DC4EU

Digital ID/EU Public Services

Jun 15, 2023

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Agenda

• eIDAS
• eIDAS review
• Large Scale Pilots
• Digital Credentials for Europe (DC4EU)
• Challenges for educational institutions
eIDAS 1 limitations

- **eIDAS 1**: inherent limitations to the public sector; limited possibilities and complexity for online private providers to connect to the system; insufficient availability of notified eID solutions in all Member States; lack of flexibility to support a variety of use cases

- **Identity solutions falling outside the scope of eIDAS** (social media providers and financial institutions), raise privacy and data protection concerns, and do not have cross-border recognition

- eIDAS review started by end of 2021
eIDAS review highlights (I)

• Extends **beyond identity**, introducing **electronic attestation of attributes (EAA)**

• **Public** and **private sector. Natural and legal persons.**

• **All MS** are mandated to issue European Digital Identity Wallet (EUDIW) including Personal Identification Data (PID)

• That these solutions are linked to a variety of attributes and allow for the targeted **sharing** of identity data **limited to the needs** of the specific service requested.

• The user shall be **in full control** of their identity(es) and data.

• The issuer shall **not collect information about the usage**

• **Obligation of admission**
  • by **public sector entities** and by **private providers** (in the areas of transport, energy, banking and financial services, social security, health, drinking water, postal services, digital infrastructure, **education** or telecommunications).
  • by **very large online platforms that require authentication.**
• **Cross border recognition principle:**
  • A qualified electronic attestation of attributes issued in one Member State shall be recognised as a qualified electronic attestation of attributes in any other Member State.
  • An attestation of attributes issued by or on behalf of a public sector body responsible for an authentic source shall be recognised as an attestation of attributes issued by or on behalf of a public sector body responsible for an authentic source in all Member States.

• Member States shall **ensure** that, **at least for the attributes listed in Annex VI**, wherever these attributes rely on authentic sources within the public sector, measures are taken to allow qualified providers of electronic attestations of attributes to **verify** by electronic means at the request of the user, the **authenticity** of the attribute directly against the relevant authentic source at national level or via designated intermediaries recognised at national level in accordance with national or Union law.

• **Annex VI attributes**: Address; Age; Gender; Civil status; Family composition; Nationality; Educational qualifications, titles and licenses; Professional qualifications, titles and licenses; Public permits and licenses; Financial and company data.
eIDAS review: Two key elements

• Architecture Reference Framework (ARF)
  • Set of actors, roles, processes and procedures to define a trust framework for a sectorial domain
  • 3 key roles (for HEIs): authentic source, issuer of electronic attestations of attributes, issuer of qualified electronic attestations of attributes

• European Digital Identity Wallet
  • Personal Identification Data
  • Electronic Attestations of Attributes
What really matters are the trust frameworks

- Governance trust model for education and professional qualifications
  - One jurisdiction
  - Several jurisdiction domains
  - How existing trust frameworks will be mapped on a Decentralized paradigm? (e.g. MyAcademicID)
- How different types of educational institutions are recognized as such in each MS?
- What unique schemes will be used to ensure real cross-border interoperability?
- What security procedures/schemes apply?
- What quality assurance regimes apply?
- How existing regulation must be evolved?
- What technical conditions must be in place?
- How data must be curated?
- What are the conditions for an educational institution to be an authentic source?
- What type of agreements/contracts must be in place for an authentic source to contract a provider of EAAs?
- What are the conditions for an educational institution to be a provider of EAAs?
- What are the conditions for an educational institution to be a provider of QEAAs?
- What are the legal and technical conditions for verifiable credentials?

(non exhaustive list)
eIDAS review: an iterative process

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<th>Legislative Process</th>
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<td>• Negotiation of the proposal for the revision of the eIDAS regulation underpinning the EUDI Framework</td>
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<th>Wallet Technical Specifications</th>
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<td>• Member States and the Commission are in the process of establishing a common toolbox consisting of an architecture and reference framework, common standards and specifications and guidelines and best practices for the EUDIW</td>
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<th>Large-scale Pilots</th>
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<td>• Grants under the Digital Europe Programme for large-scale pilots around use-cases for the EUDIW including mobile driver licences, ePayments, eHealth and educational/professional qualifications</td>
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<th>Wallet Reference Implementation</th>
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<td>• Procurement of a reference implementation of the EUDIW based on the technical specifications agreed by the toolbox.</td>
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Large Scale Pilots

- **20 countries**
  - 56 public and 80+ private entities
  - **Use cases:**
    - Electronic Government services, Bank Account opening, SIM registration, mobile driving licence, Remote Qualified Electronic Signature and ePrescription.

- **22 countries**
  - 36 public and 40+ private entities
  - **Use cases:**
    - Educational credentials and professional qualifications, Portable Document A1 (PDA1), European Health Insurance Card (EHIC).

- **19 countries**
  - 18 public and 40+ private entities
  - **Use cases:**
    - Digital Travel Credentials, Payments, Legal persons

- **8 countries**
  - 6 private and 15 private entities
  - **Use cases:**
    - payments use-cases at both a cross-country and cross-sector level with partners coming from both private and public sector

Total budget: >90 Million (50% EU contribution), >250 Participants,
Digital Credentials for Europe (DC4EU) is a multinational consortium, lead by the Spanish Ministry of Economic Affairs and Digital Transformation and conformed by 80 organizations from 22 countries (20 EU Member States + Norway and Ukraine).

The aim of the proposal is to develop large-scale piloting projects of the EUDI reference wallet addressing two use cases in compliance with the EU toolbox process.

The work of the consortium will be carried out during a two-year period and will be guided by the iterative releases of the EUDI reference wallet.

Total budget = 19,216,899.94 €* distributed from the European Commission in the form of 2 payments
DC4EU foundation

Verifiable credentials, European self-sovereign identity framework, electronic ledger (as defined by EBSI)

The EUID wallet is a hybrid solution to bridge both worlds (centralized / federated / distributed & decentralized).

Enhanced data lifecycle due to verifiable credentials usage.

Using EBSI as trusted registry (trusted source) to support governance, actors, roles, etc.

- Enhanced privacy
- Trust service providers cannot receive Information about the use of attributes
- Easy way to store ID attributes
- Easy mechanism to create trust in relying parties
- More resistant to correlation and data exploitation
- Trusting Information outside the own business domain
- Allows management of multiple citizens identities
- Enhance security
- Sustainability
DC4EU domains

Social Security
- PDA1 (Portable documents A1)
- EHIC (European Health Insurance Card)

Education
- Educational credentials to support lifelong learning
- Non-foundational IDs
- Professional qualifications

Link between Educational and Social Security:
student’s onboarding journey will link to EHIC’s onboarding.
DC4EU impact (education)

Educational credentials formal qualifications issuance: Primary, secondary, tertiary education

- Request secondary degree to apply to tertiary education
- Request PID and Bachelor to be issued with professional qualification accreditation
- Request bachelor degree to apply to Master education
- TVET
- Request transcript to move from secondary school to secondary school
- Request micro credentials issuance

Non-foundational identity/authentication

- European Student IDentifier
- MyAcademicID
- InAcademia
DC4EU impact (education)

- ELMO to ELM converter
- Open Badges to ELM converter
- eduGAIN gateway
- EMREX gateway
- Erasmus gateway
- eIDAS gateway
- Europass & EDC alignment
Challenges for universities (educational institutions)

1. Universities as authentic sources and issuers of (Qualified) Electronic Attestations of Attributes ⇔ The autonomous university

2. Universities as authentic sources ⇔ Must give access to certified issuers of (Qualified) Electronic Attestations of Attributes

3. NRENs on behalf of universities ⇔ The perfect alliance?
   a) NREN as an authentic source on behalf of the universities
   b) NREN as a trusted issuer of electronic attestations of attributes on behalf of the universities
   c) NREN as a qualified trusted issuer of electronic attestations of attributes on behalf of the universities
   d) ...