly basis.

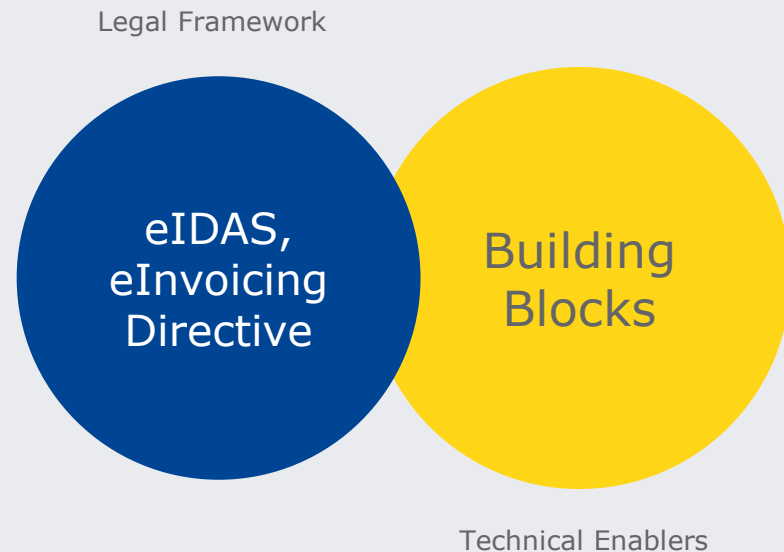
CEF Funding

From 2014-2020 1.040M Euro will be re-invested into adoption of the core building blocks in the DSIs.

Budget indications from 2020-2024 gives additional 1.6-9.2M Euro for further funding of implementation

* - 100 M Juncker Package

The Commission provides the legal framework and technical enablers to help build services people can trust, across sectors and across borders.



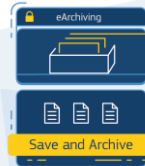
Digital Europe's building blocks are designed to help you build **digital services people can trust**



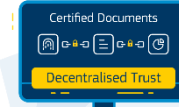
Big Data Test Infrastructure



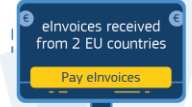
Context Broker



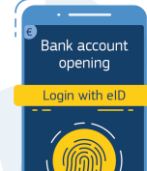
eArchiving



European Blockchain Service Infrastructure



eInvoicing



eID



eDelivery



eSignature



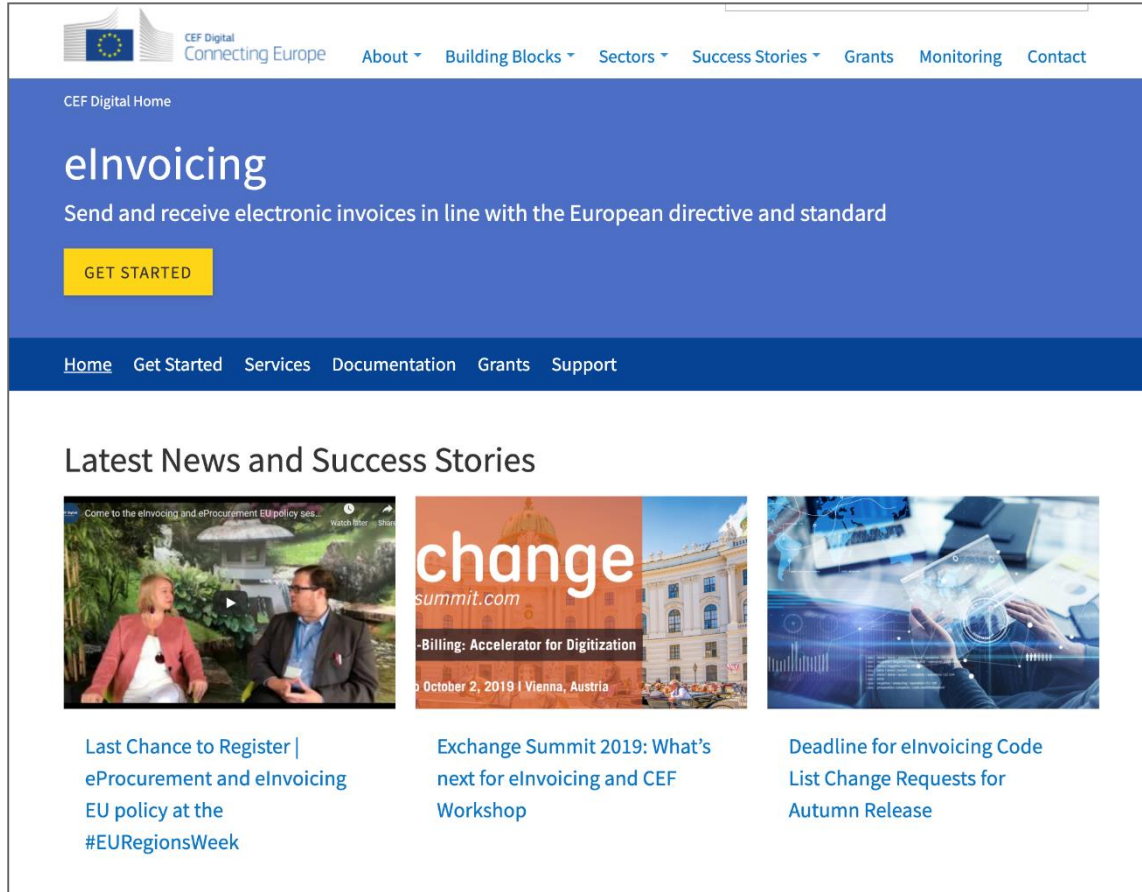
Once Only Principle



eTranslation

CEF Digital

CEF Digital



The screenshot displays the CEF Digital website interface. At the top left is the CEF Digital logo with the text "Connecting Europe". A navigation menu includes "About", "Building Blocks", "Sectors", "Success Stories", "Grants", "Monitoring", and "Contact". Below the navigation is a blue banner with the heading "eInvoicing" and the subtext "Send and receive electronic invoices in line with the European directive and standard". A yellow "GET STARTED" button is positioned below the banner. A secondary navigation bar contains "Home", "Get Started", "Services", "Documentation", "Grants", and "Support". The main content area is titled "Latest News and Success Stories" and features three news items:

- Video:** "Come to the eInvoicing and eProcurement EU policy session" featuring two speakers in a video player.
- Exchange Summit 2019:** "What's next for eInvoicing and eProcurement" with the text "Exchange Summit 2019: What's next for eInvoicing and eProcurement" and "October 2, 2019 | Vienna, Austria".
- Code List Change:** "Deadline for eInvoicing Code List Change Requests for Autumn Release" with the text "Deadline for eInvoicing Code List Change Requests for Autumn Release".

The European Commission logo is located in the bottom right corner of the page.

CEF Digital Home

eInvoicing

Send and receive electronic invoices in line with the European directive and standard

GET STARTED

[Home](#) [Get Started](#) [Services](#) [Documentation](#) [Grants](#) [Support](#)

Latest News and Success Stories



[Last Chance to Register | eProcurement and eInvoicing EU policy at the #EURegionsWeek](#)



[Exchange Summit 2019: What's next for eInvoicing and eProcurement Workshop](#)



[Deadline for eInvoicing Code List Change Requests for Autumn Release](#)

CEF eInvoicing User Community

The screenshot shows the CEF eInvoicing User Community website. The top navigation bar is blue and contains a menu icon, 'Spaces', 'People', 'Create', a search bar, and a 'Log in' link. The left sidebar is white and contains the 'UC' logo, 'eInvoicing User Community', 'SPACE SHORTCUTS' (with links to 'CEF Knowledge Base' and 'Glossary'), 'PAGE TREE' (with a dropdown menu for 'eInvoicing news & events' containing links to '2016 eInvoicing Events Archive', '2017 eInvoicing Events Archive', 'Webinar series #1', 'Webinar series #2', 'Webinar series #3', '2018 eInvoicing Events Archive', 'FORUM', and 'CONTRIBUTE'), and 'CEF eInvoicing Implementation V' (with a list of countries: Austria, Croatia, Cyprus, Czech Rep., and Denmark).

The main content area is titled 'Pages' and features a large banner image of a group of people. Below the banner, there are three main content blocks:

- THE EUROPEAN STANDARD**: A text block explaining the European standard on eInvoicing, mentioning the Directive 2014/55/EU and the 18-month implementation period starting from April 18, 2019. A 'Learn More' button is at the bottom.
- eInvoicing Country Factsheets**: A text block inviting users to visit country sheets for more information on eInvoicing in Europe. A 'Visit Country Sheets' button is at the bottom.
- eInvoicing policy: EMSFel guidance on implementation for EU public administrations published!**: A text block announcing the publication of guidance from the European Multi-Stakeholder Forum on eInvoicing (EMSFel) supporting public administrations. A 'Download' button is at the bottom.

The bottom left corner of the page shows 'Space tools' and a double-left arrow icon.

Stakeholder management services

Knowledge base

OBJECTIVE OF THE SERVICE

This service provides public entities and solution & service providers an easy reference repository for eInvoicing related information.

It includes information about access to the different code lists, codes used and their meaning, and a glossary of elements used in the European eInvoicing standard.

The Knowledge base provides information on EU and country specific levels.

BENEFITS

- This service provides a useful and reliable information repository that helps users to find, consult and interpret information resources about eInvoicing in Europe.
- It provides useful information that public administrations can use to plan, initiate and execute eInvoicing implementation plans and strategies.

The screenshot shows a news article on the CEF Digital website. At the top left is the CEF Digital logo with the text 'Connecting Europe'. Below the logo is a search bar. The article title is 'CEF eInvoicing Video and Infographic: Available Now'. The main image is a blue graphic with the text 'Directive 2014/55/EU' at the top. The graphic features three computer monitors with checkmarks, a central monitor with a document icon, and a city skyline at the bottom with labels for 'REGIONAL', 'CENTRAL GOVERNMENT', and 'LOCAL GOVERNMENT'.

USERS

- Public entities
- Policy makers
- Economic operators & suppliers
- Solution & service providers

More info

[CEF Digital](#) >

Get started

[Contact us](#) >

2018 Country Factsheets



CEF Digital
Connecting Europe

MENU COMMUNITY

[CEF Digital Home](#) > [eInvoicing](#)

Situation per country

Interested in the uptake of eInvoicing in Europe?

[CEF Monitoring Dashboard >](#)

Every European Union Member State has a unique approach to dealing with eInvoicing. For each country you can find out more about their:

- policy framework
- eInvoicing platform (if existing)
- approach for receiving and processing electronic invoices

Summary

Organisation responsible for eInvoicing	
eInvoicing legislation	
eInvoicing is mandatory for	
eInvoicing standard(s)	
eInvoicing platform	

Full Country Factsheet

Legislation

..

eInvoicing platform and eInvoicing management solutions

..

Approach for receiving and processing eInvoices

..

Additional information

..

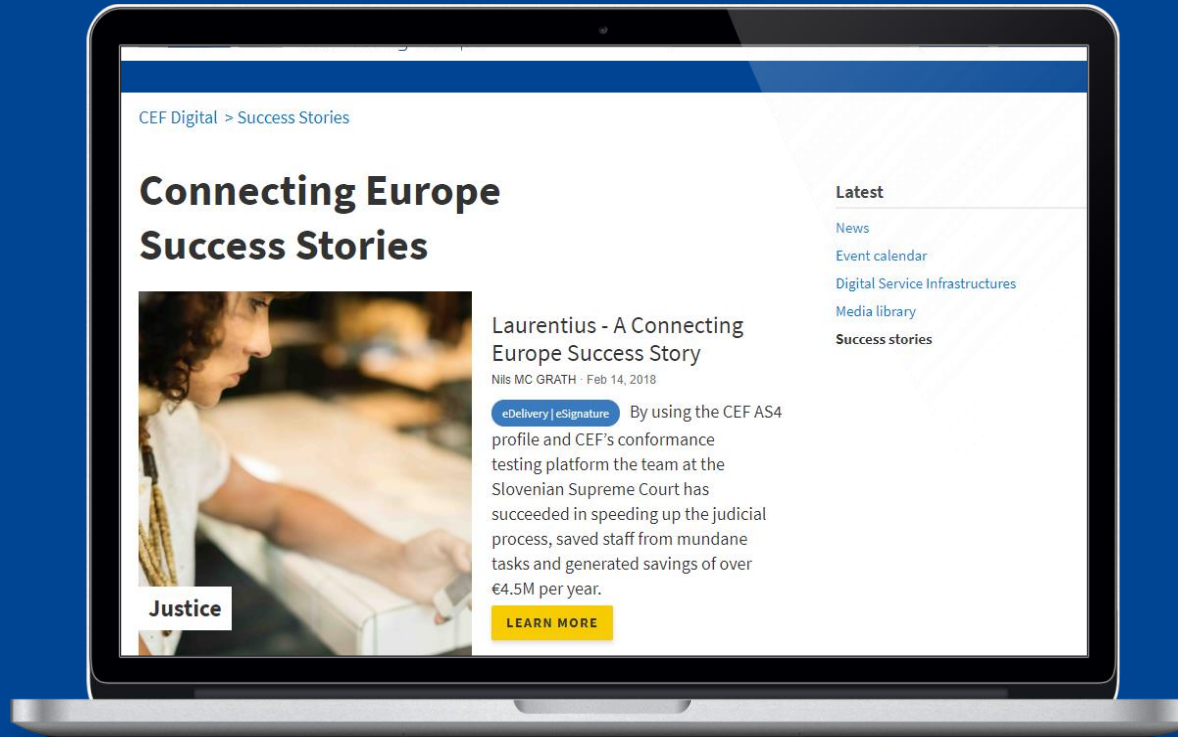
Country factsheets

EU Member States

Austria	Italy
Belgium	Latvia
Bulgaria	Lithuania
Croatia	Luxembourg
Cyprus	Malta
Czech Republic	The Netherlands
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	United Kingdom

ADDITIONAL EEA (European Economic Area) COUNTRIES

Iceland	Norway
Liechtenstein	



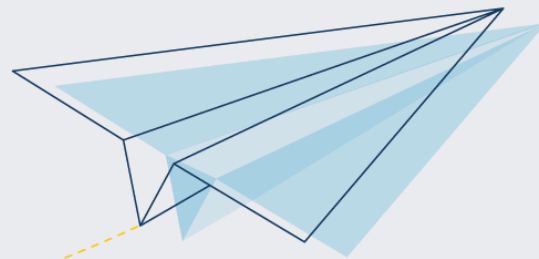
Read all the Connecting Europe success stories on CEF Digital

View >

Ready to get started?

Reach out to us to learn more!

Or visit our website www.ec.europa.eu/cefdigital



Funding and Grants – possibilities within CEF

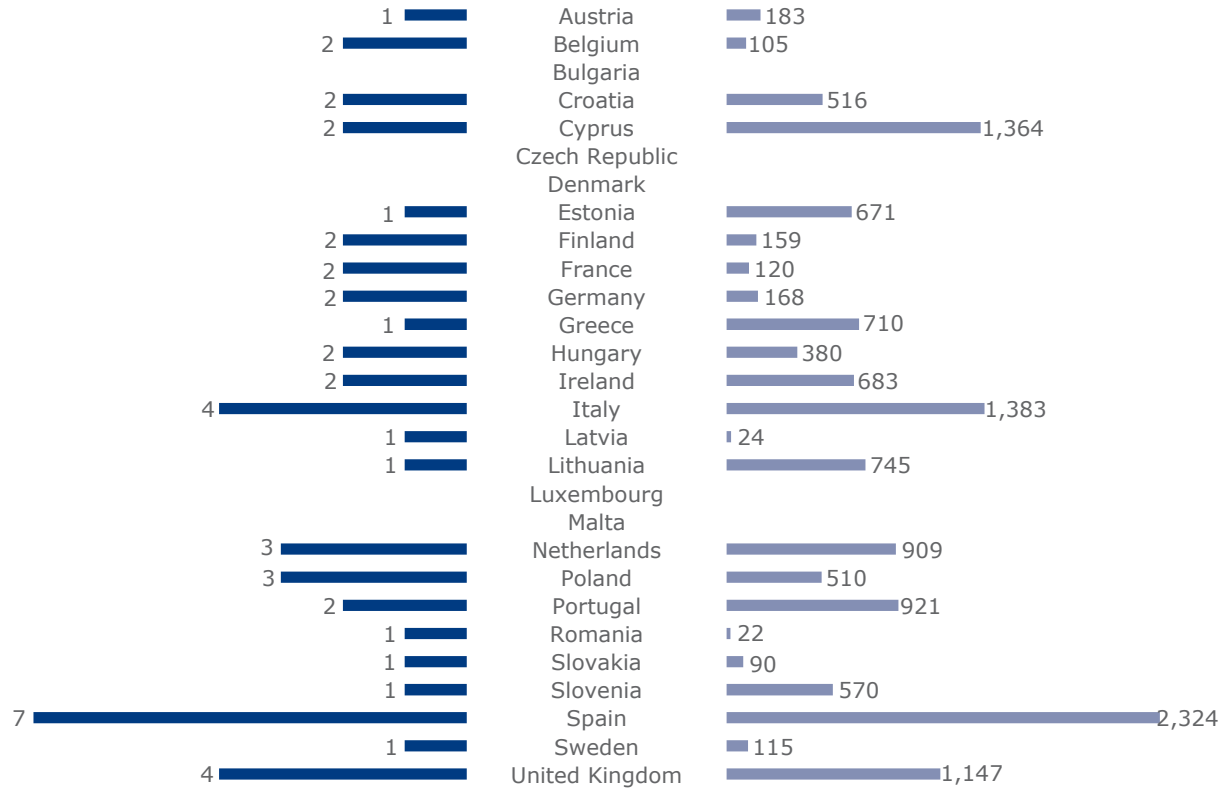


Funding opportunities

Call	Open Calls	Deadline for submissions
CEF-TC-2019-1 Automated Translation (indicative budget: €4M)	14 February 2019	14 May 2019
CEF-TC-2019-1 eID & eSignature (indicative budget: €5M)	14 February 2019	14 May 2019
CEF-TC-2019-1 eDelivery (indicative budget: €1M)	14 February 2019	14 May 2019
CEF-TC-2019-1 eInvoicing (indicative budget: €6.2M)	14 February 2019	14 May 2019

Visit INEA Website

Member States Number of projects and CEF funding (€ thousand)



EEA and Third Countries Number of projects and CEF funding (€ thousand)



List of grant agreements for invoicing DSI building blocks

Project Code	Title	Beneficiary countries	Start Date	End Date	Project Status	CEF funding for the action (€)
2015-AT-IA-0049	EVA - e-Invoicing for Austria	AT	01/09/2016	31/12/2017	Ongoing	183,000
2015-CY-IA-0052	E-invoicing Cyprus	CY	01/10/2016	31/12/2017	Ongoing	561,430
2015-ES-IA-0055	SMART eINVOICING PLATFORM TO ENFORCE CROSS-BORDER DOCUMENTATION EXCHANGE (SEINPEX)	ES	01/08/2016	31/12/2017	Ongoing	222,781
2015-EU-IA-0050	eIGOR - eInvoicing GO Regional	IT,UK	01/01/2017	31/12/2017	Ongoing	1,252,500
2015-EU-IA-0054	Semantic conversion of business documents (SCOBDO)	DE,NL	01/09/2016	31/12/2017	Ongoing	283,199
2015-EU-IA-0058	GOVeIn European eInvoicing Project: implementation of the European electronic invoice within the Public Health area	ES,FR,HU,IE,IT,NL,PL,RO,UK	01/10/2016	31/10/2017	Ongoing	770,249
2015-HR-IA-0048	Croatian eInvoicing Business-to-Administration Exchange Project	HR	02/06/2016	30/05/2017	Closed	251,328
2015-UK-IA-0056	eInvoice Expansion	UK	01/10/2016	31/12/2017	Ongoing	901,624
2016-CY-IA-0105	Cy e-Invoicing (Local Authorities)	CY	01/01/2018	31/12/2018	Ongoing	802,134
2016-EL-IA-0130	Interoperable eInvoicing in Greece (GRInv)	EL	01/10/2017	30/09/2018	Ongoing	710,065
2016-ES-IA-0117	FACe - The core platform of the Spanish public authorities to process the European standard on electronic invoice	ES	01/09/2017	30/11/2018	Ongoing	298,691
2016-ES-IA-0134	EUeInvoicing.cat - European standards adoption for eInvoicing in Catalonia	ES	01/09/2017	31/08/2018	Ongoing	622,833
2016-EU-IA-0086	Tools and support towards the adoption of the future EN on electronic invoicing in SMEs	BE,ES,IT	01/09/2017	31/08/2018	Ongoing	372,054
2016-EU-IA-0096	GOV2EU - Supporting public entities to adopt EU Standard on electronic invoice for cross-border transactions	BE,DE,ES,FR,HU,IT,PL,PT,SK	01/09/2017	31/10/2018	Ongoing	1,248,208
2016-EU-IA-0109	SAPHeIN – Implementing SAPHetydoc for the wide adoption of eInvoicing	ES,PT	01/06/2017	31/08/2018	Ongoing	908,837
2016-EU-IA-0119	Facilitate and increase the use of the European Norm on e-invoice and the use of access point in the EU	FI,NO,SE	15/12/2016	01/06/2018	Ongoing	887,879
2016-EU-IA-0120	Internet of Business (IoB)	EE,FI,LV	01/06/2017	31/05/2018	Ongoing	795,248
2016-EU-IA-0126	Promote uptake of e-invoicing in Ireland	IE,UK	01/07/2017	30/06/2018	Ongoing	755,904
2016-HR-IA-0090	eINVOICING For Croatian Public Authorities (eICPA)	HR	19/09/2017	19/09/2018	Ongoing	264,201
2016-LT-IA-0104	eInvoicing cross-border LT	LT	01/09/2017	01/09/2018	Ongoing	744,553
2016-NL-IA-0088	NL eInvoicing	NL	16/12/2016	31/05/2018	Ongoing	705,068
2016-PL-IA-0106	European cross-border e-invoice in local public procurement in Poland	PL	01/10/2017	30/11/2018	Ongoing	420,442
2016-SI-IA-0103	Readiness of Slovenian E-invoicing	SI	01/06/2017	01/06/2018	Ongoing	570,248

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Introduction of the European Standard on e- Invoicing

Martin Forsberg
DIGIT


What is an electronic invoice?



**PDF-
Invoice**



**Electronic
workflow**
Scanned paper



**Exchange of
structured
invoice
data**

'electronic invoice' means an invoice that has been issued, transmitted and received in a structured electronic format which allows for its automatic and electronic processing


**Article 2, DIRECTIVE 2014/55/EU on
electronic invoicing in public procurement**



**PDF-
Invoice**



**Electronic
workflow**
Scanned paper



**Exchange of
structured
invoice
data**

Directive 2014/55/EU on electronic invoicing in public procurement



Optimisation of the swift payment processes



Simplification of cross-border procurement



Optimising the interoperability of IT solutions within the EU by transmitting structured data



Automation of eInvoicing processes (reduction of timing and risk of human error)



Enhancement of the traceability of public expenditures, monitoring and public procurement governance



Improvement of tax collection works

Directive
Goals

Requirements for the contracting authorities/entities

From article 7

Receipt and processing of electronic invoices

*Member States shall ensure that contracting authorities and contracting entities **receive and process electronic invoices** which comply with the **European standard on electronic invoicing** whose reference has been published pursuant to Article 3(2) and with **any of the syntaxes on the list** published pursuant to Article 3(2).*

a list with a limited number of syntaxes which comply with the European standard on electronic invoicing

Semantic data model of the core elements of an electronic invoice

Definitions

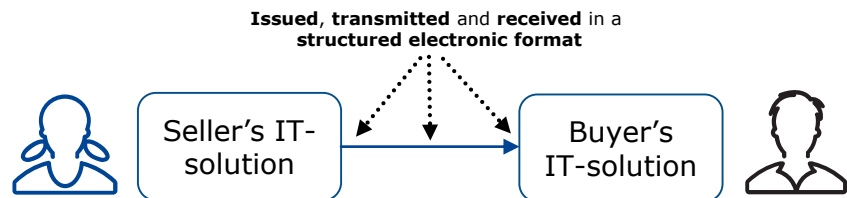
(1) **'electronic invoice'** means an invoice that has been issued, transmitted and received in a structured electronic format which allows for its automatic and electronic processing;

(2) **'core elements of an electronic invoice'** means a set of essential information components which an electronic invoice must contain in order to enable cross-border interoperability, including the necessary information to ensure legal compliance;

(3) **'semantic data model'** means a structured and logically interrelated set of terms and their meanings that specify the core elements of an electronic invoice;

(4) **'syntax'** means the machine readable language or dialect used to represent the data elements contained in an electronic invoice;

(5) **'syntax bindings'** means guidelines on how a semantic data model for an electronic invoice could be represented in the various syntaxes;



Commercial Invoice

Taxi- o Transportrörelsen HB

Invoice issue date
2008-09-01

Payment due date
2008-10-01

Period start date
2008-08-15

Period end date
2008-08-31

Invoice number
1002420

Order reference

Buyer reference
PoPe

Amount due for payment
750 SEK

BUYER
Skellefteå Sambruk AB
Address
Box 1
93100 Skellefteå
SE

Legal registration ID: 9876543210 [0007]
Buyer name: Skellefteå Sambruk AB

BUYER CONTACT
B-E Stållman
Buyer accounting reference: PoPe

Contract reference: K1002420

Line ID	Seller's ID	Name	Quantity	Net price	VAT rate	Charge Allowance	Net amount
1		Högtrafik	4.2 KMT (Unit of measure: kilometre)	23.14 SEK	S, 6%	Charge: 33 Startavg (%)	130.1
Note: Stamkund 198, Wieselgenspl - Centralstationen INVOICING PERIOD: 2008-08-18							
2		Natttaxi	4.4 KMT	25.09 SEK	S, 6%	Charge: 33	14.4

Key dates

16 April 2014

Directive 2014/55/EU

17 October 2017

Publication of the reference to the European Standard on eInvoicing in the Official Journal

18 April 2019

Deadline for Member States to transpose into national law

18 April 2020

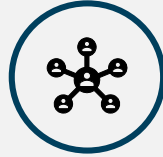
Extended deadline (upon request) for contracting authorities and entities which are not central government authorities

eInvoicing: the Member States' state of play



25_{/28}

Member States have transposed the Directive at the central level



13_{/28}

Member States have requested the extra-year (by April 2020) for the sub-central transposition



23_{/28}

Member States have an eInvoicing solution in operation

[Country factsheets](#)

eInvoicing: the Member States' state of play (1/2)

Transposition of the Directive status among Member States

- Directive transposed
- Directive partially transposed
- No information or transposition to be done after the deadline

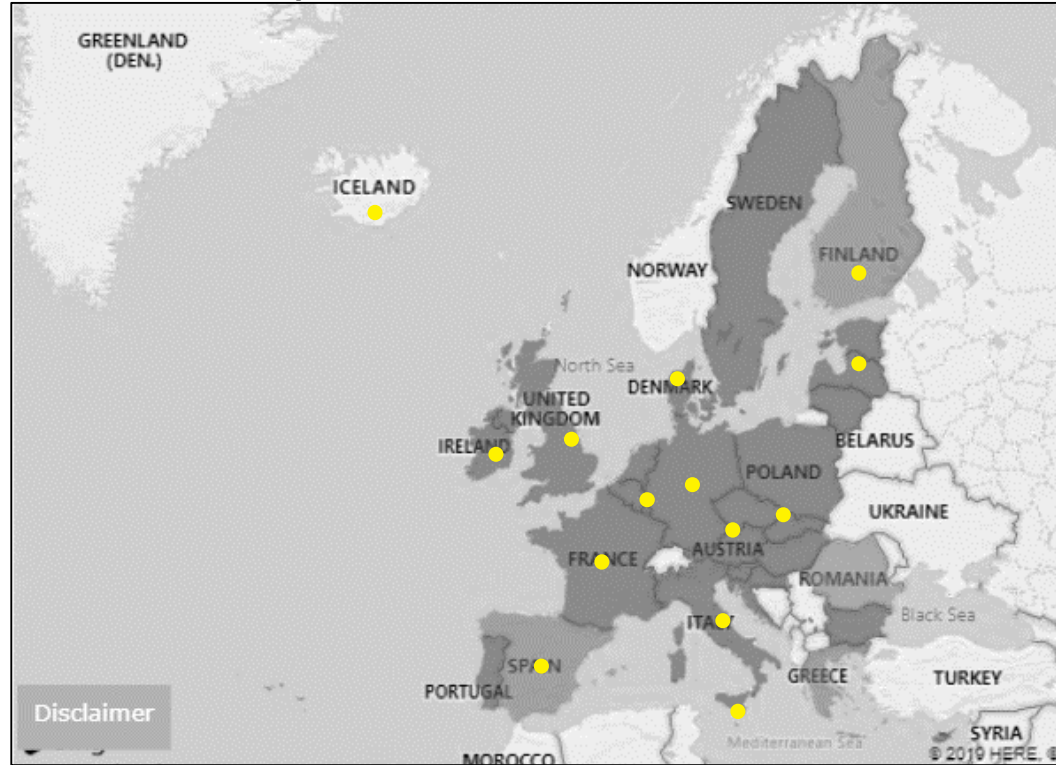


Transposition of the Directive 2014/55/EU

eInvoicing: the Member States' state of play (2/2)

Request for the extra year for compliance at the sub-central level
(18th April 2020)

● Extra year requested by the Member State



Member states having requested the extra-year for compliance at the sub-central level

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Initiation of the standardisation

From article 3

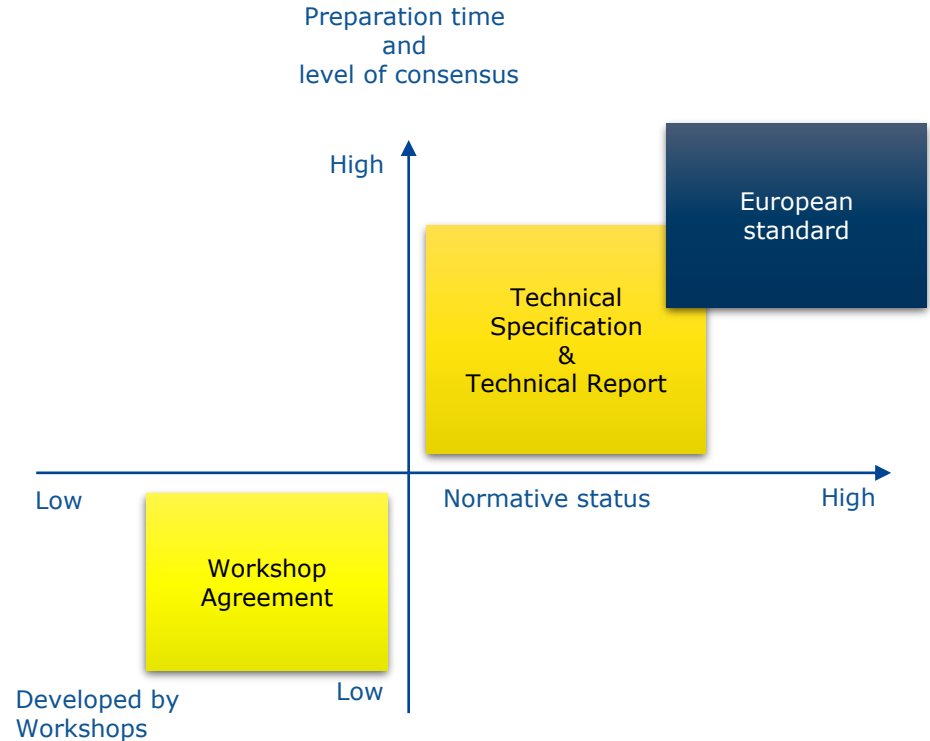
*The Commission shall request that the relevant **European standardisation organisation** draft a European standard for the semantic data model of the core elements of an electronic invoice (the 'European standard on electronic invoicing').*

...

The Commission shall request that the relevant European standardisation organisation provide a list with a limited number of syntaxes which comply with the European standard on electronic invoicing, the appropriate syntax bindings and guidelines on transmission interoperability, in order to facilitate the use of such standard.

CEN/TC 434 was established

- CEN - European Committee for Standardisation
- The work started in a project committee (PC434) but was later changed into a technical committee (TC434)
- TC434 has over 100 committee members from 31 countries
- Participation in the work must go through the national standardisation committees.
- The committee is about to finalize all deliverables defined in the standardisation request



Current status

Number	Title	Status
EN 16931-1	Semantic data model of the core elements of an electronic invoice	Approved!
CEN/TS 16931-2	List of syntaxes that comply with EN 16931-1	Approved!
CEN/TS 16931-3-1	Methodology for syntax bindings of the core elements of an electronic invoice	Approved!
CEN/TS 16931-3-2	Syntax binding for ISO/IEC 19845 (UBL2.1) invoice and credit note	Approved!
CEN/TS 16931-3-3	Syntax binding for UN/CEFACT XML Cross Industry Invoice D16B	Approved!
CEN/TS 16931-3-4	Syntax binding for UN/EDIFACT D16B	Approved!
CEN/TR 16931-4	Guidelines on interoperability of electronic invoices at the transmission level	Approved!
CEN/TR 16931-5	Guidelines on the use of sector or country extensions in conjunction with EN 16931-1, methodology to be applied in the real environment	Approved!
CEN/TR 16931-6	Result of the test of EN 16931-1 with respect to its practical application for an end user	Approved!

Introduction to key concepts of the standard

EUROPEAN STANDARD

EN 16931-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2017

ICS 35.240.20; 35.240.63

English Version

Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice

Facturation électronique - Partie 1: Modèle sémantique
de données des éléments essentiels d'une facture
électronique

Elektronische Rechnungstellung - Teil 1:
Semantisches Datenmodell der Kernelemente einer
elektronischen Rechnung

This European Standard was approved by CEN on 17 April 2017.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

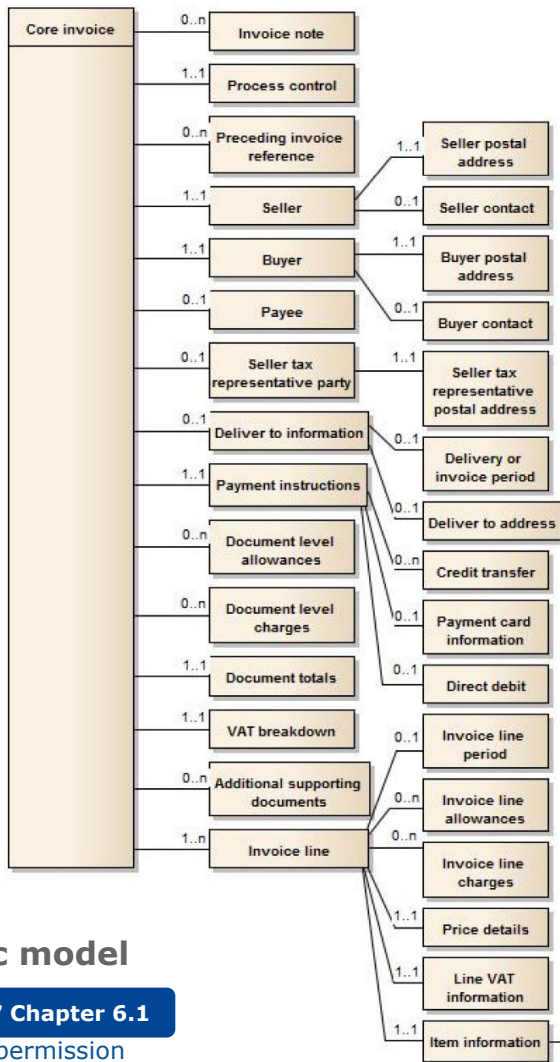


EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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worldwide for CEN national Members.

Ref. No. EN 16931-1:2017 E



Examples of key components

Invoice (header)
 Invoice number (1..1)
 Issue date (1.1)
 Type code (1..1)
 Currency code (1..1)

Seller information
 Name (1..1)
 Trading name (0..1)
 Identifier (0..n)
 Legal registration identifier (0..1)
 VAT number (0..1)
 Additional information (0..n)
 ...

Payment instructions
 Payment means type code (1..1)
 Payment means text (0..1)
 Payment means (0..1)

VAT Breakdown
 Category taxable amount (1..1)
 Category tax amount (1..1)
 Category code (1..1)
 Category rate (0..1)
 Exemption text (0..1)
 Exemption code (0..1)

Item information
 Name (1..1)
 Description (0..1)
 Sellers identifier (0..1)
 Buyers identifier (0..1)
 Standard identifier (0..1)
 Item classification (0..n)
 Country of origin (0..1)

The semantic model

EN 16931-1:2017 Chapter 6.1

Examples of business terms

ID	Level	Cardinality	Business Term	Description	Usage Note	Req. ID	Semantic data type ²
BT-1	+	1..1	Invoice number	A unique identification of the Invoice.	The sequential number required in Article 226(2) of the directive 2006/112/EC [2], to uniquely identify the Invoice within the business context, time-frame, operating systems and records of the Seller. It may be based on one or more series of numbers, which may include alphanumeric characters. No identification scheme is to be used.	R56	Identifier
BT-2	+	1..1	Invoice issue date	The date when the Invoice was issued.		R56	Date
BT-3	+	1..1	Invoice type code	A code specifying the functional type of the Invoice.	Commercial invoices and credit notes are defined according the entries in UNTDID 1001 [6]. Other entries of UNTDID 1001 [6] with specific invoices or credit notes may be used if applicable.	R44	Code

ID – Unique id for each business term

Level – indicates depth in model (+, ++, +++, +++++)

Cardinality – Indicates optionality, repetitions allowed

Business term – name of the business term

Description – short description/definition

Usage note – guiding/explanatory information

Req id – reference to underlying requirement

Data type – the type of data used

Business rules

- Conditions – dependencies between terms
- Integrity constraints (In many cases, the data model cardinality indicates the same thing)

ID	Description	Target / context	Business term / group
BR-CO-8	Invoice line charge reason code and Invoice line charge reason shall indicate the same type of charge reason.	Invoice Charges line	BT-144, BT-145
BR-CO-9	The Seller VAT identifier, Seller tax representative VAT identifier, Buyer VAT identifier shall have a prefix in accordance with ISO code ISO 3166-1 alpha-2 by which the country of issue may be identified. Nevertheless, Greece may use the prefix 'EL'.	VAT identifiers	BT-31, BT-48, BT-63
BR-CO-10	Sum of Invoice line net amount = \sum Invoice line net amount.	Document totals	BT-106

ID – Unique id for each business rule

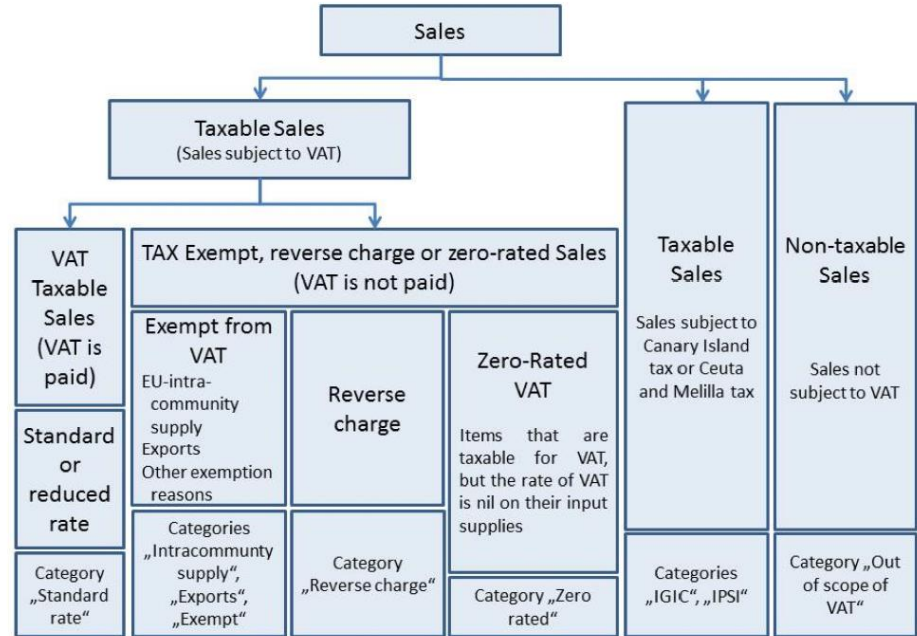
Description – textual description of the rule

Target/Context – the cgroup/class for where the rule applies

Business term/group – reference to the term for which the rule applies

Business rules – VAT Rules

- VAT Rules – Rules for each VAT category



ID	Description
BR-Z-1	An Invoice that contains a line, a document level allowance where the Invoiced item VAT category code (BT-151, BT-152) shall contain in the VAT breakdown (BG-23) exactly one equal with “Zero rated”.
BR-Z-2	An Invoice that contains a line where the Invoiced item VAT category code (BT-151) is “Zero rated” shall contain the Sellers VAT Identifier (BT-31), the Seller Tax registration identifier (BT-32) or the Seller tax representative VAT identifier (BT-63).
BR-Z-3	An Invoice that contains a document level allowance where the Invoiced item VAT category code (BT-95) is “Zero rated” shall contain the Sellers VAT Identifier (BT-31), the Seller Tax registration identifier (BT-32) or the Seller tax representative VAT identifier (BT-63).

Many syntaxes – a problem?

- There are a large number of syntaxes in use
- Many communities are already using e-invoicing since a long time
- Use of many syntaxes result in interoperability problems

(9)

In order to further simplify the use of electronic invoicing and to reduce costs, one of the long-term objectives should be to **limit the number of syntaxes used**, preferably by concentrating on those most commonly used.

Article 3

Establishment of a European standard

...

The Commission shall request that the relevant European standardisation organisation **provide a list with a limited number of syntaxes** which comply with the European standard on electronic invoicing, the appropriate syntax bindings and guidelines on transmission interoperability, in order to facilitate the use of such standard.

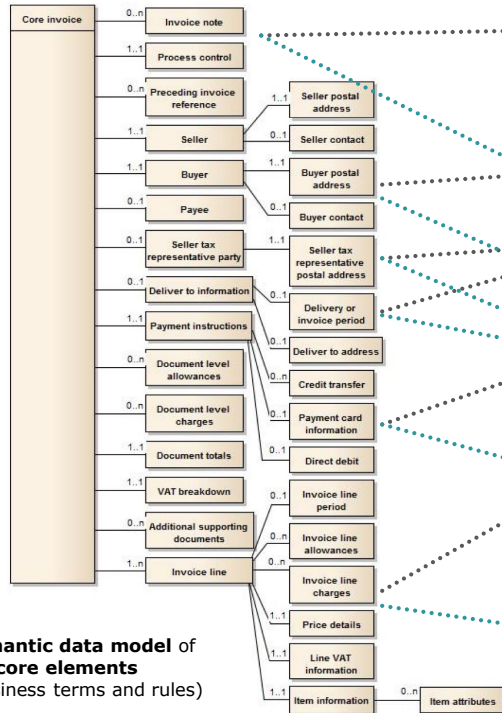
Article 7

Receipt and processing of electronic invoices

Member States shall ensure that contracting authorities and contracting entities receive and process electronic invoices which comply with the European standard on electronic invoicing whose reference has been published pursuant to Article 3(2) and with **any of the syntaxes on the list** published pursuant to Article 3(2).

Syntaxes

Mapping from the business terms to the syntaxes/formats



```

<Invoice xmlns="urn:oasis:names:specification:ubl:schema:xsd:Invoice-2" xmlns:cbc="urn:oasis:names:specification:ubl:schema:xsd:CommonBasicComponents-2" xmlns:cac="urn:oasis:names:specification:ubl:schema:xsd:CommonAggregateComponents-2" >
  <cbc:UBLVersionID>2.1</cbc:UBLVersionID>
  <cbc:CustomizationID>urn:www.cenbii.eu:transaction:biitnrs010:ver2.0:extd:urn:www.cenbii.eu:profile:bii05:ver2.0</cbc:CustomizationID>
  <cbc:ProfileID>urn:www.cenbii.eu:profile:bii05:ver2.0</cbc:ProfileID>
  <cbc:ID>998877</cbc:ID>
  <cbc:IssueDate>2013-05-31</cbc:IssueDate>
  <cbc:InvoiceTypeCode listID="UNCL1001">380</cbc:InvoiceTypeCode>
  <cbc:Note>PEPPOL BIS 5a: The "MAX DATA" test case. Test of certain sp<
  <cbc:TaxPointDate>2013-05-31</cbc:TaxPointDate>
  <cbc:DocumentCurrencyCode listID="ISO4217">SEK</cbc:DocumentCurr<
  <cbc:TaxCurrencyCode listID="ISO4217">EUR</cbc:TaxCurrencyCode>
  <cbc:AccountingCost>Project-123</cbc:AccountingCost>
  <cac:InvoicePeriod>
    <cbc:StartDate>2013-05-01</cbc:StartDate>
    <cbc:EndDate>2013-05-31</cbc:EndDate>
  </cac:InvoicePeriod>

```

Syntax A

```

<rsm:CrossIndustryInvoice xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:rsm="urn:un:ces:crossindustryinvoice:2.1:structuredheader:1" xmlns:ram="urn:un:ces:crossindustryinvoice:2.1:structuredheader:1" xmlns:udt="urn:un:ces:crossindustryinvoice:2.1:structuredheader:1" >
  <rsm:ExchangedDocument>
    <ram:ID>123</ram:ID>
    <ram:TypeCode>380</ram:TypeCode>
    <ram:IssueDateTime>
      <udt:DateTimeString>20130601</udt:DateTimeString>
    </ram:IssueDateTime>
    <ram:EffectiveSpecifiedPeriod>
      <ram:StartDateTime>
        <udt:DateTimeString>20130501</udt:DateTimeString>
      </ram:StartDateTime>
      <ram:EndDateTime>
        <udt:DateTimeString>20130601</udt:DateTimeString>
      </ram:EndDateTime>
    </ram:EffectiveSpecifiedPeriod>
    <ram:IssuerTradeParty>
      <ram:ID>token</ram:ID>
      <ram:GlobalID>token</ram:GlobalID>
      <ram:Name>String</ram:Name>
    </ram:IssuerTradeParty>

```

Syntax B

The standardization request from EC defined a number of criteria

Req ID Requirement of sub-requirement

1	Comply with the core invoice semantic data model specified in the EN
2	Be international, open and free to use
3	Have a governance and sustainability model
3.1	There is an established organisation maintaining the syntax (format)
3.2	There is a maintenance process that is: <ul style="list-style-type: none">- documented with defined participation and voting rules;- governed;- open to participation for stakeholders.
3.3	There is a funding model allowing further development and maintenance.
3.4	Support can be provided (consulting, educating, training) to solution providers (implementers) or users (companies, PAs etc.).
4	Be part of a coherent set of standards and technical specifications to support the broader e-procurement process or the broader e-invoicing supply chain
5	Be widely used in the EU or worldwide
6	Be used in production environments (and not just test) by both the public and the private sector
7	Reflect well-accepted technology and aim to incorporate the latest technological developments considered to be state of the art
8	Have guidelines, code lists, validating tools freely available to ease implementation by ICT vendors and suppliers
9	Have a set of official, freely available syntax-dependent artefacts for validation (the XML Schema or Schematron) to support tool independent validation
10	Have an official updating and versioning strategy that takes due account of backward compatibility, as well as appropriate guidelines for customisation that explain how to extend and restrict the syntax

Specifications from CEN/TC434

Reference	WG	Title
EN 16931-1	WG1	Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice
TS 16931-2	WG2	Electronic invoicing - Part 2: List of syntaxes that comply with EN 16931-1
TS 16931-3-1	WG3	Electronic invoicing - Part 3-1: Methodology for syntax bindings of the core elements of an electronic invoice
TS 16931-3-2	WG3	Electronic invoicing - Part 3-2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note
TS 16931-3-3	WG3	Electronic invoicing - Part 3-3: Syntax binding for UN/CEFACT XML Cross Industry Invoice D16B
TS 16931-3-4	WG3	Electronic invoicing - Part 3-4: Syntax binding for UN/EDIFACT INVOIC D16B
TS 16931-3-5	WG3	Electronic invoicing - Part 3-5: Syntax binding for the Financial Invoice based on ISO 20022
TR 16931-4	WG4	Electronic invoicing - Part 4: Guidelines on interoperability of electronic invoices at the transmission guideline
TR 16931-5	WG5	Electronic invoicing - Part 5: Guidelines on the use of sector or country extensions in conjunction with EN 16931-1, methodology to be applied in the real environment
TR 16931-6	WG6	Electronic invoicing - Part 6: result of the test of EN 16931-1 with respect to its practical application for an end user

Specifications from CEN/TC434

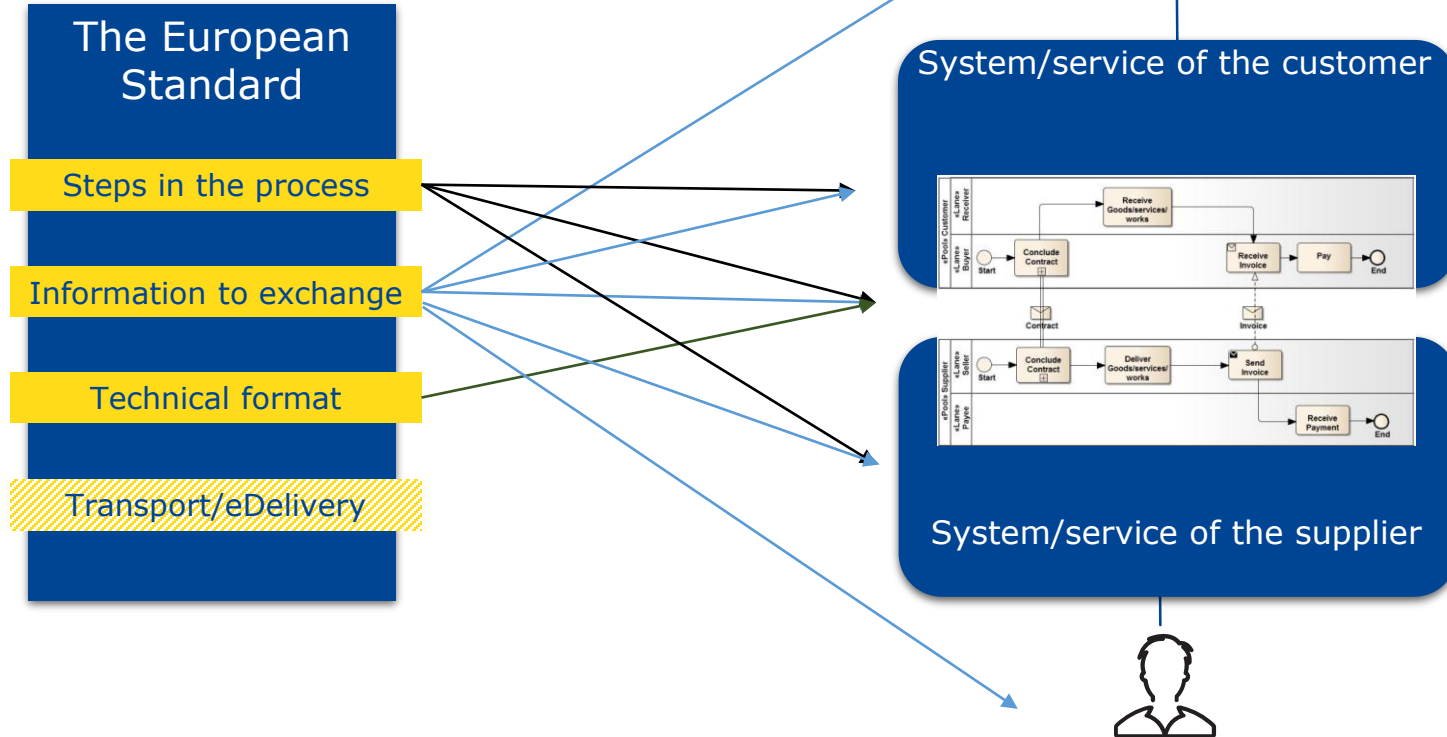
Reference	WG	Title
EN 16931-1	WG1	Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice
TS 16931-2	WG2	Electronic invoicing - Part 2: List of syntaxes that comply with EN 16931-1
TS 16931-3-1	WG3	Electronic invoicing - Part 3-1: Methodology for syntax bindings of the core elements of an electronic invoice
TS 16931-3-2	WG3	Electronic invoicing - Part 3-2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note
TS 16931-3-3	WG3	Electronic invoicing - Part 3-3: Syntax binding for UN/CEFACT XML Cross Industry Invoice D16B
TS 16931-3-4	WG3	Electronic invoicing - Part 3-4: Syntax binding for UN/EDIFACT INVOIC D16B
TS 16931-3-5	WG3	Electronic invoicing - Part 3-5: Syntax binding for the Financial Invoice based on ISO 20022
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TR 16931-6	WG6	Electronic invoicing - Part 6: result of the test of EN 16931-1 with respect to its practical application for an end user

Specifications from CEN/TC434

Reference	WG	Title
EN 16931-1	WG1	Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice
TS 16931-2	WG2	Electronic invoicing - Part 2: List of syntaxes that comply with EN 16931-1
TS 16931-3-1	WG3	Electronic invoicing - Part 3-1: Methodology for syntax bindings of the core elements of an electronic invoice
TS 16931-3-2	WG3	Electronic invoicing - Part 3-2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note
TS 16931-3-3	WG3	Electronic invoicing - Part 3-3: Syntax binding for UN/CEFACT XML Cross Industry Invoice D16B
TS 16931-3-4	WG3	Electronic invoicing - Part 3-4: Syntax binding for UN/EDIFACT INVOIC D16B
TS 16931-3-5	WG3	Electronic invoicing - Part 3-5: Syntax binding for the Financial Invoice based on ISO 20022
TR 16931-4	WG4	Electronic invoicing - Part 4: Guidelines on interoperability of electronic invoices at the transmission guideline
TR 16931-5	WG5	Electronic invoicing - Part 5: Guidelines on the use of sector or country extensions in conjunction with EN 16931-1, methodology to be applied in the real environment
TR 16931-6	WG6	Electronic invoicing - Part 6: result of the test of EN 16931-1 with respect to its practical application for an end user



Areas covered by the specifications



Access to the specifications

EC is sponsoring access – to the EN and the list of syntaxes. These specifications are available for free download

The other specifications must still be purchased

cen European Committee for Standardization

CEN COMMUNITY TECHNICAL BODIES STANDARDS EVOLUTION AND FORECAST SEARCH STANDARDS

Technical Bodies > CEN/TC 434

CEN/TC 434 - Electronic Invoicing

General Structure Work programme Published Standards

EN FR DE

CEN/TC 434 Published Standards

Reference, Title	Publication date	Sales Points
CEN/TR 16931-4:2017 (WI=00434004) Electronic invoicing - Part 4: Guidelines on interoperability of electronic invoices at the transmission level	2017-07-05	
CEN/TR 16931-5:2017 (WI=00434005) Electronic invoicing - Part 5: Guidelines on the use of sector or country extensions in conjunction with EN 16931-1, methodology to be applied in the real environment	2017-07-05	
CEN/TR 16931-6:2017 (WI=00434006) Electronic invoicing - Part 6: Result of the test of EN 16931-1 with respect to its practical application for an end user	2017-10-18	
CEN/TS 16931-2:2017 (WI=00434002) Electronic invoicing - Part 2: List of syntaxes that comply with EN 16931-1	2017-06-28	
CEN/TS 16931-3-1:2017 (WI=00434007) Electronic invoicing - Part 3-1: Methodology for syntax bindings of the core elements of an electronic invoice	2017-07-05	
CEN/TS 16931-3-2:2017 (WI=00434008) Electronic invoicing - Part 3-2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note	2017-10-18	
CEN/TS 16931-3-2:2017/AC:2018 (WI=00434C01) Electronic invoicing - Part 3-2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note	2018-07-18	
CEN/TS 16931-3-3:2017 (WI=00434009) Electronic invoicing - Part 3-3: Syntax binding for UN/CEFACT XML Industry Invoice D16B	2017-10-18	
CEN/TS 16931-3-4:2017 (WI=00434010) Electronic invoicing - Part 3-4: Syntax binding for UN/EDIFACT INVOIC D16B	2017-10-18	
EN 16931-1:2017 (WI=00434001) Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice	2017-06-28	



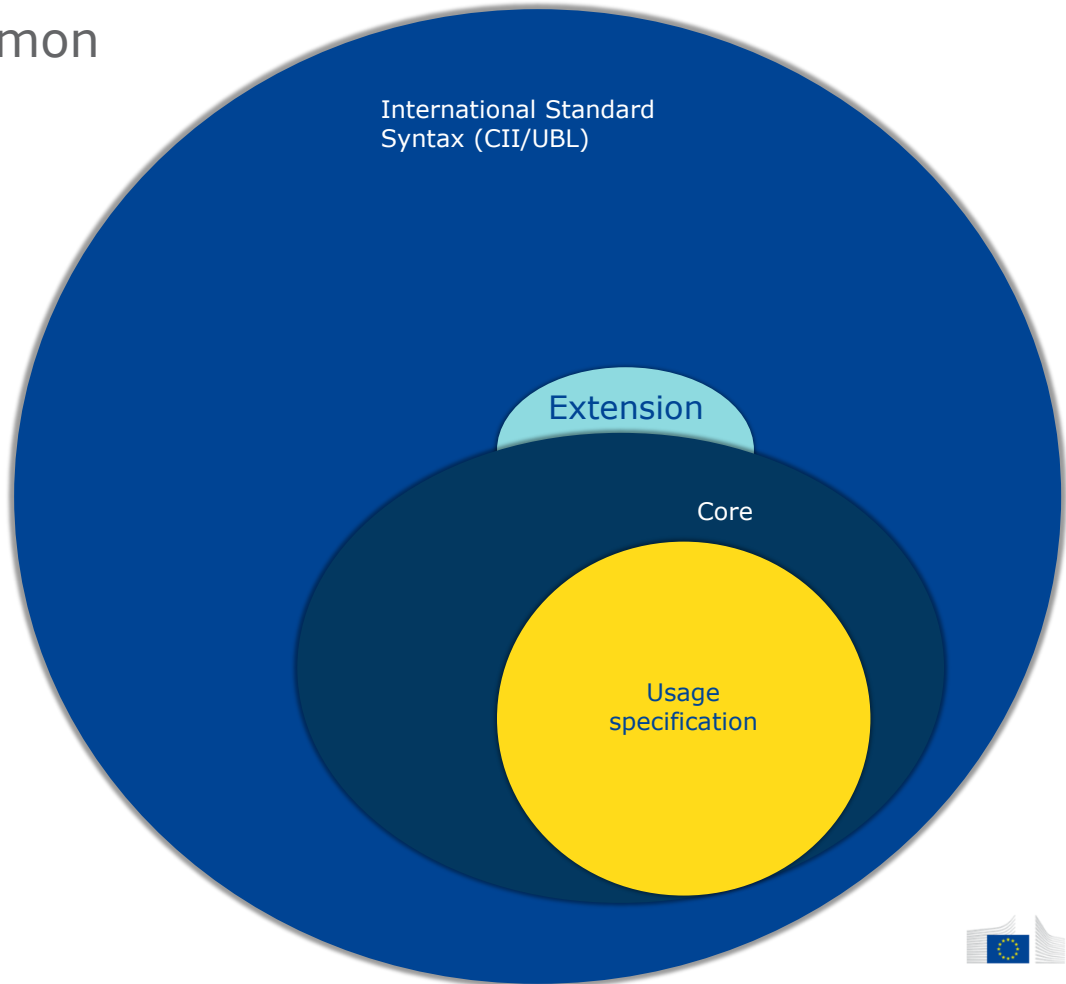
Usage specifications and compliance

Martin Forsberg
DIGIT

Core – something in common

IMPORTANT

An invoice which follows a CIUS
MUST ALWAYS also be compliant
towards the (non-restricted)
norm.



Requirements for the contracting authorities/entities

From article 7

Receipt and processing of electronic invoices

*Member States shall ensure that contracting authorities and contracting entities **receive and process electronic invoices which comply with the European standard on electronic invoicing** whose reference has been published pursuant to Article 3(2) and with any of the syntaxes on the list published pursuant to Article 3(2).*

Claiming compliance towards the norm

Compliance of sending or receiving party

*A receiving party may only claim compliance to the core invoice model if he accepts invoices that comply with the core invoice model in general, **or with a CIUS**, that is itself compliant with the core invoice model.*

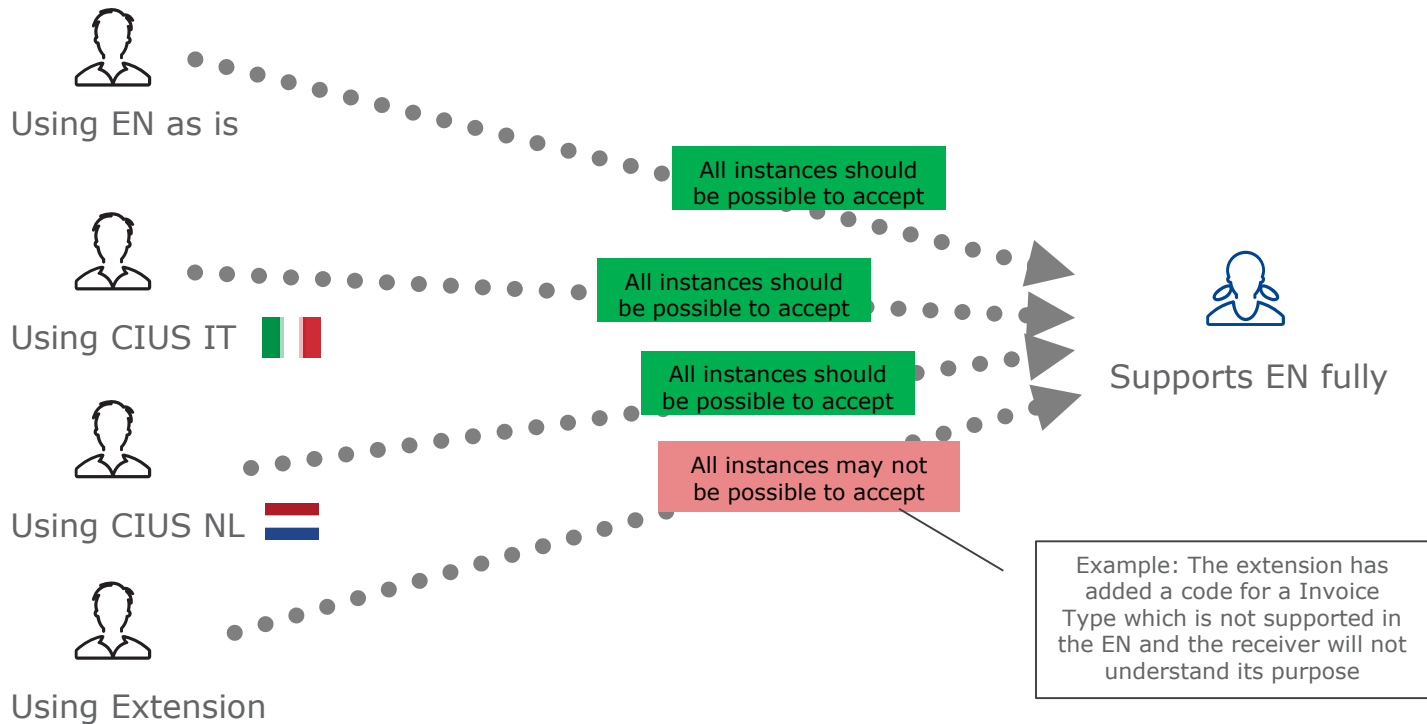
What is allowed to restrict in a Core Invoice Usage Specification

- "Forbid" optional elements 0..n/0..1 → 0..0
- Make definition narrower
- Add synonyms or explanatory text
- Make optional element mandatory
- Limit allowed number of repetitions
- Change data type to narrower representation (alphanumeric → numeric)
- Limited allowed code values
- Add additional business rules or make existing more restrictive
- Restrict field lengths
- Require certain formatting on values
- Restrict number of decimals/fractions

IMPORTANT

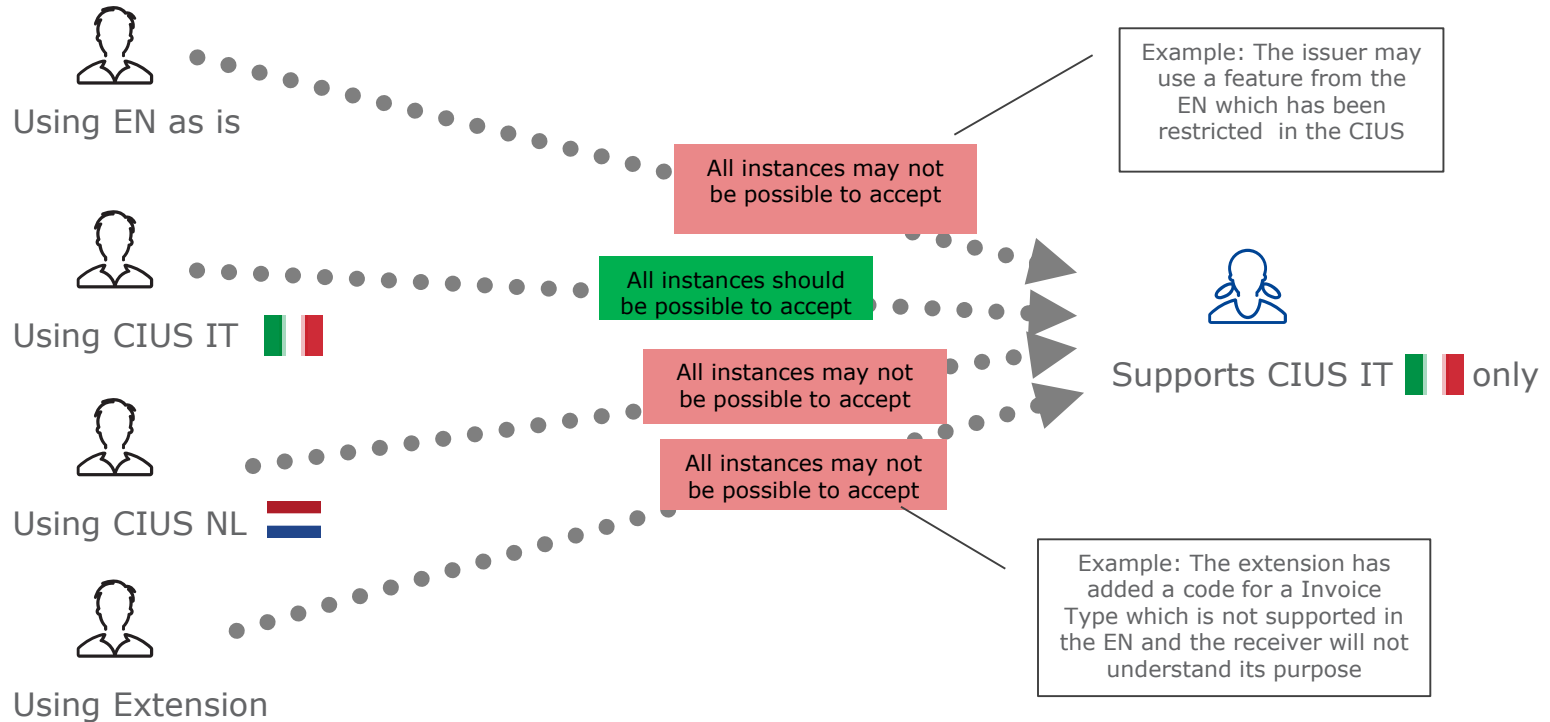
An invoice which follows a CIUS **MUST ALWAYS** also be compliant towards the (non-restricted) norm.

A few scenarios



Assuming the invoices are conformant against its specification (EN/CIUS/Extension)

A few more scenarios



Assuming the invoices are conformant against its specification (EN/CIUS/Extension)

SPACE SHORTCUTS

CEF Knowledge Base

PAGE TREE

- > eInvoicing news & events
- > Forum
- > Contribute
 - > CEF eInvoicing Implementation Work
 - Guidance Paper for EU public admini:
 - > eInvoicing Pioneer Group
 - **Community-driven Registry of CIU**
 - Catalogue of Good Practices to supp
 - > Older posts (CONTRIBUTE)
 - > Follow-up actions after the CEF elnvc
 - > Archive
 - Meta
 - Links

Community-driven Registry of CIUS (Core Invoice Usage Specifications) and Extensions

Created by Ines COSTA, last modified by Philip HELGER on Oct 29, 2018

Topic	Registry of CIUS (Core Invoice Usage Specifications) and Extensions
Excerpt	This page aims to give the eInvoicing community the opportunity to share the ongoing and planned initiatives across Member States and sectors to create CIUS and Extensions on the European standard on eInvoicing.
Status	OPEN
Deadline	Ongoing

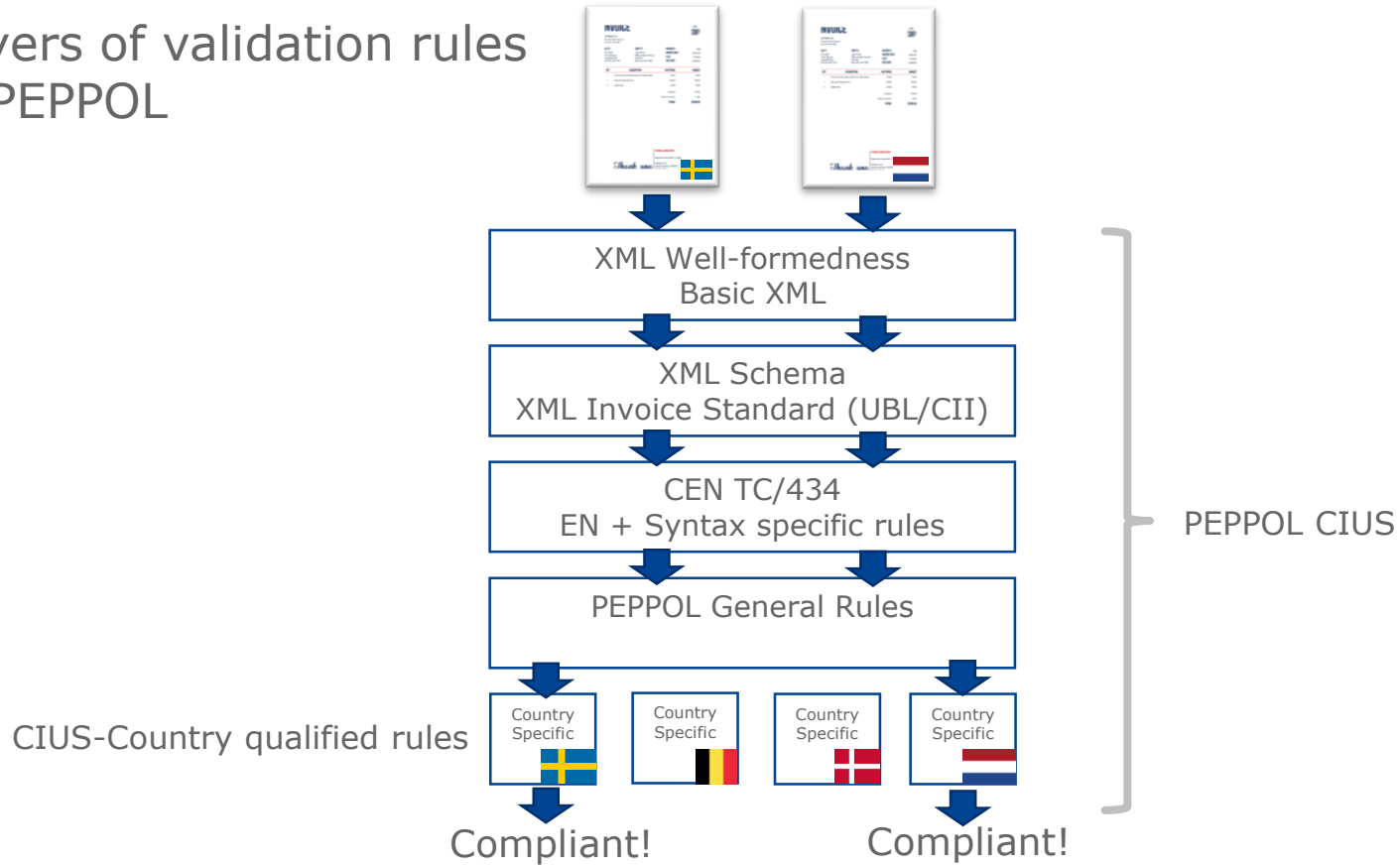
Provide information on CIUS and Extensions

The table below aims to give the eInvoicing community the opportunity to share the ongoing and planned initiatives across Member States and sectors to create CIUS and Extensions on the European standard on eInvoicing. The content is community-driven and the contributors take the sole responsibility of the information shared. Please note that the information available does not have an authoritative character.

We invite you to contribute to build on the information available about the CIUS and Extensions on the European standard on eInvoicing by filling the table below:

Name	Type	Country	Sector	Purpose of the CIUS or Extension	Publisher	Governor	Underlying specification	Further info	Status	Contact
OpenPEPPOL BIS 3.0 5A	CIUS	Any	Any	Restricts the business process scope of the EN with reference to BIS2 business processes.	OpenPEPPOL	OpenPEPPOL	EN16931	http://docs.peppol.eu/poacc/billing/3.0/	ACTIVE	@Olav Astad KRISTIANSEN
Icelandic national CIUS	CIUS	IS	Any	Applies national regulations and imposes data format to payment instructions when using national payment clearing services.	IST	ISgov	PEPPOL BIS 3.0 5A	http://www.stadlar.is/stadlastarf/fagstadlarad-i-upplysingataekni.aspx	DEVELOPMENT	@Georg BIRGISSON
Austrian national CIUS	CIUS	AT	Any	Apply national regulations	BRZ	BRZ	EN16931	Publication on eRechnung.gv.at asap	ACTIVE	@Philip HELGER
Austrian government CIUS	CIUS	AT	Any	Additional regulations only applying to the mandatory government interface. This CIUS builds on top of the Austrian national CIUS!	BRZ	BRZ	AT national CIUS	Publication on eRechnung.gv.at asap	ACTIVE	@Philip HELGER
Energy eInvoice	Extension	NL	Energy	Enables the addition of information concerning: 1) Measured energy use, including meter info, meter readings, fuel type etc. 2) VAT specification for more than one party, which is a consequence of the so called supplier-centered model.	Energy eInvoice steering committee	Energy eInvoice steering committee	SimplerInvoicing (SI-UBL)	https://energie-efactuur.nl/en/	DEVELOPMENT	Wouter van den Berg (TNO)
Italian national CIUS	CIUS	IT	Any	Applies national regulations and restricts data format in compliance with eInvoice national format (FatturaPA)	AgID, AdE	AgID, AdE	EN16931	http://www.agid.gov.it/agenda-digitale/pubblica-amministrazione/cef-telecom-einvoicing-eigor	DEVELOPMENT	Fabio MASSIMI
NLCIUS	CIUS	NL	Any	Applies national regulations and conventions. The purpose of the NLCIUS is to prevent the need for any other NL	NEN / SMef	NEN / SMef	EN16931	NLCIUS is a joint initiative of government, industry and	ACTIVE	Michiel Stornebrink (TNO)

Layers of validation rules in PEPPOL



National rules in PEPPOL CIUS

To avoid creation of national CIUS'es:

- affected based on the country of the seller.
- Don't affect invoices issued in other countries.
- PEPPOL Authority responsible

Appendix C: National rules

The following rules have been defined by PEPPOL Authorities in addition to the rules for [PEPPOL BIS](#) in general. These rules are affected based on the country of the seller, and **will not affect invoices issued in other countries.** They apply in **all** profiles that use this transaction specification.

National rules are provided by each country's PEPPOL Authority, and if you need any changes or additions to these rules, please contact your PEPPOL Authority.

Table 18. National transaction business rules

Rule	Message/Context/Test
DK-R-001 (warning)	For Danish suppliers when the Accounting code is known, it should be referred on the Invoice.
	ubl-creditnote:CreditNote ubl-invoice:Invoice
	not(cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cac:Country/cbc:IdentificationCode = 'DK' and (normalize-space(cbc:AccountingCost/text()) = ''))
DK-R-002 (fatal)	Danish suppliers MUST provide legal entity (CVR-number).
	ubl-creditnote:CreditNote ubl-invoice:Invoice
	not(cac:AccountingSupplierParty/cac:Party/cac:PostalAddress/cac:Country/cbc:IdentificationCode = 'DK' and (normalize-space(/cac:AccountingSupplierParty/cac:Party/cac:PartyLegalEntity/cbc:CompanyID/text()) = ''))

Example - Swedish rules

- Formats for VAT and organisation numbers
- Swedish VAT rates
- Tax registration F-Skatt
- Payment means Bankgiro and Plusgiro

SE-R-001 For Swedish suppliers, Swedish VAT-numbers must consist of 14 characters.	fatal
SE-R-002 For Swedish suppliers, the Swedish VAT-numbers must have the trailing 12 characters in numeric form	fatal
SE-R-003 Swedish organisation numbers should be numeric.	fatal
SE-R-004 Swedish organisation numbers consist of 10 characters.	fatal
SE-R-005 For Swedish suppliers, when using Seller tax registration identifier, 'Godkänd för F-skatt' must be stated	fatal
SE-R-006 For Swedish suppliers, only standard VAT rate of 6, 12 or 25 are used	fatal
SE-R-007 For Swedish suppliers using Plusgiro, the Account ID must be numeric	warning
SE-R-008 For Swedish suppliers using Bankgiro, the Account ID must be numeric	warning
SE-R-009 For Swedish suppliers using Bankgiro, the Account ID must have 7-8 characters	warning
SE-R-010 For Swedish suppliers using Plusgiro, the Account ID must have 2-8 characteres	warning
SE-R-011 For Swedish suppliers using Swedish Bankgiro or Plusgiro, the proper way to indicate this is to use Code 30 for PaymentMeans and FinancialInstitutionBranch ID with code SE:BANKGIRO or SE:PLUSGIRO	warning

Mentimeter

www.menti.com

Enter #12 90 63





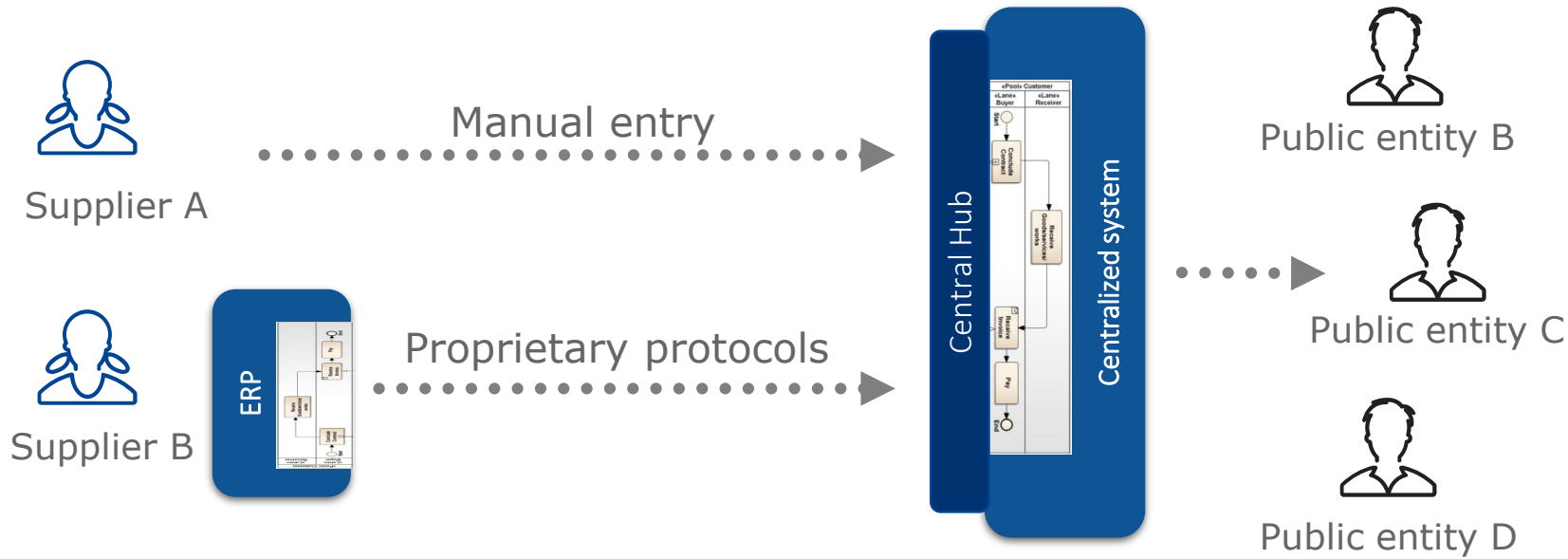
Methods for exchange of electronic invoices

Martin Forsberg

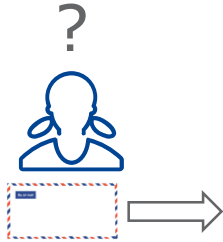
Christian Vindinge Rasmussen

DIGIT

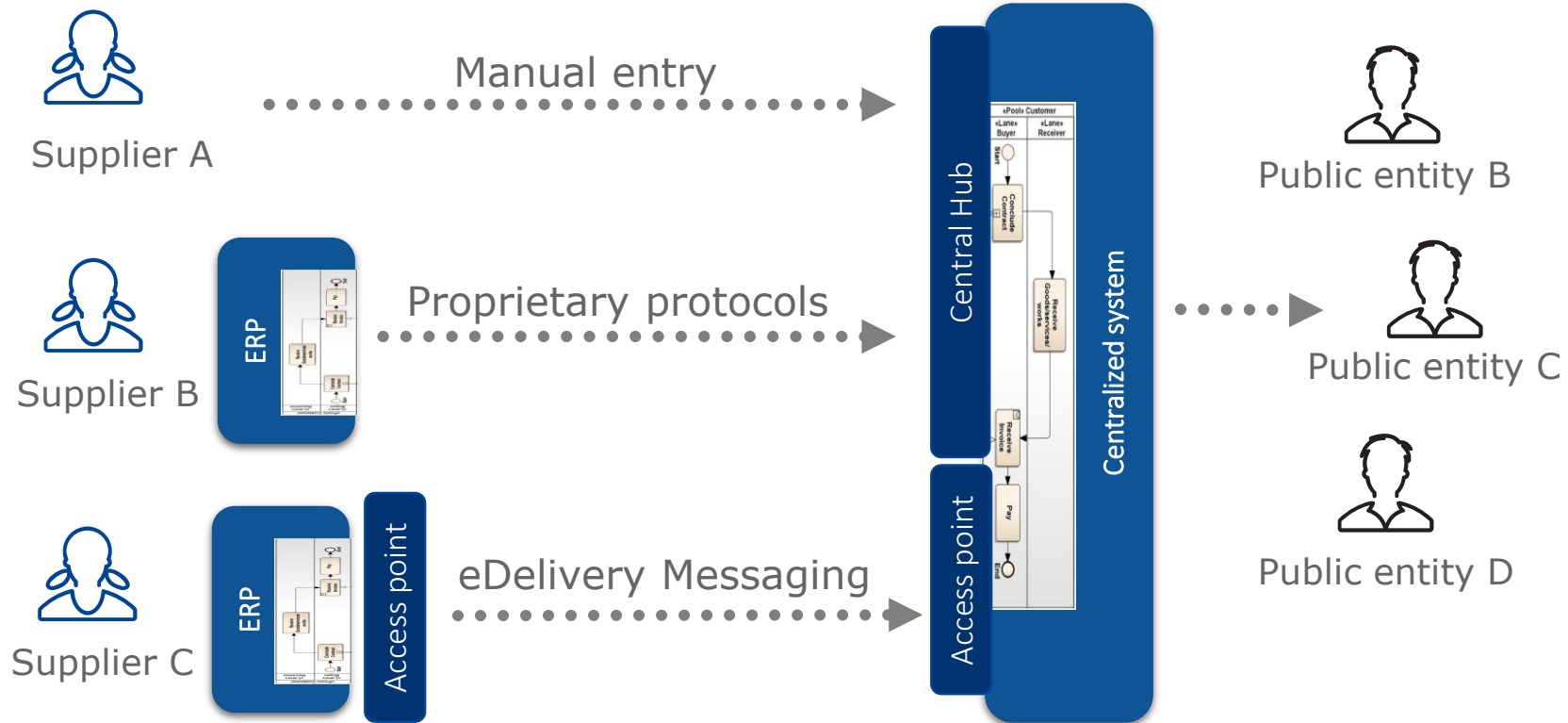
Typical solution – centralized system



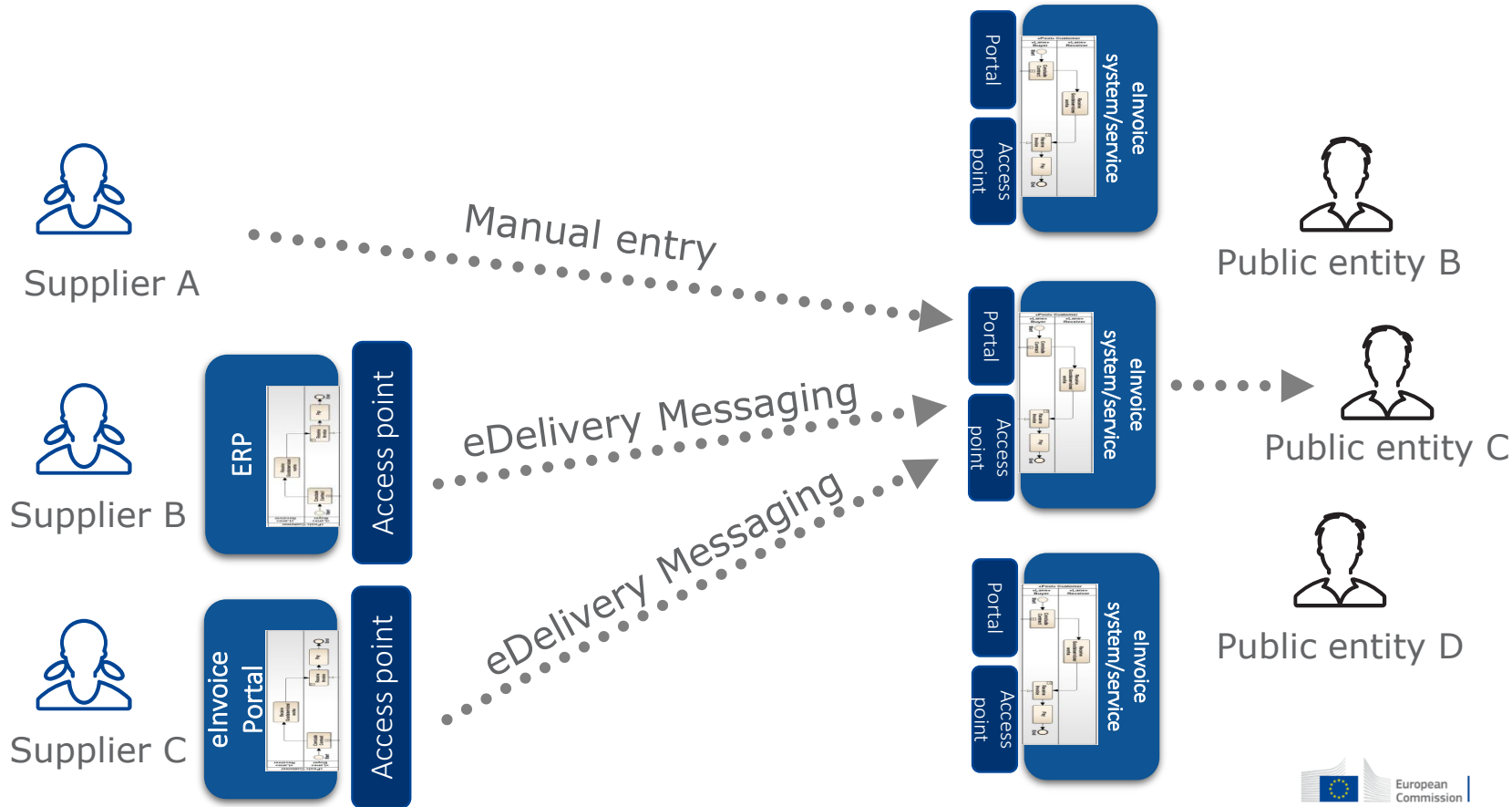
A simple solution for the buyer
can prove problematic for
the suppliers



Typical solution – centralized system + Access point



Typical solution – Up to each public entity





European
Commission



Peppol

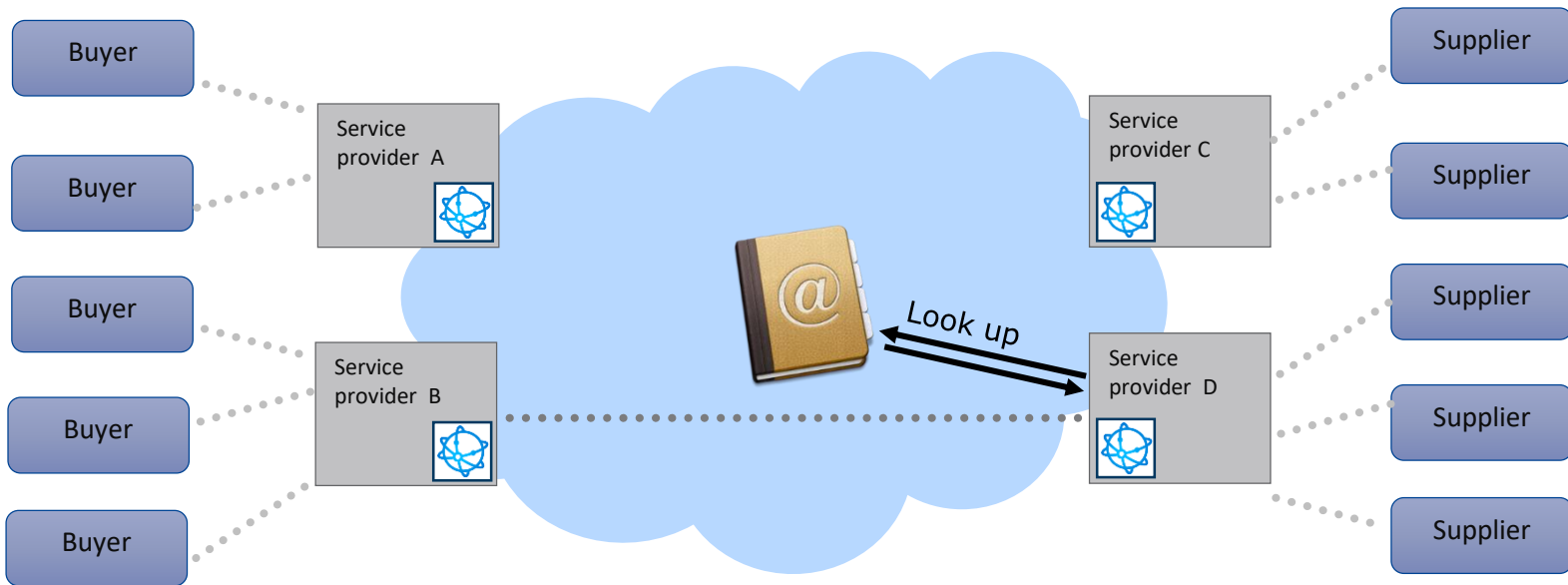
A short introduction

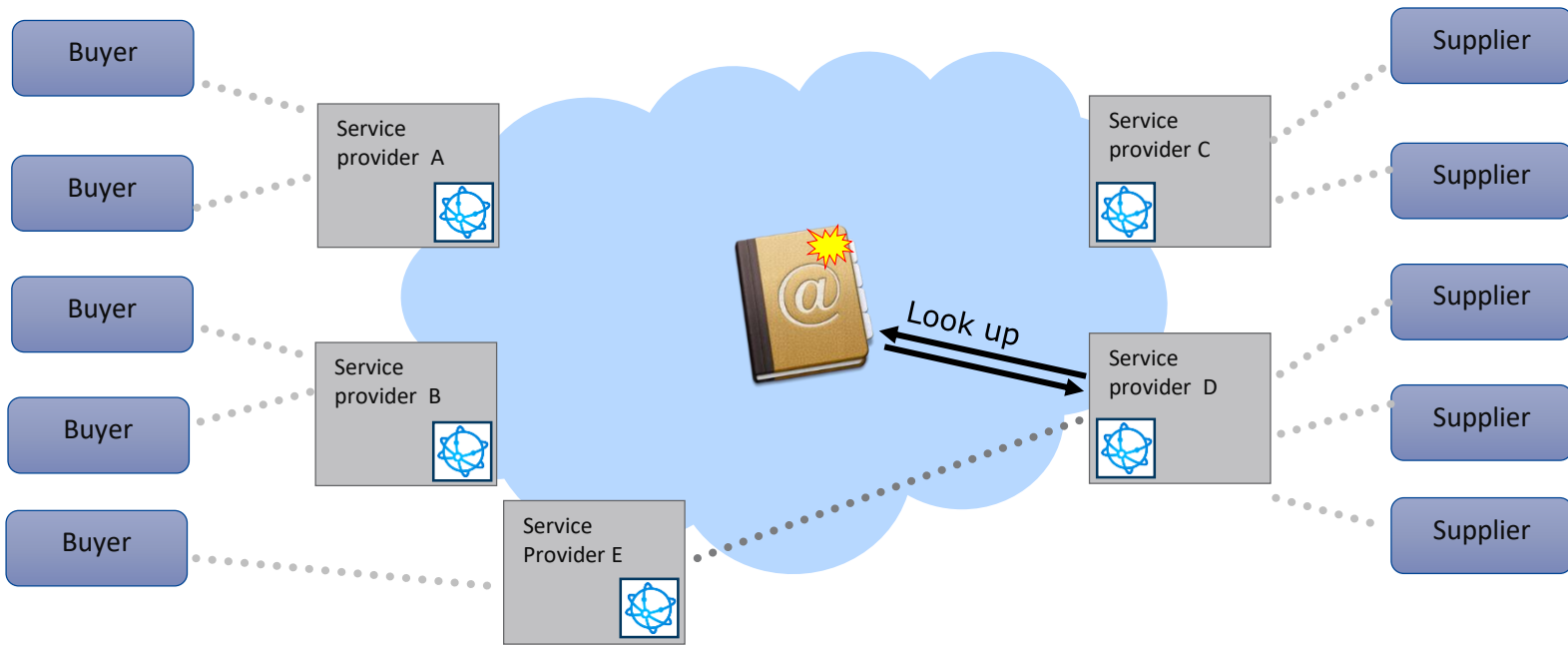
What is PEPPOL

Infrastructure where
Buyers and Sellers can
exchange
e-documents

Specifications for
electronic invoice,
order, catalogue...

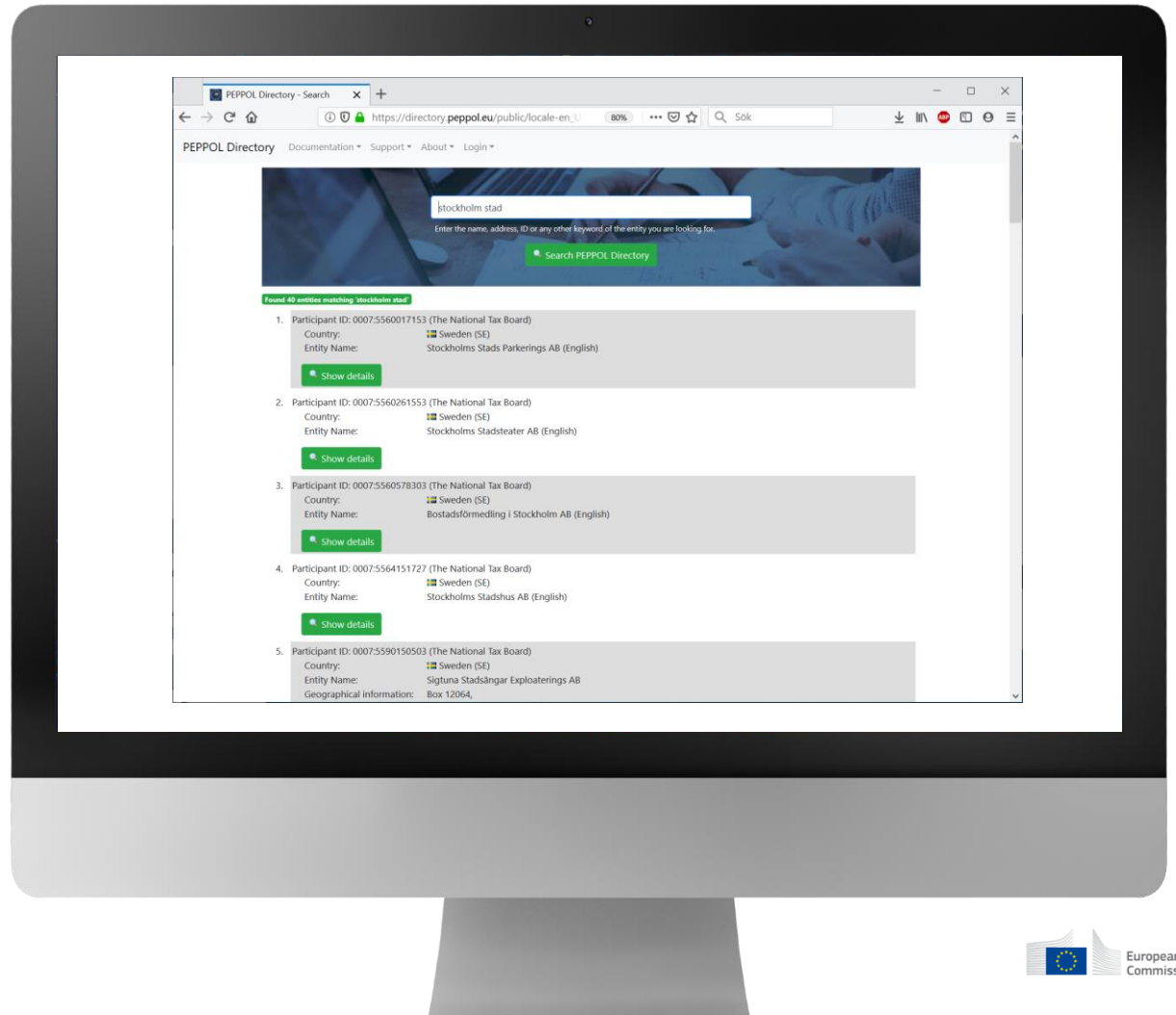
Non-for-profit
organisation which
maintains and
governs





Peppol Directory

- Search for receivers
- See their capabilities
- > 150.000 organizations
- <http://Directory.peppol.eu>



INVOICE



East Repair Inc.
455 Amsterdam Avenue
New York, NY 1023

BILL TO

John Smith
2 Court Square
Long Beach City

SHIP TO

John Smith
694 Lexington Avenue
6th Floor
New York, NY 10022

INVOICE

00234

INVOICE DATE

03/25/2014

P.O.#

1742/2014

DUE DATE

04/09/2014

QTY	DESCRIPTION	PRICE	AMOUNT
1	Front and rear brake cables & Throttle cable	56.00	56.00
1	New set of pedal arms	182.00	182.00
3	Labor 3hrs	25.00	75.00
	Subtotal		313.00
	Sales Tax 5.0%		15.65
	TOTAL		\$328.65

Electronic address identifier (EndpointID)

- "PEPPOL-ID" (GLN, DUNS etc)
- Same thing as "Participant Identifier"

By
Par



PEPPOL-ID Receiver: 0007:5512345672
PEPPOL-ID Sender: 0007:2020332423

0007 : 5512345678

Type code for
Swedish
organisation
number

The actual number



GÖTEBORGS UNIVERSITET

Gothenburg 2016-09-23

Billing the University of Gothenburg

E-invoice

The University of Gothenburg prefers e-invoicing. Our suppliers can send e-invoices via PEPPOL, which enables European businesses to easily deal electronically with any European public sector buyer in their procurement process. Our PEPPOL-id is 0007:2021003153.



KUSTBEVAKNINGEN
SWEDISH COAST GUARD

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Invoicing

The Swedish Coast Guard is gradually changing over to receiving only electronic invoices. The Swedish Coast Guard does not accept invoices in PDF format sent via e-mail. There are several ways in which to submit e-invoices:

Via PEPPOL

Our preferred method for receiving electronic invoices is via the PEPPOL network. The Swedish Coast Guard's electronic address in PEPPOL is 0007:2021003997.

Via the Swedish Coast Guard's invoice portal

If you are unable to send electronic invoices, you can use our invoice portal free of charge to register them manually. This solution is intended for smaller suppliers who only issue a few invoices. Log in and register at: fakturaportalen.se

Current use of PEPPOL

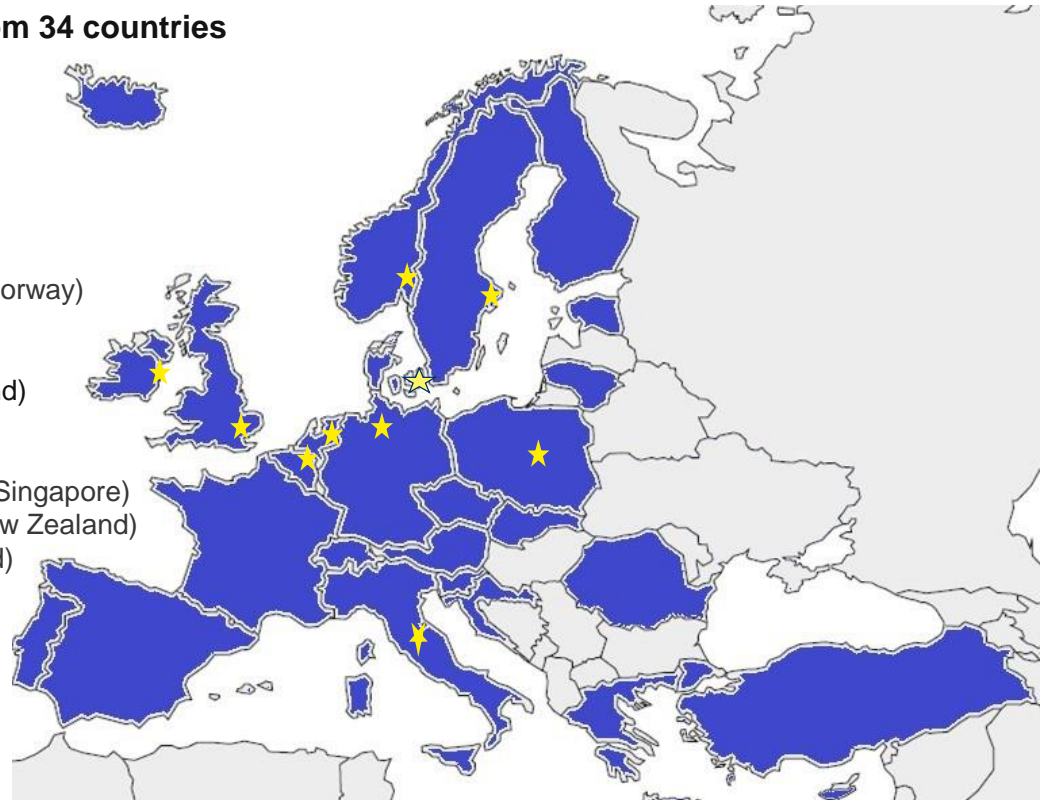
375 OpenPEPPOL members and observers from 34 countries

**251 Certified Access Points in 29 countries
in Europe, North America and Asia**

13 PEPPOL Authorities

- ▶ Agency for Digital Government (Sweden)
- ▶ Agency for Digital Italy (Italy)
- ▶ Agency for Public Management and eGovernment (Norway)
- ▶ Danish Business Authority (Denmark)
- ▶ Department of Health and Social Care (UK)
- ▶ Department of Public Expenditure and Reform (Ireland)
- ▶ Federal Public Service Policy and Support (Belgium)
- ▶ Free Hanseatic City of Bremen – KoSIT (Germany)
- ▶ Info-communications Media Development Authority (Singapore)
- ▶ Ministry of Business Innovation and Employment (New Zealand)
- ▶ Ministry of Entrepreneurship and Technology (Poland)
- ▶ SimplerInvoicing (Netherlands)
- ▶ OpenPEPPOL AISBL

Member Countries where Access Points are not yet certified: Australia, Mexico, New Zealand, Romania and Slovak Republic



ZC Solution SRL	Italy	Consumer Cloud Technology Services Pte Limited	Singapore	Genesis IT AB	Sweden	Onetrail BV	Netherlands	Telemas AS	Estonia
216 Accountants B.V	Netherlands	Compello AS	Norway	Generix Group Benelux	Belgium	Oppgjorskontoret AS	Norway	Telenor Norge AS	Norway
AdValvas Europe	Belgium	Credeintel S.p.A.	Italy	GHX UK	UK	Opus Capita Group Oy	Finland		
Advanced Business Software and Solutions	UK	Credemtel S.p.A.	Italy	Goldman Solutions & Services Ltd.	Cyprus	Outsourcia AS Bakke	Norway		
Advania Holding hf.	Iceland	Crediflow Försäljnings AB	Sweden	GXS (OpenText)	USA	Pagero	Sweden	Tesisquare S.p.A	Italy
Akssess Innkjøp (Prosjektservice AS)	Norway	Consp SpA (Italy)	Italy	Hafslund Tellier AS	Norway	Pagero HBS GmbH	Germany	TIE Kinetix	Netherlands
Akssespunkt Norge AS	Norway	crossinx GmbH	Germany	Hogia Business Products AB	Sweden	Pagero Norway	Norway	Tieto	Finland
Aliquid Italy	Italy	CS Amed SRL	Italy	Ibistic	Norway	Palette Software AB	Sweden	Tradeinterop	Netherlands
Amesto Solutions Purchasing A/S	Norway	Daldata AS	Norway	IBM Corporation	USA	Payt B.V.	Netherlands	Tradeshift	Denmark
Azets Insight AS	Norway	DataPost Pte Ltd	Singapore	IBM Denmark ApS	Denmark	PaperLess Innovation Ltd.	Malta	Tradeshift AB	Sweden
Order2Cash – (Anachron B.V.)	Netherlands	Data Interchange	UK	iEDI ApS	Denmark	Pearl Norge AS	Norway	Transalis Ltd.	UK
Apix Messaging Oy	Finland	Danish Business Authority (ERST)	Denmark	IFIN Sisstemi S.r.L. a socio unico	Italy	PIMEC, Petita i Mitjana Empresa de Catalunya	Spain	Tripletex AS	Norway
Apro Consulting Services B.V.	Netherlands	Dcode Websolutions AS	Norway	ILGE Sybscription Management	Belgium	PinkRoccade Local Government BK.V.	Netherlands	True Commerce (Coventry) Ltd.	UK
Archiva S.r.L.	Italy	DERWID.com GmbH	Austria	Implema AB	Sweden	PostNord (Strålfors Svenska AB)	Sweden	TrueCommerce ApS Denmark	Denmark
Archivium Srl	Italy	Desk Drive	Belgium	In.Te. S.A.	Italy	PowerOffice Software AS	Norway	Truelink A/S	Denmark
Arco Information N.V.	Belgium	Digital Cab ApS	Denmark	Inaras NV	Belgium	PracBiz Pte Ltd	Singapore	Tungsten Network Ltd.	UK
At Work Systems	Norway	Danish Business Authority (ERST)	Denmark	InExchange Factorum AB	Sweden	Projektservice AS	Norway	Tyringe Konsult AB	Sweden
B2B Router (Invinet Sistemes)	Spain	DocFlow Italia S.p.A.	Italia	Infinite Sp. z.o.o.	Poland	Qvalia Group AB	Sweden	TX2 Concept	Singapore
B4 value.net GmbH	Germany	Document Centric Solutions	Ireland	Infocert S.p.A.	Italy	Reknes AS	Norway	UNI MICRO AS	Norway
Babelway	Belgium	Docuten (Enxendra Technologies)	Spain	INPOSIA Solutions GmbH	Germany	Resforma AS	Norway	UnifiedPost	Netherlands
Basware	EU	Doxee S.p.A.	Italy	Integrasjonssystemer AS	Norway	Ricoh Netherlands B.V. S.A.T.A.	Netherlands	Unit4 Software	Iceland
BEAst AB	Sweden	Dynatos NV	Belgium	Intercent-ER	Italy	sted Services	Germany	Unit4 Agresso	Norway
Billit	Belgium	DXC	UK				Portugal	Upheads AS	Norway
BIZbrains A/S	Denmark	Easy Systems B.V.	Netherlands					UPRC Greece	Greece
Bluzor B.V.	Netherlands	EC/DG DIGIT	Belgium					ValidatedID S.L.	Spain
Brain2	Belgium	eConnect International (eVerbinding)	UK					Van Meijel	Netherlands
Bundesrechenzentrum GmbH (BRZ)	Austria	ecoso InterCom Group	UK	KBC Commercial Finance	Belgium	Scancloud Ltd	Sweden	Viaduct AB	Sweden
Calvi Business Software BV	Netherlands	eDelivery s.r.o. – for	UK	KMD Denmark	Denmark	SeeBURGER AG	Germany	Virtualstock Ltd.	UK
Catalog360 Limited	UK	EDI Plus Ltd	UK	Kofax Sweden Services AB	Sweden	Seen Solution Srl	Italy	Visma Labs	Sweden
CEGEDIM	France	EDICOM CAPITAL S.L.	Spain	LBMX Inc.	Canada	Seres	France	Visma Software International AS	Norway
Celtrino – EDI Factory	Ireland	EDIGard AS	Norway	Liaison Technologies Oy	Finland	Seres SA	Spain	Voxel Media S.L.	Spain
Centric Netherlands	Netherlands	EDISON S.A.	Poland	Logiq AS	Norway	SIA S.p.A.	Italy	Wax Digital Ltd.	UK
CGI Sverige AB	Sweden	Effektus AS	Norway	Lyanthe	Netherlands	Simple Invoicing	Netherlands	Webware Internet Solutions GmbH	Germany
CloudOffice AS	Norway	eFinans AS	Norway	Maritech Systems AS	Norway	SINGAPORE E-BUSINESS PTE LTD	Singapore	Workflow Management & Document Consulting Asia Pte Ltd	Singapore
Cloud Trade Technology Ltd.	UK	Elcom	UK	Millum AS	Norway	Skaitos kompiuteriu servisas	Lithuania		
CodaBox N.V.	Belgium	Electronic Data Transfer S.A.S.	France	Ministry of Finance, Republic of Slovenia	Slovenia	Smartbook Technology AS	Norway		
Comarch SA	Poland	Enable-U B.V.	Netherlands	Miracle A/S	Denmark	Sorvive Technologies Inc.	USA		
Commerce-Connections	UK	Enercom Swiss Finance SA	Switzerland	Moneybird	Netherlands	STDM Srl	Italy		
Consorti Administració Oberta de Catalunya (AOC)	Spain	Epoca S.r.l.	Italy	mySupply ApS	Denmark	StarHub Ltd	Singapore		
Consumer Cloud Technology Services Pte Limited	Singapore	Esker S.A.	France	NetClient AS	Norway	Storecove (Datajust B.V.)	Netherlands		
		Eesti Post AS (Omniva)	Estonia	NetEDI	UK	SYMTRAX S.A.	France		
		EVRY AS	Norway	Netropolix Software NV	Belgium	System Kredit AS	Norway		
		Exact	Netherlands	Nets Norway AS	Norway	Svea Ekonomi AB	Sweden		
		F.R. Biernat	Norway	nexMart GmbH & Co. KG	Germany	TB Okonomi AS	Norway		
		Faber system Srl	Italy	Norwegian Labour and Welfare Service (NAV)	Norway	Tecmarket Servizi S.p.A.	Italy		
		FIKEN AS	Norway			Teal IT	Belgium		
		FinHill Hilversum B.V.	Netherlands						
		Financijska agencija	Croatia						
		Fitek Group	Estonia						
		Fylkesmannen i Sogn og Fjordane	Norway						

Access points in PEPOL

Mentimeter

www.menti.com

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Taking e-Invoicing to the next level

Martin Forsberg
Christian Vindinge Rasmussen
DIGIT

Requirements for the contracting authorities/entities

From article 7

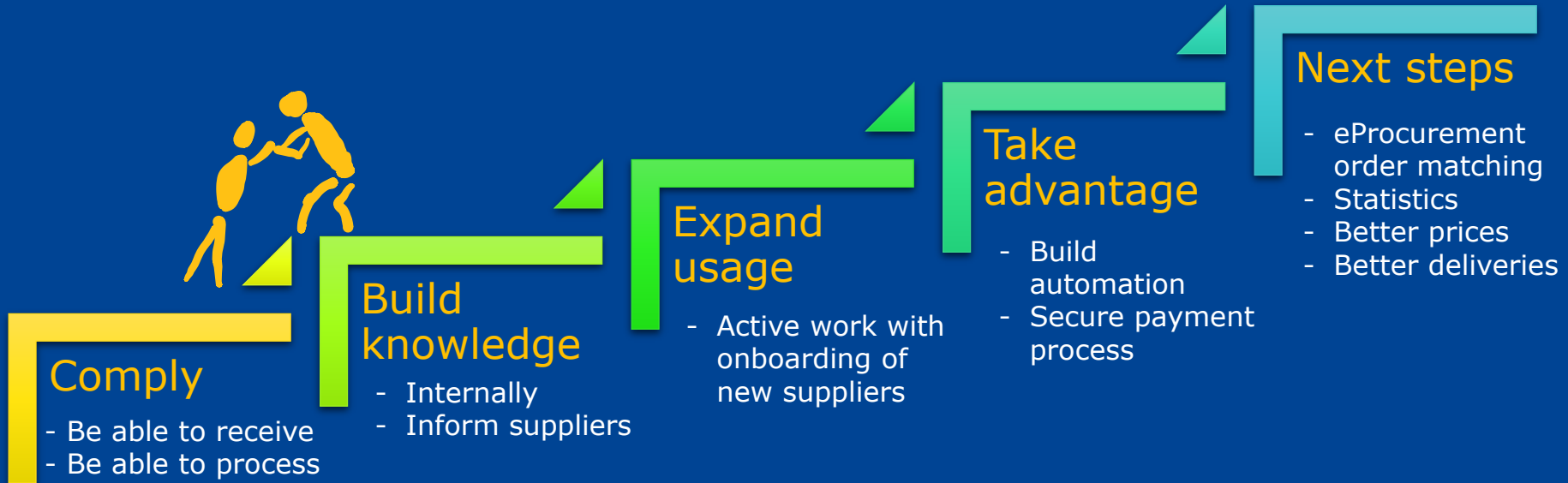
Receipt and processing of electronic invoices

*Member States shall ensure that contracting authorities and contracting entities **receive and process electronic invoices** which comply with the **European standard on electronic invoicing** whose reference has been published pursuant to Article 3(2) and with **any of the syntaxes on the list** published pursuant to Article 3(2).*

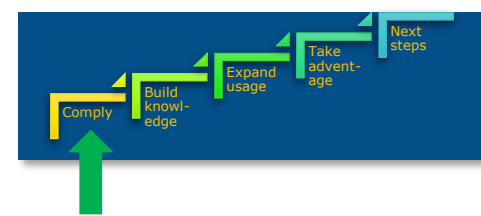
a list with a limited number of syntaxes which comply with the European standard on electronic invoicing

Semantic data model of the core elements of an electronic invoice

Level of readiness



Comply – receive and process



- If a supplier wants to send an eInvoice in either the UBL or CII-syntax – you must:
 - have the means to receive the file/message
 - have a solution in place to process the received invoice

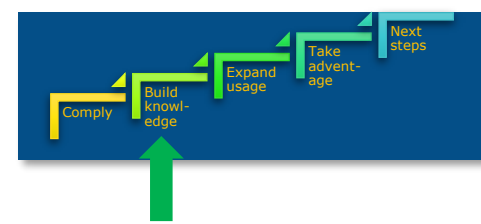
To receive

- A software/system which the supplier can connect to and to submit the invoice in any of the syntaxes
- Important to take interoperability into account and to allow for cross-border usage (non-domestic suppliers)
- Good idea to align with other countries to simplify for the suppliers

To process

- Ambition level differs a lot between the member states
- Full automation requires advanced solutions, knowledge and a will to change internal procedures and old habits

Build knowledge



- Successful implementation of eInvoicing requires
 - Widespread understanding internally
 - A communication strategy towards suppliers
 - Support from management

Internally

- Create awareness
- Explain the benefits
- Plan for efficient use – plan for necessary changes
- Training of staff in new systems/software

Toward suppliers

- Keep information straight-forward and accessible
- Explain the benefits
- Align your strategies on country level and even European level
- Avoid to pointing towards specific commercial solutions

Communication with suppliers



GÖTEBORGS UNIVERSITET

Gothenburg 2016-09-23

Billing the University of Gothenburg

E-invoice

The University of Gothenburg prefers e-invoicing. Our suppliers can send e-invoices via PEPPOL, which enables European businesses to easily deal electronically with any European public sector buyer in their procurement process. Our PEPPOL-id is 0007:2021003153.

The screenshot shows the website for KUSTBEVAKNINGEN (SWEDISH COAST GUARD). The header includes the organization's logo and name. A dark blue navigation bar contains links for 'About us', 'Sustainable environment', 'Safety at sea', 'Cooperation', 'Technology', and 'Education & Work'. The main content area features a sidebar with links to 'About this website', 'Command centre', 'Contact us', 'Invoicing' (highlighted), 'News - About us', 'Organisation', 'Printed material', and 'Retrospect'. The main text area is titled 'Invoicing' and contains the following information:

Start page / About us / Invoicing

Invoicing

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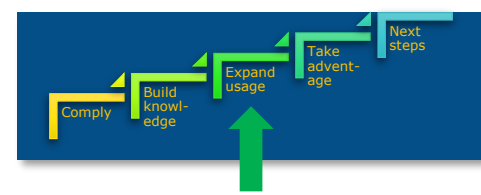
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Via the Swedish Coast Guard's invoice portal

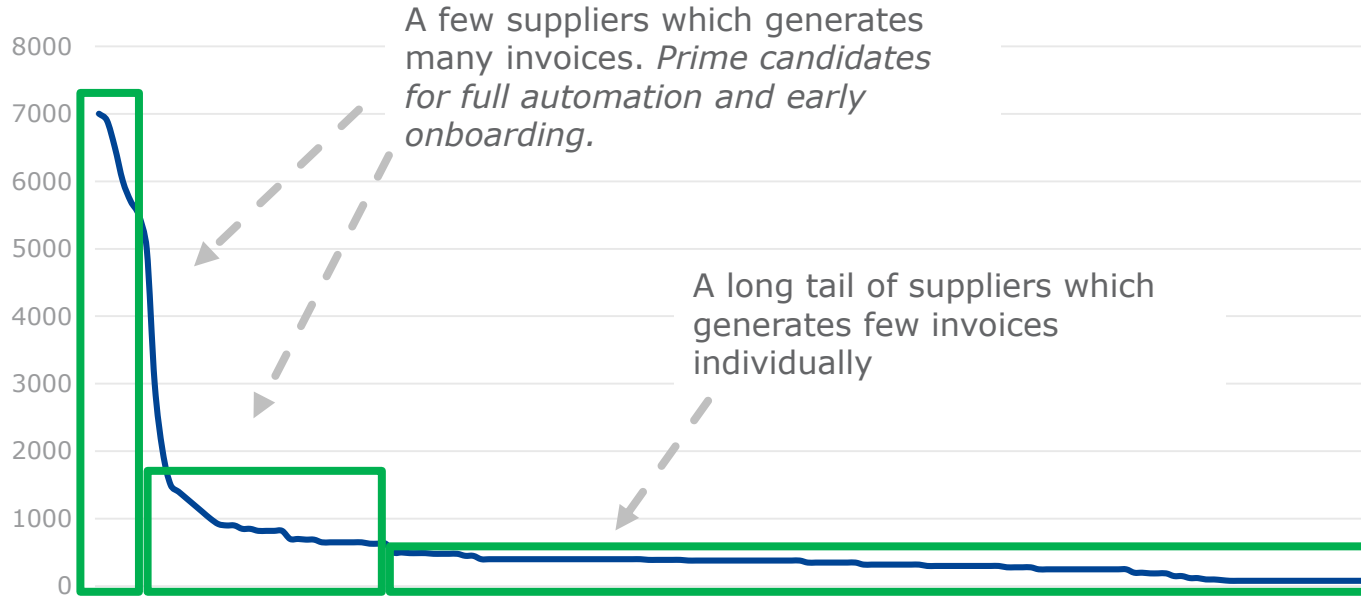
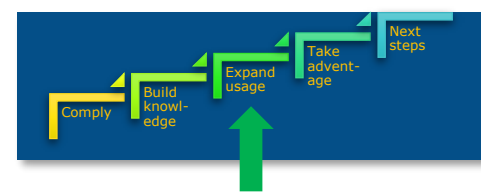
If you are unable to send electronic invoices, you can use our invoice portal free of charge to register them manually. This solution is intended for smaller suppliers who only issue a few invoices. Log in and register at: fakturaportalen.se

Expand usage – onboard suppliers



- Understand your suppliers
 - How many invoices/year do they produce?
 - How do you process the invoices?
 - How mature is the supplier?
- Create a strategy
 - How to contact them?
 - Potential incentives to offer?
 - Prioritize which group/category of suppliers to onboard
- Onboarding
 - Avoid processes where manual intervention is necessary in the technical setup
 - Remember that suppliers may have limited capabilities – avoid to advanced requirements in relation to the eInvoice formats (use of fields and references)

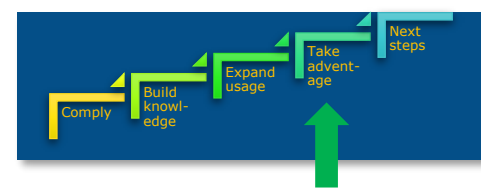
Typical distribution of invoices/suppliers



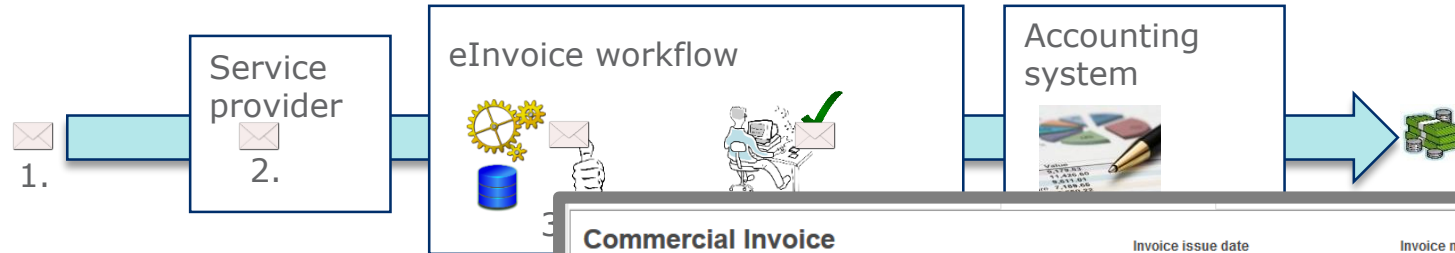
Return on effort – much can be gained by onboarding a few

Take advantage

- Acquire system/software which enables automation
- Electronic workflow to minimize manual intervention
- Automated evaluation and matching
- Use the structured data to find errors and learn about your spending



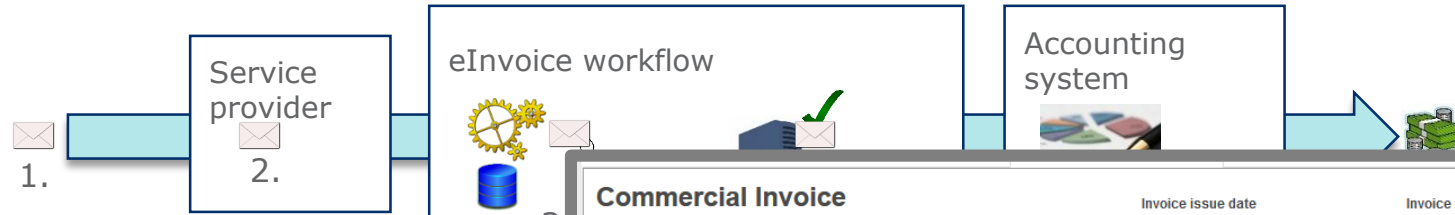
Buyer process – Workflow and manual assessment (buyer reference)



- The invoice is received
- The invoice is routed automatically
- The supplier is known by the system
- There is a buyer reference
- The invoice is assessed, and the amount due for payment is calculated

Commercial Invoice							
Taxi- o Transportrörelsen HB			Invoice issue date 2008-09-01	Invoice number 1002420			
			Payment due date 2008-10-01	Order reference			
			Period start date 2008-08-15	Buyer reference PoPe			
			Period end date 2008-08-31	Amount due for payment 750 SEK			
BUYER Skellefteå Sambruk AB Address Box 1 93100 Skellefteå SE Legal registration ID: 9878543210 [0007] Buyer name: Skellefteå Sambruk AB		BUYER CONTACT B-E Ställman Buyer accounting reference: PoPe	Contract reference: K1002420				
Line ID	Seller's ID	Name	Quantity	Net price	VAT rate	Charge Allowance	Net amount
1		Högtrafik	4.2 KMT (Unit of	23.14 SEK	S, 6%	Charge: 33 Startavg () %	130.19

Buyer process – Automatic assessment (invoiced object reference)



- The invoice is received
- The invoice is routed a
- The supplier is known
- The invoice has a refer
- Rules for approval is as
- The invoice is automati

Commercial Invoice

Telefonitjänster AB

Invoice issue date: 2007-02-05
Payment due date: 2007-03-05

Invoice number: 2007-99123
Order reference

Buyer reference: PoPe
Amount due for payment: 1 039 SEK

BUYER: Myndighet X
Address: Administration och IT, 10012 Stockholm, SE
Buyer name: Myndighet X

BUYER CONTACT: Buyer accounting reference: UserID111, 6081

Contract reference: ABC1234

DELIVERY INFORMATION

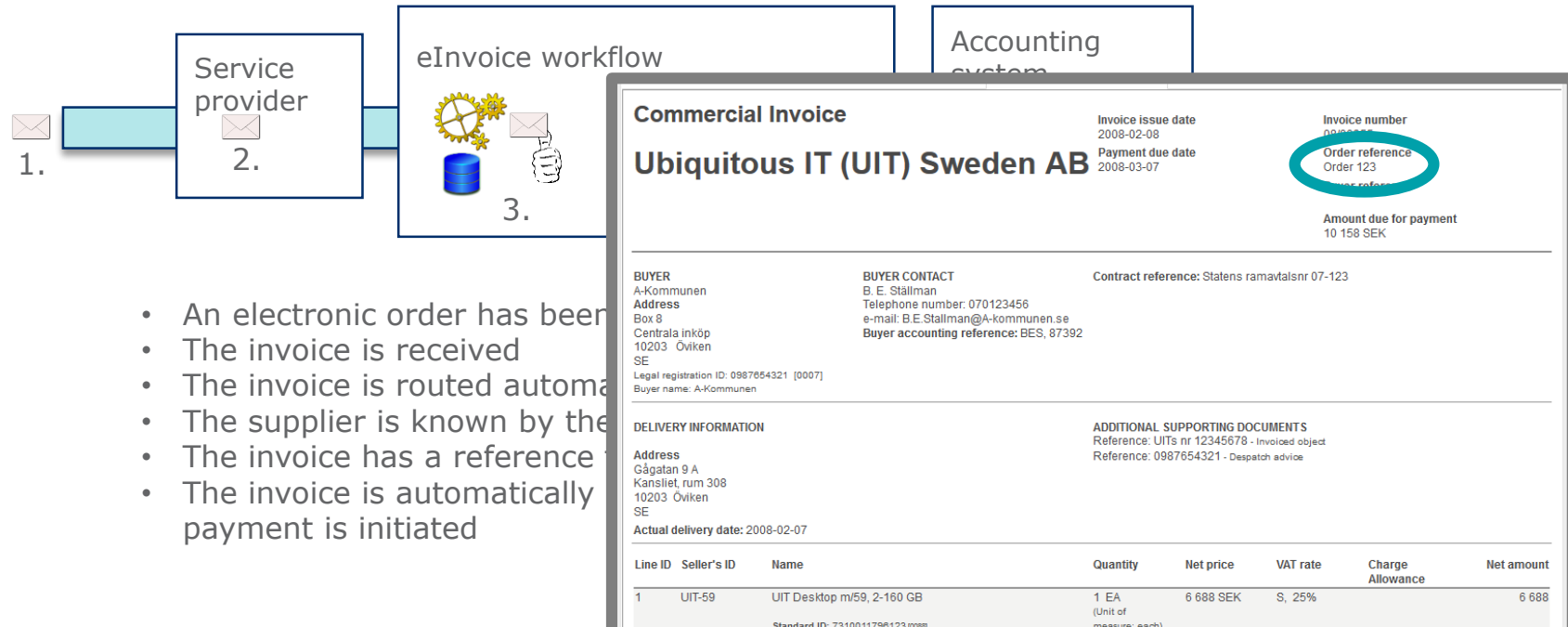
Address: Storgatan 1, Intern service, Stockholm, SE

ADDITIONAL SUPPORTING DOCUMENTS

invoiced object identifier: 0765123456

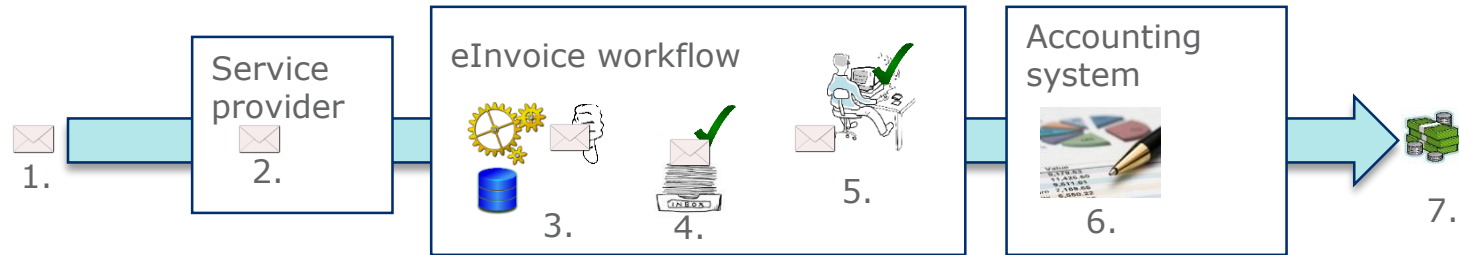
Line ID	Seller's ID	Name	Quantity	Net price	VAT rate	Charge	Net amount
---------	-------------	------	----------	-----------	----------	--------	------------

Buyer process – Automatic assessment (invoice with order matching)



- An electronic order has been received
- The invoice is received
- The invoice is routed automatically
- The supplier is known by the system
- The invoice has a reference to the order
- The invoice is automatically assessed and payment is initiated

Buyer process - Unknown supplier



- The invoice is received
- The invoice is routed automatically to the workflow
- The supplier is not known by the buyer and is placed in a queue for handling
- The supplier is accepted and registered in the system
- There is a reference in the invoice for forwarding in the workflow
- The invoice is assessed, approved and payment is initiated

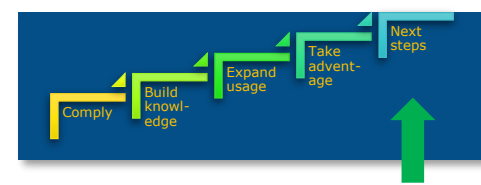
City of Skövde, Sweden – an example



Workflow using BuyerReference	47 445	37,70%
Order matched invoices	32 000	25,43%
Periodical/non-ordering invoices	23149	18,39%
Paper invoices	23 255	18,48%
Total	125 849	100%

Next steps –

Implementation of eOrdering based on products and services in eCatalogues



Order the correct items
From the contracted supplier
Using the correct price
In a simple way



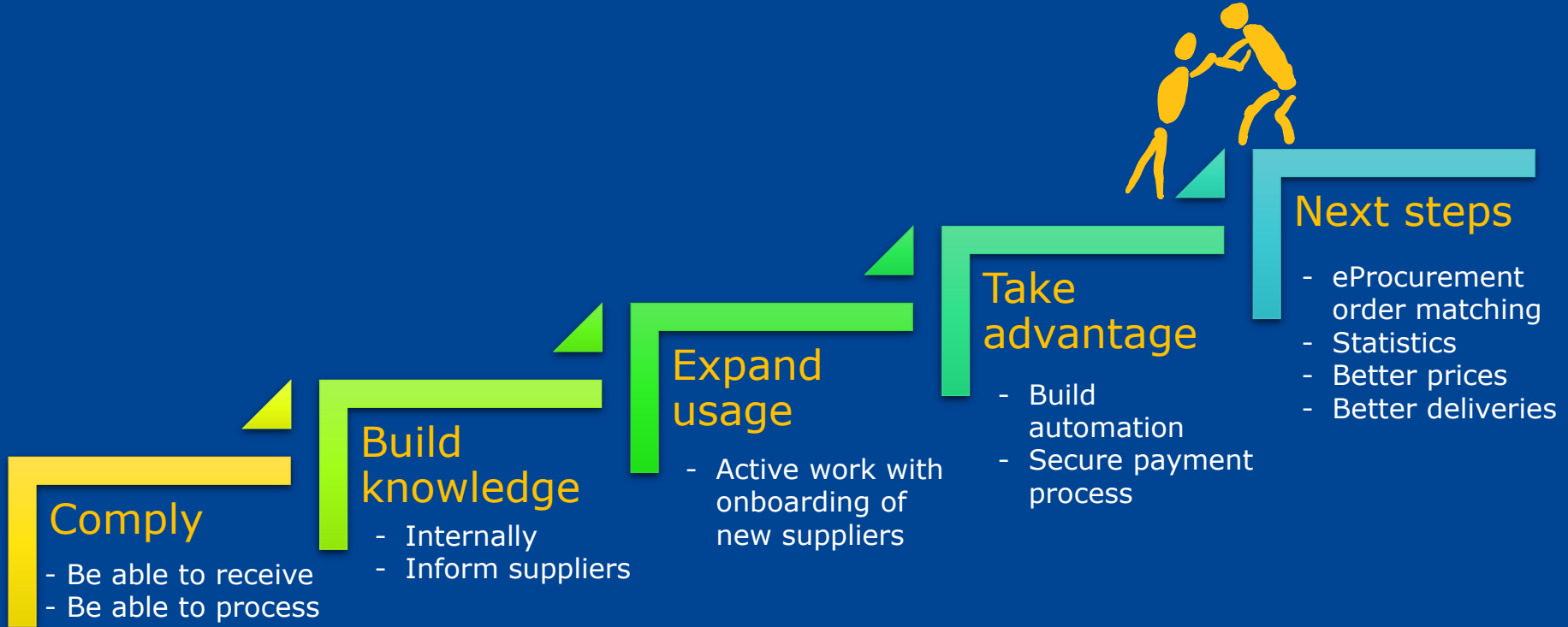
Get the correct items
delivered
At the correct time
The the correct location



Automated approval of the invoice
Paid in time and
Correctly booked

- Lower prices
- Increased contract loyalty
- Better monitoring
- Rational and smooth process
- Improved cash management
- Enhanced security
- Environmental friendly
- Strengthened business relationships

Level of readiness



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Governance and policy

Governance...

Characteristics from countries with high penetration of e-Invoicing

- Strong initiative from public sector
- Either a governmental authority or collaboration between several
- Provide policy/directions – standards and infrastructure
- Give support and provide capacity building
- Involvement in EU-level initiatives
- EMSFEI (High level and policy issues)
- OpenPEPPOL (Operational and practical issues)

Examples of things to consider when developing a roadmap for eInvoicing

Policy for For the supplier/issuer

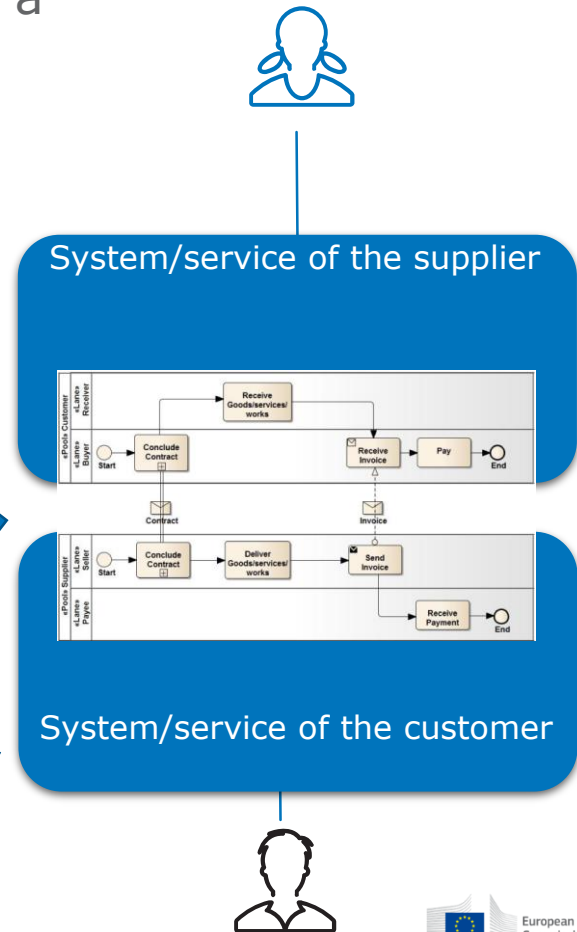
- Suppliers have a diverse environment (such as different technical solutions, processes, maturity level)
- Clear policy around standards helps
- Supporting tools can be provided – validation tools, presentation style sheets, translations
- Aligned requirements on use of references and identifiers if possible

Policy for Interconnectivity

- Minimum requirement on technology for how to connect and for service providers to collaborate
- Publicly available strategy on how to handle the European standard – both domestically and cross border (CIUS)
- Transmission cross border (eDelivery)

Policy for the public sector

- Up to each entity to tender for solutions or centrally provided?
- Maturity level of the public entities – are temporary solutions necessary?
- Mandate eInvoicing? Through law/contracts? Also below threshold?
- Centrally provided supporting tools, help desk, training and capacity building?





Country facts and plans for the future

Country Facts

- **Growing sense of urgency**
- **Plans are getting more and more concrete**
- **Still focus on technical aspects**
- **Lack of appreciation of the change process**
- **Focus on compliance rather than potential gains**

Sweden

- Early adopter
- PEPPOL Authority
- Mandating B2G

Germany

- PEPPOL Authority
- Clear policies

Italy

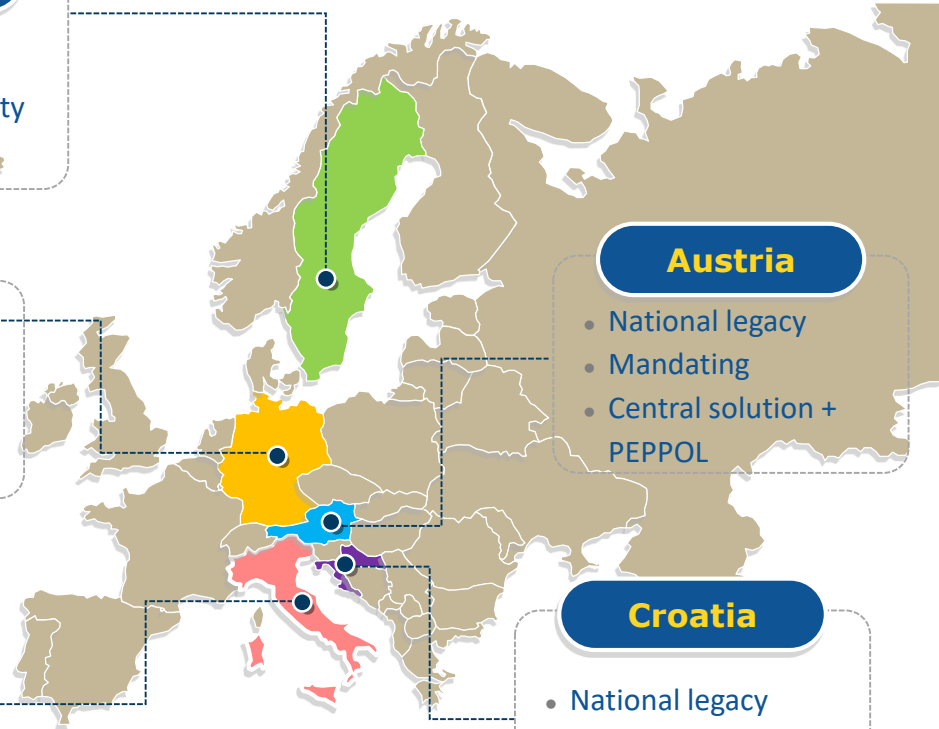
- Strong legacy
- Mandating both B2G and B2B

Austria

- National legacy
- Mandating
- Central solution + PEPPOL

Croatia

- National legacy
- Mandating B2G



Responsible

Danish Business Authority (Ministry of Industry, Business and Financial Affairs)

Legislation

- Consolidation Law on public payments, etc. Act. No. 798 of 02.28.2007
- Order on electronic settlement with public administrations, Order No. 206 of 11.03.2011
- Order on Information and transport of OIOUBL electronic invoice used for electronic settlement with public authorities, Order No. 354 of 03.26.2010

B2G eInvoicing is mandatory in Denmark since 2005

Transposed the Directive 2014/55/EU

YES

Use of the extra year for compliance of non-central entities (by 19 Apr 2020)

YES

Mandatory for

Submitting: Economic operators
Receiving and processing: Central authorities, Regional authorities & Local authorities

Standard(s)

OIOUBL (national UBL 2.0 standard) – mandatory, BIS 3 UBL optional

Platform

NemHandel

Use of CIUS and/or Extensions

NO

Before 2019

2019 →

eInvoice usage in public sector Implementaion of the EN/CIUS

98 %

PEPPOL CIUS
(+Rules for domestic suppliers)

Main syntax standard

ISO/IEC 19845:2015
UBL

Plans for infrastructure

PEPPOL and NemHandel in parallel. PEPPOL only long term.

Infrastructure

NemHandel

Legislation (transposition of the directive)

eInvoicing already mandated for suppliers by law. Additional types fo public entities will be affected.



Responsible	Ministry of Finance and the Agency for Digital Government (DIGG)
Legislation	eInvoicing is mandatory in Sweden since 2008 for central government agencies
Transposed the Directive 2014/55/EU	YES
Use of the extra year for compliance of non-central entities (by 19 Apr 2020)	NO
Mandatory for	Receiving, processing and sending: All public authorities i.e including municipalities and regions and their suppliers (by 1 April 2019)
Standard(s)	<p>PEPPOL BIS invoice</p> <p>Svefaktura version 1 (a national subset of UBL 1.0 defined in 2004)</p> <p>SFTI Fulltextfaktura (an Edifact D96A invoice aligned to GS1 EANCOM specifications)</p> <p>These standards are mandatory for central government and recommended for regional and local authorities. The regulations also include PEPPOL-based standards for ordering and delivery processes.</p>
Platform	Provided to central authorities by solution providers. Use of PEPPOL is encouraged.
Use of CIUS and/or Extensions	YES
	PEPPOL 3 as CIUS

Before 2019

2019 →



eInvoice usage in public sector Implementaion of the EN/CIUS

50% local/regional authorities
60% governmental authorities

PEPPOL CIUS
(+Rules for domestic suppliers)

Main syntax standard

ISO/IEC 19845:2015
UBL

Plans for infrastructure

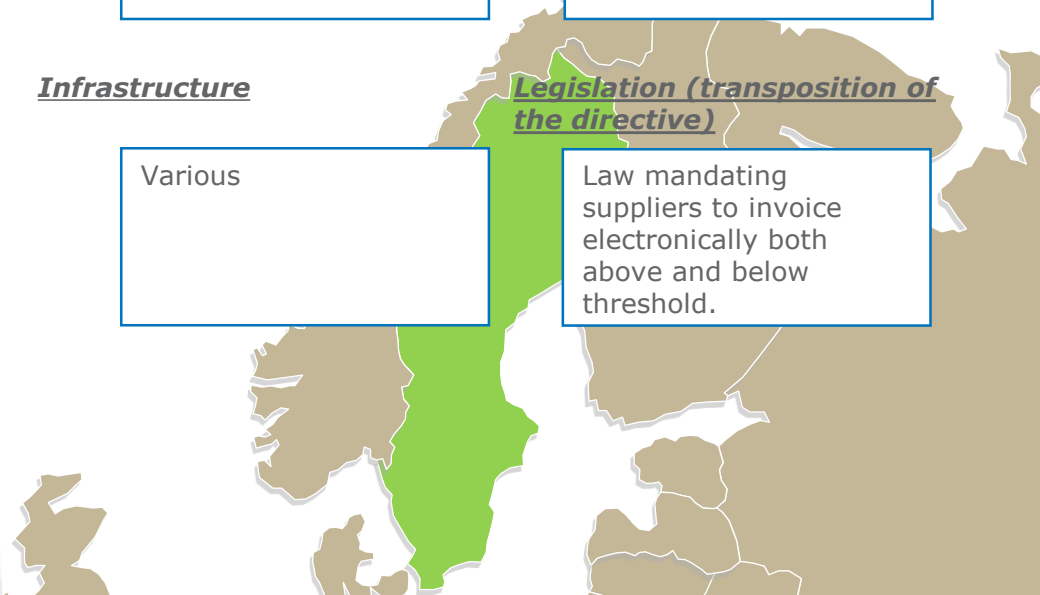
PEPPOL

Infrastructure

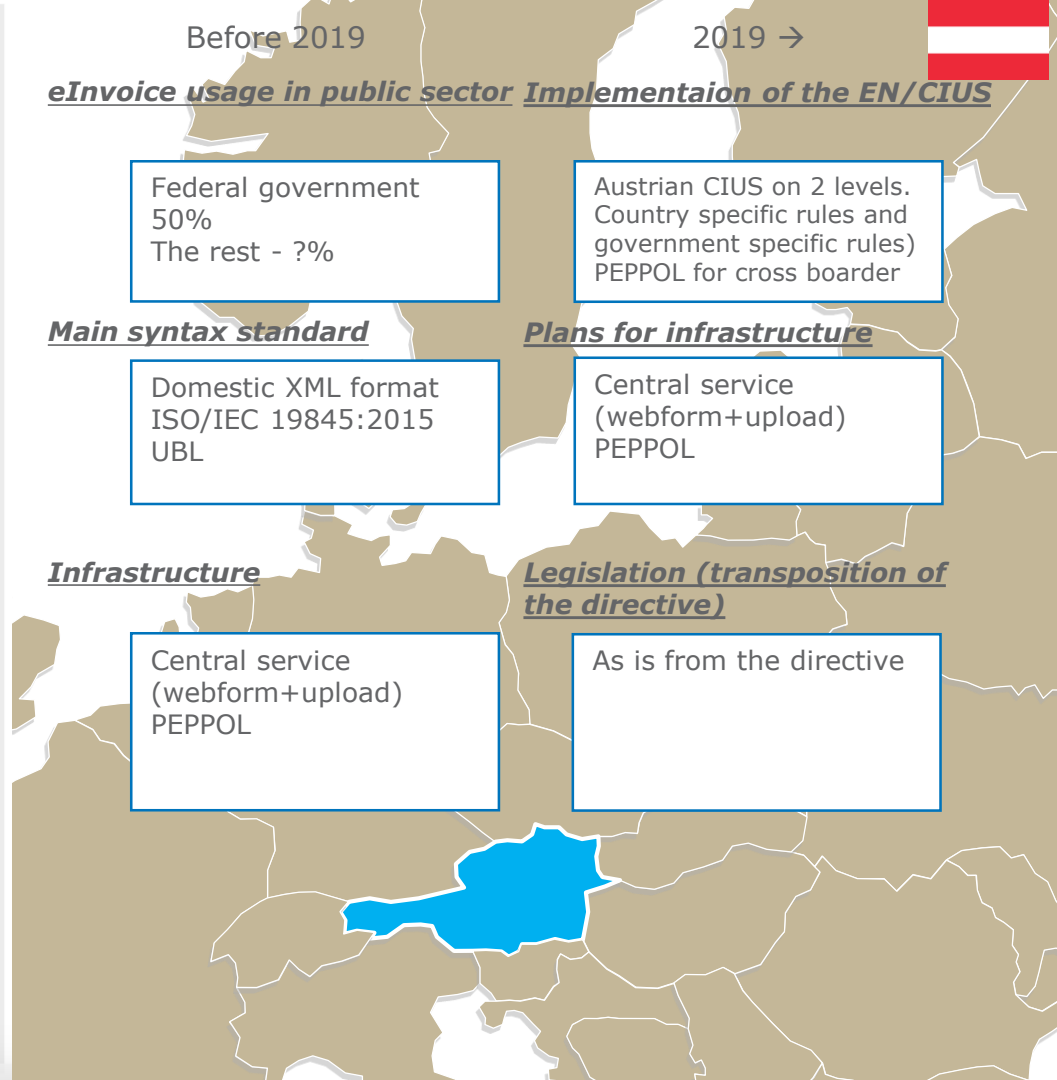
Various

Legislation (transposition of the directive)

Law mandating suppliers to invoice electronically both above and below threshold.



Responsible	Federal Ministry of Finance
Legislation	Austrian ICT Consolidation Act (ICTKonG), 2012 B2G eInvoicing is mandatory in Austria since 2014
Transposed the Directive 2014/55/EU	YES https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20010295&FassungV04-18 §368
Use of the extra year for compliance of non-central entities (by 19 Apr 2020)	YES
Mandatory for	Submitting: Economic Operators to the federal domain only Receiving and processing: Central authorities
Standard(s)	ebInterface (national XML standard) and PEPPOL-BIS (UBL - interr)
Platform	Any platform can be used if connected to the authentication service Federal Service Portal (<i>Unternehmensserviceportal</i> – USP). E-rechnung.gv.at for eInvoicing Transmission PEPPOL invoices and credit notes according to BIS 4A and BIS 5A are received.
Use of CIUS and/or Extensions	YES (CIUS only)



Responsible On the federal administration level: Federal Ministry of the Interior
On the federal state level (Länder), each state (Land) is responsible for eInvoicing.

Legislation On the federal level: the E-bill law from April 4 2017 (E-Rechnungsgesetz[1]); Federal Regulation on E-Invoicing from September 2017 (E-Rechnungs-Verordnung)
On the federal state level (Länder): Each state must have its own legal regulation until November 2018

Transposed the Directive 2014/55/EU YES

Use of the extra year for compliance of non-central entities (by 19 Apr 2020) YES

Used in practice for Receiving and processing: Central authorities, Regional authorities & Local authorities

Standard(s) XRechnung (at least Standard for Central authorities, Regional authorities & Local authorities due to decision by the National IT Planning Council)
ZUGFeRD 2.0 (promoted by FeRD since 2014, developed in cooperation between the Federal Ministries of the Interior and for Economic Affairs and Energy and the private sector with the aim foster the use of eInvoicing in the public and private sectors)

Platform A shared portal (E-Rechnungs-Portal) was created on the federal level. Some federal states (Länder) use this shared portal too while others will build their own portal and the rest plan to use no portal or still have no planning.

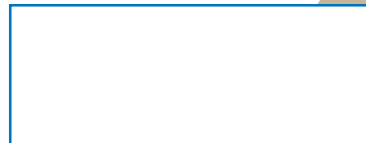
Use of CIUS and/or Extensions YES

Before 2019

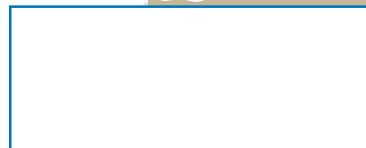
2019 →



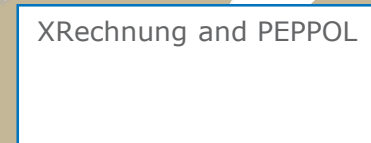
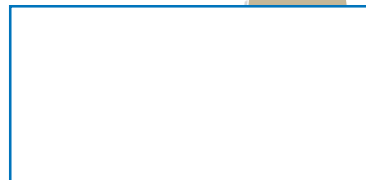
eInvoice usage in public sector Implementaion of the EN/CIUS



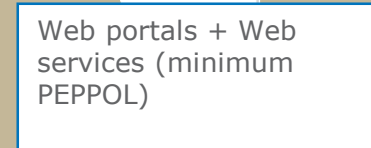
Main syntax standard



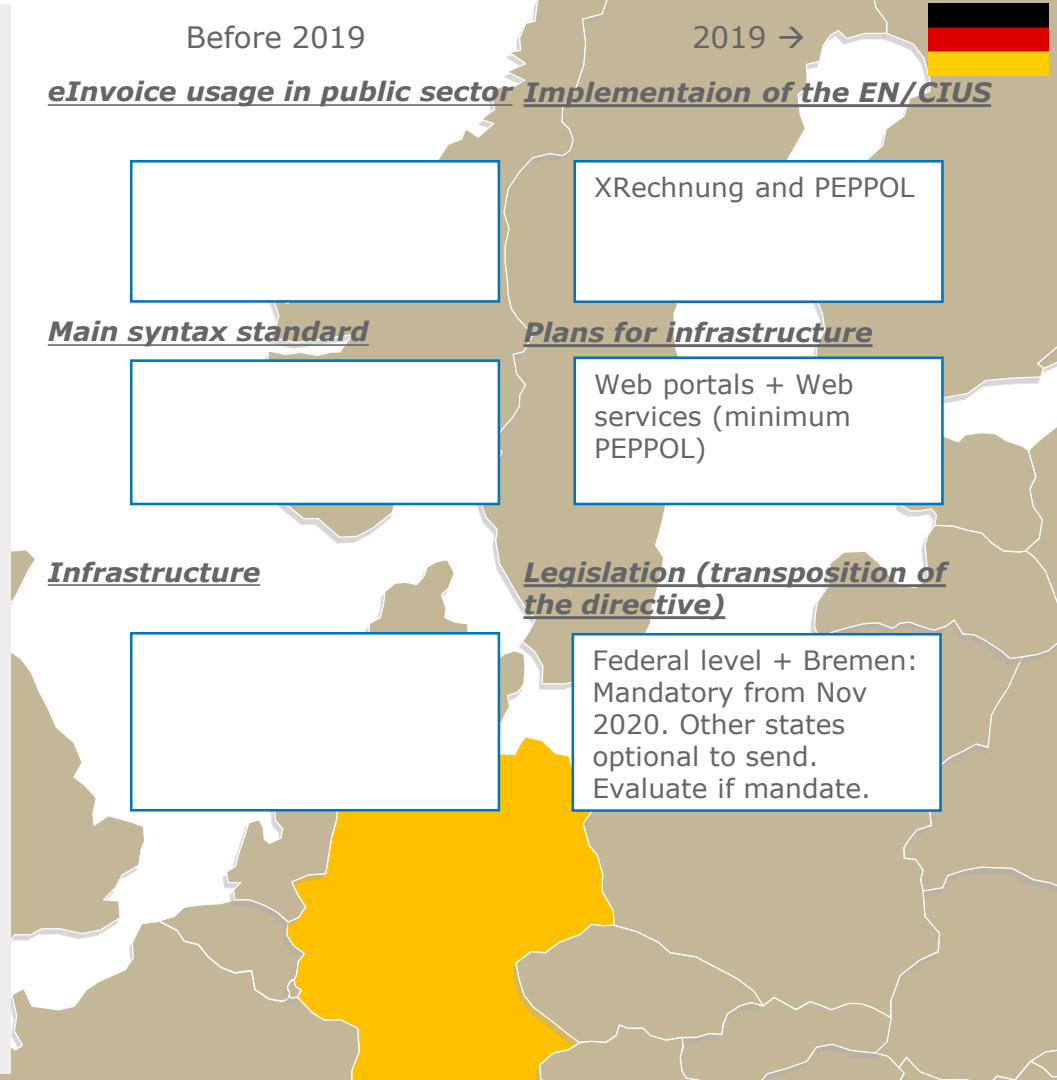
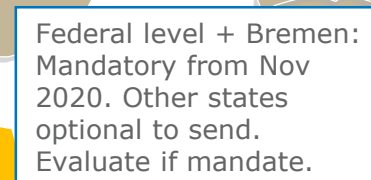
Infrastructure



Plans for infrastructure



Legislation (transposition of the directive)



Responsible Ministry of Economy, Entrepreneurship and Crafts

Legislation Decision 124/2015 on receiving structured invoices in electronic form and the attached documents for public governmental bodies, state budget beneficiaries.

New regulation preparation underway. Planned publication Q2/2018. In order to align with the Directive 2014/55/EU.

Transposed the Directive 2014/55/EU YES

Use of the extra year for compliance of non-central entities (by 19 Apr 2020) NO

Mandatory for Receiving and processing: Central authorities and entities

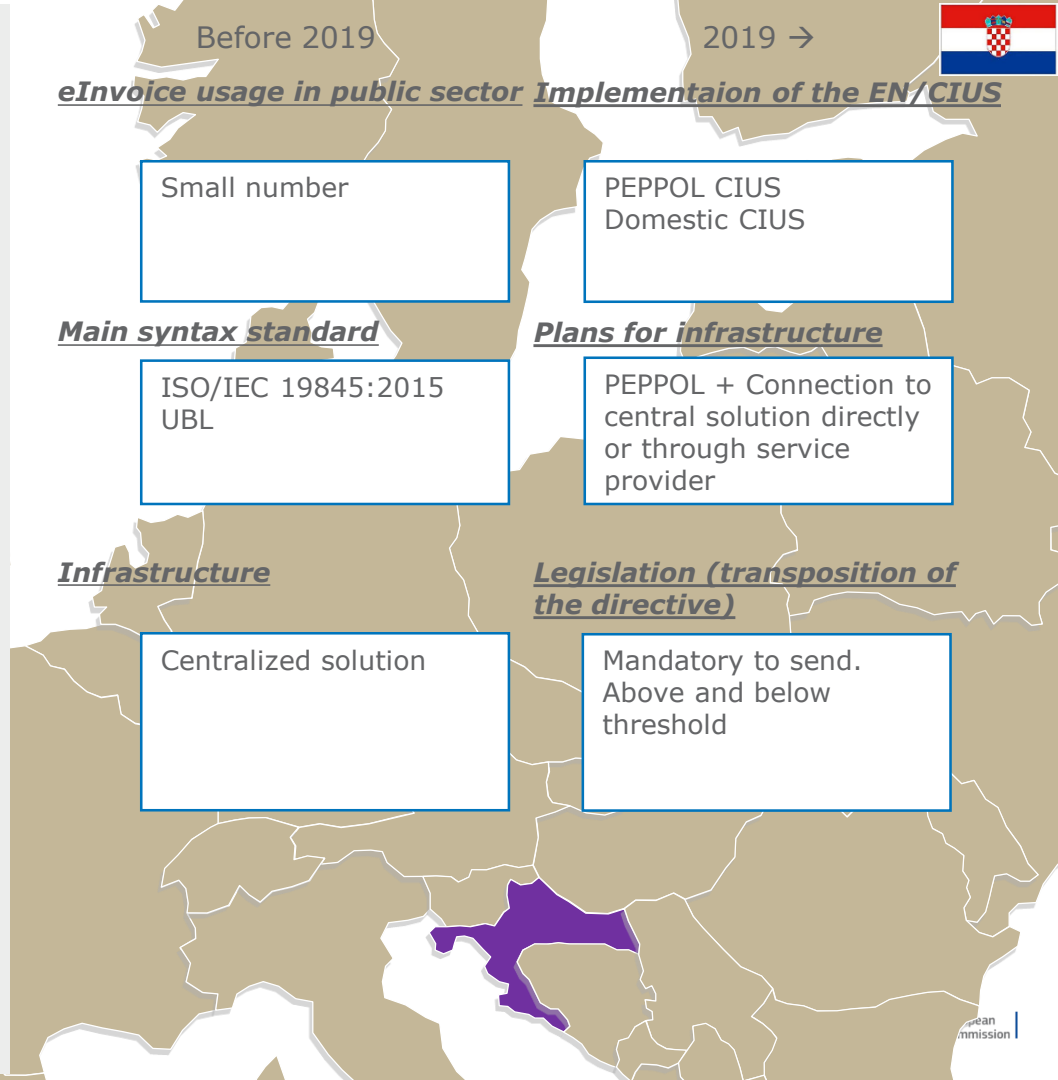
Standard(s) Cross Industry Invoice (CII)
OASIS UBL 2.1

Platform [e-Račun](#)

Use of CIUS and/or Extensions YES - Croatia has CIUS on national level that complies with Croatian VAT legislation.

National CIUS provides descriptions of elements and data that should be used on invoices for public procurement.

<https://www.fina.hr/e-racun-u-javnoj-nabavi>



Curious to learn more?!

Contact info

- CEF-BUILDING-BLOCKS@ec.europa.eu

Planning for 2019

- Several workshops in planning

Meanwhile – take a look at the available material on CEF Digital

- <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eInvoicing>



Lessons learned

QUESTIONS?