



CEF Digital  
Connecting Europe

# European Self Sovereign Identity Framework -interoperability

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DLT Interoperability Onchain X Offchain

30/09/2021

# Decentralisation and VCs are the next digital evolution

Decentralisation is the next evolution of the world wide web – and with it, decentralisation of trust, and the emergence of portable digital credentials



## Decentralisation and the portable digital credentials, a new paradigm shift

Decentralisation is the next evolution of the world wide web – and with it, decentralisation of trust, and the **emergence of portable digital credentials**. Both public and private initiatives at EU and international levels are emerging to leverage on the opportunities given by this new paradigm.



## Europe's Digital Decade, multi-country projects and EBSI

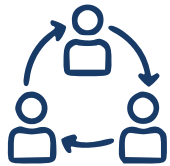
The EU will pursue a human-centric, sustainable vision for digital society throughout the digital decade. Multi-country projects are large-scale projects that can contribute to achieving the digital decade targets. The Commission has identified an initial list of **10 areas of investment for multi-country projects. EBSI is one of them.**

## The EBP and the EU as a key actor to accelerate its adoption

The European Blockchain Partnership and the European Union is well positioned to play a **major role in federating and accelerating the adoption of decentralization and VCs across Europe**

# EBSI is gaining momentum

We can leverage on combination of bottom-up and top-down initiatives to gain momentum



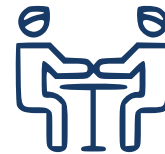
## Piloting within the Early Adopters Programme

We have launched an Early Adopter Programme and the MU pilot: **22 projects** (2 European universities alliances, **+18 universities** from **+15 countries**) are working on first Implementation of EBSI in pre-production



## Working together with other EU Initiatives

We are working together with **DG EMPL, DG EAC and other Institutions** e.g. Reusing the **Europass data format** for educational credentials, social security credentials, etc.



## Driven by major shifts in the identity policy space

We are starting to put in place the piloting of EBSI in the context of the EU-eID wallet and **the EU Digital Identity Framework**.

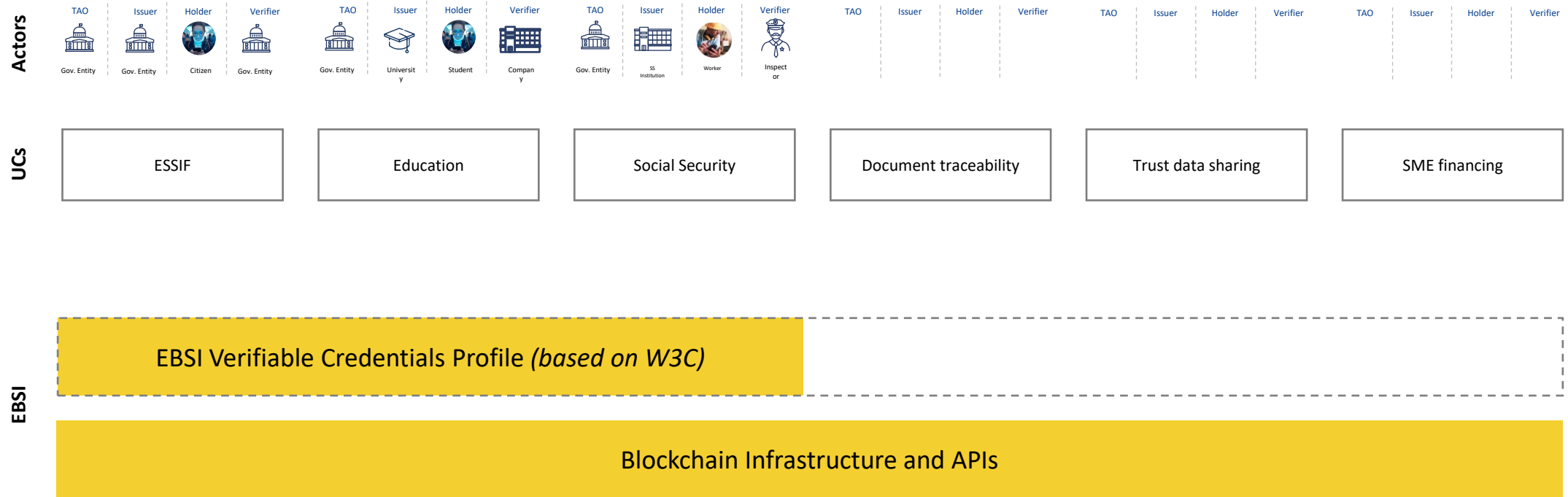


## Riding on the momentum of national initiatives

Some important MSs initiative like the Joint Declaration\* with Spain, Germany, Finland and the Netherlands are proof there is an appetite to tackle these issues **collaboratively**.

# What is EBSI today?

EBSI is user centric, decentralized and reusable in multiple contexts and use cases. It is based on open standards to stimulate interoperability and the creation of cross-border public services



# The Verifiable Credentials Lifecycle, the summary

One common Verifiable Credentials Lifecycle based on W3C specifications

01

On-boarding

**On-boarding of actors (holders and issuers) supported by EBSI**

- Set up wallets and create DIDs
- Registration of DIDs on EBSI
- Accreditation of issuers of VCs

02

Issuing & storage

**Issuing and storage of Verifiable Credentials**

- Request issuance of VC
- Issuance of VC
- Storage of VCs

03

Presentation & verification

**Presentation and Verification of Verifiable Credentials**

- Request Verifiable Presentation
- Share Presentation
- Verify Claims

W3C Specifications

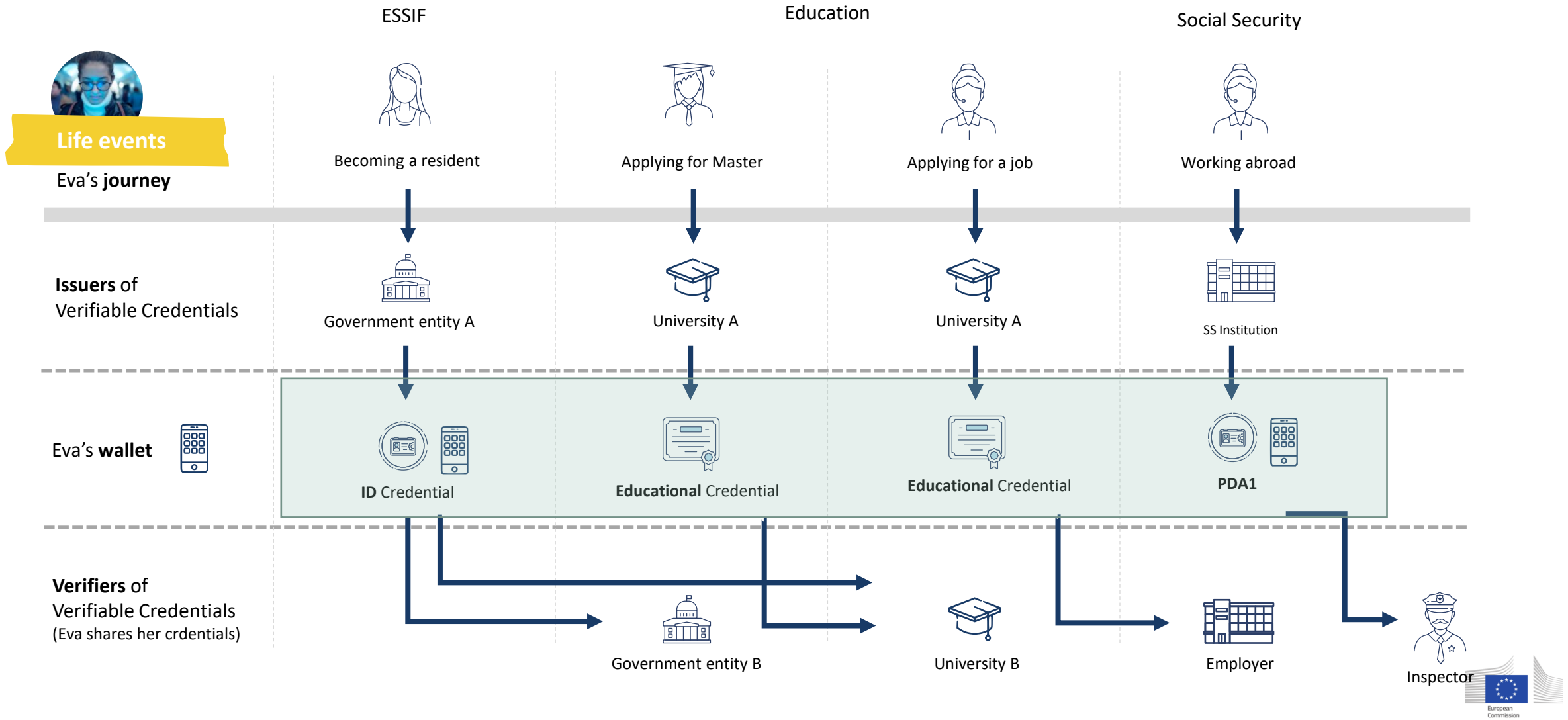
- Not specified by W3C's spec

- Issuance of one or more VCs.
- Storage of VCs in a credential repository (such as a digital wallet).

- Composition of VPs.
- Verification of the VPs

# The exchange of VCs applied to our cases

Let's look at the exchange of Verifiable Credentials applied to our use cases



# Applying the VC lifecycle in **cross border context**

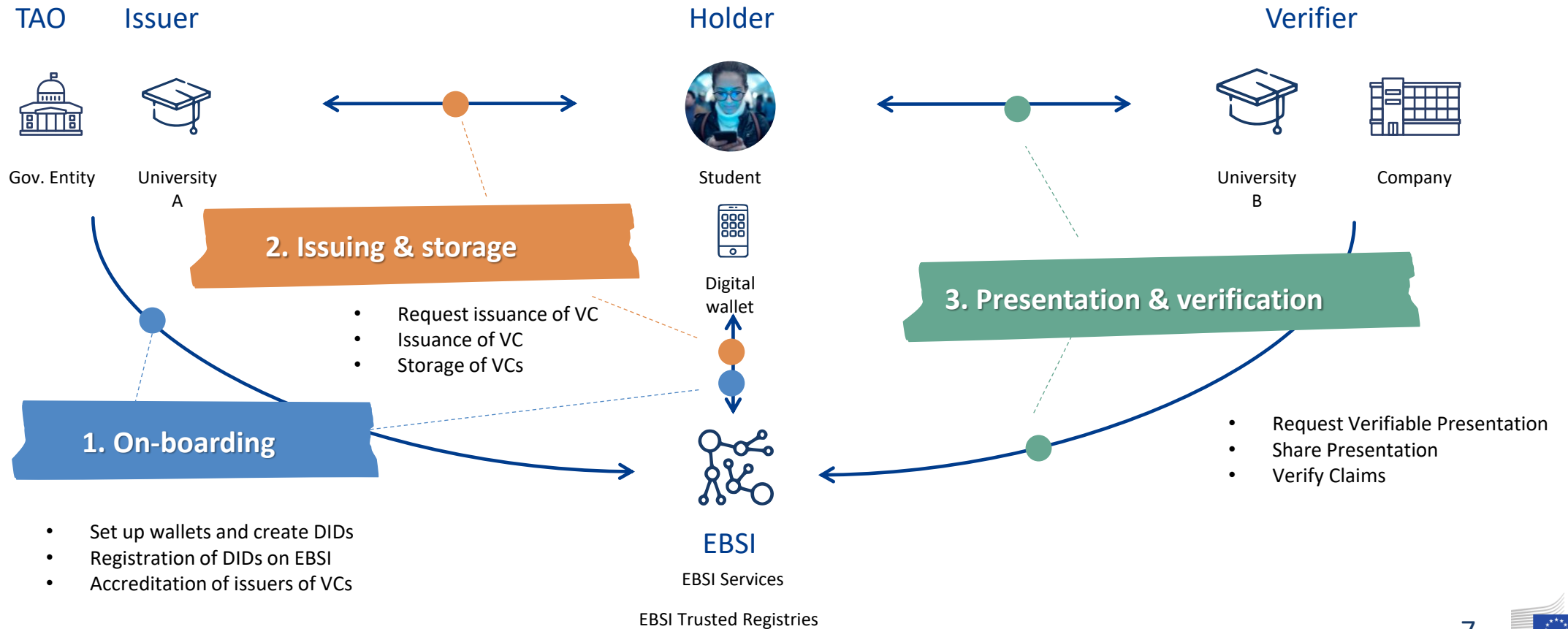
Applying the VC lifecycle in a cross border context



MS A

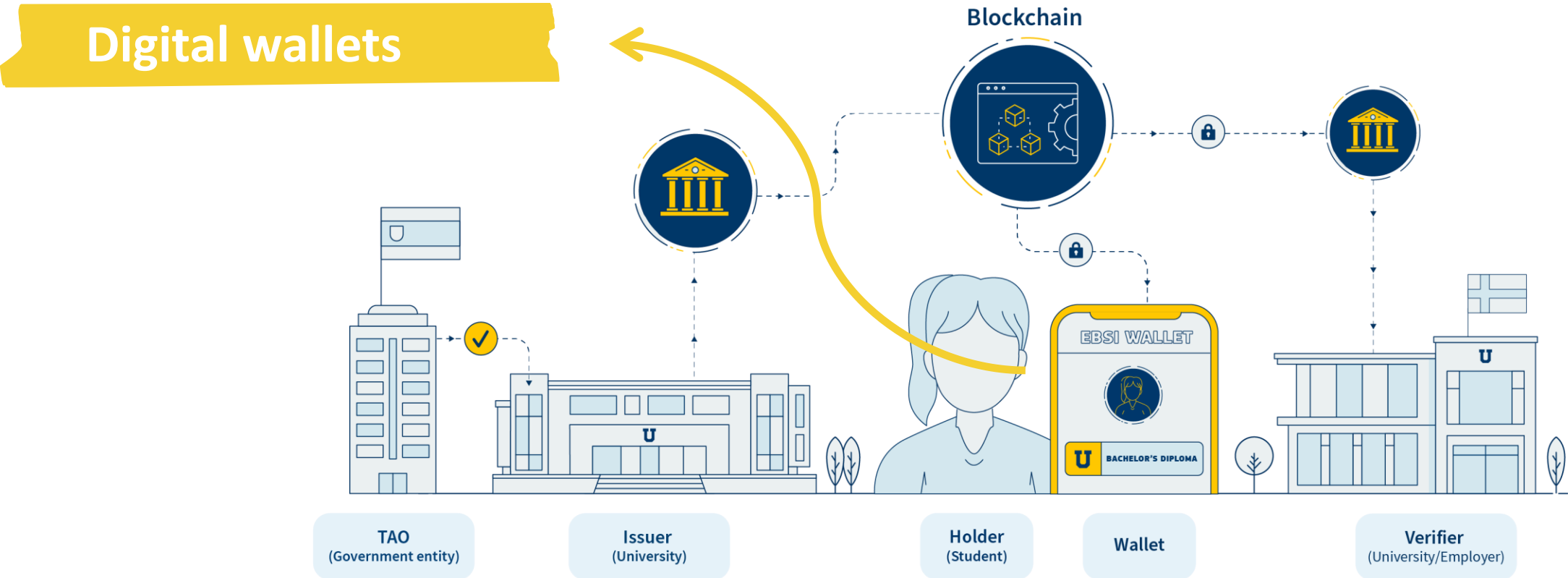


MS B



# Wallets mediate almost all user interactions.

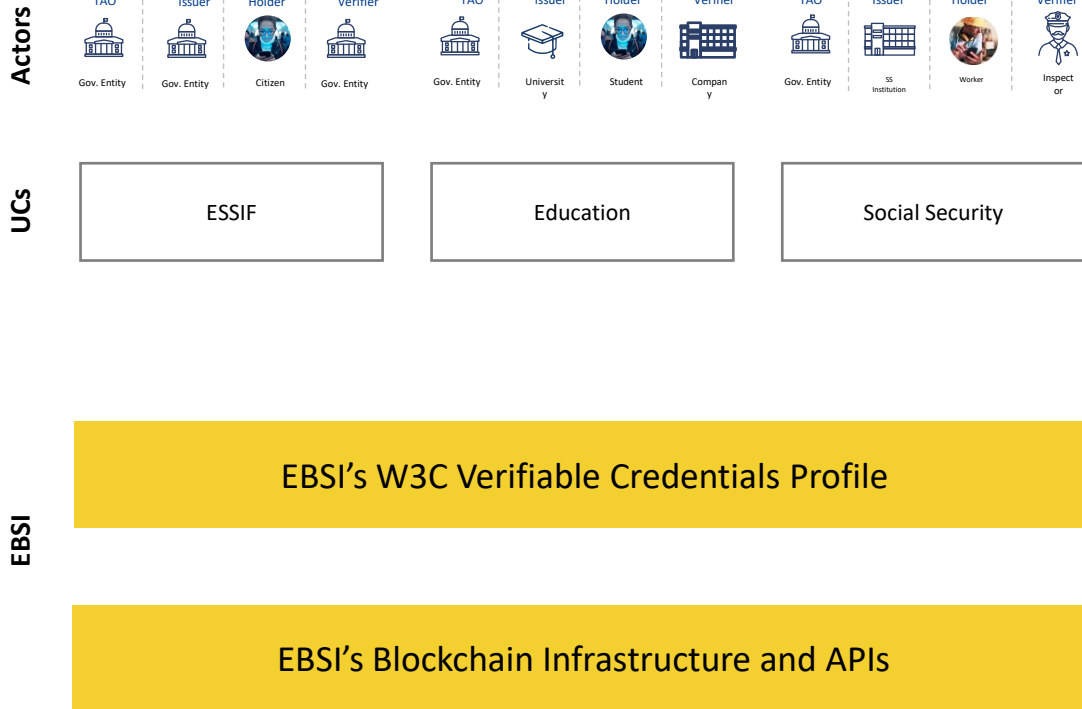
The vast majority of interactions to exchange VCs depend on the wallet





# Possible synergies with the European digital identity wallet

There are many possibilities of collaboration between the two initiatives



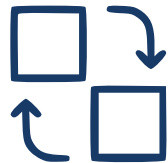
## The European digital identity wallet initiative can:

- 1 >> Build on the work done by EBSI on the verifiable credentials from each domain  
Build on the work done by EBSI on engaging with Digital Wallet providers (piloting and testing)
- 2 >> Reuse EBSI's W3C Verifiable Credentials Profile or parts of it
- 3 >> Reuse EBSI's Trust Registries  
Reuse EBSI's Blockchain infrastructure

# Services to support the Early Adopters

What are the services we provide to the Early Adopters?

Current focus on digital credential



## EBSI's Verifiable Credentials Lifecycle for Early Adopters

Navigating EBSI's Verifiable Credentials Profile

[Verifiable Credentials Lifecycle - Blockchain Internal - CEF Digital \(europa.eu\)](#)



## EBSI Verifiable Credentials Playbook for Early Adopters

Creating EBSI's Verifiable Credentials Profile

[RFC - EBSI Verifiable Credentials Playbook for Early Adopters - Blockchain Internal - CEF Digital \(europa.eu\)](#)



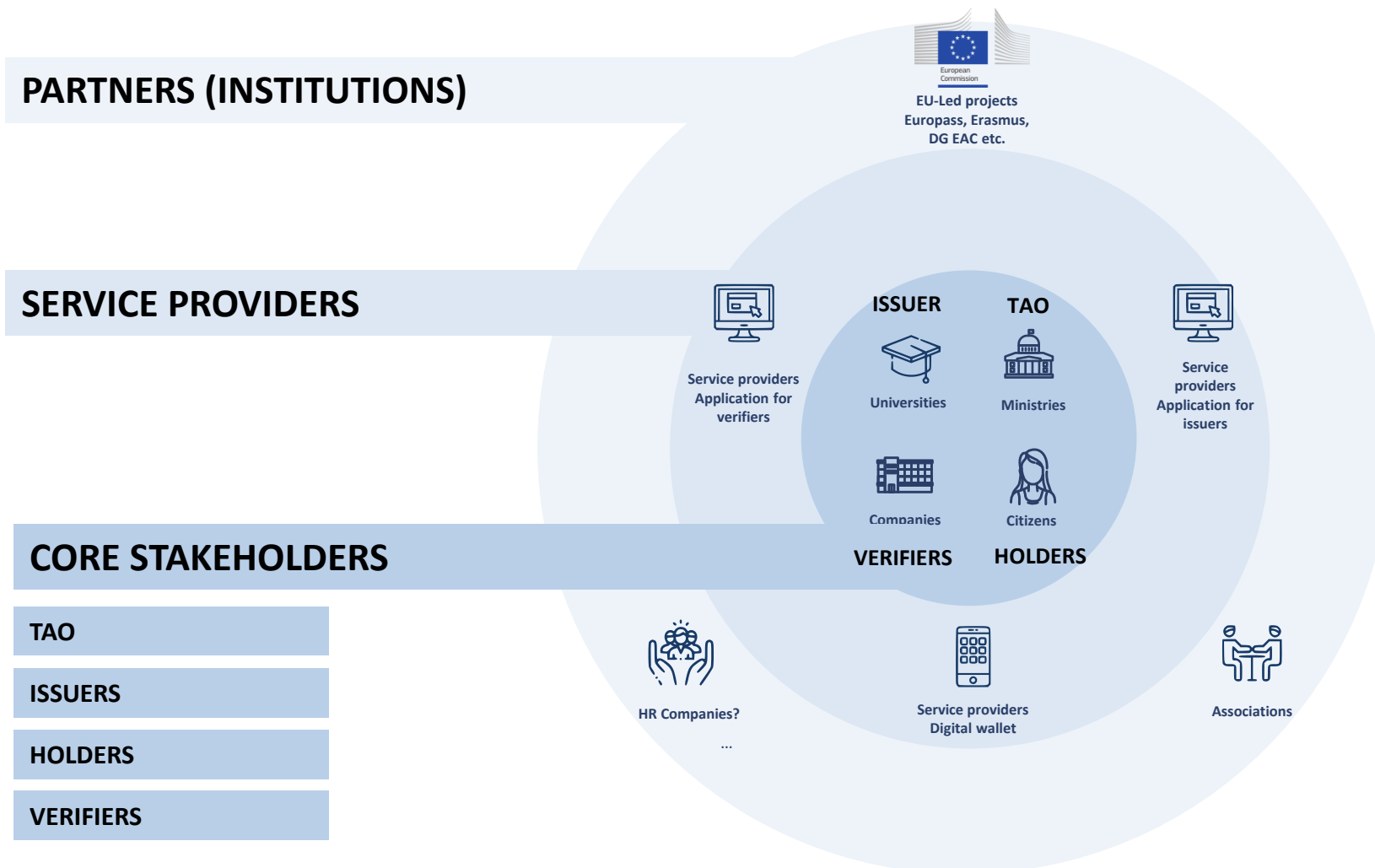
## EBSI Wallet Testing for Early Adopters

Checking the conformance of your wallet to EBSI

Coming soon

# Towards a shared engagement / adoption strategy

Three steps to ensure coherence at European and national levels.



- 01** Define the gaps to realise the cross-border scenario. Identify and map stakeholders based on the gaps.
- 02** Define common priority target audience (see illustration).
- 03** Engage with the priority target audience with a common approach. Define the needs, message and channels to engage with the target audience. Create communication materials and plans for each segment. Activate the right networks.

EBSI - European Self Sovereign Identity Framework

# Connect. Make. Grow.

Join the ESSIF ecosystem and create value by connecting million of Europeans

<https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/ebsi>