



eIDAS & e-Delivery

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Europe has worked hard to make
physical borders transparent...



... but digital borders still exist.

Benefits with an impact

10 TOP PRIORITIES OF THE EC

Jobs, growth and investments

Digital Single Market

Energy Union and Climate

Internal market

A deeper and fairer economic and monetary union

A balanced EU-US free trade agreement

Justice and fundamental rights

Migration

A stronger global actor

Democratic change

PROBLEM

- Europeans often face barriers when using online tools and services
- At present, markets are largely domestic in terms of online services
- Only 7% of EU small- and medium-sized businesses sell cross-border

SOLUTION

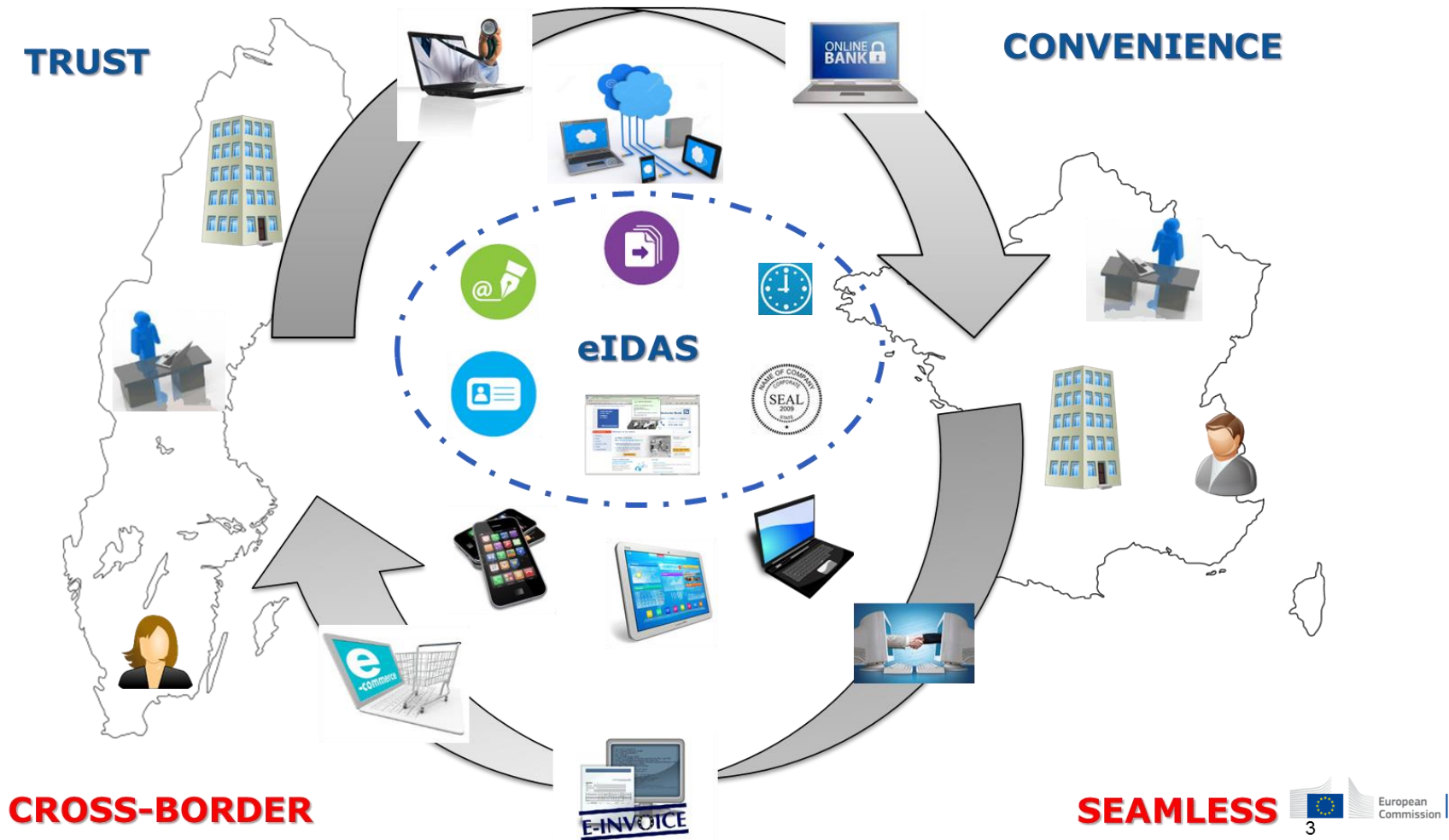
- This includes common EU data protection, copyright rules, boosting digital skills, accessible online content
- ...and Cross-border Digital Public services (CEF Digit



CONSEQUENCE

- Maximise economic potential, growth/jobs – anticipated to be 415€ billion to EU economy

eIDAS: boosting trust & supporting businesses!



Timeline



2014

17.09.2014
Entry into force of the eIDAS Regulation

eSignature Directive rules

2015

29.09.2015
Voluntary cross-border recognition

26.11.15
eID DSI v.1 eIDAS compliant

2016

1.07.2016
Date of application of eIDAS rules for trust services

2017

2018

29.09.2018
Mandatory cross-border recognition

2019

eID

**Electronic
signatures**

Electronic seals

**Electronic time
stamps**

**Electronic
registered delivery
services**

**Website
authentication**

**Electronic
documents**

**Validation
Preservation**

eIDAS

eIDAS: Key principles for Trust services



Trust services

The Regulation does not impose
the use of Trust services

Transparency and accountability

Non-mandatory technical
standards ensuring
**presumption of
compliance**

Non-discrimination in
Courts of eTS vs paper
equivalent

Technological **neutrality**

Specific **legal effects**
associated to qualified
trust services

Risk management
approach

Definition of Trust Services & electronic documents

art. 3(36)

Electronic registered delivery service

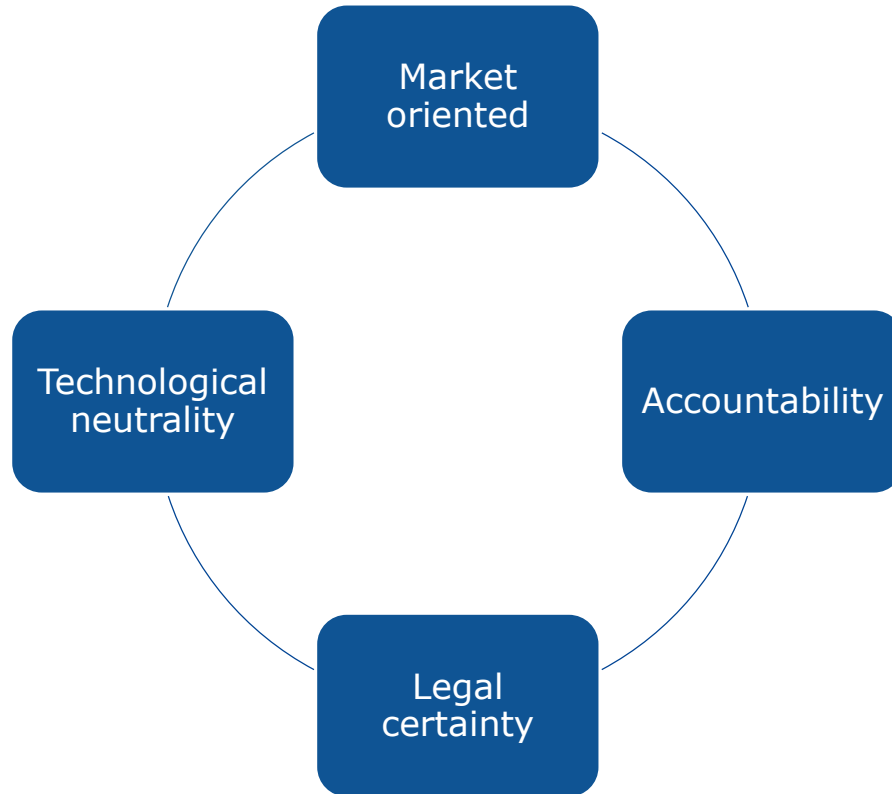
'**electronic registered delivery service**' means a service that makes it possible to transmit data between third parties by electronic means and **provides evidence relating to the handling of the transmitted data, including proof of sending and receiving the data**, and which protects transmitted data against the risk of loss, theft, damage or any unauthorised alterations

(art. 2(9) of Directive 97/67)

Registered item

'**registered item**' means a service providing a flat-rate guarantee against risks of loss, theft or damage and supplying the sender, where appropriate upon request, with proof of the handing in of the postal item and/or of its delivery to the addressee

Key principles for e-registered delivery services



Non-qualified electronic registered delivery service providers (1)

Obligations of **non-qualified electronic** registered delivery service providers

- Verify that requirements of the Regulation applicable to (all) TSPs are met:
- Data processing and protection (art.5)
- Liability and burden of proof, including limitation of use of the services (art.13)
- Access to person with disabilities (art.15)
- Risk management and security breach notification (art.19)

Associated legal effect to the service

- Non-discrimination as evidence in court vis-à-vis paper equivalent

Qualified electronic registered delivery service (4)

Associated legal effect to the qualified e-registered delivery service

- Non-discrimination as evidence in court vis-à-vis paper equivalent
- **Data sent and received enjoy the presumption of:**
 - the integrity of the data,
 - the sending of that data by the identified sender,
 - the receipt of the data by the identified addressee
 - the accuracy of the date and time of sending and receipt of the data.

Qualified electronic registered delivery service (2)

E-registered delivery : requirements to be qualified

- Provided by one or more qualified trust service provider(s);
- Ensure with a high level of confidence the identification of the sender;
- Ensure the identification of the addressee before the delivery of the data;
- Sending and receiving of data is secured by an advanced electronic signature or an advanced electronic seal to preclude the possibility of the data being changed undetectably;
- any change of the data needed for the purpose of sending or receiving the data is clearly indicated to the sender and addressee of the data;
- the date and time of sending, receiving and any change of data are indicated by a qualified electronic time stamp.

**All TSPs involved in the transmission of data shall be qualified > Interoperability is key
> Cef eDelivery Acces Point (eSens profile of AS4 tech.spec.)**

Trusted lists for QTSPs and QTSs (art.22 and ID (EU) 2015/1505)

- Ensure continuity with the existing TLs established under the Service Directive.
- Ensure legal certainty.
- Foster interoperability of qualified trust services by facilitating a.o. the validation of e-signatures and e-seals.
- Allow citizens, businesses and public administrations to easily get the status of a trust service.

EU trust mark for qualified trust services (art.23 and (EU) 2015/806)

- Usage by QTSP after qualified status has been indicated in the TLs
- Trustmark indicates in a simple, recognisable, and clear manner the qualified status of a trust service
- Link to the relevant TL has to be ensured by the QTSP



How it started and where is it going?

PILOTING

STORK
PEPPOL
SPOCS
epSOS
eCODEX

e-SENS

SCALING UP

REGULATORY

- EU Legislation e.g. eIDAS

DEMAND CREATION

- CEF Work Programmes
- eGovernment Action Plan
- DSM Catalogue of Standards



SUPPLY CREATION

- Grants (subsidies)



SUSTAINING

ecosystem

2014

2020

CONTEXT: NOBLE (NO Barriers in edeLivEry) project

OBJECTIVE

Set-up an interoperability among Postal Services using CEF eDelivery (AS4 according to the e-SENS Profile)

The eDelivery infrastructure will support the cross-border exchange of electronic documents in different domains aligned with the requirements from eIDAS ERDS

THE PROJECT

NOBLE has started in October 2016 and will finish in September 2017

Project is co-funded by CEF via the 2015 CEF Telecom Call – eDelivery (2015-CEF-TC-2015-1) - 785,395 euro

PARTICIPANTS

9 Partners from 4 Member States are involved in NOBLE, in particular:

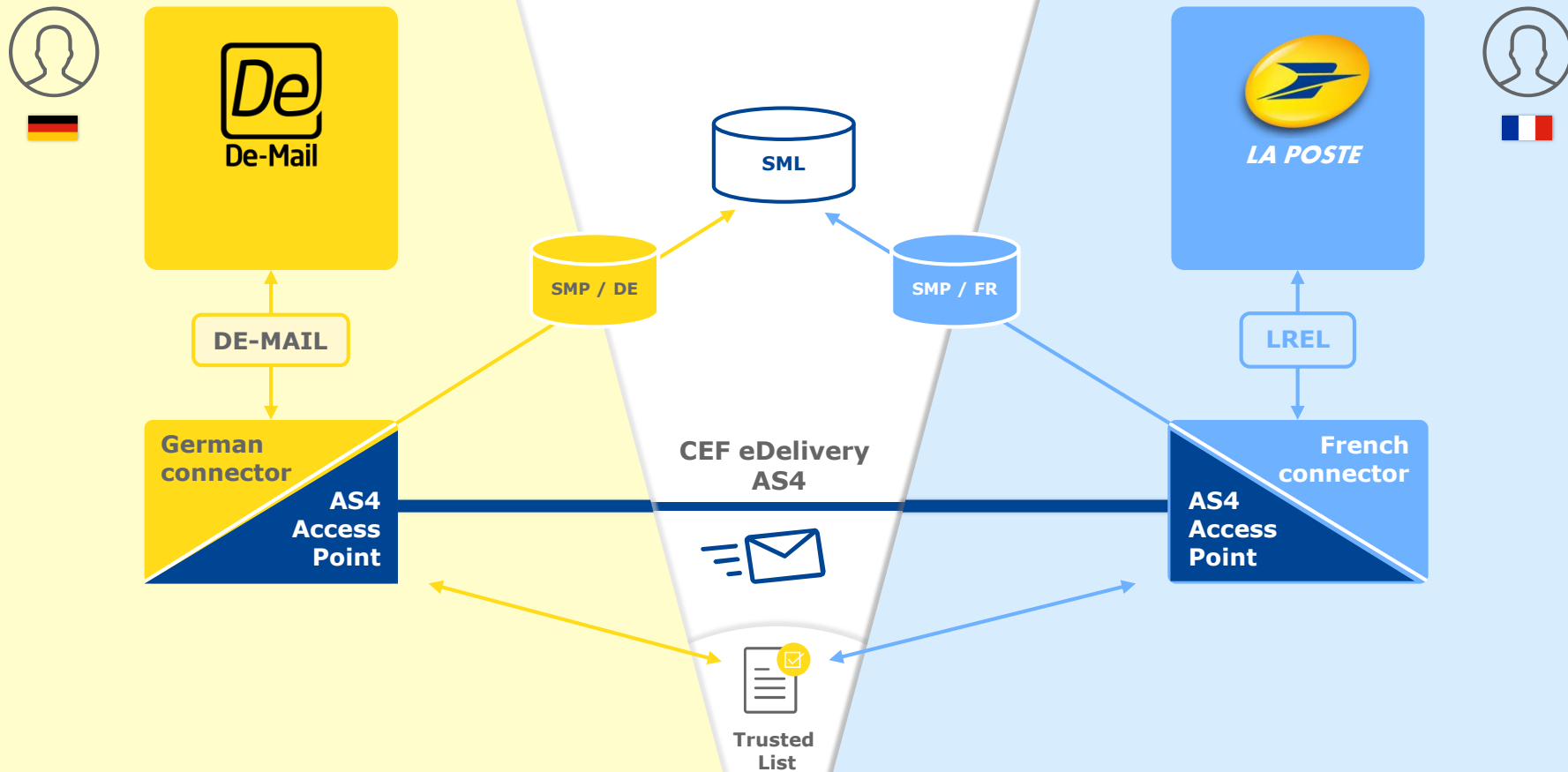
- **Germany** → **DE-Email**
- **France** → **LA POSTE LREL (Lettre recommandee en ligne)**
- **Greece** → **Hellenic Post EATA**
- **Slovenia** → **Slovene National e-delivery infrastructure SI-CeV**

Project is coordinated by Governikus GmbH & Co. KG

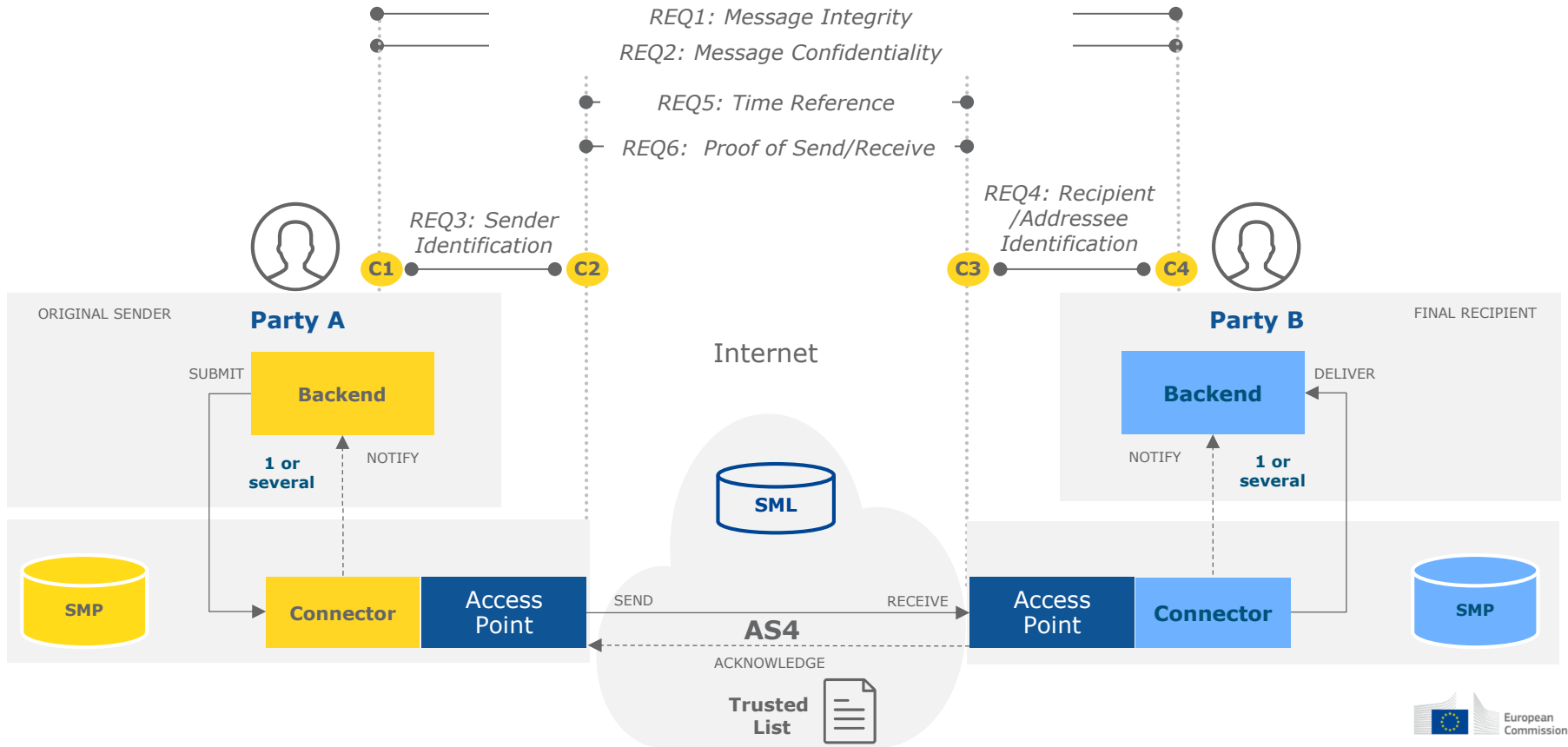
CHALLENGE: Cross-border exchange between ERDS providers



SOLUTION: Implementation of CEF eDelivery AS4 Access Points



Architecture: ERDS Requirements and eDelivery's 4-Corner Model



Summary of ERDS requirements from the eIDAS regulation

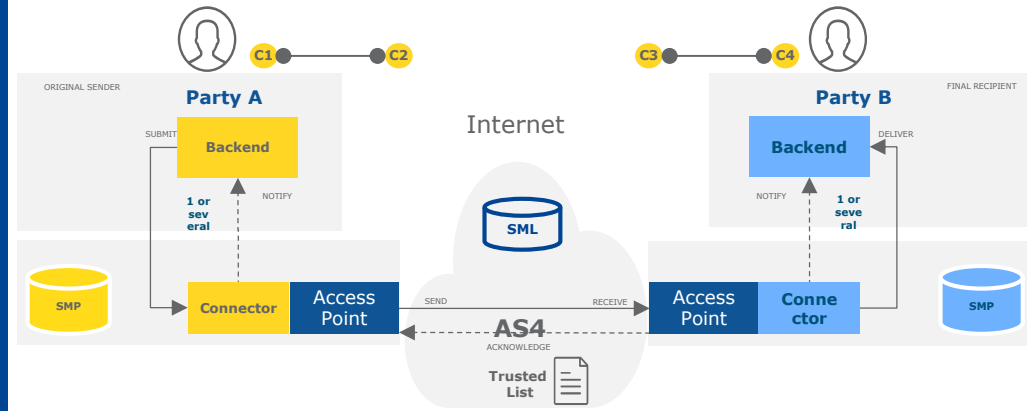
| Requirement | Description | eIDAS reference |
|--|--|--|
| REQ1 Message Integrity | Messages should be secured against any modification during transmission. | Article 3 (36) Article 19 Article 24 Article 44, (d) the sending and receiving of data is secured by an advanced electronic signature or an advanced electronic seal of a qualified trust service provider in such a manner as to preclude the possibility of the data being changed undetectably; |
| REQ2 Message Confidentiality | Messages should be encrypted during transmission | Article 5 Article 19 Article 24 |
| REQ3 Sender Identification | The identity of the sender should be verified. | Article 24 Article 44 (b) they ensure with a high level of confidence the identification of the sender; |
| REQ4 Recipient / Addressee Identification | Recipient / addressee Identity should be verified before the delivery of the message. | Article 24 Article 44 (c) they ensure the identification of the addressee before the delivery of the data; |
| REQ5 Time-Reference | The date and time of sending and receiving a message should be indicated via a qualified electronic timestamp. | Article 44 (f) the date and time of sending, receiving and any change of data are indicated by a qualified electronic time stamp. |
| REQ6 Proof of Send/Receive | Sender and receiver of the message should be provided with evidence of message recipient and deliver. | Article 3 (36) "... provides evidence relating to the handling of the transmitted data, including proof of sending and receiving the data..." |

4-Corner model in detail

In the 4 corner model, national solutions **don't exchange data directly with each other but do this through Access Points**. These Access Points are conformant to the same technical specifications and therefore capable of communicating with each other.

As a result, national solutions can easily and safely exchange data even if their IT systems were developed and evolve independently from each other.

This is also known as the **MESH topology**



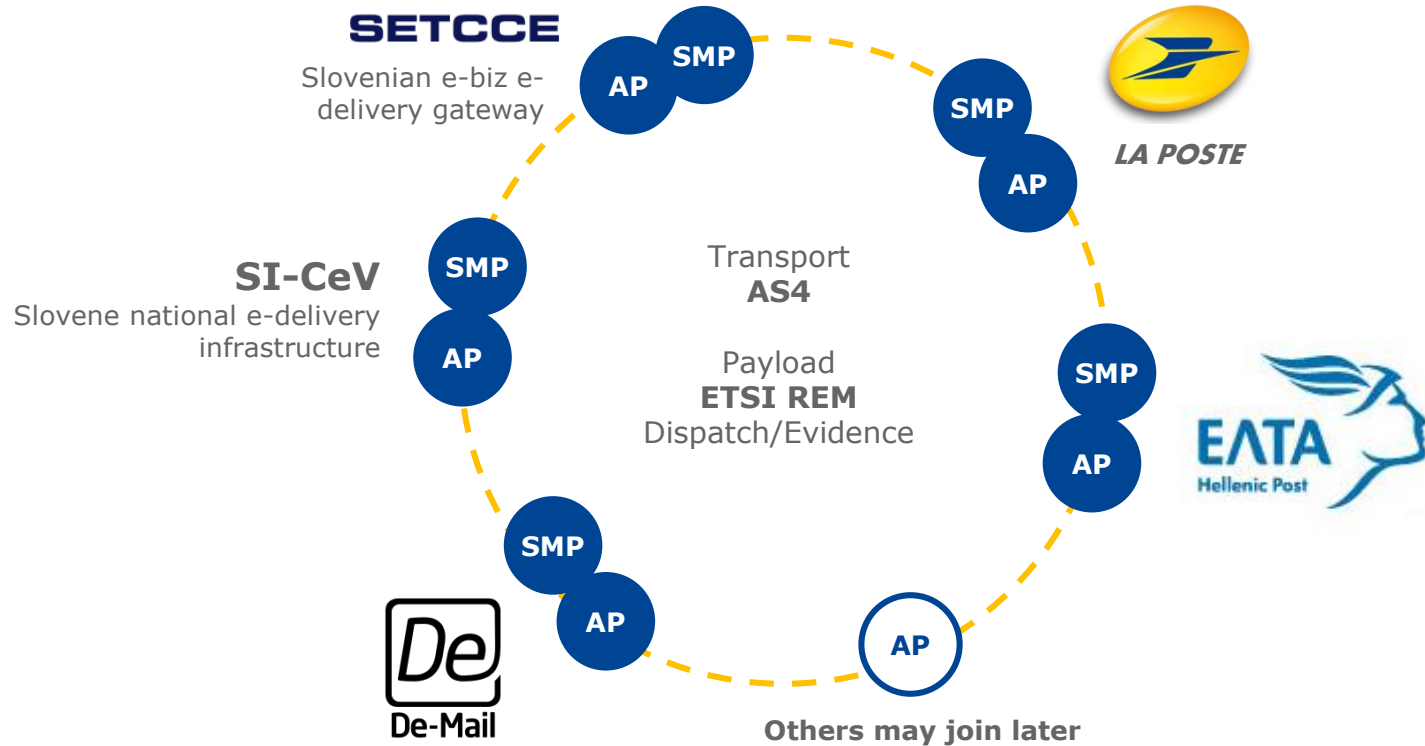
PROS +

- No need to set up bilateral channels between participants
- Eliminates risk of single point of failure
- Eliminates risk of service provider lock-in
- Highly distributed and scalable
- Low interference with existing solutions

CONS -

- Needs strong governance
- Global run-time monitoring

BACK TO NOBLE: 4-Corner model among ERDS providers



CONSULT the guidance document to know more about ERDS & CEF eDelivery



<https://ec.europa.eu/cefdigital/wiki/x/uwvNAg>

For further information and feedback

Web page on eIDAS

<http://ec.europa.eu/digital-agenda/en/trust-services-and-eid>

eIDAS Observatory

<https://ec.europa.eu/futurium/en/eidas-observatory>

Text of eIDAS Regulation in all languages

<http://europa.eu/lux73KG>

Connecting Europe Facility – Catalogue of Building Blocks

<https://ec.europa.eu/cefdigital>

eIDAS twitter account

[@EU_eIDAS](https://twitter.com/EU_eIDAS)

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