

#2 Implementers Café: eDelivery & OOTS Projectathon Process

Useful information about the reuse of eDelivery in the context of the Once-Only Technical System, and a detailed explanations of what the OOTS Projectathons are and why they are useful.

13 December 2022, 14:30 – 17:00 CET

Bogdan Dumitriu, Maarten Daniels, Anne-Gaëlle Bergé, Ville Sirviö and Thomas Fillis



Today's agenda...

- 1 Welcome and Introduction – 14:30-14:40**
Thomas Fillis (DIGIT-EXT)
- 2 eDelivery & OOTS implementation – 14:40-15:10**
Bogdan Dumitriu (DIGIT)
- 3 National experience with eDelivery - 15:10-15:25**
Ville Sirviö (NIIS)
- 4 Open discussion / break – 15:25-15:45**
- 5 Projectathon process, preparations and Playbook – 15:45-16:30**
Maarten Daniels (DIGIT-EXT)
Anne-Gaëlle Bergé (KEREVAL)
- 6 Open discussion – 16:30-17:00**
- 7 Closing – 17:00**
Thomas Fillis (DIGIT-EXT)

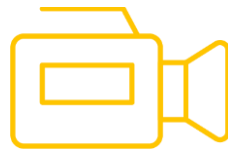
Instructions for this live webinar:

When in doubt, write in the chat – our team are there to help

This is an interactive session. There will be time for questions and answers throughout the session via the chat.



Klick “Connect audio” to hear the presenters and please mute your microphones when not speaking.



Please note this webinar will be recorded and made available to you, but is not published publically



eDelivery & OOTS implementation

Bogdan Dumitriu (DIGIT)





Implementers Café #2: eDelivery & OOTS implementation

Bogdan DUMITRIU

DIGIT, European Commission

13 December 2022



Agenda

1 Digital Europe Building Blocks

What are they and why use them?

2 What is eDelivery?

More on the eDelivery Building Block

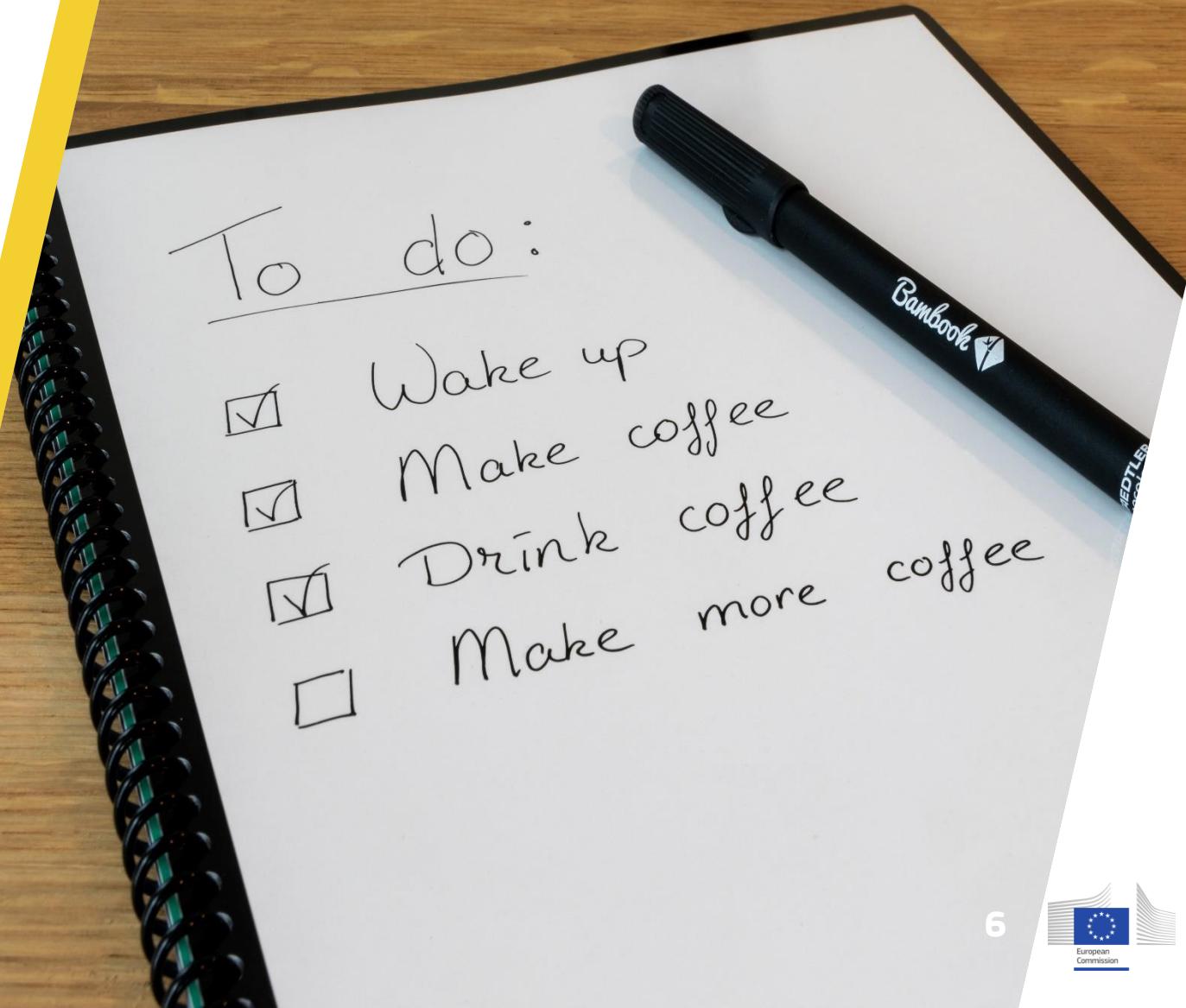
3 eDelivery in OOTS

Where does eDelivery fit in the OOTS architecture?

4 eDelivery Service Offering

Support and enabling services

5 Webinar Preview and Q&A



Digital Europe Building Blocks

A **Building Block** is an open and reusable digital solution.

What?

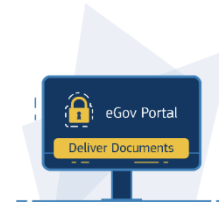
It can take the shape of **frameworks, standards, software products or software as a service (SaaS)**, or any combination thereof.

How?

It promotes the adoption of the same **open standards and technical specifications** by the **different sectors** of the Union for the most basic & common functionalities of their projects or platforms.

Why?

Building Blocks enable interoperability across borders and sectors.



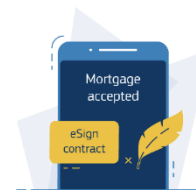
eDelivery

Exchange online data and documents reliably and securely.



eInvoicing

Promote the implementation of the European standard for electronic invoicing across borders.



eSignature

Create and verify electronic signatures between businesses and EU citizens.



eID

Allow citizens to prove who they are across borders, making it easier to access online services in another EU Member State.

and more...

How to use a Building Block?

There are 3 options: **buy**, **build** or **reuse** and you can always **co-develop** your solution with other parties.



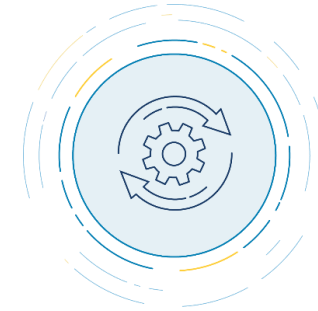
Buy

Buy a compliant, interoperable solution from the market.



Reuse

Reuse sample software available through Digital Europe.

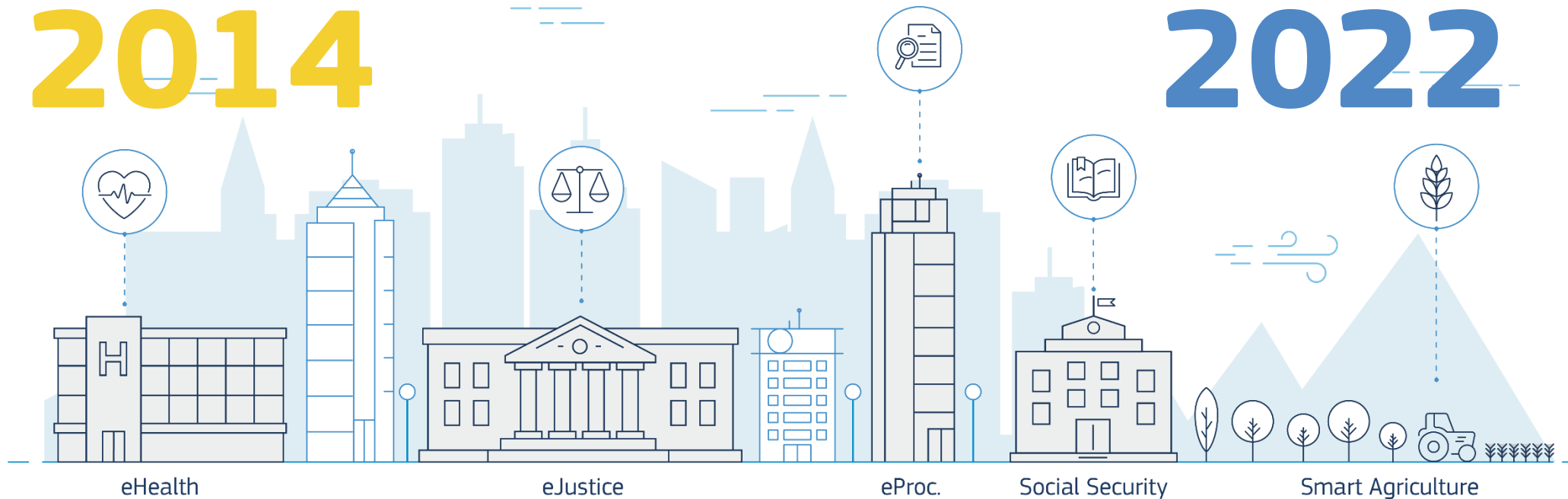


Build

Build an EU-compliant solution from scratch based on Building Block standards.

Whatever you choose, **the relevant Digital Europe team will support you** in implementing the Building Block into your project.

Building Block adoption



- **338** projects reusing a Building Block.
- **53** projects committed to reuse.

- **88** projects committed to analyse.
- **150%** increase in reuse since 2018.

What is eDelivery?



eDelivery

Exchange data and documents online reliably and securely.



Interoperability

eDelivery enables the exchange of documents and data among heterogeneous information systems using a standardized protocol, thereby laying the foundation for cross-domain and cross-project interoperability.



Scalability and performance

eDelivery solutions ensure sustainable levels of performance and maintainability even as the number of participants and/or messages in a network grows.



Security and accountability

eDelivery ensures data integrity and confidentiality in every transmission through the use of digital signatures and encryption. eDelivery also guarantees legal assurance and accountability by mandating that the recipient of a message must send a digitally signed acknowledgement of receipt for every message received.



Vendor and platform agnostic

Because this is a vendor and platform neutral solution, its specifications are not proprietary or controlled by one vendor alone. Also, eDelivery is available in multiple products and solutions from different vendors you can choose from.

Paper delivery



Write the message



Look for a destination address



Put the message in an envelope



Post the letter



Transport the message to its destination



Deliver the message

eDelivery

1

Submit

Sender sends message to sending AP

2

Send

Sending AP processes message

- Validation and compression of the user message;
- Signing of the compressed message;
- Encryption of the signed compressed message.

3

Receive

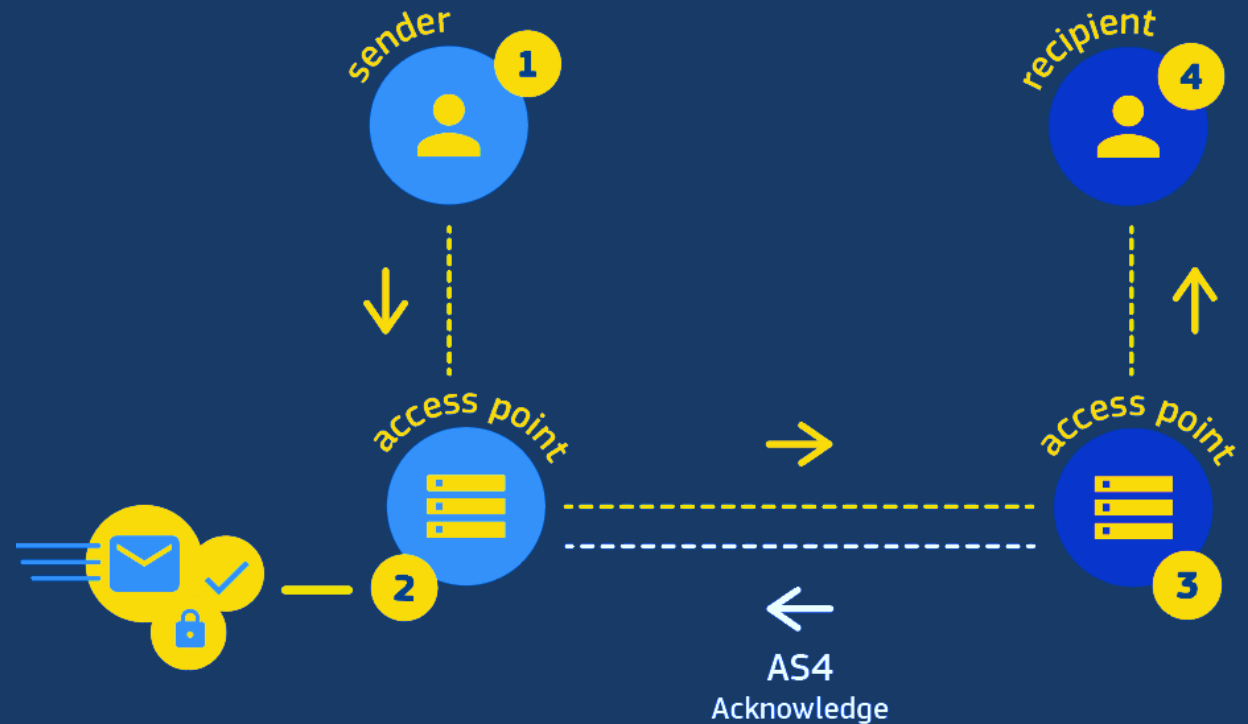
Receiving AP processes message

- Receives and decrypts the encrypted message;
- Verifies the sender's signature;
- Decompresses the decrypted message;
- Validates the original user message;
- Sends the acknowledgement to the sending AP;
- Stores the user message for download.

4

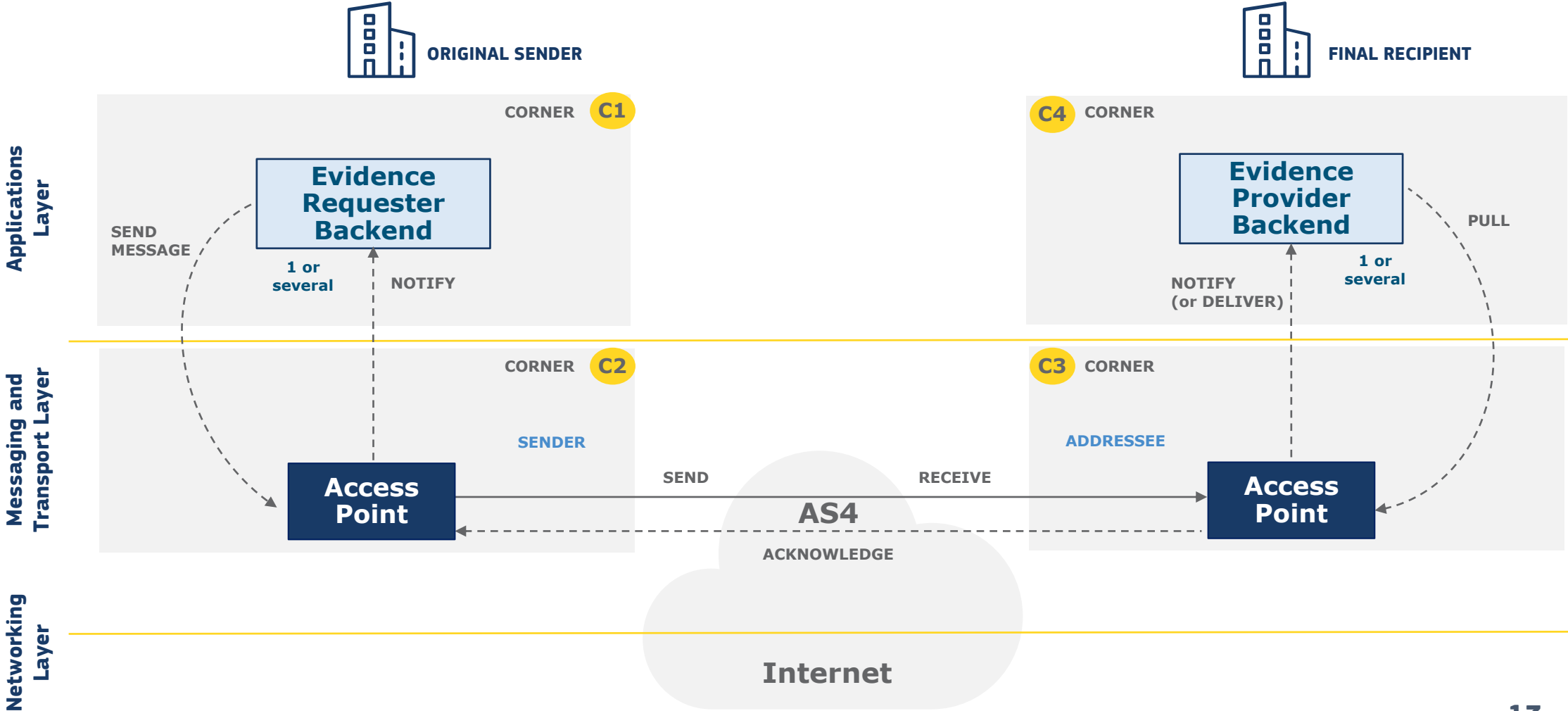
Deliver

Recipient receives message from receiving AP



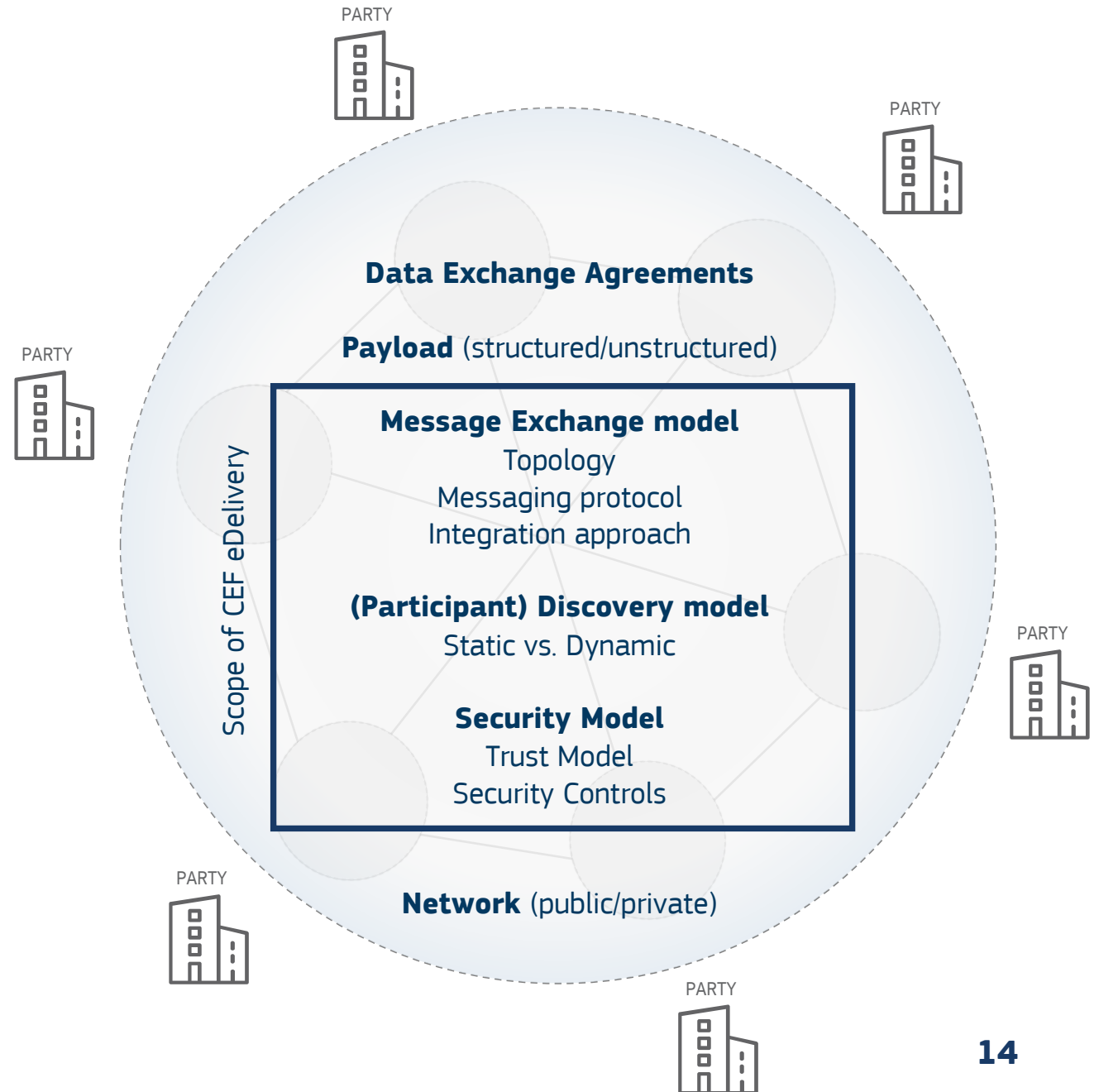
eDelivery Four-Corner Model

Static discovery

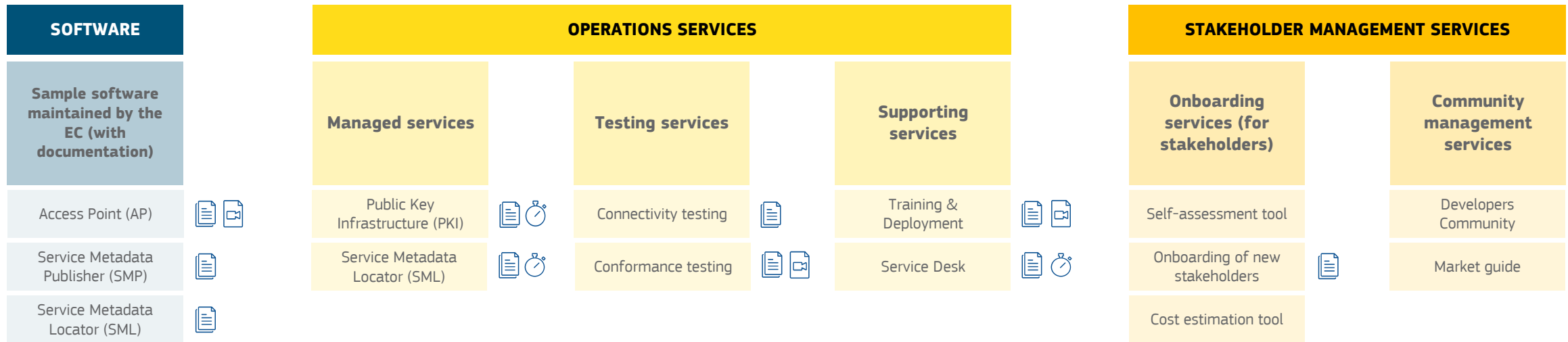


A message exchange infrastructure is

A combination of a message exchange model, discovery model and security model on top of the internet, or of a private network, to exchange structured or unstructured information encapsulated in messages.



eDelivery Service offering



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

Digital Europe platform

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



eDelivery AS4 conformant solutions

- Access Point software
 - eDelivery AS4 conformant solutions
 - Domibus
 - Domibus releases
 - Domibus support arrangement
 - Domibus FAQs
- Access Point specifications
- SMP software
- SMP specifications
- SML software
- SML service
- SML specifications
- PKI Service
- Security Controls guidance
- Connector specifications
- eDelivery Stakeholders onboarding

eDelivery AS4 conformant solutions

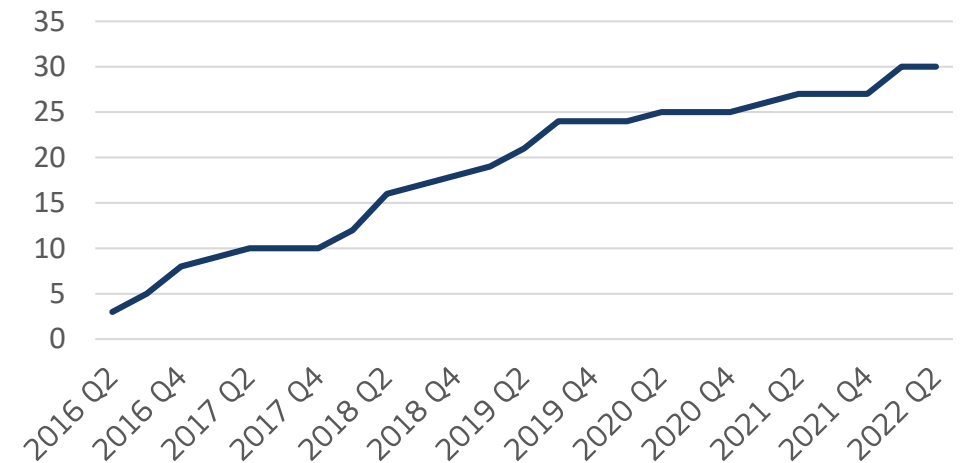
This page lists the solutions that have passed the conformance testing according to the eDelivery AS4 profile:

- [Axway](#)
- [B2BRouter](#)
- [Babelway](#)
- [Bizbrains](#)
- [CData Arc](#)
- [Cleo Integration Cloud](#)
- [Data Interchange](#)
- [DCS EIP](#)
- [Domibus](#) (EC sample implementation)
- [Edicom ASx Server](#)
- [eefacta Server](#)
- [EESSI AS4.NET](#)
- [Flame](#)
- [Galaxy Gateway](#)
- [Harmony eDelivery Access](#)
- [Holodeck B2B](#)
- [IBM](#)
- [Ida Infront iipax.com](#)
- [iFenix](#)
- [ion-AP](#)
- [Laurentius](#)
- [Mendelson](#)
- [Navitasoft - IP Systems AS4-IP](#)
- [Nota](#)
- [OXALIS](#)
- [Pagero](#)
- [phase4](#)
- [Qvalia](#)
- [SEEBURGER](#)
- [Software AG](#)
- [ViaAdValvas Gateway](#)

More information on Digital Europe

[Conformant Solutions >](#)

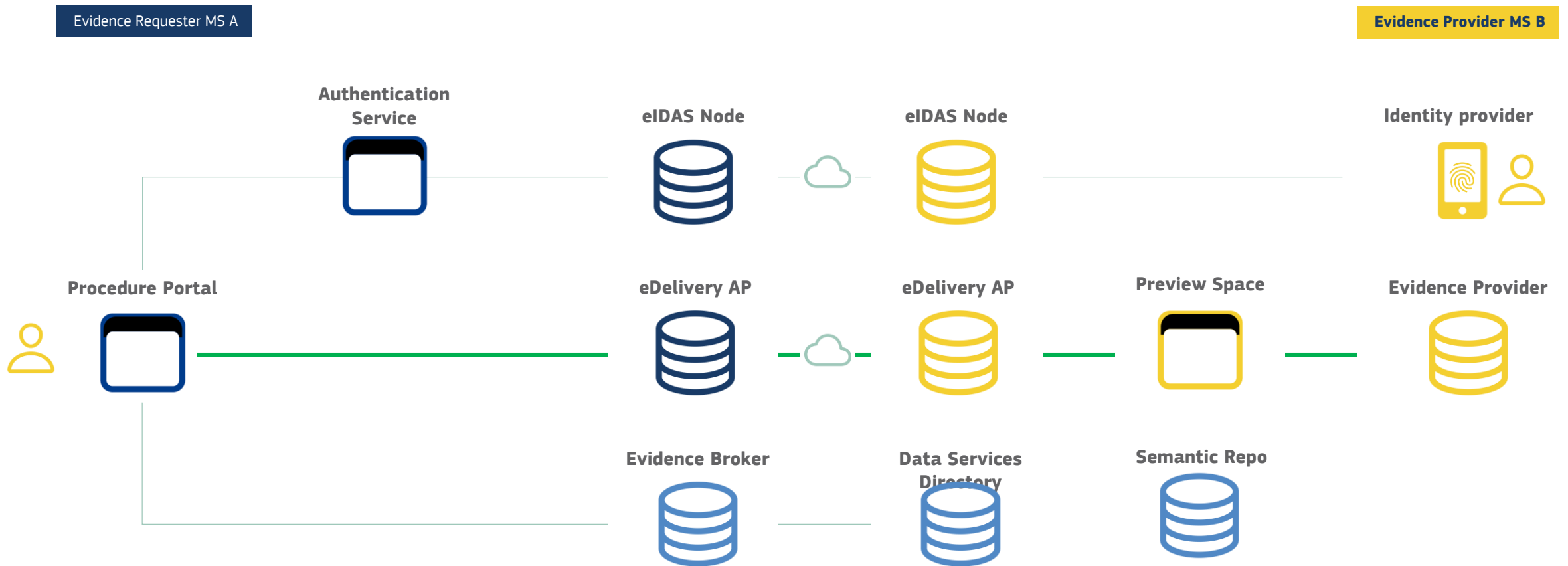
Evolution of AS4 conformant solutions (2016-2022)



eDelivery in the OOTS

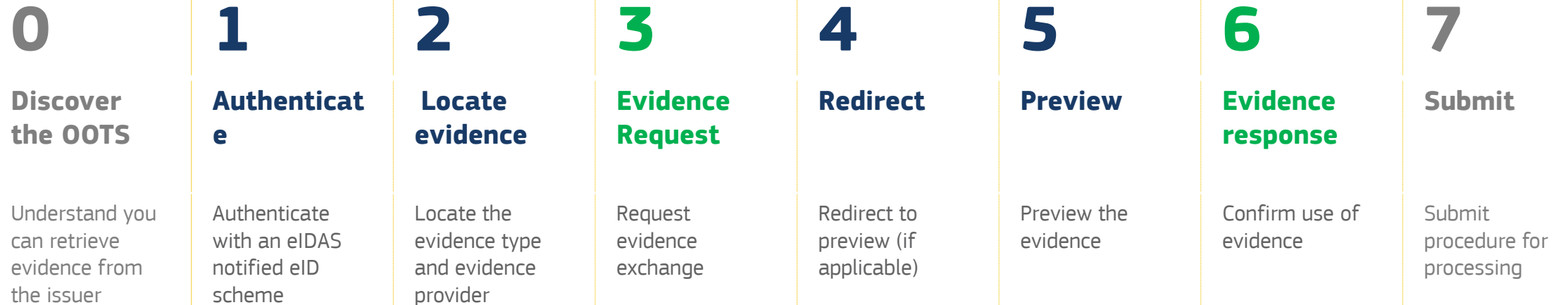
The background of the slide is a dark, atmospheric scene. It features a grid of glowing wireframe cubes, some of which are partially broken or shattering, revealing bright, glowing fragments inside. The scene is illuminated by numerous bright, starburst-like light sources, creating a sense of depth and digital complexity. The overall color palette is dominated by deep blues and blacks, with bright yellow and white highlights from the text and the glowing elements.

The OOTS uses eDelivery

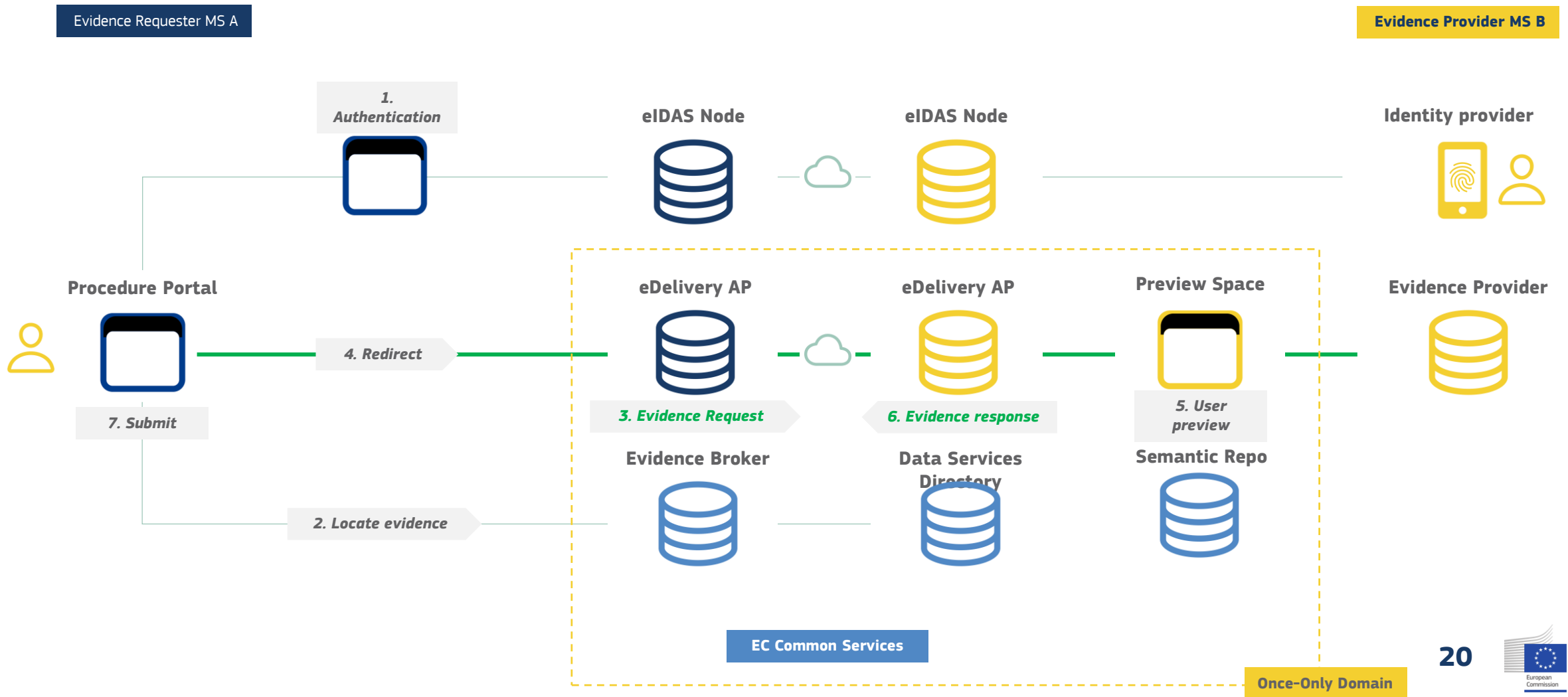


7 key steps in the once only journey

Scope of the OOTS



Mapping of architecture to user journey



2023 Hands-on Webinar: Preview

A hands-on webinar will be organised on 26 January 2023 to:

- Help participants install and configure a Domibus-based eDelivery Access Point
- Exchange messages between newly-created Access Points (using SOAP UI)

The installation will use a Docker setup:

- Four docker images as follows:
 - Domibus 5.0.x deployed in a Tomcat container, cluster configuration with 2 nodes
 - ActiveMQ master slave, external broker
 - MySQL database with Domibus 5.0.x schema, single tenant
 - Apache HTTPD load balancer
- docker-compose YAML file for docker container orchestration

2023 Hands-on Webinar: Prerequisites

Recommended hardware:

- A minimum of 16 GB RAM
- A two-monitor or two-computer setup allowing you to see both the presenter's screen and your own at the same time

Required software (to be installed and tested before the webinar):

- [SoapUI](#) - used to generate a SOAP message on the Web Service interface of Domibus
- [Docker Desktop](#) - tested on Windows 11 and Ubuntu 18.04.6
- [MySQL Server](#) - version 8 (root password required)

Pull images (full URLs to be provided):

```
docker pull <docker_nexus>/<domibus_repo>/domibus-tomcat9:5.0.2
docker pull <docker_nexus>/<domibus_repo>/domibus-tomee:5.0.2
docker pull <docker_nexus>/<domibus_repo>/domibus-mysql8:5.0.2
docker pull <docker_nexus>/<domibus_repo>/edelivery-httpd:2.4.39
```

2023 Hands-on Webinar: Practical Steps

Each OOTS Member State planning to participate:

- Will prepare an installation environment (virtual machine?) where it will install and test all required software
- Will ensure the installation environment has a public IP (or domain name) and port reachable from the Internet
- Will send the base URL including the port (e.g., <http://oots-ap.example.gov:18080/>) of the installation environment where Domibus will be installed. **Deadline:** one week before the webinar (**19 January 2023**)

The eDelivery team:

- Will prepare and send for each Access Point a package including:
 - Self-signed certificates
 - P-Mode configuration
 - SoapUI test project
- TLS will not be used

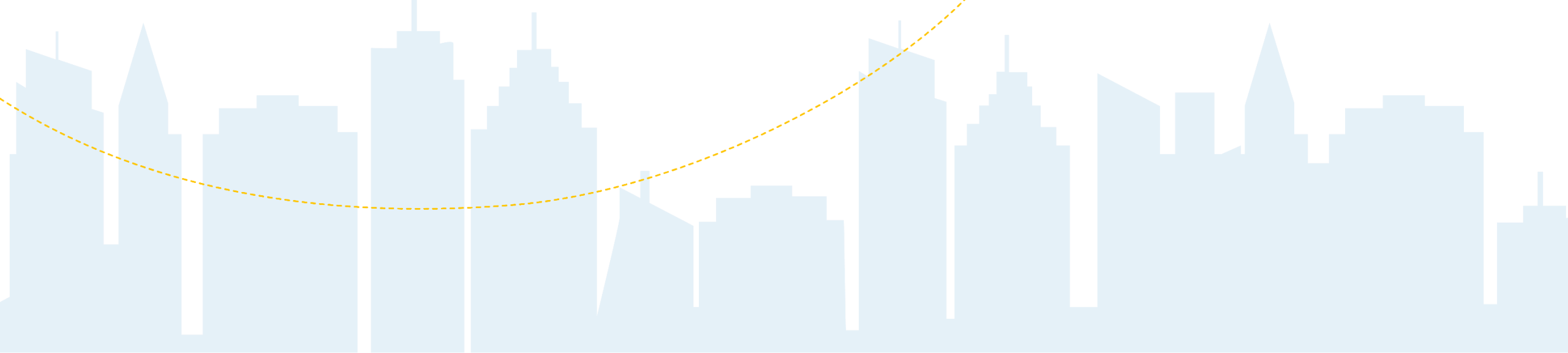
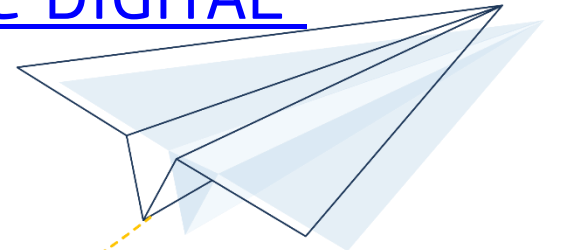


Questions?

Any further questions?

For policy-related questions, send us an email at EC-DIGITAL-BUILDING-BLOCKS@ec.europa.eu

For technical support-related questions, write us at EC-EDELIVERY-SUPPORT@ec.europa.eu



The image features a dark blue, almost black, background. A grid of glowing, wireframe cubes is arranged in a pattern that recedes into the distance. From several points within this grid, bright light rays emanate, creating a starburst effect. The rays are a lighter shade of blue. In the center of the image, the words "Backup slides" are written in a bold, yellow, sans-serif font. The overall aesthetic is futuristic and digital.

Backup slides

Trans-European projects based on eDelivery



Once-Only Technical System (OOTS)



European Health Data Space (HealthData@EU)



DECIDE Decision



European Maritime Single Window environment (EMSWe)



European Database on Medical Devices (EUDAMED)



Beneficial Ownership Registers Interconnection System (BORIS)



Council Information Exchange Platform (CIxP)



European Hull Database (EHD)



EU Common Entry Gate for Tobacco Reporting (EU-CEG)



Poison Centres Notification System (PCN)



European Crew Database (ECDB)

National experiences with eDelivery

Ville Sirviö (NIIS)



Open discussion (break)



Projectathon process and preparations and Playbook

Maarten Daniels (DIGIT-EXT)

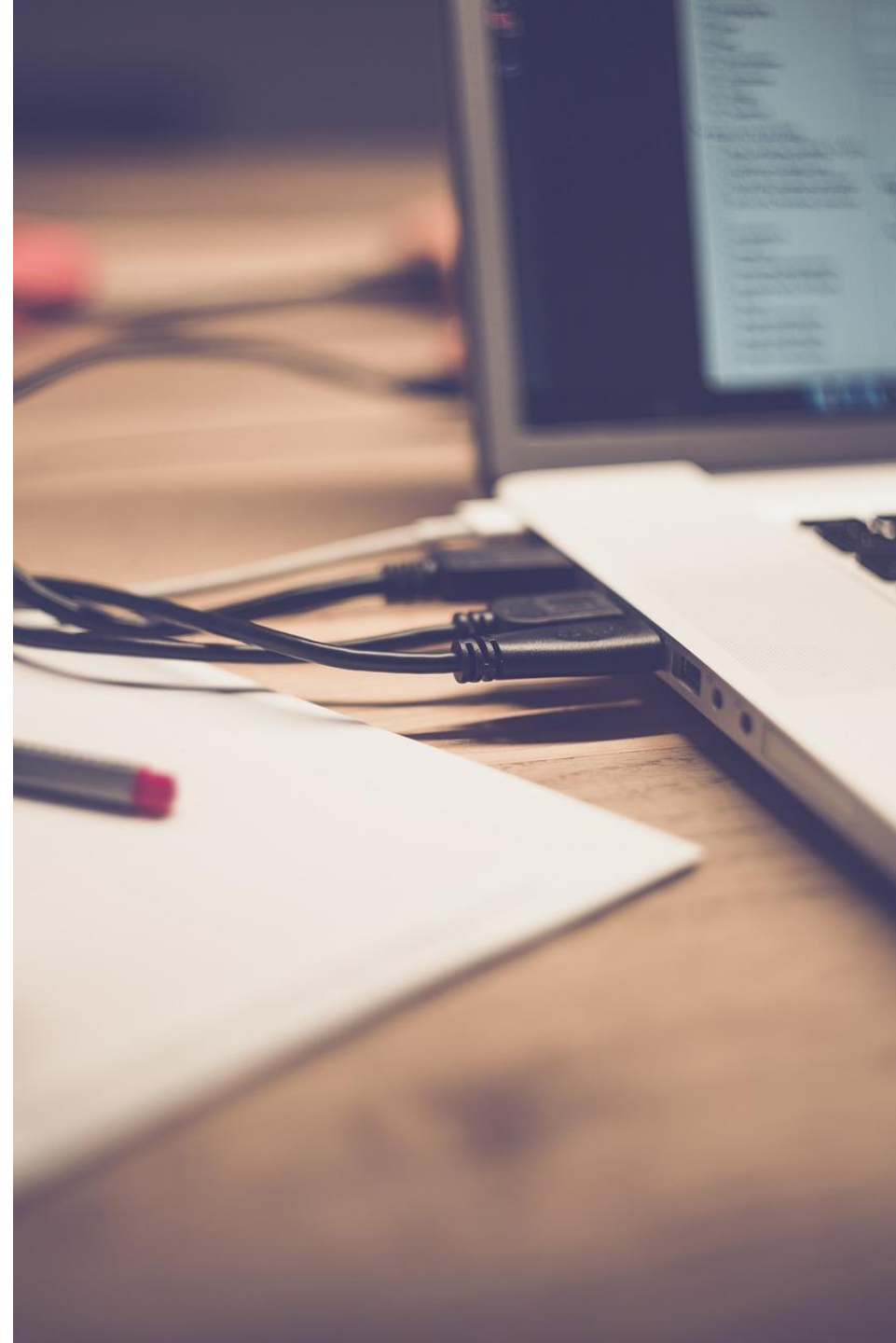
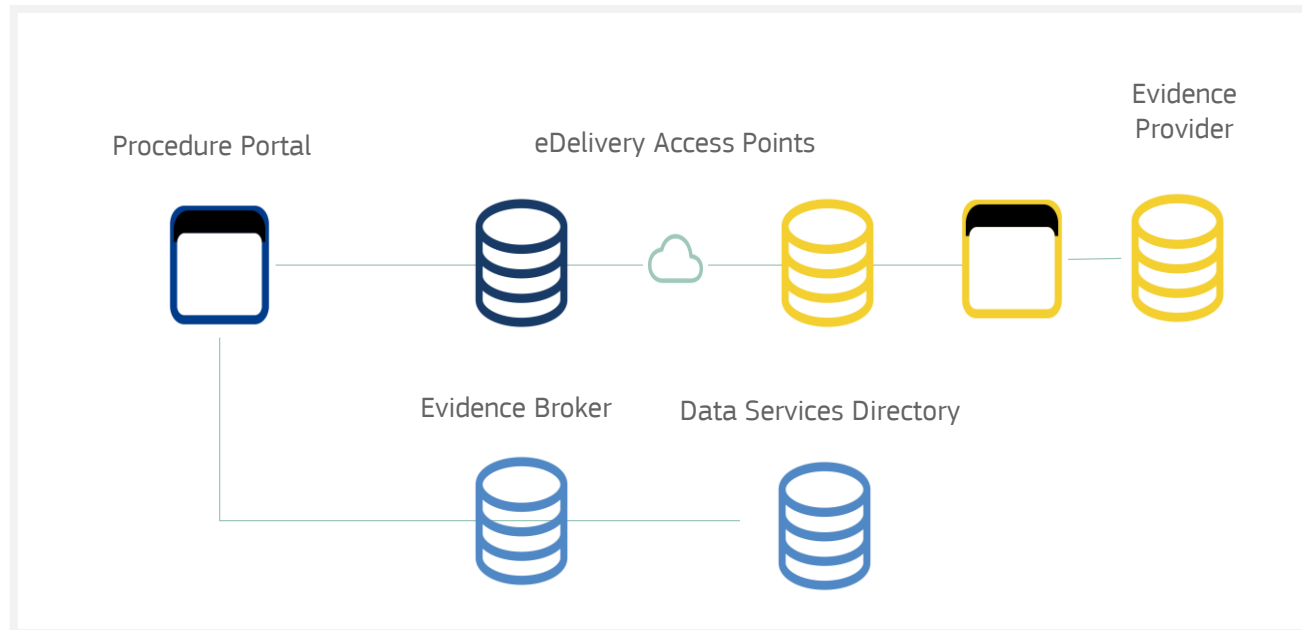
Anne-Gaëlle Bergé (KEREVAL)



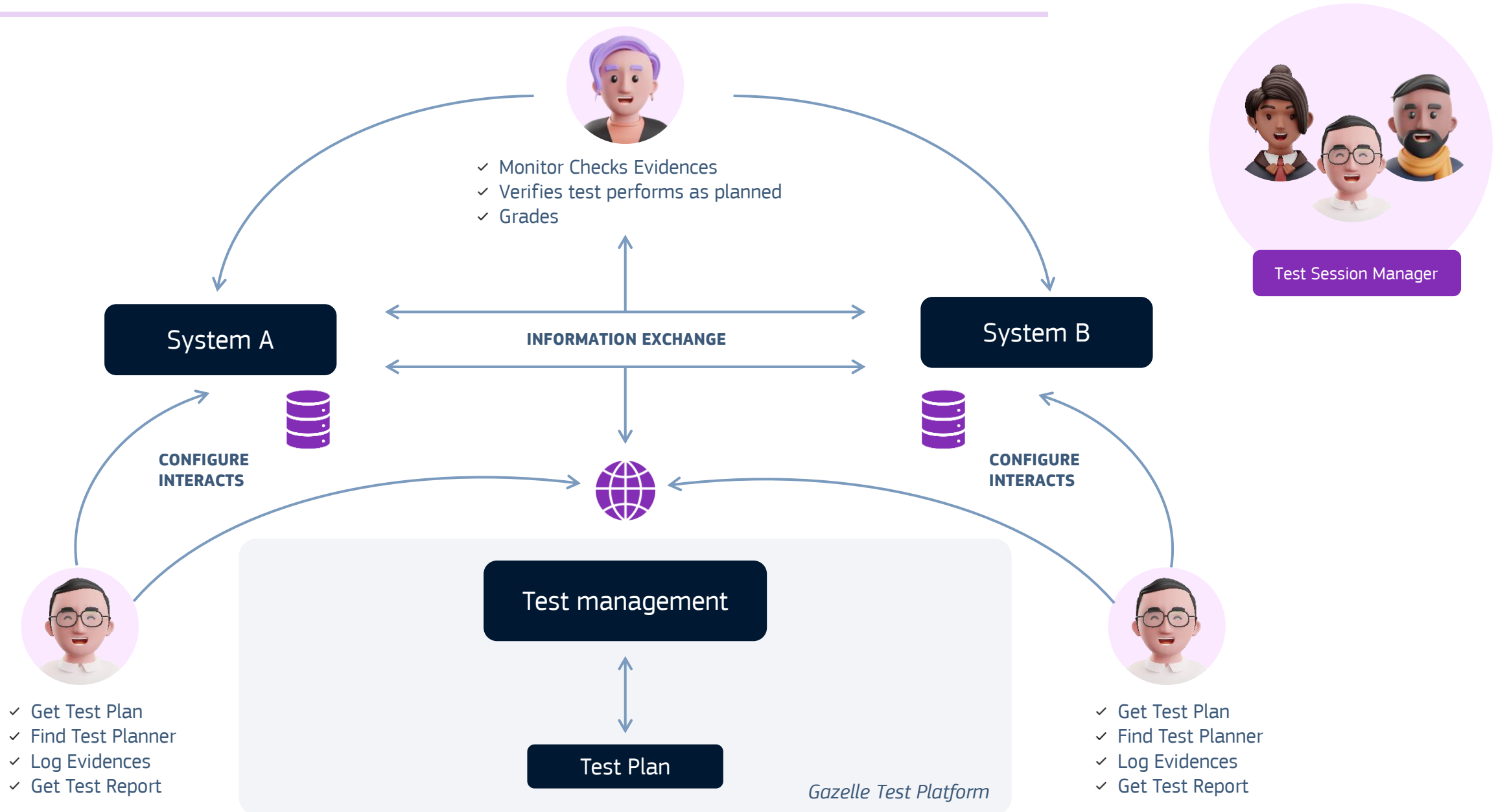
What is a Projectathon?

Recap of the Projectathon concept

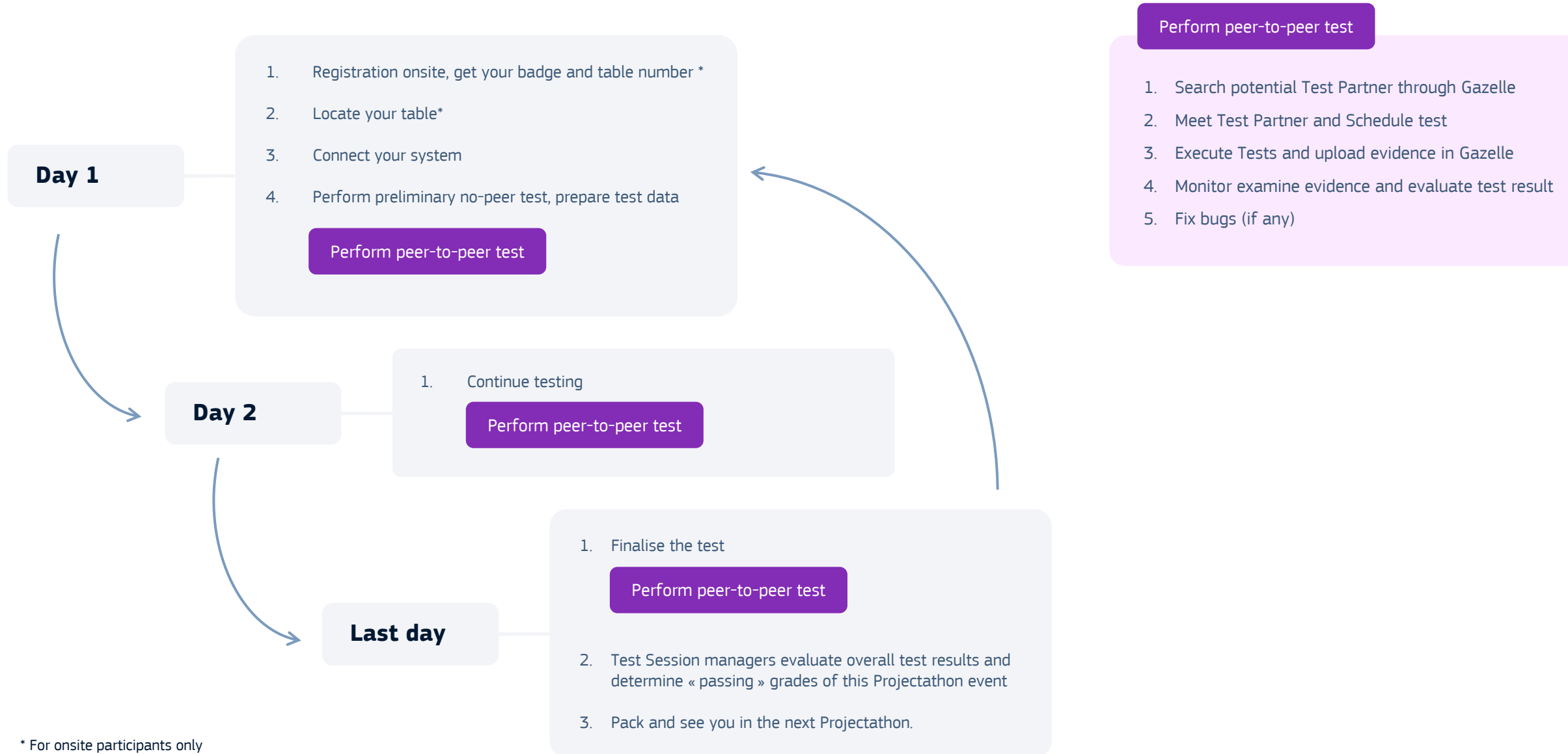
A three-day, in-person or hybrid event, in Brussels, where Member States pair-up with as many other participants as possible and in a structured environment run interoperability tests using different actors, roles and testable profiles to check the status of their OOTS implementation.



What is a Peer-to-peer Test, AKA Interoperability Test?



How do the Projectathon Days look like



Projectathon dates for 2023

Join in as early as possible!

- The opportunity to test your implementation in a Projectathon is **the best** way to ensure success for your project.
- It is **highly recommended to join at least one (the more the better) before going into production**. It is the optimal way of getting assurance about your OOTS implementation
- **Join an event at the earliest opportunity**, if things fail, they do so in a friendly test environment. This way you will learn the lessons and be best placed to succeed at the next event. Moreover, the more tests you complete early on, the more complex scenarios you can conduct against more counterparties

#1

April
2023
(19/04 -
21/04)

#2

June
2023
(week of
12/06)

#3

October
2023
(week of
16/10)

Projectathon Overview (participant) - dates provisional

DECEMBER

FEBRUARY

MARCH

APRIL

MAY

1 Information

13 December 2022

Attend the **Projectathon Deep-Dive session** during the **OOTS Implementers Café** on 13 Dec 2022.

Signal your intention to participate to the April 2023 Projectathon as Members State (can be with multiple teams).

Implementers Café #2
"eDelivery & OOTS Projectathon Process"
13/12/2022

Implementers Café #3
"eID & OOTS Projectathon Registration"
31/01/2023

2 Registration

7 February - 10 March 2023

Register your organization, system under test (SUT), SUT operator(s) and features to be tested in Gazelle.

Fill-in the online **registration form** and sign the participant agreement contract.

Implementers Café #4
"OOTS preview area & OOTS Projectathon Preparation"
28/02/2023

3 Pre-Projectathon test

13 March – 14 April 2023

Perform **Preparatory Test** to get your system, test data and yourself ready before Projectathon.

3 – 14 April 2023

Perform **Connectivity Test*** to ensure network connection of SUTs are well configured before Projectathon.

4 Projectathon

19-21 APRIL 2023

Game on!

Connect and perform Peer-to-Peer marathon test!

5 Post Projectathon

5 May 2023

Publication of **Test Reports**, lessons learned and best practices.

Implementers Café #5
"Common Services Admin App & Projectathon Preparation"
31/05/2023



How

Preparations are ongoing

do

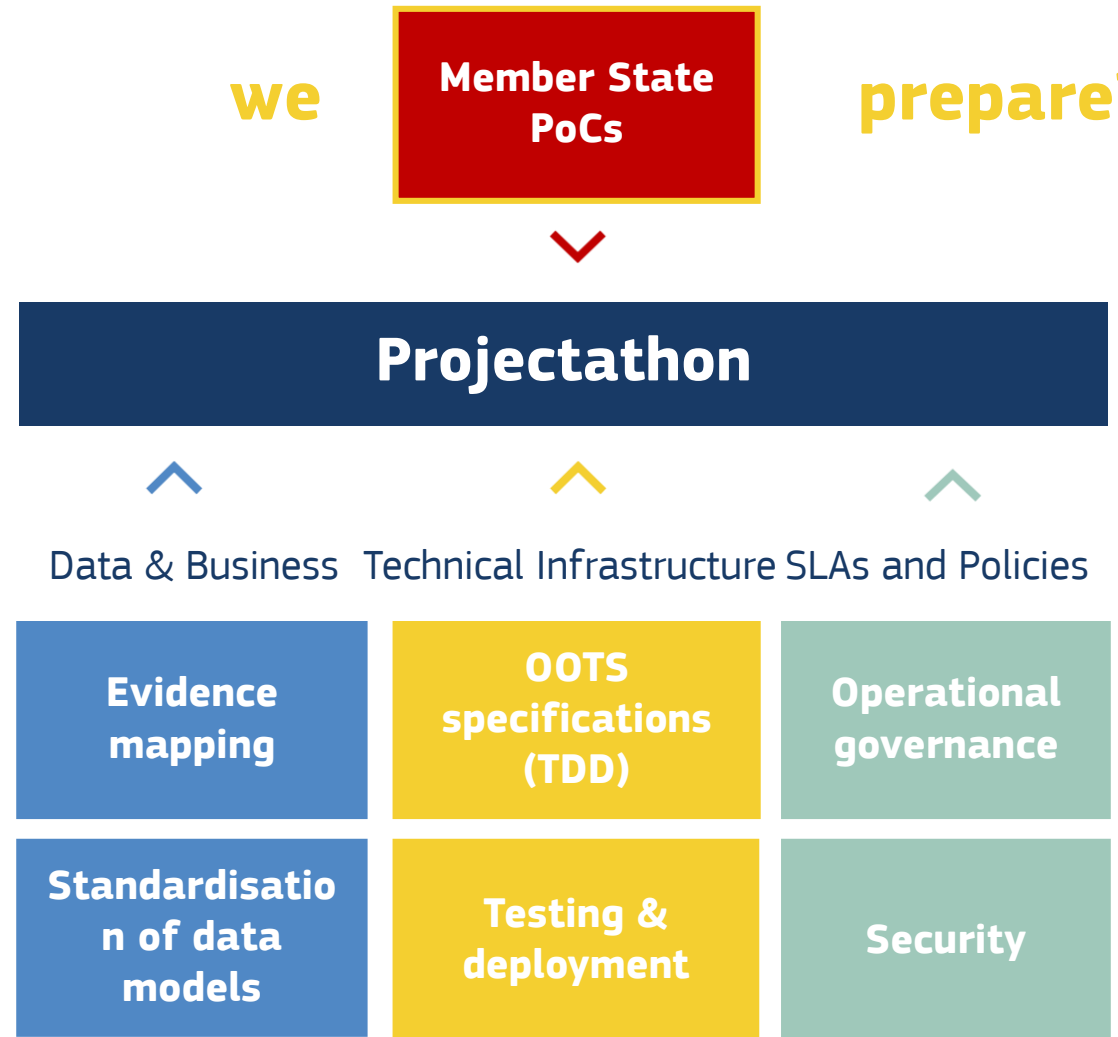
we

Member State
PoCs

prepare?

The work we are doing in the Sub-Groups and the work Member States are doing individually or collectively in PoCs will come together.

All of this allows us to test-run the implementation of the OOTS in the Projectathon event!



How do we get started for the April 2023 Projectathon?

A practical summary

INPUT

Sub-Groups must decide on what they need to deliver and when for a successful event



OUTPUT

Sub-Groups should detail their requirements for collective milestones and associated pre-event checks by January 2023 (to allow the actual tests to be defined by early February 2023)

INPUT

Member States can align their internal milestones with the collective testing event



OUTPUT

Member states should get their components ready to register by February 2023 and to perform a pre-event check by March 2023

INPUT

The EC will prepare the logistics and host regular preparation webinars



OUTPUT

The EC will host a series of information and preparation sessions during Implementers Cafés or dedicated webinars between now and April 2023

Input from the evidence mapping subgroup

For us to be able to run end-to-end tests at the projectathon the EM subgroup, will, by mid-February:

- Select a subset of the procedures in the first batch, probably starting with the education-related procedures
- List the requirement(s) per procedure and the information an evidence must contain to meet the requirement(s)
- List the evidence type(s) from each MS that meet each requirement
- List the providers in each MS for each evidence type

Projectathon

Your guide to prepare for a successful event

Playbook

- Together with Projectathon experts we engaged from IHE and Kereval, we prepared a Projectathon playbook for participants and organisers
- This participant playbook
 - explains the Projectathon concept, structure and organisation
 - details how Member State teams can participate and how they need to prepare
 - covers practical FAQs to address your current and future questions
- The current information should allow you to start allocating the necessary people and resources in advance of the Projectathon events

Projectathon

Your feedback is appreciated

Playbook

timeline

- A draft preview version of the participant playbook was presented in the Testing and Deployment (T&D) sub-group meeting on 22/11
- No external feedback was received, but an updated version was created based on internal feedback and a visual update
- This version, still in draft status, is now available on the [Once Only Hub](#)
- We ask for your review with the goal to collect additional Member State feedback by 23/01/23 so we can finalise the playbook by 27/01/23.

Projectathon Collaborative Space, how to prepare

Let's get practical in terms of preparation

- The OOTS team is reinforced with experts from IHE and Kereval (they are here with us today) to ensure a proper preparation and execution of the Projectathon event
- The Testing and Deployment, OOTS specifications and Evidence Mapping sub-group play a major role in the Projectathon preparation but experts from all sub-groups are welcome to contribute with requirements and suggestions
- The same applies to National Coordinators and all colleagues involved in the OOTS
- The dedicated OOTS Projectathon Collaborative Space can be found [here](#) (request access via the [Service Desk](#))

Implementers Space (Microsoft Teams)

Let's get practical in terms of preparation

- Following the request for additional collaborative tools, the decision was made to establish a Microsoft Teams for Implementers
- The objective is to facilitate knowledge sharing and closer collaboration
- The Implementers Space is reserved for:
 - Officially nominated experts from the Testing and Deployment sub-group
 - Member States that indicated their participation to the Projectathons
- Access to the dedicated Implementers Space can be done via the [**Service Desk**](#)

Projectathon Teams, how to join

Let's get practical in terms of execution

- We are organising the event in a hybrid format:
 - MSs can choose to send all their team(s) in person to the event.
 - Those MSs that do not send all their teams in person to the event, are expected to send a couple of coordinators that can attend the event in person. These coordinators should have a direct line to the remote teams.
 - MS not actively participating to tests, can join as an observer and are encouraged to send a couple of observers in person to benefit from having a better overview of what's happening in the Projectathon rooms.
- No fees are charged to participate to the actual Projectathon event itself
- We foresee that MS reimbursement is possible, but limited up to 1 MS representative + 1 private expert per Projectathon.

Projectathon Teams

Join these trailblazers

- We already! received intentions to participate to the April Projectathon from
 - **AT**
 - **BE**
 - **CZ**
 - **EE**
 - **FI**
 - **FR**
 - **GR**
 - **MT**
 - **NL**
 - **PT**
 - **SE**
- Others are invited to don't stay behind and join these trailblazers as soon as possible!

Next steps

Let's do this

1. Signal your intention to participate to the April Projectathon as Members State (can be with multiple teams)
2. Review the draft Projectathon participant playbook published on the [Once Only Hub](#)
3. Spread the word about the Projectathons across your teams
 - a. Share the draft Projectathon playbook and collect additional feedback by 23/01/23
 - b. Start allocating the needed profiles (developers, testers, analysts, coordinators, etc) for the Projectathon event and its preparation steps
 - c. Check the planning of your systems to ensure they are up, running and accessible in time

Implementers Café #2

The role of Connectathon and Projectathon in interoperability

Anne Gaëlle BERGE | Interoperability Consultant
2022-12-13





IHE Catalyst & KEREVAL

IHE Catalyst :

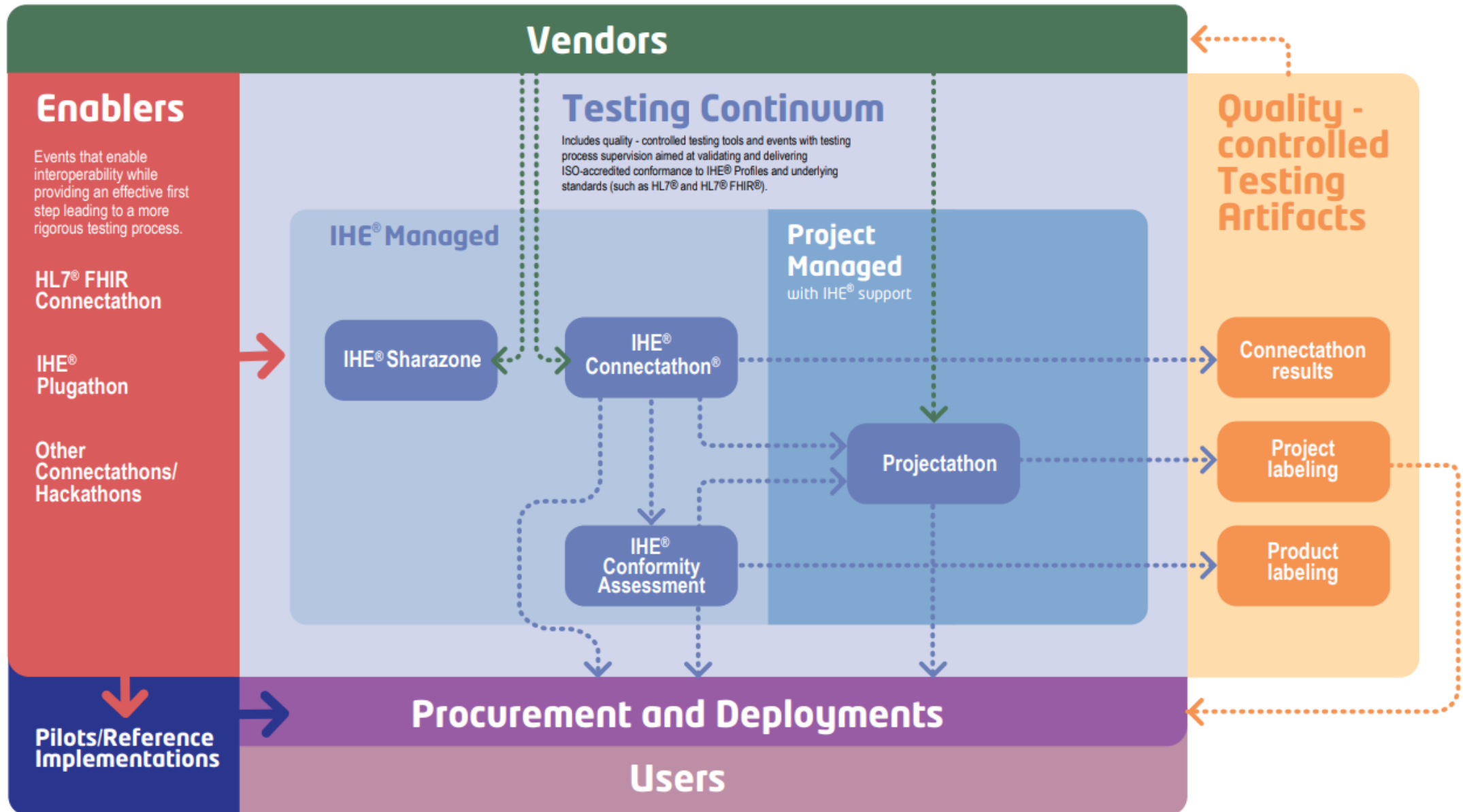
- > Created in 2021 to accelerate deployment and adoption of IHE to deliver **interoperability quality** in Health, adding additional value to the IHE Ecosystem.
- > IHE Catalyst is built upon a long experience in interoperability testing management and now provides the answer from IHE International to support TESTING CONTINUUM.
- > Confidence about **rigor testing, quality control testing** provides the backbone for QUALITY in products and in deployments.

KEREVAL :

- > Independent software testing laboratory created in 2002
- > Main developer of the Gazelle Test Bed since 2012
- > Involved in the technical management of the IHE Connectathon in Europe and in the USA
- > Testing session manager for the Projectathons organised by IHE Catalyst's customers

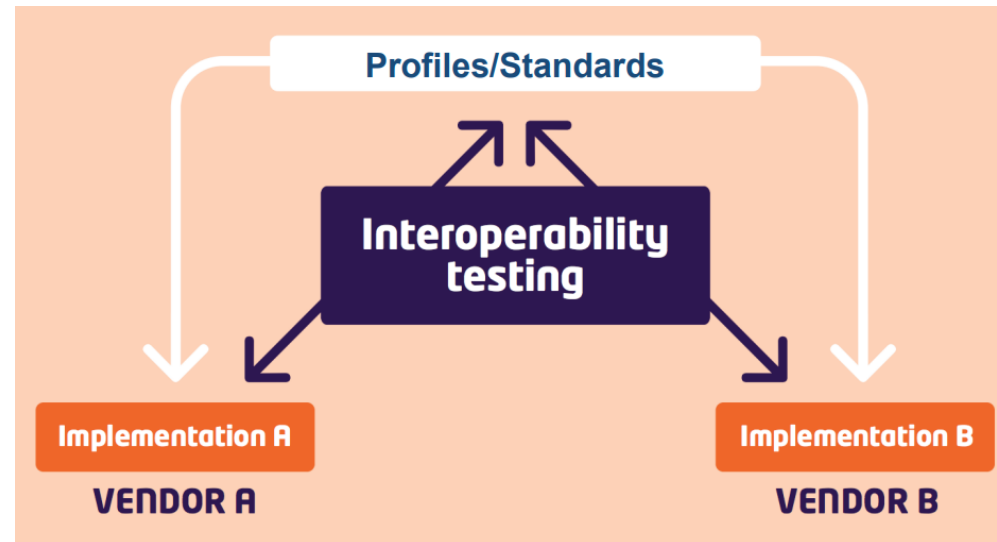


IHE Testing continuum



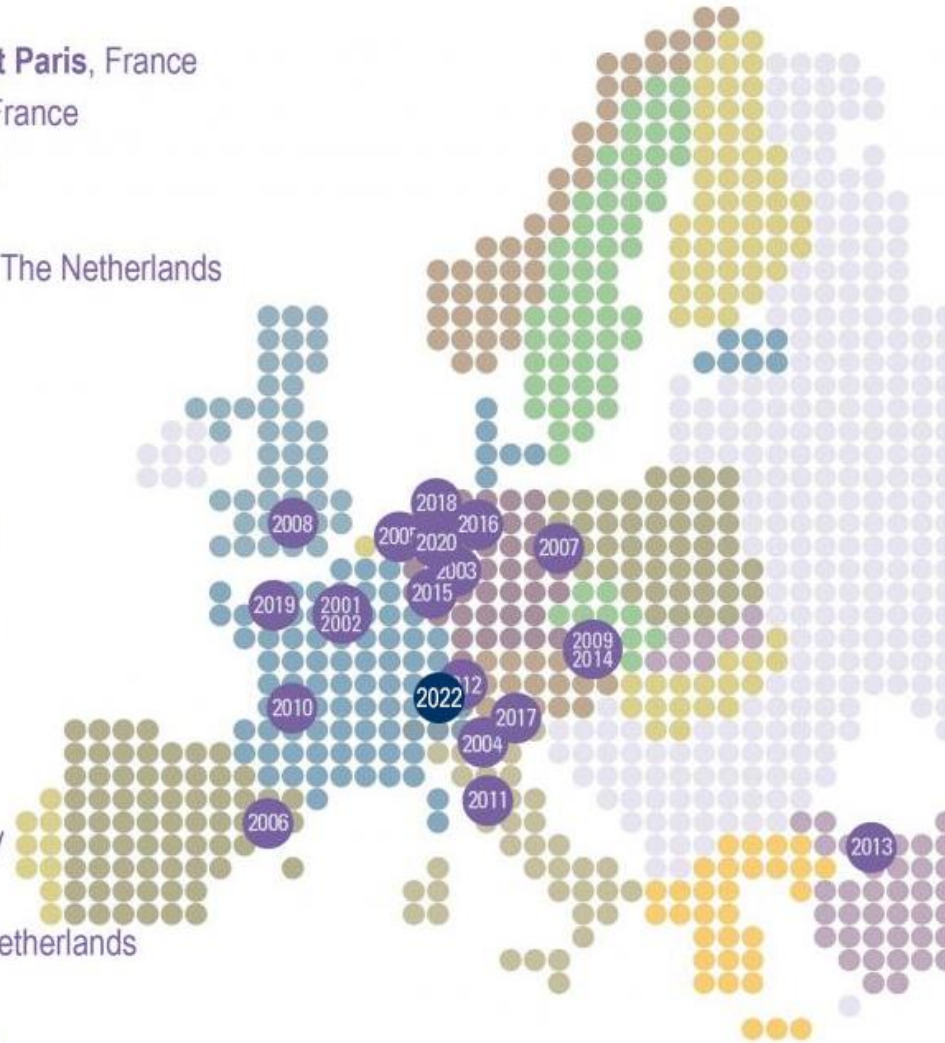
Why an IHE Connectathon is needed ?

- > IHE needs to confirm whether the IHE Profiles are clear enough, can be implemented consistently, and solve the intended use cases.
- > Vendors need to confirm that they understood and implemented the IHE Profiles the right way
- > IHE Connectathons are not ... hack-a-thons, certification, conformity assessment...



The IHE Connectathon in Europe

- 2001: Charenton-le-pont Paris, France
- 2002: Villejuif in Paris, France
- 2003: Aachen, Germany
- 2004: Padova, Italy
- 2005: Noordwijkerhout, The Netherlands
- 2006: Barcelona, Spain
- 2007: Berlin, Germany
- 2008: Oxford, UK
- 2009: Vienna, Austria
- 2010: Bordeaux, France
- 2011: Pisa, Italy
- 2012: Bern, Switzerland
- 2013: Istanbul, Turkey
- 2014: Vienna, Austria
- 2015: Luxembourg
- 2016: Bochum, Germany
- 2017: Venice, Italy
- 2018: The Hague, The Netherlands
- 2019: Rennes, France
- 2020: Brussels, Belgium
- 2021: Connectathon ONLINE
- 2022: Joint Connectathon, Switzerland/USA





Up to **90+** systems



80+ different integration profiles tested each year



A team of **50** monitors to manage



Between **200** to **300** participants

Projectathons



epSOS: Slovakia 2010, Pisa 2011, Venice 2017, Bochum 2016 + online sessions

EXPAND: Lisbon 2015

Swiss EPD: Bern 2018, Rennes 2019, Bern 2019, Bern 2020, Bern 2021, Montreux 2022

Ireland: online 2020

Greece: online 2021

Gabon: online 2021

LACPass (Latin America and the Caribbeans): online 2022

Canada: online 2022

Abrumet: Brussels 2019

Gazelle,

a platform to boost HIS (Healthcare Information System) interoperability in the World

Gazelle responds to the objective
to make the interoperability standards

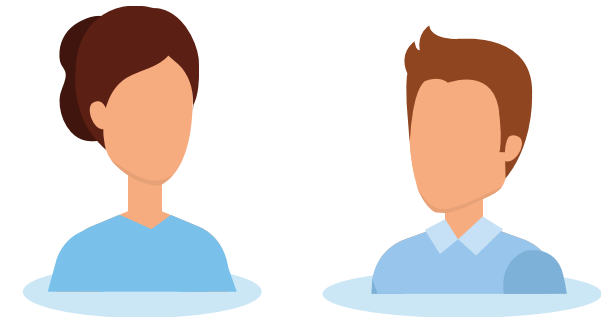
Enforceable

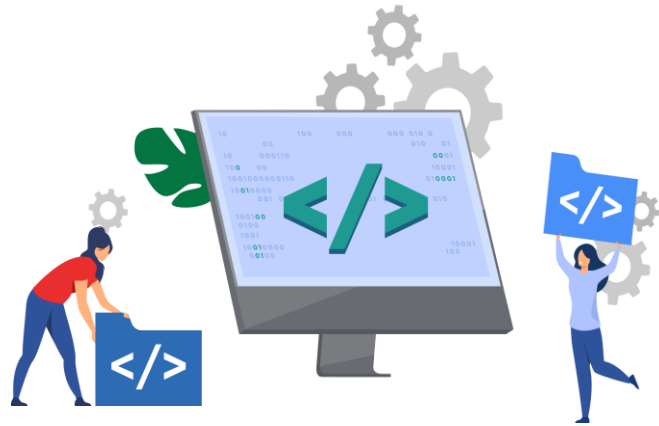
No peer Test



Group Test

Peer-to-Peer Test





Open Source



Collaborative



International



Adaptable

Who use Gazelle ?

- The authorities of the Ministries of Health
- Health and medico-social establishments
- Industry
 - IHE Europe, USA, Japan and China



Key features of Gazelle

20 years

use of the platform to support testing events,
including 2 international IHE Connectathon per year

400+

 Connectathon users



Thank you

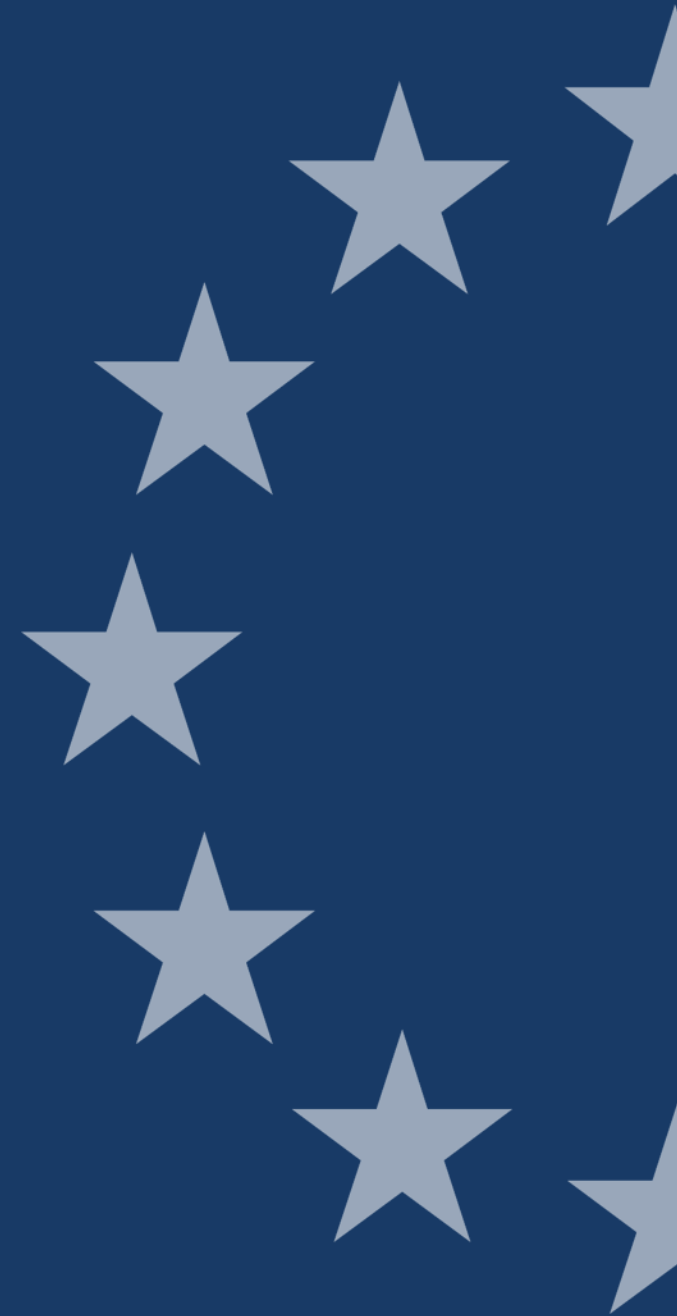


Open discussion



Closing

Thomas FILLIS



Next steps

To do before 31 January 2023

1. Complete the [satisfaction survey](#) for this meeting (it really does help)
2. Sign-up to the [OOTS Projectathon Collaborative Space](#) (introduce yourself in the "Forum" function)
3. Register - [#3 Implementers Café: eID and OOTS Projectathon Registration](#) on 31/01/2023.

Have a very merry Christmas

See you next year!

We're here for you at:

EC-00TS@ec.europa.eu

