DG DIGIT D3

Apostolos Apladas

Trust Services Forum - CA Day 2020

22nd September 2020, Berlin

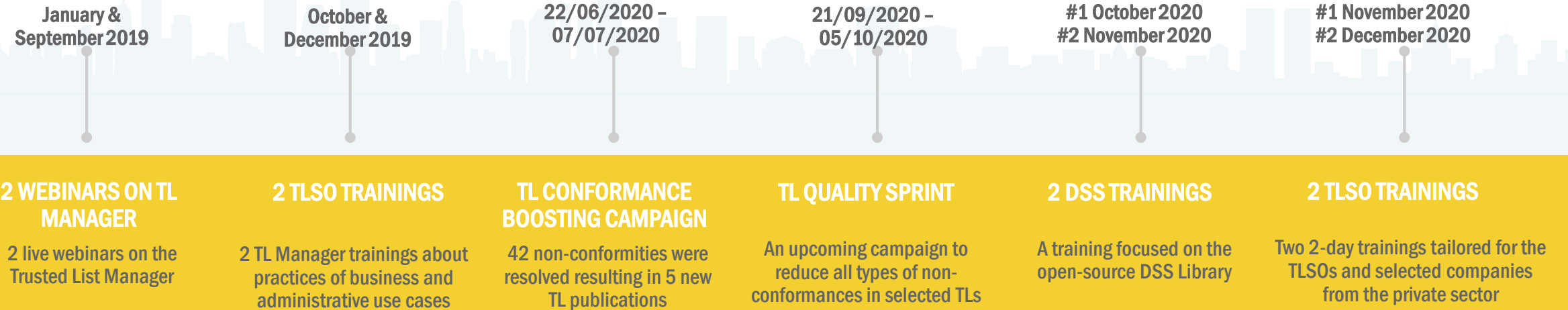# Index

CEF eSignature at glance

CEF eSignature

Trusted List Scheme Operators (TLSOs) manage the trusted list of each Member State. CEF eSignature provides the TLSO Community with **continuous support and trainings** in an effort to reduce conformance errors in the Trusted Lists
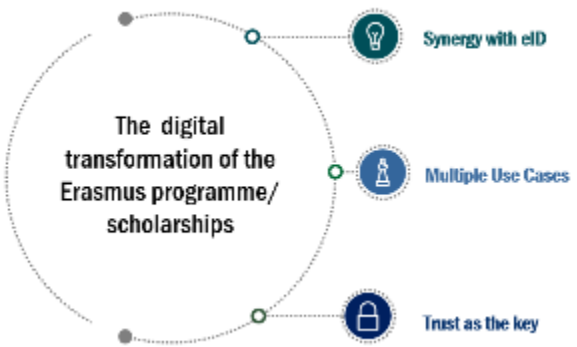
January & September 2019	October & December 2019	22/06/2020 – 07/07/2020	21/09/2020 – 05/10/2020	#1 October 2020 #2 November 2020	#1 November 2020 #2 December 2020
2 WEBINARS ON TL MANAGER	**2 TLSO TRAININGS**	**TL CONFORMANCE BOOSTING CAMPAIGN**	**TL QUALITY SPRINT**	**2 DSS TRAININGS**	**2 TLSO TRAININGS**
2 live webinars on the Trusted List Manager	2 TL Manager trainings about practices of business and administrative use cases	42 non-conformities were resolved resulting in 5 new TL publications	An upcoming campaign to reduce all types of non-conformances in selected TLs	A training focused on the open-source DSS Library	Two 2-day trainings tailored for the TLSOs and selected companies from the private sector

Marketing Campaigns are a big part of the eSignature's efforts to create awareness and interest in Trust Services

August 2020
eSignature and the
Health Care Sector
after COVID-19

October 2020
eSignature and
**Higher Education
Institutions**

Health sector

CEF eSignature, a ready to use digital solution to help you fight the virus

The digital transformation of the Erasmus programme/ scholarships

Synergy with eID

Multiple Use Cases

Trust as the key

Current status

An overview of the current status of eSignature*

TLSO Community

30 different countries are part of the TLSO Community. The goal of this community is to help set up Trusted Lists and to keep them error-free. The countries in green are the TLSOs known to be very active members of the community

Qualified Trust Service Providers

There are 186 Qualified Trust Service Providers active in the EU

Projects

58 Generic projects have been awarded to eSignature (and eID).
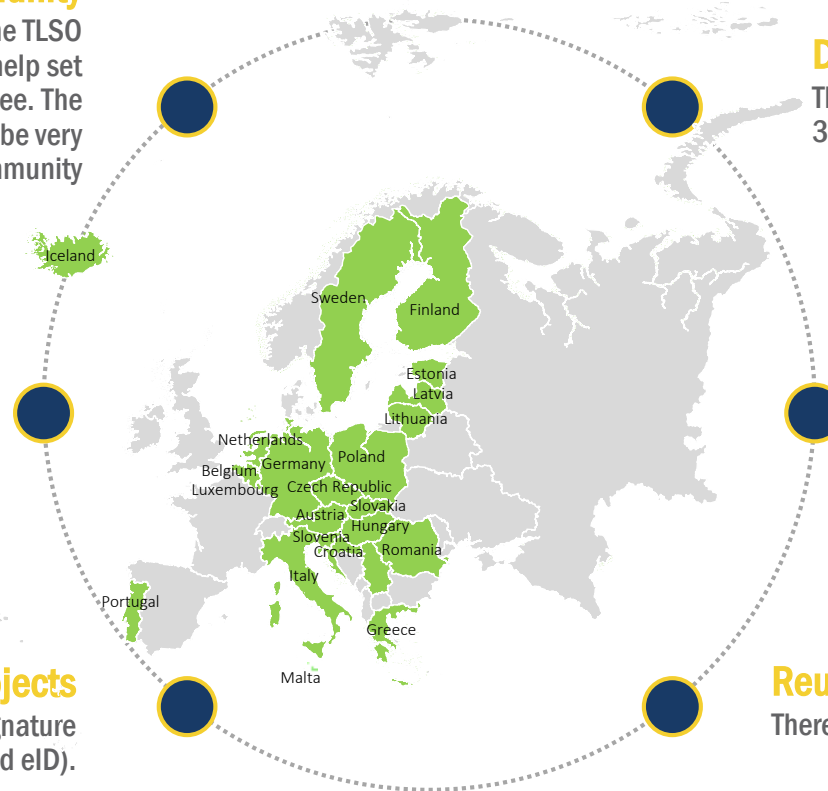
DSS Libraries

The DSS Libraries have been downloaded more than 31.449 times

Conformance Checks

34.196 performed conformance checks using ETSI Conformance Checker

Reuse of eSignature

There are 63 initiatives that reuse eSignature

Iceland

Sweden

Finland

Estonia

Latvia

Lithuania

Netherlands

Germany

Belgium

Luxembourg

Poland

Czech Republic

Slovakia

Austria

Hungary

Slovenia

Croatia

Romania

Italy

Portugal

Greece

Malta

*Numbers updated on 06/08/2020
Numbers collected as of September 2016

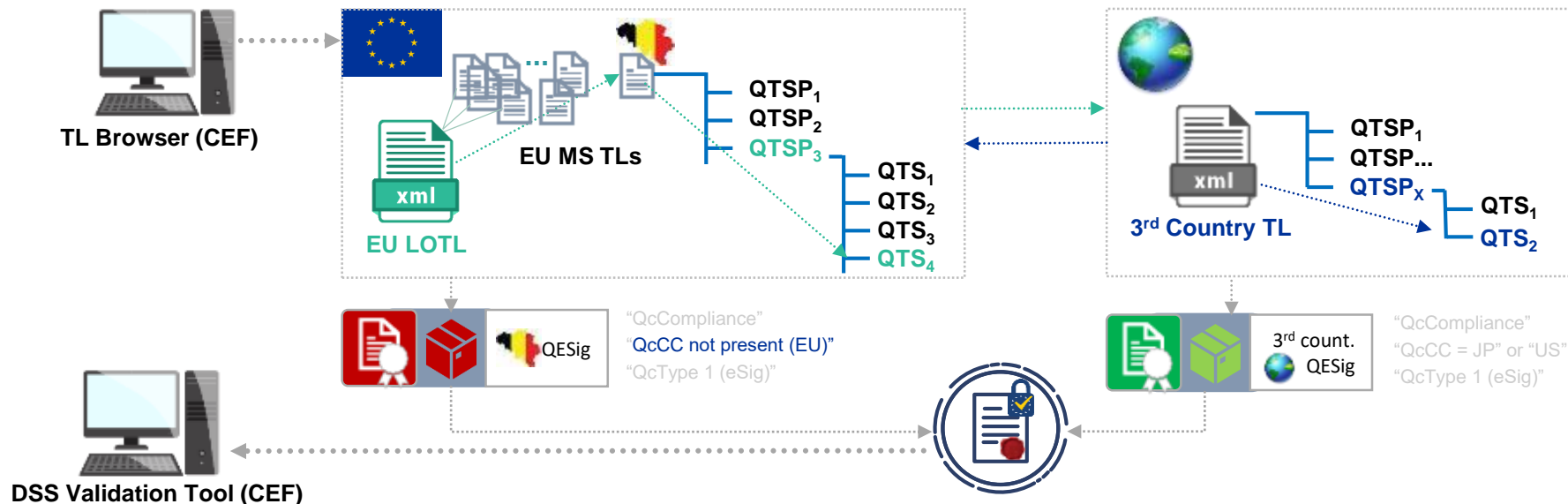# International preparedness of CEF eSignature

Paving the ground for future Article.14 mutual recognition of Trust Services

A unified approach

There is currently no mutual recognition between EU qualified Trust Services and Trust Services from non-EU countries. The project delivered 2 outcomes for any 3rd country willing to increase its interoperability with Europe:

1) **An international preparedness program documentation** allowing 3rd countries to self-assess their readiness for local trust services to be recognised as equivalent to EU qualified trust services. This includes guidance on requirements, reference implementations and technical pilot facilities.

2) **Enhancements to CEF eSignature products**, e.g. TL Manager, TL Browser and the EU LOTL in order to accommodate the trust anchors of the 3rd country trust services and trust service providers once they are recognised as equivalent to EU QTSP/QTS

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TL Browser (CEF)

EU MS TLs

EU LOTL

$QTSP_1$
$QTSP_2$
$QTSP_3$

QTS_1
QTS_2
QTS_3
QTS_4

3rd Country TL

$QTSP_1$
$QTSP...$
$QTSP_X$

QTS_1
QTS_2

QESig

"QcCompliance"
"QcCC not present (EU)"
"QcType 1 (eSig)"

3rd count. QESig

"QcCompliance"
"QcCC = JP" or "US"
"QcType 1 (eSig)"

DSS Validation Tool (CEF)

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International preparedness of CEF eSignature

Project Roadmap

01/05/2020 **01/06/2020** **01/07/2020** **01/08/2020**

Step 1: Compatibility Scenarios
- Legal context (regarding TSP, TS, QC, QSCD, …)
- Supervision and auditing systems
- Best practices: certificate policies, certificate profiles
- Trust representation: trusted list

Step 2: Technical Process
- Formats for electronic signatures/seals
- Formats for certificate statements
- Standards for certificate policies

Step 3: Recognition Execution
- Representation of the recognition
- Necessary adaptations (e.g. tools)
- Steps to be taken by third countries to link EU LOTL
- Validation guideline for third countries

Step 4: LOTL/TL setup
- Declare a new pointer in LOTL
- Create a third countries TL

Step 4: Update "DSS" library
- Interpret the new pointer in LOTL
- Download the new TL
- Understand the third country mapping

Step 4: Update Trusted List Browser application
- Display new LOTL pointer as new category
- Display details of the new pointer

Step 5: Technical Testing
- Validation on test infrastructure

Delivery

Step 6: UAT
- Testing and deployment on CEF

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EU Sign at glance

EU Sign fosters the provision of **secure and interoperable trust services** to European Institutions, Bodies and Agencies

- SIGN
- SEAL
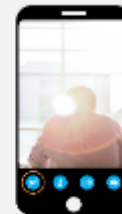- VALIDATE
- EXTEND
- TIME-STAMP

Brand new mobile-friendly user interface

EU Sign received a fresh look which is mobile friendly.

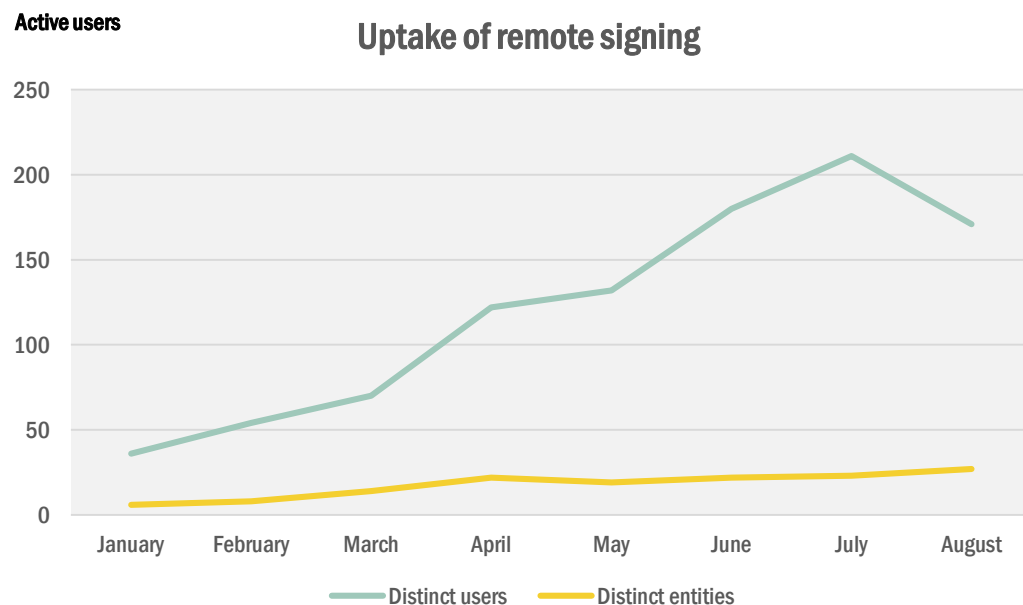**SMS Challenge code as a second factor authentication method**

Guaranteed identification at the signing time.

Remote identification via video call

Identification of the future certificate holders by the QTSP takes place via video call.

EU Sign Statistics – Covid-19 accelerates the need for digitalization

Active users

Uptake of remote signing

250
200
150
100
50
0

January February March April May June July August

— Distinct users — Distinct entities

Logical interactions

Electronically signed documents by EU Institutions*

2000
1500
1000
500
0

January February March April May June July

4.8x Active users over the past months

EU Sign has the qualities to be established as a **cross-institutional** signing service
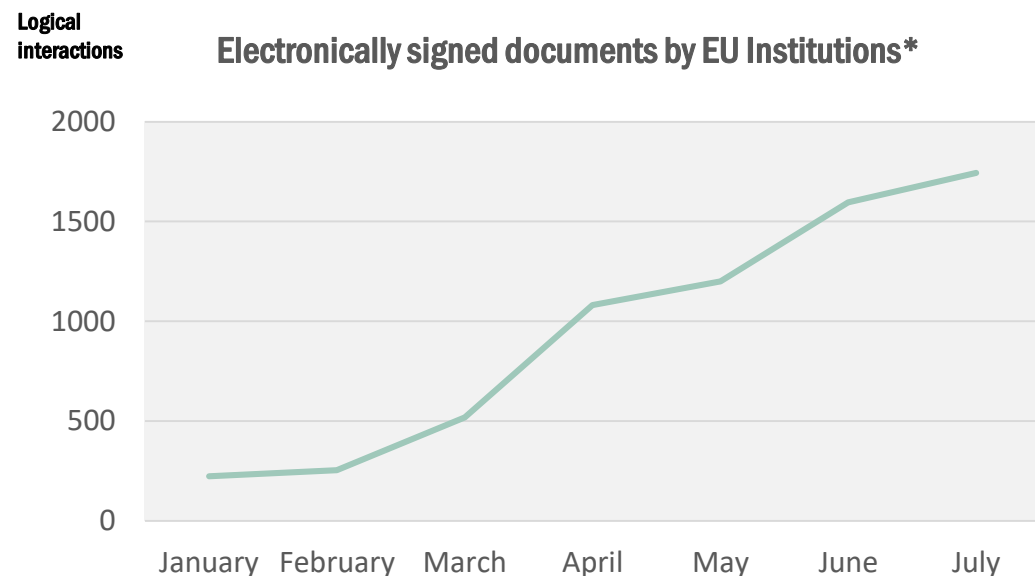
7.8x Documents signed per month by using **qualified cloud certificates**

* using EU Sign service

Current Status – Success Story

EU Sign service used to sign agreement with the World Bank

It is the first international document the Commission signs using its own Qualified Electronic Signature service

In a Twitter post on the same day, the Commissioner for Budget and Administration, described the e-signing of the agreement "a huge leap forward" in the Commission's target to become fully digital by 2024.


It also marks the first time the Commission made use of EU Sign's newly introduced **cloud-based qualified digital certificates**

Current Status – Success Story

The Ares Success Story* - The European Commission's document management system

Another milestone on the road to full digitalization of the Commission where EU Sign contributes to the phase-out of blue-ink signatures, enabling an efficient and digital workflow within the Commission.
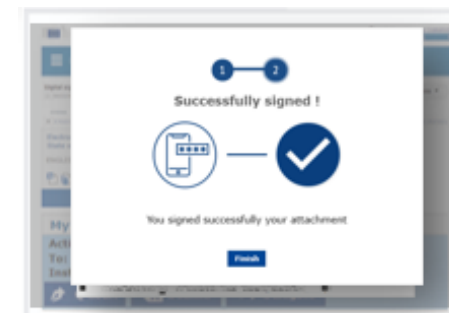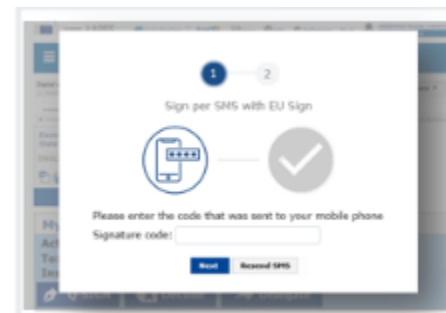
Suppliers of the EU commission and 3rd parties can now sign documents and agreements, including procurement contracts, that require signatures with a higher assurance level using ARES signatures.

EU Sign – future capabilities

State of the art security
A brand-new, state of the art implementation, will be made available for signing documents with maximum security

Bulk Signing
Users will be able to sign more than one document at a time

EU Login mobile application, as a second factor authentication method
Challenge code via SMS is going to be replaced with EU Login mobile application

Signing profiles
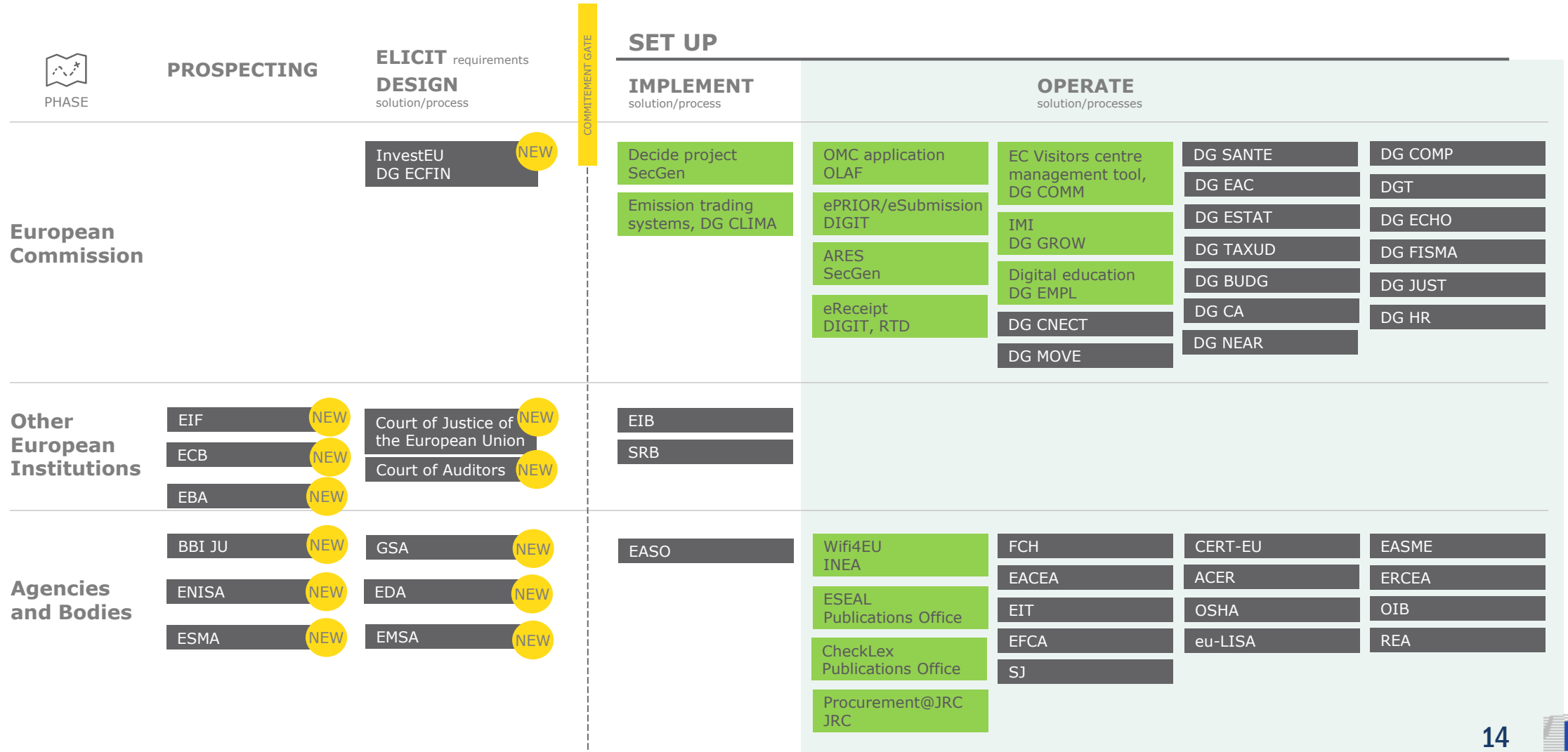Tired to position and personalize your signature every time you want to sign a document? With signing profiles you will be able to save these settings in order to reuse them in the future.

Enrolment to the service via a Web Portal
Enrolment to the service will be performed by the interested parties via a Web Portal

Document sharing
Sharing of your documents will be available directly at the EU Sign Portal.

EU Sign onboarding-race

PHASE	PROSPECTING	ELICIT requirements DESIGN solution/process	COMMITMENT GATE	SET UP				
				IMPLEMENT solution/process	OPERATE solution/processes			

SET UP

European Commission

IMPLEMENT	OPERATE			
Decide project SecGen	OMC application OLAF	EC Visitors centre management tool, DG COMM	DG SANTE	DG COMP
Emission trading systems, DG CLIMA	ePRIOR/eSubmission DIGIT	IMI DG GROW	DG EAC	DGT
	ARES SecGen	Digital education DG EMPL	DG ESTAT	DG ECHO
			DG TAXUD	DG FISMA
	eReceipt DIGIT, RTD	DG CNECT	DG BUDG	DG JUST
		DG MOVE	DG CA	DG HR
			DG NEAR	

InvestEU DG ECFIN — **NEW**

Other European Institutions

PROSPECTING	ELICIT/DESIGN	IMPLEMENT
EIF — NEW	Court of Justice of the European Union — NEW	EIB
ECB — NEW	Court of Auditors — NEW	SRB
EBA — NEW		

Agencies and Bodies

PROSPECTING	ELICIT/DESIGN	IMPLEMENT	OPERATE		
BBI JU — NEW	GSA — NEW	EASO	Wifi4EU INEA	FCH	CERT-EU	EASME
ENISA — NEW	EDA — NEW		ESEAL Publications Office	EACEA	ACER	ERCEA
ESMA — NEW	EMSA — NEW		CheckLex Publications Office	EIT	OSHA	OIB
			Procurement@JRC JRC	EFCA	eu-LISA	REA
				SJ		

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CEF eDelivery at glance

The CEF eDelivery Use-Case

DOMAIN-NEUTRAL USE CASE

ORIGINAL SENDER

internet

FINAL RECIPIENT
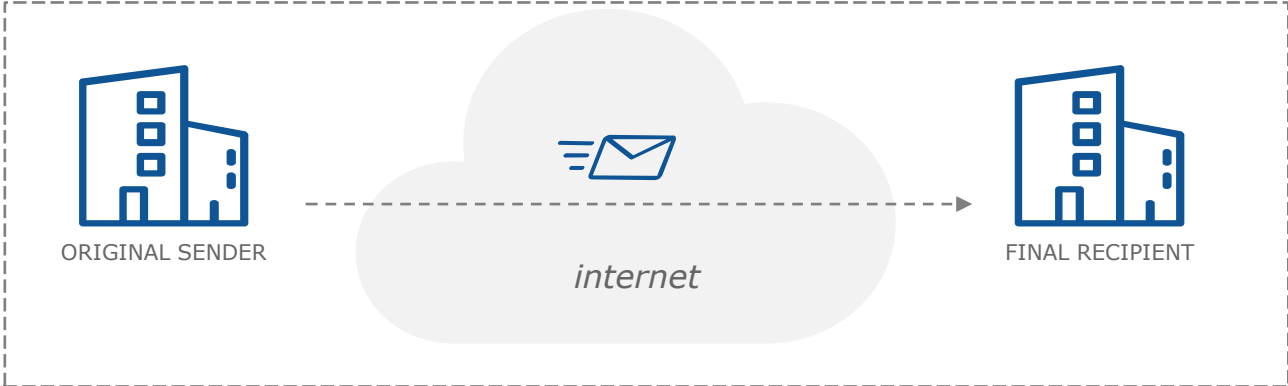
Examples of DOMAIN-SPECIFIC USE CASES

Consumer Protection

Complaints

Exchange of complaints

Procurement

Invoices

Exchange of invoices

Justice

Claims

Exchange of claims
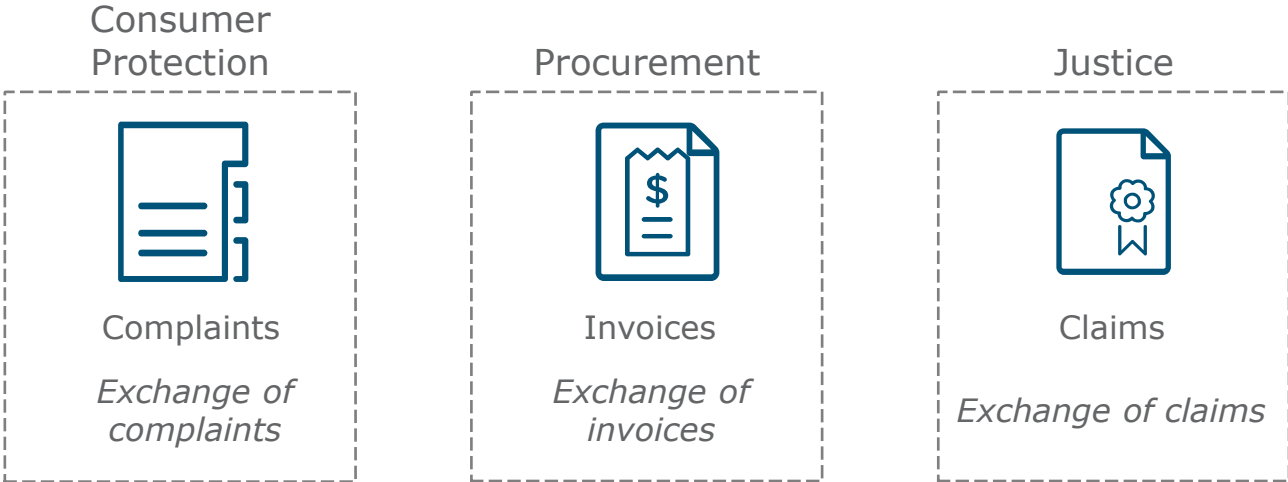
Technical specifications of CEF eDelivery

Available for free

Supported by multiple programming languages

Independent from any specific vendor products

Supported by (Open Source and Commercial) solutions that can be purchased in a competitive environment

CEF eDelivery Service offering

SOFTWARE

Sample software maintained by the EC (with documentation)

| Access Point (AP) |
| Service Metadata Publisher (SMP) |
| Service Metadata Locator (SML) |

OPERATIONS SERVICES

Managed services	**Testing services**	**Supporting services**
Public Key Infrastructure (PKI)	Connectivity testing	Training & Deployment
Service Metadata Locator (SML)	Conformance testing	Service Desk

STAKEHOLDER MANAGEMENT SERVICES

Onboarding services (for stakeholders)	**Community management services**
Self-assessment tool (reuse approach)	Developers Community
Onboarding of new stakeholders	

(example) TECHNICAL SPECS OF EU-WIDE INITIATIVES

Access point specifications	SMP specifications	SML specifications	Security control guidance

STANDARDS OF ESOs

Connector specification

Service offering Description (SoD)

All services are described in an SoD describing its purpose, the users for which it is for, its benefits and the process to obtain it

Service Level Arrangements (SLA)

Documents that describe Service Level Targets to be reached when delivering Building Block Services.

eLearning, videos, success stories

Some services feature multimedia such as eLearnings, instructional videos or success stories to help grasp what the service is about

CEF Digital platform

CEF eDelivery service offering, and more about the building block, can be found online

CEF Digital >

CEF eDelivery and EU Send managed service

CEF eDelivery → EU Send

CEF
Building Blocks

CEF Building Blocks promote the adoption of the **same open standards and specifications**, to ensure interoperability **across sectors** for common functionalities in any EU-wide project/platform.

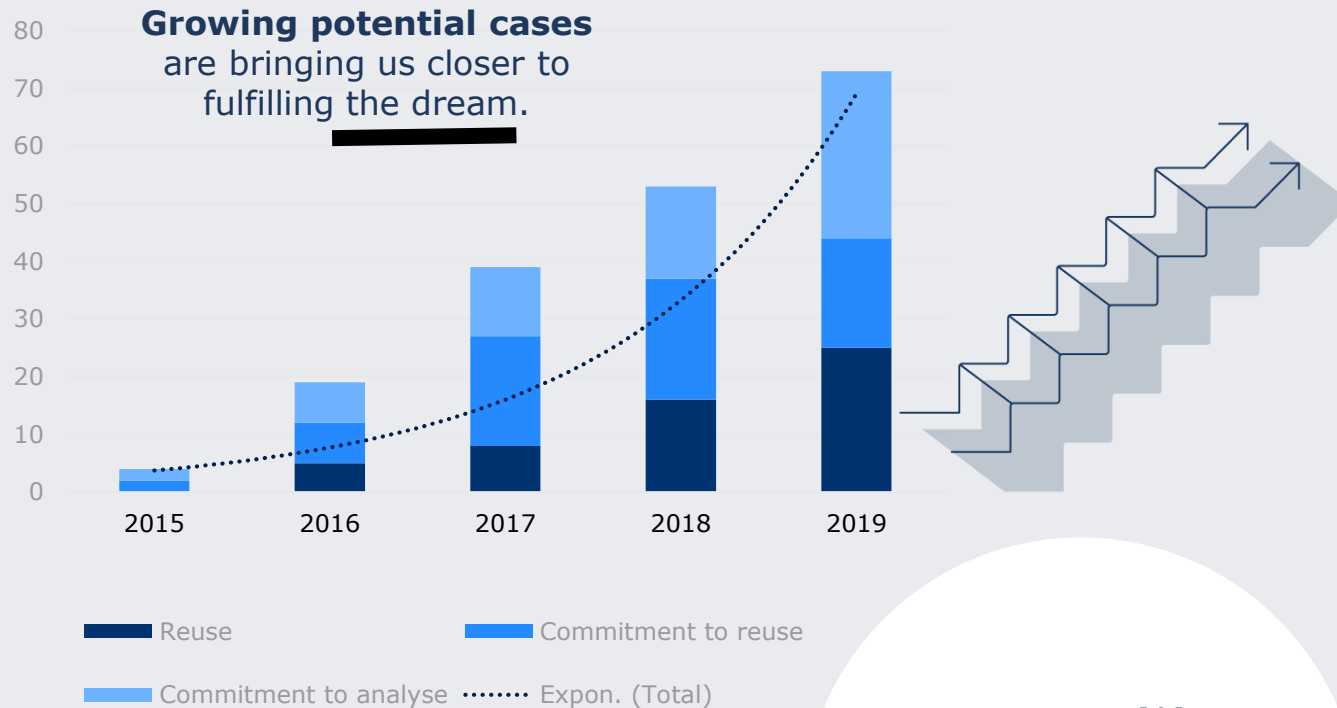**Funded by: CEF Programme**

DIGIT
Managed Services

DIGIT Managed Services support European Institutions and Agencies by **outsourcing the setup and operation of basic digital capabilities based on the CEF Building Blocks.**

✓ Hosting (infrastructure)
✓ SLAs
✓ Dedicated Ops and Support teams

DIGIT operated services based on the CEF Building Blocks and in the scope of the Reusable Solutions Platform.

How many projects are using CEF eDelivery?

Connecting Europe together

Growing potential cases are bringing us closer to fulfilling the dream.

Chart values:
- 2015: Reuse, Commitment to reuse, Commitment to analyse
- 2016
- 2017
- 2018
- 2019

Y-axis: 0, 10, 20, 30, 40, 50, 60, 70, 80

Legend:
- ■ Reuse
- ■ Commitment to reuse
- ■ Commitment to analyse
- ···· Expon. (Total)

(*) Out of which 6 DSIs

45+(*) projects

Co-develop and partner
With other parties

Build
The solution from scratch based on a European standard

Buy
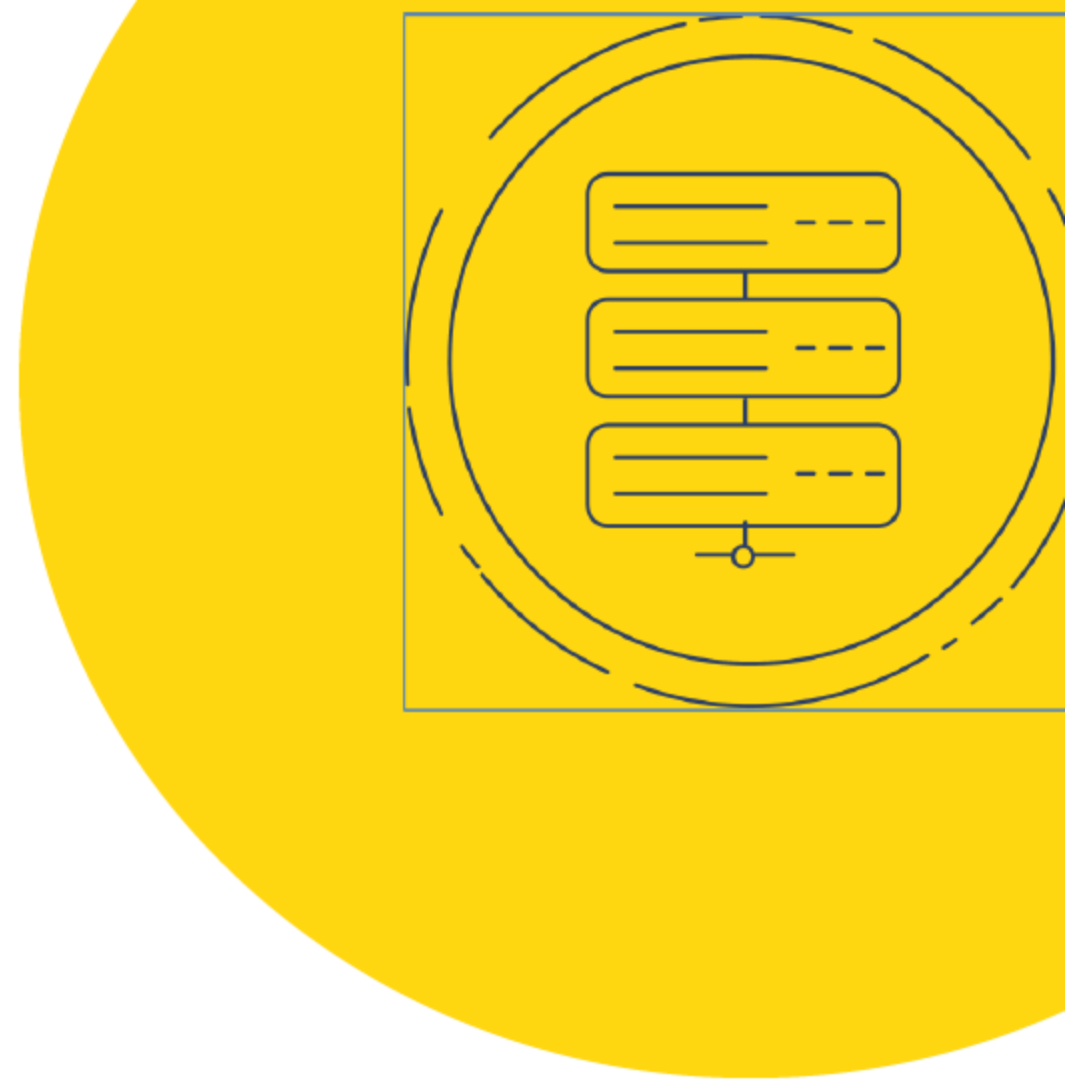A compliant solution from the market

Reuse
A sample software available on CEF website

European Standards

European Commission

The CII Task Force recommends the reuse of CEF eSignature, CEF eDelivery, EU Send and EU Sign

They allow the development of secure and interoperable services within the scope of the eIDAS Regulation.

What have we produced?

A Final Report

Providing strategic options and next steps for legal and technical implementation for the consideration of the ICTD.

Prototype proposal for a regulation

Provisions that accelerate digital transformation of EUIBAs by the mutual recognition of trust services and electronic identification between EUIBAs themselves and third parties.

Proposal for technical agreements

Enabling the harmonization of standards used by EUIBAs for the development of internal trust services.

Recommendations on existing service offerings

How to implement the proposed framework by reusing existing assets - such as the Connecting Europe Facility (CEF) building blocks.

And then what?

The output of the work, once validated by the CII, should serve as basis for the next steps.

We expect the EC to play a key role:

Legal aspects

We expect **DG CNECT** to lead the work of taking the prototype forward to a legislative proposal by the European Commission, ultimately leading to the formal adoption of an internal eIDAS Regulation.

Technical aspects

We expect **DG DIGIT** to play a key role in supporting the roll-out of the technical agreements.