

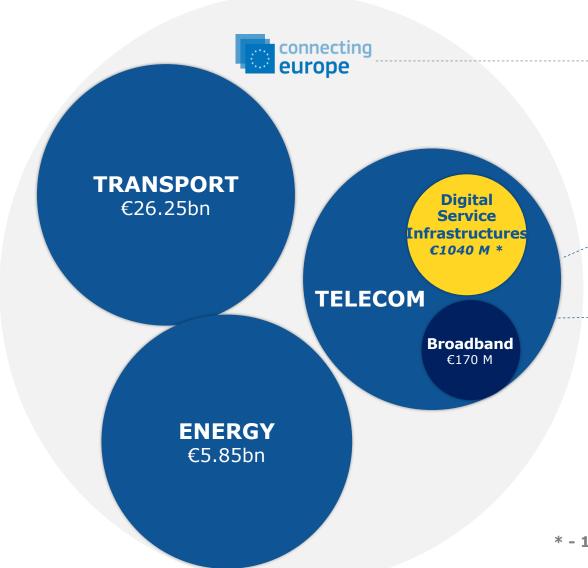


Introduction to CEF Digital and eInvoicing – Our services and how to get started

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 1.600M Euro for further funding of implementation

* - 100 M Juncker Package

CEF Building Blocks

The building blocks of the Connecting Europe Facility promote the adoption of the same open standards and technical specifications, by the different sectors of the Union, for the most basic & common functionalities of any sectorial project/platform.

These core commonalities will enable interoperability across borders and sectors.











The CEF 'Big Picture'

Funding for the EUROPEAN COMMISSION

Services offered by the European Commission



Building Blocks











Funding for the MEMBER STATES

Grants - Projects in the Member States



Typically 'deployment' projects at national level (up to 75% of eligible cost)



More building blocks are coming



ANALYSE and TEST with

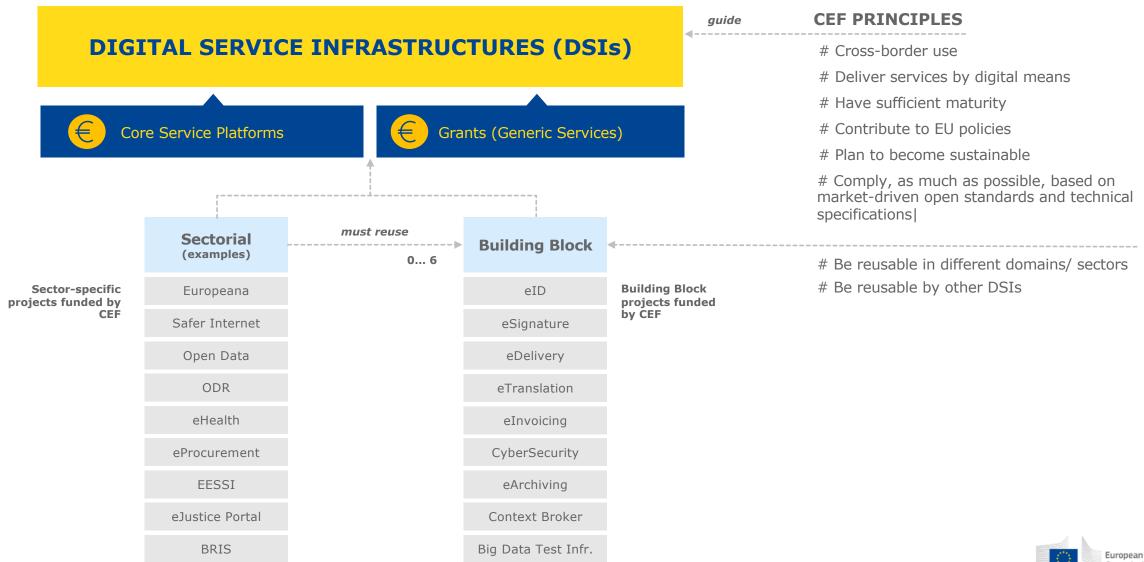
Data analytics

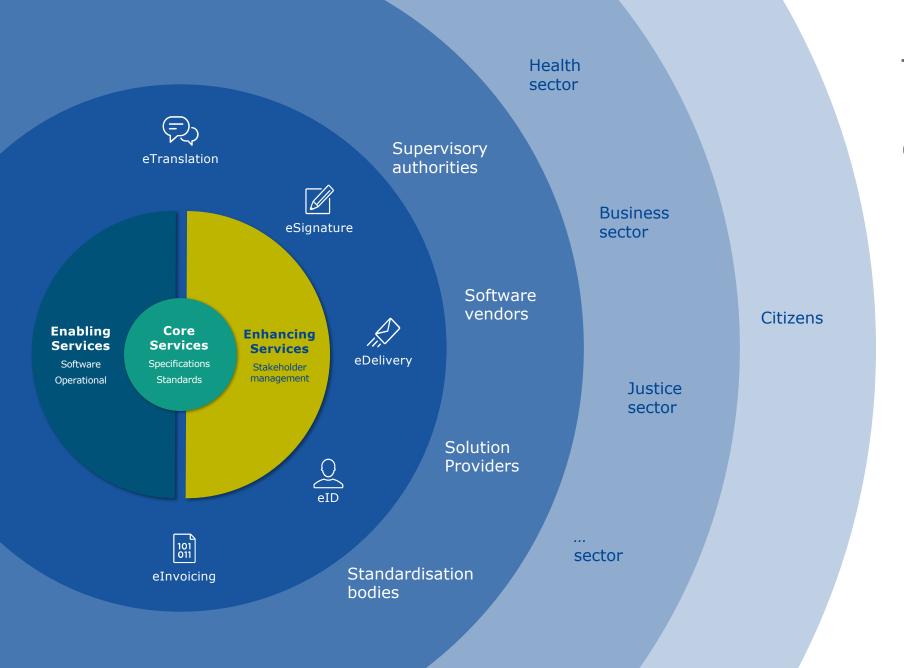


ARCHIVE with

eArchiving

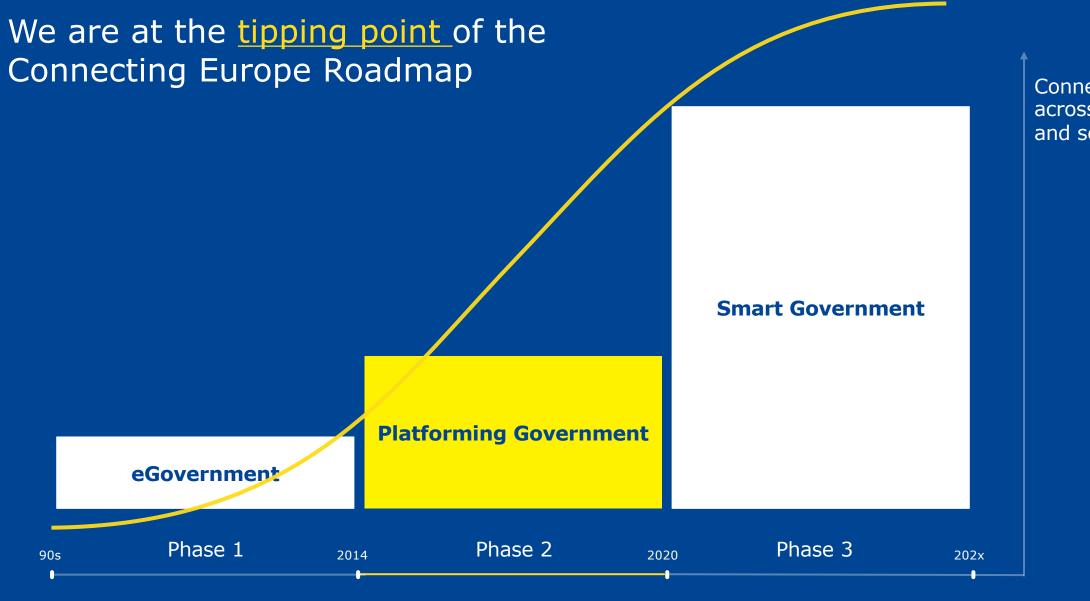
What are the fundamental characteristics of a Building Block / DSI?





The CEF Building
Blocks are creating a
common digital
platform across
Europe

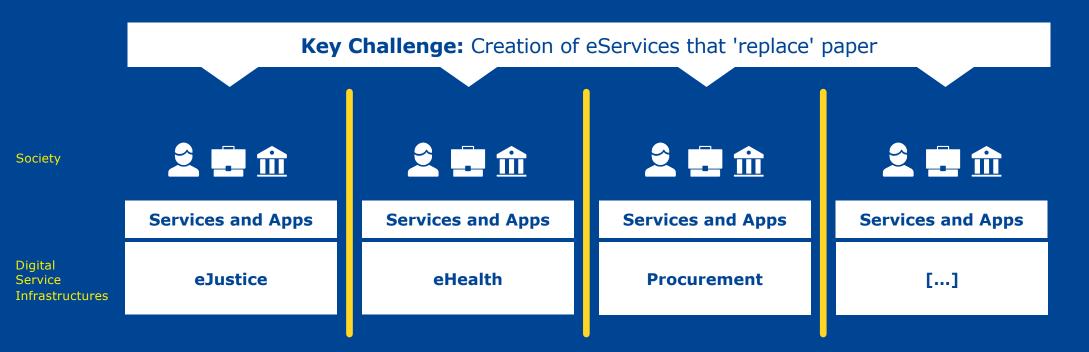




Connectivity across borders and sectors

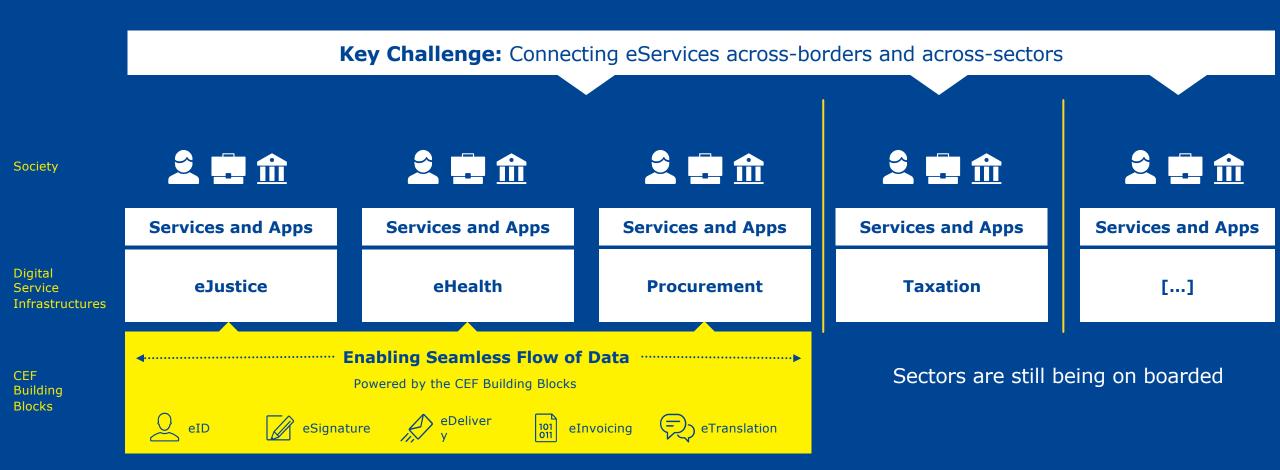
Phase 1: eGovernment.

However Europe cannot fully benefit from it because we are still working in silos, we still have digital borders....





Phase 2: Platforming Government. We need to remove digital barriers to create a fully functioning Digital Single Market.







Phase 3: Smart Government. This is how we will ensure high quality, user-centric digital public services for citizens and seamless cross-border public services for businesses.

Key Challenge: Exploitation of the Digital Platform i.e. Once Only, Digital by Default, ... 至 唐 命 Society **Services and Apps Services and Apps Services and Apps Services and Apps** Digital **eHealth eJustice Procurement Other Sectors** Service Infrastructures **EIF Principles Enabling Seamless Flow of Data** CEF Building eID eSignature eDeliver on eInvoicing eTranslation Blocks





The European Commission's Digital Strategy

Security



Digital Commission

Digitally transformed + User-focused + Data-driven



Governance

The CEF Building Blocks











eID

Extending the use of online services to citizens of other EU member states

eDelivery

Supporting electronic registered delivery of data and documents

eSignature

Creating and verifying electronic signatures

eInvoicing

elnvoices received

from 2 EU countries

Pay elnvoices

Supporting Public Entities in the uptake of the EU Standard for eInvoicing

eTranslation

Exchanging information across languages in the EU Member States

eArchiving

Tackling the challenge of short, medium and long-term data management and reuse



EU Login

EU Send

EU Sign

Available as-a-service to the European Commission



Context Broker

Managing and sharing real time data (context information) via a central hub



Big Data Test Infrastructure

Data and analytics services from infrastructure to tools for experimenting with Big Data technologies

The CEF Building Blocks are at the core of Europe's Digital Transformation - What is changing?

eGovernment	Connecting Europe	Full Digital Government		
Silo thinking • ← → •	→	Cross Sectorial		
Vertical Value Creation	→	Ecosystem Value Creation 💸		
Custom Specifications 🙃	→	Open Standards 🗐		
Organisational Structure	→	Service Design 🌐		

We have the building blocks of the new paradigm expressed in the Tallinn declaration i.e. Europe without digital borders



- 1. Digital-by-default
- 2. Once-only
- 3. Trustworthiness and Security
- 4. Openness and transparency
- 5. Interoperability by default
- 6. Horizontal enabling policy steps
- 7. Cross-border by default

New paradigm



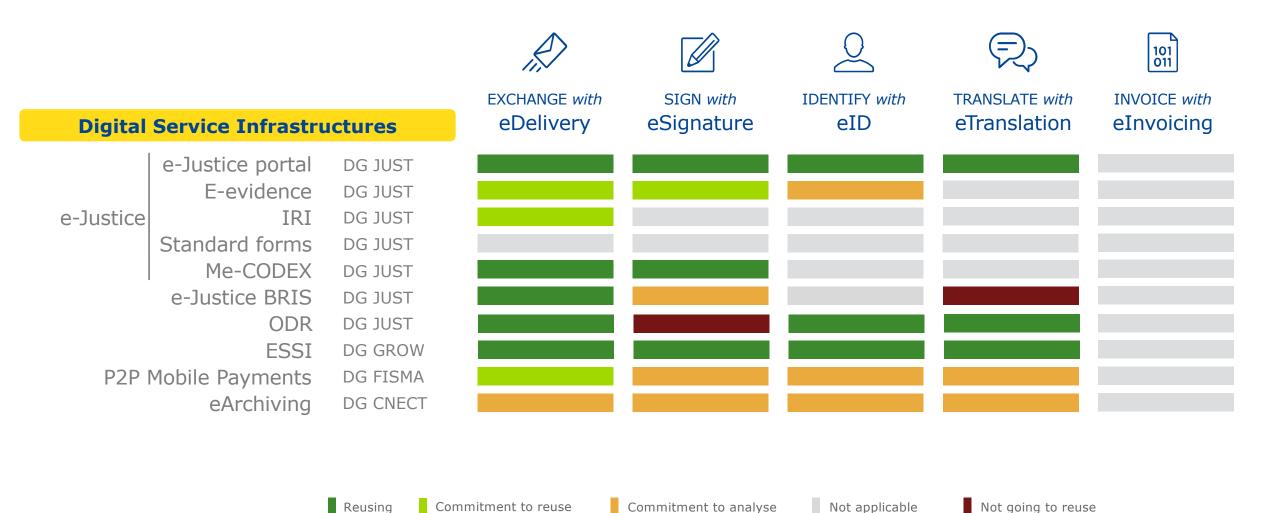
Uptake of CEF building blocks

Deployment in the CEF Digital Programme





Deployment in the CEF Digital Programme





Significant growth in the last year. Since November 2017...

Reuse

+ 128 %

41 more projects at the EC are **reusing** the CEF Building Blocks

73

的的的

EC projects reusing BBs

32

EC projects reusing BBs

Nov. 2017

Nov. 2018

Success Stories

+ 350%

21 more teams told us how they have successfully re-used the CEF Building Blocks

27

Success Stories















Nov. 2018

Monitoring dashboard on CEF Digital



View Success Stories on CEF Digital

Success Stories

Nov. 2017



All Member

CEF eInvoicing: Legal milestones & services

Directive
2014/55/EU
electronic
invoicing in
public
procurement

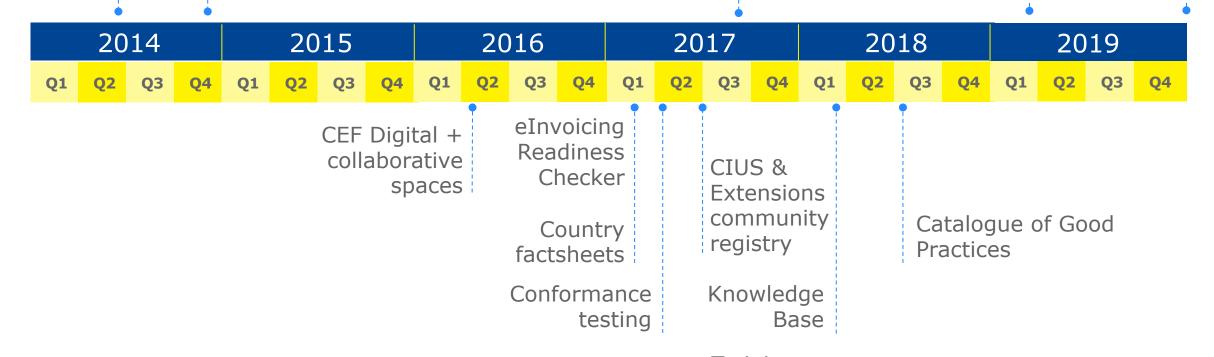
CEN TC 434 begins the definition of the European Standard on eInvoicing European
Standard on
eInvoicing
published in the
Official Journal

All Member
States' central
entities
comply with
eInvoicing
Directive

States' local entities comply with eInvoicing Directive (*)

(18 April 2019)

(18 April 2020)

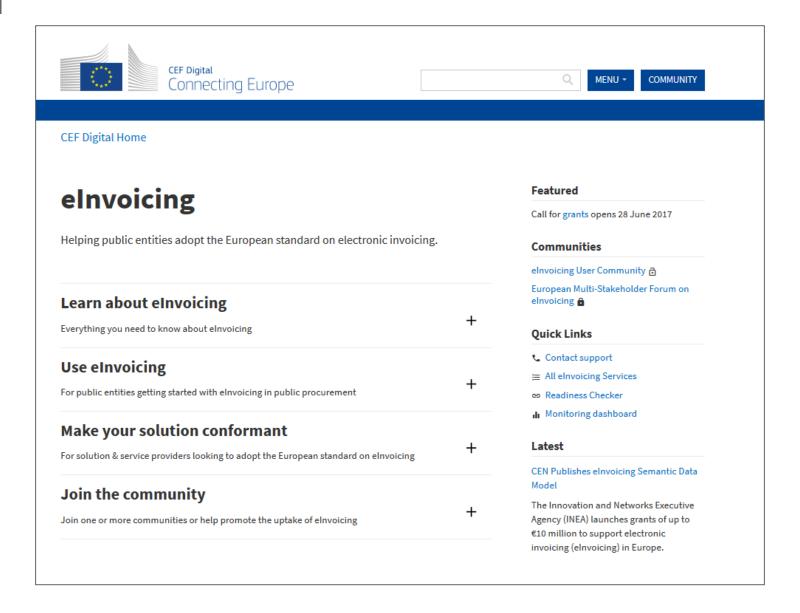


Training - Implementation workshops & Webinars



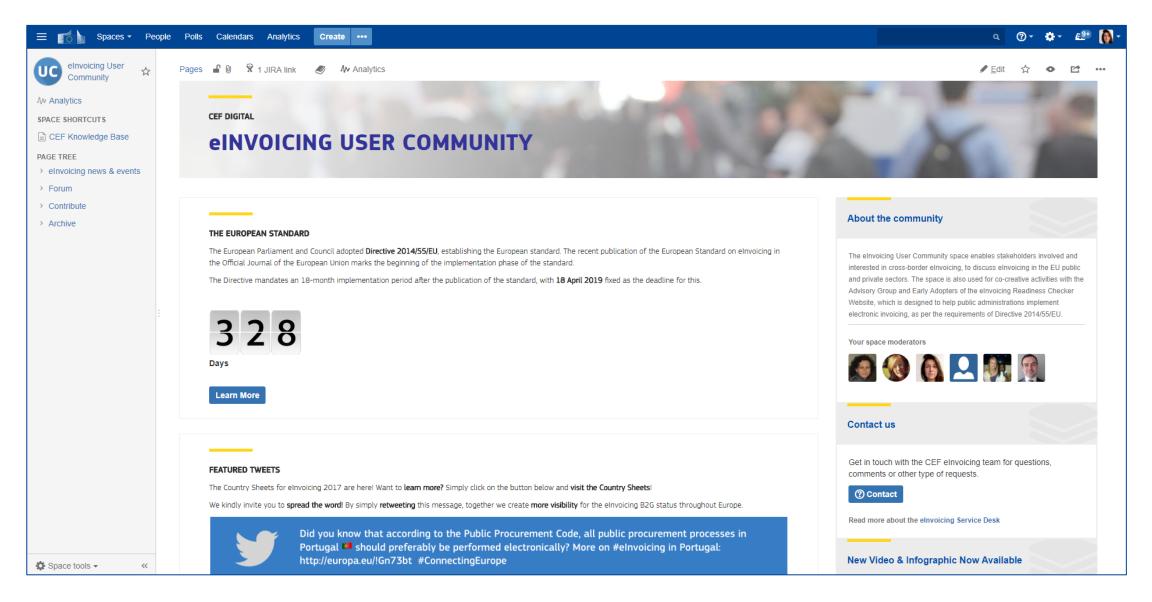
CEF Digital

CEF Digital





CEF eInvoicing User Community



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.





USERS

Public entities

Policy makers

Economic operators & suppliers

Solution & service providers

More info

CEF Digital

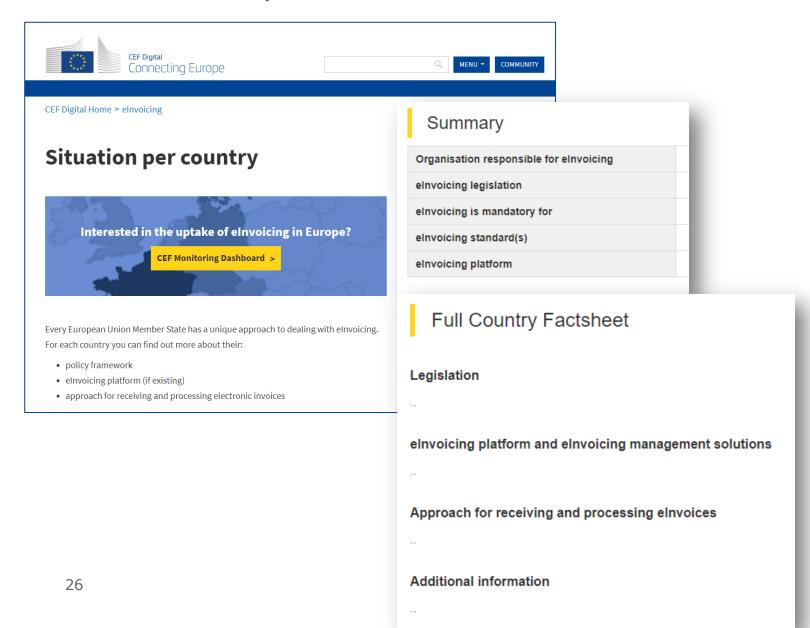
Get started

Contact us >

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.

2018 Country Factsheets



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						

Community-driven Registry of CIUS and Extensions

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

Created by Ines COSTA, last modified by Fred VAN BLOMMESTEIN on May 16, 2018

Topic	Registry of CIUS (Core Invoice Usage Specifications) and Extensions
Excerpt	This page aims to give the elnvoicing 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 elnvoicing.
Status	OPEN
Deadline	Ongoing

Provide information on CIUS and Extensions

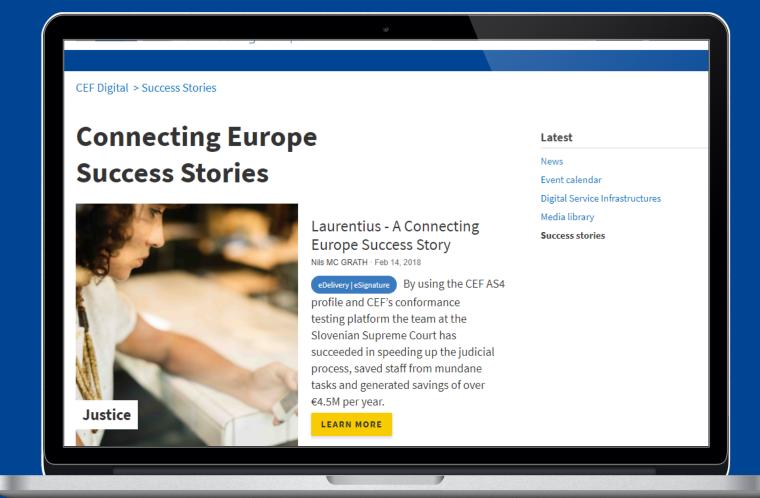
The table below aims to give the elnvoicing community the opportunity to share the ongoing and planned initiatives across Member States and sectors to create CIUS and Extensions on the European standard on elnvoicing. The content is community-driven and the contributors take the sole responsibility of 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 elnvoicing by filling the table below:

Name	Туре	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		DEVELOPMENT	@ 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		DEVELOPMENT	@ Philip HELGER
Energy elnvoice	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 elnvoice steering committee	Energy elnvoice 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 elnvoice national format (FatturaPA)	AgID, AdE	AgID, AdE	EN16931	http://www.agid.gov.it/agenda- digitale/pubblica-amministrazione/cef- telecom-einvoicing-eigor	DEVELOPMENT	Fabio MASSIMI



* https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/Success+Stories



Read all the Connecting Europe success stories on CEF Digital



eInvoicing Success Stories

In addition to the workshops, CEF eInvoicing has also recorded the success stories from Individual countries with regards to their eInvoicing implementation journey.









CEF grant accelerated eInvoicing roll-out in Croatia's public sector

Croatia's eInvoicing implementation plan:

The Ministry of Economy, Entrepreneurship and Crafts of Croatia responded to CEF's eInvoicing grant call in 2016 to:

- Advance cross-border eInvoicing possibilities
- Develop national eInvoicing efforts within Croatia
- Connect new stakeholders to the Croatian eInvoice Exchange Hub

How CEF contributed:

The CEF program supported the Croatian Ministry by providing a standardised set of technical details for electronic invoicing to shorten the implementation process.

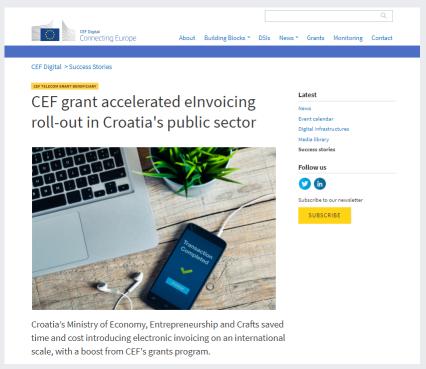
In addition to this, they were supported through the use of:

- the European eInvoicing standard;
- CEF Digital 2018's conformance testing;
- Training and Desk services to support the implementation.

Success Story #1 Croatia



MINISTRY OF ECONOMY, ENTREPRENEURSHIP AND CRAFTS





Finland is using AI in attempt to achieve one-hundred per cent eInvoicing

Finland has reached a mature level of eInvoicing implementation:

- The Finnish Bankers' Association launched a standard eInvoicing format in 2003, and by 2007 Finland had a B2C eInvoicing solution.
- By introducing eInvoicing a decade ago, over 90% of invoices are now electronic in Finland.

Greatest eInvoice Benefits for Finland:

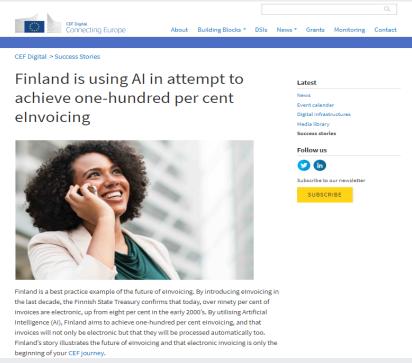
- Finland's payment system is fully digitalised, helping the transition from paper to electronic formats.
- New payment products such as eInvoice have measurable climate benefits reviewed by the Finnish government annually.

Future eInvoicing plans:

• Finland plans to implement 100% automated eInvoice handling by utilising AI. AI can place eInvoices on its payment flow within seconds, facilitating further automation.

Success Story #2 Finland







eInvoicing in Sweden

The Single Face To Industry (SFTI) initiative was born out of a central effort to promote e-procurement in 1998. Today 63% of all invoices to the Swedish central government are electronic.

Financial Savings:

• The Swedish government anticipates 165,6 million EUR savings when the eInvoicing law enters into force on April 1st, 2019.

eInvoicing at the local government level:

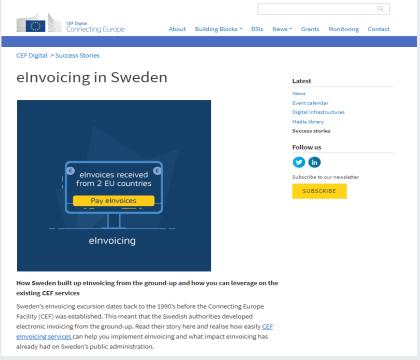
- From the outset, SFTI has been a success for local authorities and regions.
- Today, eInvoicing is used by 87% of municipalities and 95% of regions.

Sweden's collaboration with CEF:

SFTI has been a active participant to eInvoice standardisation projects such as PEPPOL and E-SENS, facilitating the construction of a single digital market.

Success Story #3 Sweden







Main Benefits



1

Support in the implementation of the eInvoicing Directive (2014/55/EU)



2

Reduced learning curve to implement B2G eInvoicing



3

Improved integration with other eProcurement processes

How do we support you?

1

Tools and services to support in eInvoicing implementation



2

Effective and ongoing support from the CEF Digital Team



3

Knowledge base that provides insight, such as Member State statuses







Governance Models and implementation roadmaps in eInvoicing, and eDelivery

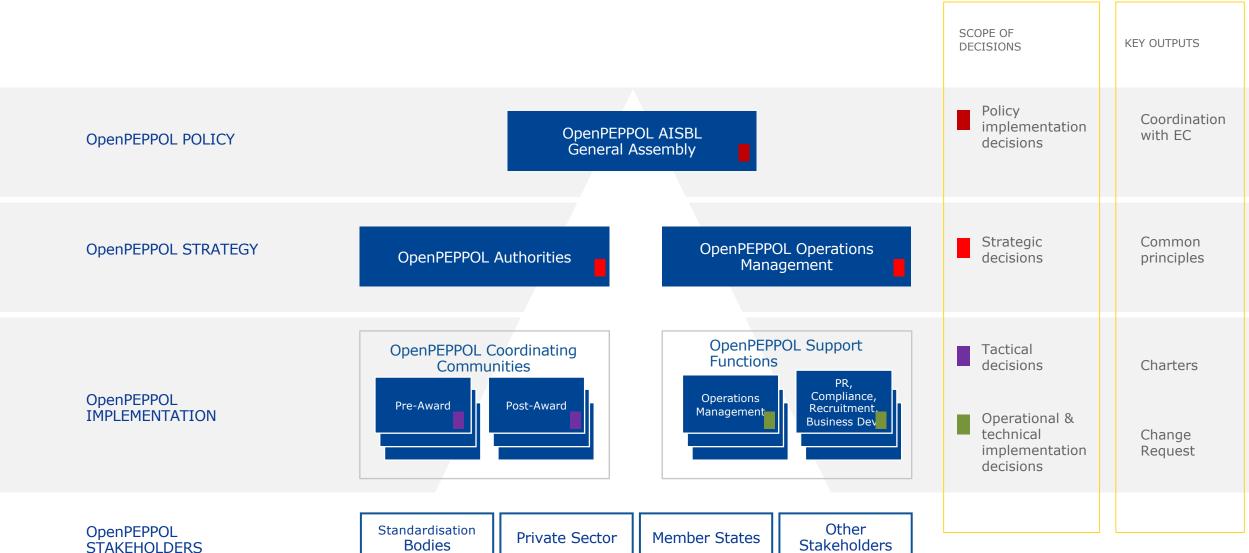
Christian RasmussenDIGIT

CEF's IT Governance Model





OpenPEPPOL's Governance Model





For Service Providers - Your checklist:

- Which OpenPEPPOL Authority should I sign up with?
- Where should I invest my time in the OpenPEPPOL governance model?
- How should I involve my stakeholders?

- If your country has a PEPPOL Authority then this should be priority one for you
- If your PEPPOL Authority has specific rules make sure to study these first before entering into an agreement
- Get onboard and start to interact with the community
 - Not only at CEF Digital but also at OpenPEPPOL Coordinating Communities
- Involve your primary stakeholders early in the process and make sure it is transparent what you intend to do
- And remember many other people around EU is doing the same thing right now as you – thinking, asking and doing eInvoicing implementations



Roadmap for mass adoption of eInvoicing

Success factors from early adopters are

- Policy on standard for format and content
- Policy on transmission technology
- Support available to implementers
- Tools which helps on conformance testing
- Legal requirements



Examples of things to consider when developing a roadmap for eInvoicing

De

Policy for For the supplier/issuer

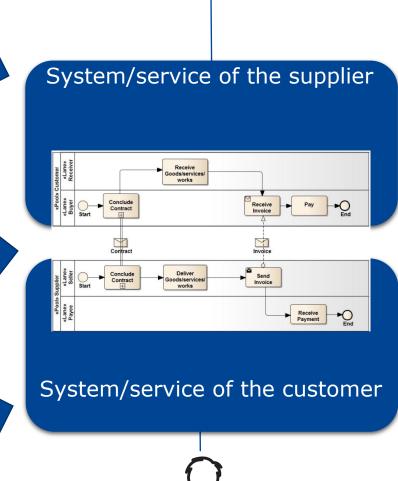
- Suppliers have a diverse environment (such as different technical solutions, processes, maturity level)
- Clear policy around standards helps
- Supporting tools can be provided validation tools, presentation style sheets, translations
- Aligned requirements on use of references and identifiers if possible

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?







Roadmap to deploy CEF eInvoicing on a country level

transposition

Domain Owner Participants in eInvoicing implementations ELICIT **SELECT DEPLOY** INTEGRATE **OPERATE** CONSIDERATIONS requirements eInvoicing PHASE with backend(s) with partners Standards Connectivity Standard Service Desk Service Desk Onboarding Specification Testing Training and CEF eInvoicing Readiness CFF TFAM Validation tool checkerl deployment Community Drivers for implementation Open source EN eInvoicing Attend National policy workshops making Cross-Industry Hosting Invoice Complete Coherence with EU Integrate with Deploy YOUR TEAM Maintenance self-CRM, ERP law UBL Participate in components assessment systems Connectivity tool Infrastructure and Commercial solution National Standards Configure testing RESTfull APIs, technical impl. components SOAP Hosting Assess current Perform Pre-Identify Validation production business Onboarding Perform Pre-Fees solutions testing requirements production CIUS Custom built Success factors testing Carry out and pitfalls Hostina feasibility studv Sustainability Maintenance beyond

Roadmap to deploy CEF eDelivery

Domain Owner

Participants in eDelivery Messaging Infrastructure



ELICIT requirements

DESIGN eDelivery infrastructure **SELECT** eDelivery solutions

DEPLOY eDelivery solutions **INTEGRATE**

with backend(s) v

with partners

OPERATE eDelivery solutions



Technical Specifications

Onboarding

Self-Assessment tool

Documentation (COD, SOD, ...)

Design message exchange model

List of Software solutions

SML Service

PKI Service

Service Desk

Training and deployment

Connectivity Testing

Service Desk

CEF eDelivery Community



Attend workshops

Complete selfassessment tool

Identify business requirements

Carry out feasibility study

Design discovery model

Design security model

Design integration approach

Participate in the writing of a SDD

PoC (optional)

Open source

Assess OSS projects

Customise/ extend solution

Commercial solution

Assess Vendors

Buy solution

Custom built

Build solution

Deploy components

Configure components

Perform Preproduction testing

Integrate with

eDeliverv

Access Point

Perform

Integration

testing

Participate in Connectivity testing

Perform Preproduction testing Open source

Hosting

Maintenance

Commercial solution

Hosting

Fees

Custom built

Hosting

Maintenance

Need a checklist?

- At CEF Digital you can find a comprehensive checklist on how to implement CEF eInvoicing on EU public level
- The checklist is created by other Member States who already implemented the EN standard and eDelivery infrastructure

elnvoicing If you are a public administration of the complete second to complete the complete second to complete the comp

If you are a public administration in the EU, or you would like to do business with one, you will need to comply with the European standard for sending, receiving and processing electronic invoices.

Learn about elnvoicing

Understand how elnvoicing will impact public procurement in your country.

Use elnvoicing

Start your elnvoicing implementation with our support services and knowledge articles.

Make your solution conformant

Find out if your elnvoicing solution complies with the European standard on elnvoicing (EN 16391).

Join the community

Featured

elnvoicing in each Member State

Quick Links

- Join the Community
- Monitoring dashboard
- Media Library

Key documents

- ◆ elnvoicing infographic (PDF)
- ◆ Conformance testing Service Offering Description (PDF)
- ★ EMSFEI guidance on implementation for EU public administrations (PDF)

Latest

+

CEF elnvoicing: Publication of the

Electronic Address Scheme Code List

Contact us >



Ready to get started?

Reach out to us to learn more!

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

