

Trust Services and eID Forum

25 September 2024

01 Introduction to European Digital Identity Framework (EDIF)

Introduction to European Digital Identity Framework (EDIF)

In 2021, the European Commission proposed a revision to the 2014 regulation to establish a **new European Digital Identity Framework** and create a unified approach to electronic identification for reducing the associated risks of fragmentation.

Improvements

01

Ensure the **acceptance of qualified trust services** in the EU and equal conditions for their provision.

02

Provide **highly secure and trustworthy** electronic identity solutions for cross-border use.

New

03

Allow citizens to **carry their digital identity across the EU**, maintaining control of their data with **privacy and security** at the core.

04

Ensure that **public and private services** can rely on trusted and secure digital identity solutions.

05

Empower natural and legal persons to use digital identity solutions linked to various attributes, allowing for **targeted sharing of identity data** limited to the needs of the specific service requested.

European Digital Identity Framework

The 3 main pillars of the EDIF

To achieve its objectives, the EUDIF was founded on three main pillars:

eID Schemes

- Member states **must notify the European Commission of their eID schemes**, which are then published as trusted and recognised for cross-border use.
- The Regulation **establishes a framework for the mutual recognition** of electronic identification means and trust services across EU member states.
- The Regulation lays down the conditions under which Member States are to recognise **natural and legal persons' electronic identification means** falling under a notified electronic identification scheme of another Member State.
- The eIDAS Regulation establishes **three levels of assurance** (low, substantial and high), and each level has certain **minimum criteria and functional requirements**.

EU Digital Identity Wallets

- Every **Member State will offer at least one EU Digital Identity Wallet** under a notified eID scheme, to its citizens, residents and businesses.
- To make wallets work seamlessly across borders, every Member State will rely on a **common set of standards and specifications** to build their wallets.
- These common specifications for the EU Digital Identity Wallet will be **referenced in Implementing Acts** (legislative texts) making them **mandatory** for all wallets across all EU Member States.

Trust Services

- **Trust services refer to a range of electronic services that are designed to provide security, privacy, and reliability for electronic transactions.** The Regulation establishes a general legal framework for the use of trust services.
- Beyond mere identification, the regulation will expand the scope of trust services to include **recording of electronic data in an electronic ledger, the management of remote electronic signature and the creation devices or remote electronic seal creation devices.**
- The EUDIW raises the bar for trust services, **requiring higher assurance levels for digital identity schemes.**



Trust Services

Trust services under the EUDI Framework

Trust services refer to a range of electronic services that are designed to provide security, privacy, and reliability for electronic transactions. The Regulation establishes a general legal framework for the use of trust services.

General Trust Services

- electronic signatures
- electronic seals
- electronic time stamps
- electronic documents
- electronic registered delivery services
- certificate services for website authentication
- electronic signature and seal creation devices



New - Relevant to EUDI Framework

- **electronic archiving**
- **electronic attestation of attributes**
- **electronic ledgers**
- **management of remote qualified signature creation device**
- **management of remote qualified seal creation device**

Trust services under the EUDI Framework

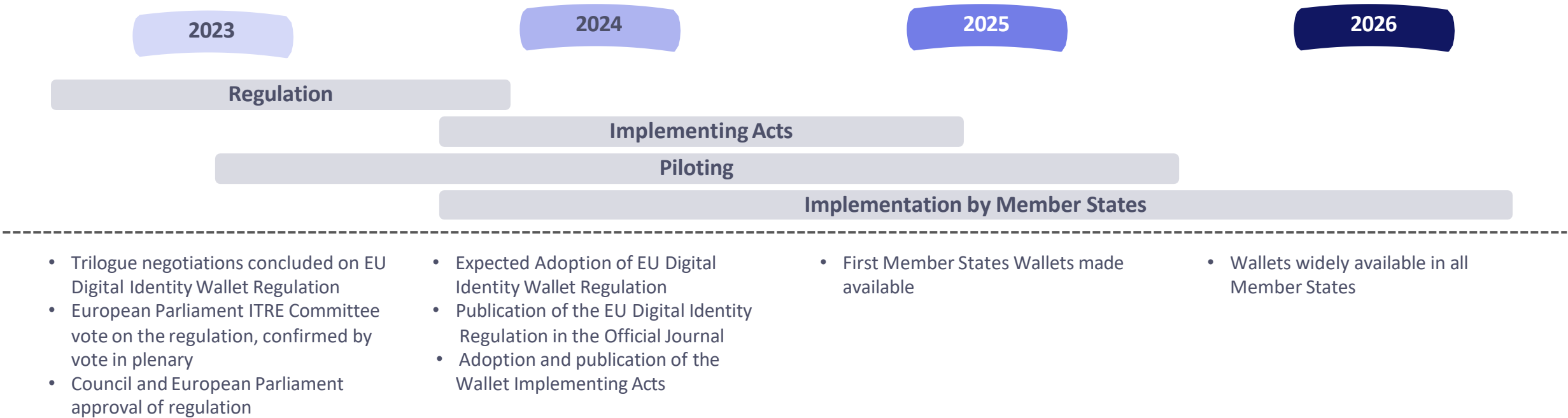
The new EU Digital Identity Framework introduces, amongst others, Qualified Electronic Signatures (QES), which are free for personal use.

Feature	Capability							
	Electronic signatures	Electronic seals	Website authentication	Provision of other trust services	Electronic attestations of attributes	Electronic timestamps	Electronic registered delivery services	Electronic data and documents
Issuance (of certificates for)	✓	✓	✓	✓	✓			
Creation of	✓	✓				✓		
Validation of (data transmitted through)	✓	✓			✓	✓	✓	
Preservation of (certificates for)	✓	✓	✓	✓				
Provision of							✓	
Archiving								✓
Recording								✓

02 Foundations for EU Digital Identity Framework

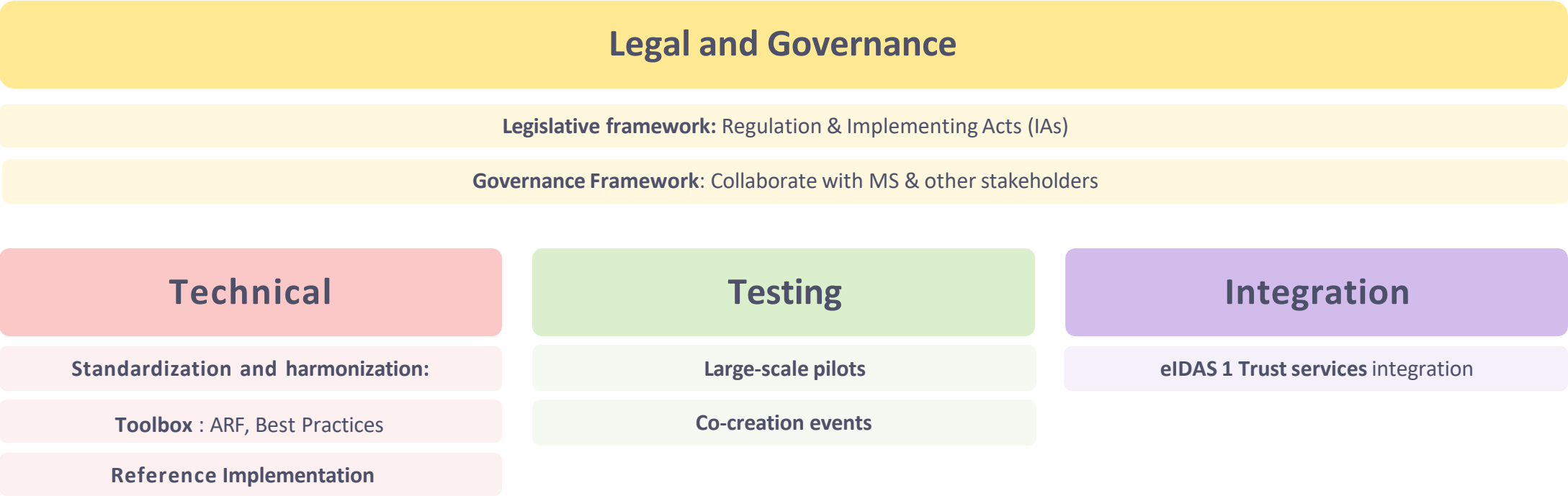
The EDIF timeline

The Large Scale Pilots are currently testing prototype wallets building on the specifications detailed in the Architecture and Reference Framework (ARF). After the legislation and specifications are finalised, each Member State will be obligated to offer at least one wallet to citizens, residents, and businesses.



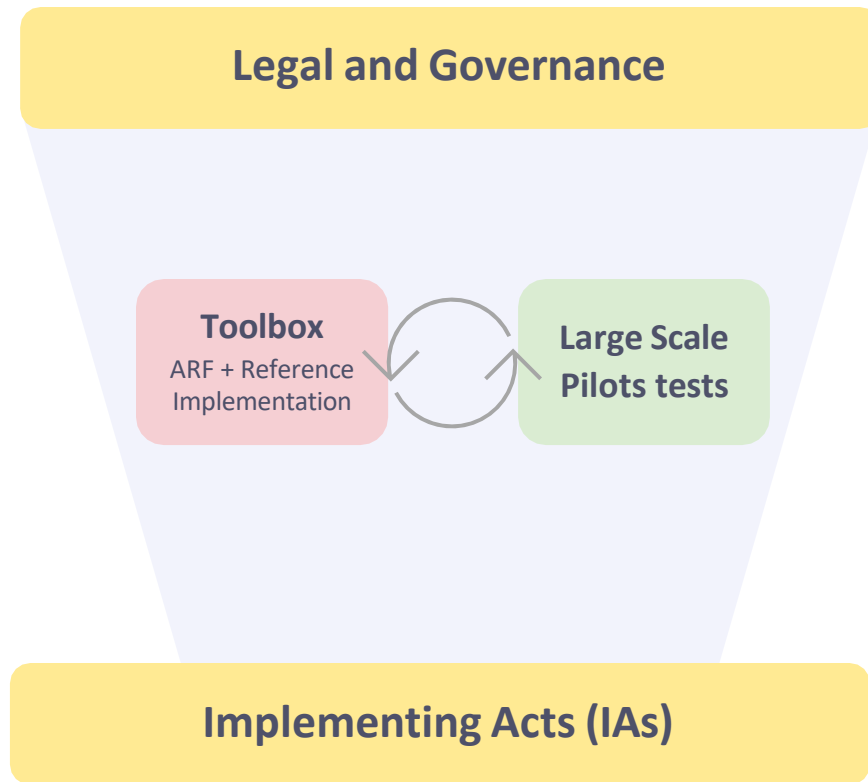
Build the EUDI Wallet

The approach to deliver the EUDIW wallets can be seen around 4 main pillars.



Iterative definition of Wallet's specifications

The Toolbox, created by Member States, is being tested by the Large Scale Pilots.



On June 3 2021, the European Commission adopted a recommendation for Member States to work together to create a Toolbox for the wallet, to include an **Architecture and Reference Framework (ARF)**, **technical specifications** and a **set of common guidelines and best practices**. The first version of the Toolbox was published in February 2023.

In addition, the European Commission is building a **set of reusable code libraries based on the ARF, known as the Wallet Reference Implementation**. This will help accelerate the deployment of wallets by Member States.

The Large Scale Pilots (LSPs) are testing the wallet in a range of use cases; building on the specifications in the Toolbox and the Reference Implementation.

The results of their work will be used to refine the Toolbox, and ultimately will inform the content of the Implementing Acts that will enshrine the wallet's specifications into law.

Legal and Governance

Implementing Acts (IAs)

Implementing Acts Topics following the EUDI Framework Regulation Adoption (adopted in May 2024)
Content Based on ARF - High Level Technical Requirements

End 2024

1st batch IAs

- Core functionalities of the EUDI Wallet
- General trust model of the EUDI Wallet
- Electronic attestations of attributes
- Identity matching

Q2 2025

Additional IAs

- Interoperability
- Trust & Security
- Governance framework
- Governance of trust services
- General trust services

Overview of the Implementing Acts

Priority IAs

Due Nov '24

Based on Art. 5a

- 1. Protocols and Interfaces:** This IA aims to ensure the proper implementation of protocols and interfaces crucial for the effective operation of the wallets.
- 2. Integrity and Core Functionalities:** This IA aims to lay down rules to ensure that Member States provide wallets that are interoperable and can be used for all their intended purposes.
- 3. Trust Framework:** This IA aims to ensure that the electronic notification system established by the European Commission acts as a secure and transparent communication channel for exchanging information between the Commission and the Member States.
- 4. Person Identification Data and Electronic Attestations of Attributes:** This IA aims to ensure the smooth lifecycle management of both personal identification data and electronic attestations, covering issuance, verification, revocation and suspension.

Based on Art. 5c

- 5. Certification:** This Implementing Act aims to lay down the requirements for certification of the conformity of European Digital Identity Wallets.

Overview of the Implementing Acts

Other IAs

Due Nov '24

Second batch:

- Based on Art. 5b: Relying Parties
- Based on Art. 5d: Wallets List
- Based on Art. 5e: Security Breaches
- Based on Art. 11b: Identity Matching
- Based on Art. 45d-f: Electronic Attestation of Attributes

Due May '25

Third batch:

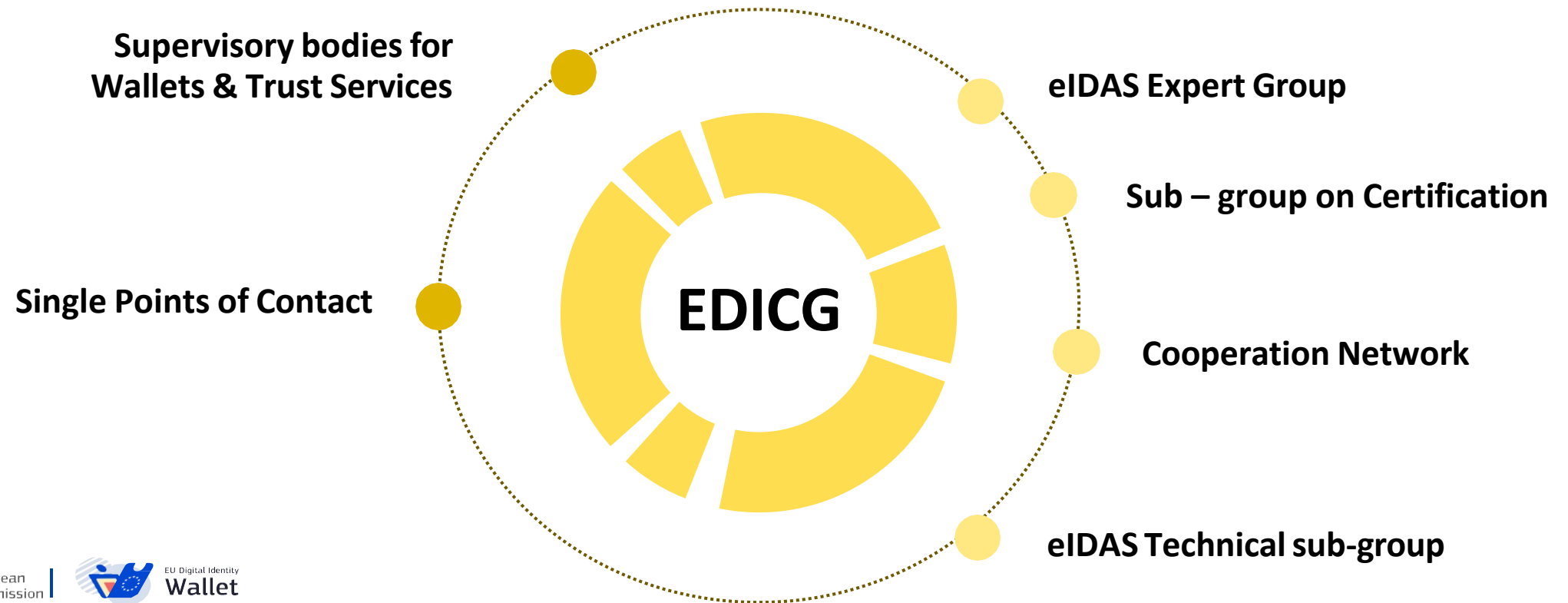
- *Interoperability*
- *Trust & Security*
- *Governance of Trust Services*
- *General Requirements for (qualified) trust service providers*
- *Electronic signatures and electronic seals*
- *Other qualified trust services (incl. QERDS, QWACs, QARCHIV, QEL)*
- *QSigCD / QSealCD*

Governance and Supervision of the EDIF

European Digital Identity Cooperation Group

New actors

Replacing **old** groups



European Digital Identity Cooperation Group

Tasks

i. mutual cooperation and exchange of best practices

- on emerging policy initiatives in the field of wallets, electronic identification means and trust services;
- by engaging with relevant stakeholders;

iii. supporting the supervisory bodies

- exchange best practices and information
- assess the relevant developments regarding digital wallets, electronic identification and trust services
- facilitate the exchange of information between the supervisory bodies

ii. advising the Commission,

- preparation of draft implementing and delegated acts
- Standardisation, certification, update of the Architecture and Reference Framework (ARF)

iv. organising peer reviews

- of electronic identification schemes to be notified under the Regulation

Role, scope & objectives of the EDICG

Other actors

Supervisory bodies for the Wallet Framework and Trust Services

The supervisory bodies of the Wallet Framework and Trust Services may seek through the EDICG mutual assistance from the supervisory bodies of the Wallet Framework or Trust Services respectively in another Member State.

Observers

- ENISA shall be invited to participate as observer in the meetings when it exchanges views, best practices and information on relevant cybersecurity aspects.
- The EDPS is invited to participate as an observer in the cooperation group and its sub-groups
- Representatives of other public or private bodies upon invitation of the Chair
- Western Balkan countries, Ukraine & Moldova can be invited in the meetings as observers upon invitation of the Chair

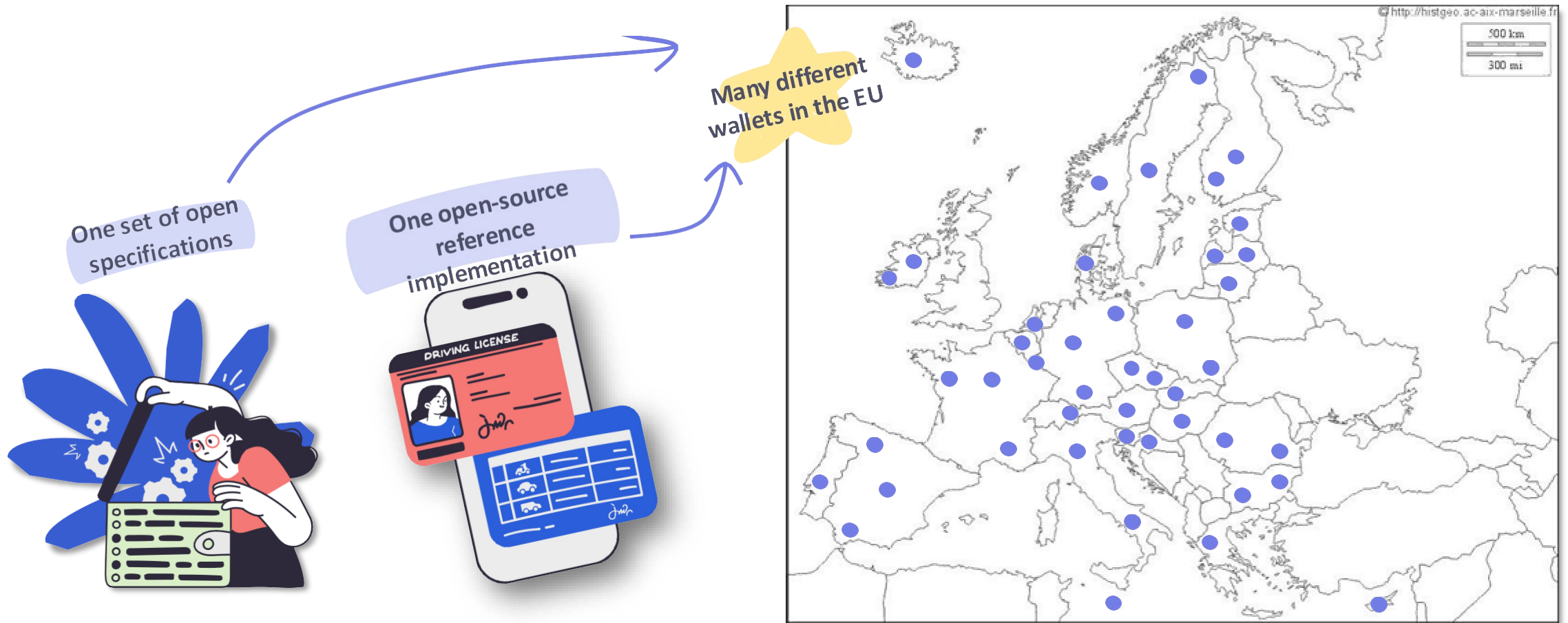
Single points of contact for Wallets, Trust Services & eID schemes

A liaison function to facilitate cross-border cooperation between the supervisory bodies for trust service providers and between the supervisory bodies for the Wallets providers and with the Commission and ENISA and with other competent authorities within the Member State of the appointed Single point of contact.

Technical and Testing

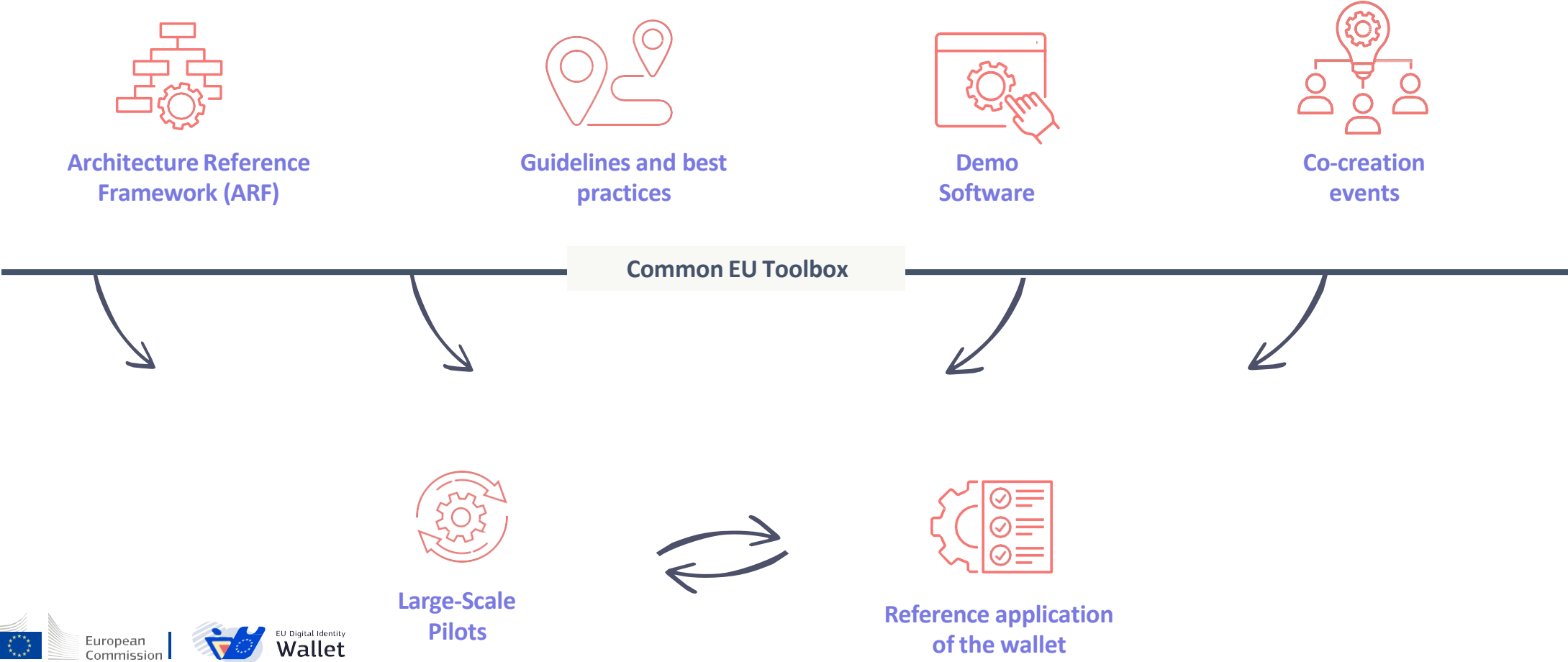
Open

There will be multiple EU Digital Identity Wallets, all built to a common set of open specifications by the European Commission and Member States. They will be **interoperable**, and both the reference implementation and all European Wallet Apps for consumer devices will be open source.



Common EU Toolbox

Identify common standards and specifications as well as guidelines and best practices



Large Scale Pilot Overview (2023-2025)

To support the development of a reference implementation of EUDI Wallet Solutions and to pilot its usage across different priority use cases, the Commission launched The Large Scale pilot under the Digital Europe Programme.



A set of Nordic and Baltic countries who, together with Italy and Germany, are developing a large-scale pilot for the payment use case in the EU Digital Wallet.

PAYMENTS



Potential is a secure digital ID that will allow citizens to quickly and securely prove their identity as part of their online citizenship procedures.

- # MOBILE DRIVING LICENSE
- # ACCESS GOV SERVICES
- # OPEN BANK ACCOUNT
- # HEALTH
- # CONTRACTS
- # SIM REGISTRATION



The EWC aims to harness EU digital identity benefits for Digital Travel Credentials across Member States, building on the Reference Wallet Application for this specific use case.

- # PAYMENTS
- # TRAVEL
- # ORGANISATION ID



DC4EU supports the education and social security sectors by integrating cutting-edge digital services across Europe within a cross-border trust framework.

- # EDUCATION
- # SOCIAL SECURITY



Large Scale Pilot New Call Publication (2025-2027)

The new call for large scale pilots has been published on 07/05 by HaDEA on the [EU Funding & Tenders Portal](#).

This call, “**European Digital Identity and Trust Ecosystem (Standards and Sample Implementation)**” will provide support for the piloting and deployment of the EU Digital Identity Wallet around **4 priority use-cases areas**.

Wallets for Businesses



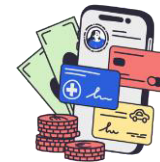
Business-to-business and business-to-government scenarios including regulatory compliance, company registration, and power of attorney

Wallets for Travel



National and Cross-border travel scenarios including local public transport, long-distance travel, shared mobility border control, hotel check-in

Wallets for Payments & Banking



Payment and banking scenarios including a standardised process for Know-Your-Customer, Strong Customer Authentication, and offline transactions and processes

Wallets for Age Verification



Age verification scenarios including the issuance of a pseudonymous attestation containing only age information by a trusted third party

Standardisation Paths

The European Digital Identity Wallet Standardisation Strategy

Three different standardisation paths:

1. **Recognized European SDOs (ESOs)**
2. **Recognized International SDOs**
3. **Non-Recognized SDOs¹**

Influential but non-recognized SDOs like W3C, IETF, OpenID Foundation and CSC.

¹ as per Regulation 1025/2012 on EU standardisation

Seek Collaborative Approach with SDOs

The European Digital Identity Wallet Standardisation Strategy

- **Engagement Process:** Setting up an engagement process with recognized SDOs as per [Regulation 1025/2012](#). Collaboration with ESOs and recognized SDOs like ETSI, CEN/ CENELEC, ITU and ISO/IEC, to identify and address gaps.
- **Initial Engagement:** Send Engagement Letters to SDOs outlining the gaps relevant to them and inviting them to dialogue. Engagement includes discussions, technical exchanges, and contributions to working groups.

Standardisation Workflow

The European Digital Identity Wallet Standardisation Strategy

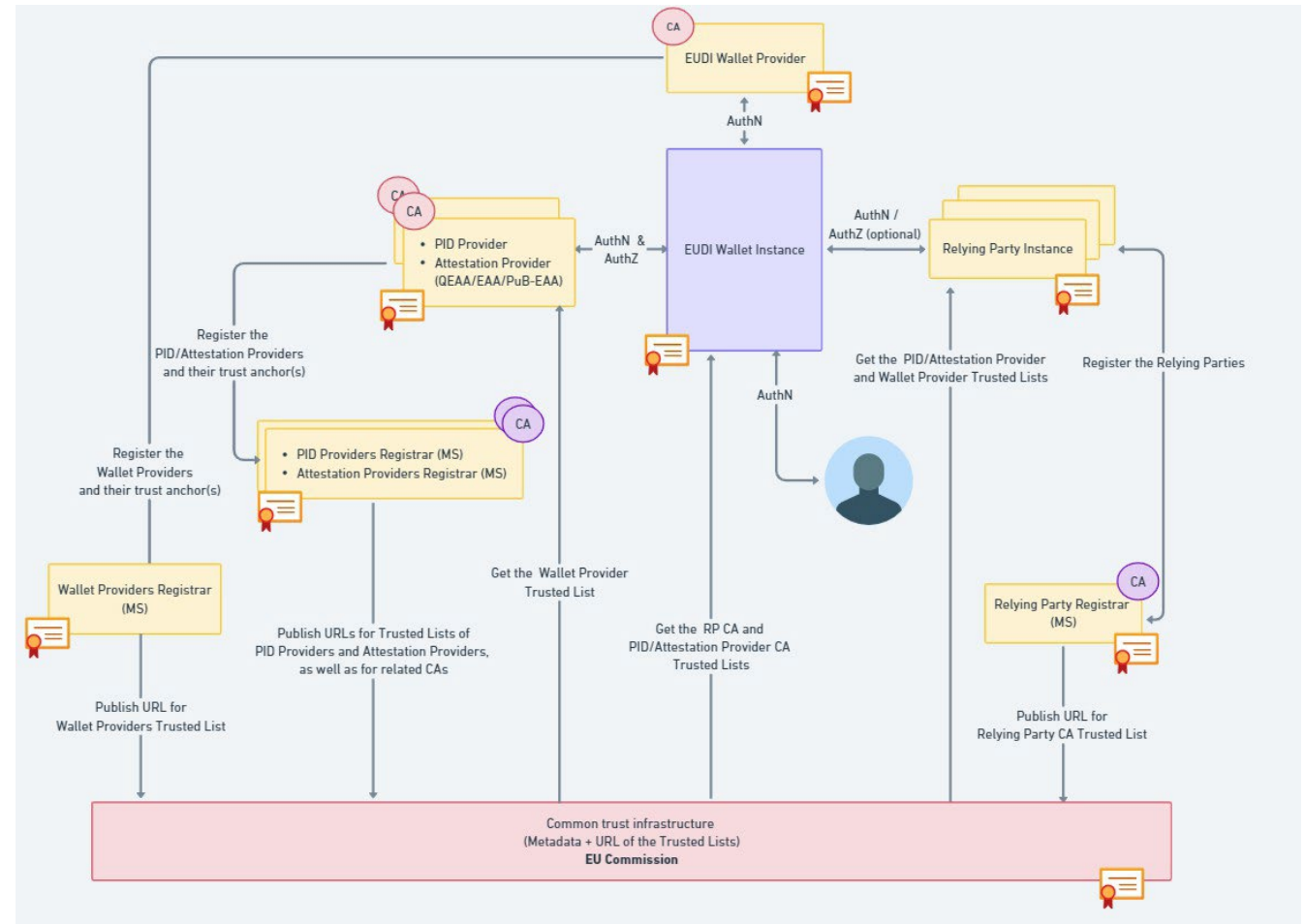
1. **Understand ARF's High Level Requirements and Implementing Acts:** Comprehend the EUDI Wallet's legal and technical requirements.
2. **Identify Standardization Gaps:** Analyze existing standards to identify standards that meet the EUDI Wallet's needs and areas where further work is needed.
3. **Classify Gaps into their Standardization Stream:** Determine which track (European SDOs, International SDOs, non-recognized SDOs) is most suitable for addressing each gap.
4. **Engage with SDOs:**
 1. **Engagement letter and dialogue:** Initiate communication with relevant SDOs to discuss the identified gaps.
 2. **Provide input and align or coordinate roadmap:** Offer technical input and align efforts with the SDOs' roadmaps.
 3. **Issue Mandates when relevant:** Provide official mandates to SDOs for standard development or modification.
5. **Update Existing or Create New Standards or Technical Specifications:** Ensure that new or updated technical specifications are eligible for adoption through the MSP process (or an alternative process).
6. **Ongoing Monitor and Collaboration:** Continuously monitor progress and collaborate with SDOs to ensure standards meet EUDI Wallet requirements.

Trust Model

What should be standardised

EUDI Wallet Trust model related standardization primarily focusses on:

- **Policies for issuance of relevant certificates**
 - Policy & security requirements for issuance
 - Profiles and formats
 - Cryptographic techniques
- **Trust model representation** (trusted lists, LOTL)



Progress achieved

- **Defined High-Level Standardization Needs and Processes**
- **Distinguished Standards from ICT Technical Specifications ¹**
- **Identified Relevant European and International Standardisation Bodies and Organizations**
- **Identified the Process for Referring Standards and Technical Specifications in IAs and Public Procurements ^{2, 3}**
- **Completed Comprehensive Analysis and Mapping:**
Identified gaps in existing standards and mapped them to the relevant SDO bodies.
- **Initiated Engagement with SDOs:**
Prepared and sent initiation letters to ETSI, CEN/CENELEC, and ISO, inviting them to engage in dialogue.

¹ Regulation EU 1025/2012

² Regulation EU 1025/2012 Article 13.1 and 14

³ European Multi-Stakeholder Platform (MSP) on ICT Standardisation renders ICT Technical Specifications eligible.

Thank you!

Questions?