EMREX in your wallet

Tor Fridell,
EMREX user group Executive committee
The digital decade of EU

European Commission ambition for 2030:

- 100% of Union citizens have access to a secure electronic identification recognized throughout the Union, enabling users’ full control over identity transactions and shared personal data
- Creation of a European Digital identity
  - Free to be used by all citizens
  - Accepted everywhere, by public and private sector
  - Secure and privacy oriented
- Decision to specify EUDI Wallet (eIDAs 2)
  - Personal identification data
  - Qualified Electronic Attestations of Attributes such as education credentials, professional certifications, driving license etc.
  - User centric, “self sovereign identity”
  - Standards based
    - Architecture and Reference Framework (ARF)
    - Verifiable Credentials (VC)
Means to achieve goal

4 large scale pilots

- Potential
  - Government services, bank account, SIM-registration, driving license
- DC4EU
  - Educational and professional qualifications
  - Social security
  - Health insurance card
- EWC
  - Travel credentials
  - Payments
  - Legal persons
- NOBID
  - Payments cross-country and cross-sector

Total budget 90 Million €
DC4EU

- 2 year project, budget ≈ 20 million €
- Spanish lead consortium
- Consists of 43 Public stakeholders and 50 private entities from 22 states
- The project Kicked off April 1st 2023
DC4EU

**Main objectives**

- Test interoperability and scalability in the national domain and multiple cross-border contexts
- Provide feedback to the European Commission (EC) and MSs for iterative updates
- Comprehensive wallet testing using Qualified Electronic Attestations of Attributes (QEAA), Electronic Attestations of Attributes (EAA) and credentials, and their national and cross-border functionalities in a pre-production environment.
- The European Digital Identity Wallet (EUDIW) will be a fundamental element of hybridization for cross-sectoral and cross-border use cases
DC4EU use cases

- Educational credentials formal qualifications issuance: Primary, secondary, tertiary education
  - Request secondary degree to apply to tertiary education
  - Request bachelor degree to apply to Master education
  - Request transcript to move from secondary school to secondary school
  - Request microcredentials/Transcript of Records issuance

- Professional qualifications
  - Doctor, engineer, TVET

- Social security

- Health insurance
Get on with it!

Time to introduce EMREX
What is EMREX

- A network where a student/former student can access their assessment data, and share these data with a third party, like another university.
- Transcript of records, Diplomas and Diploma Supplement
- Both as machine readable data and as pdf
- User driven, student centered, adheres to Digital Data Sovereignty, "own your own data"
- Open network – result owner grants access
- Open source code
- Building block: uses local infrastructure, integrates in other services and processes
EMREX use cases

- Erasmus mobility
- Admission
- Recruitment systems
- Lifelong learning portfolios (like Europass)
- Professional licenses
- Automation of processes (like recognition)
- Exchange of data within European Universities Alliances.
EMREX Characteristics

- User driven, student centered
- “Own your own data”
- Standard driven
- Open network: everyone can participate
- Distributed network
- GDPR-compliant by design

This means:

EMREX is very similar to OOTS (SDG-regulation)

EMREX is similar to the notion of EUDI wallet
Easy choice...

- The future eID in Europe is based on EUDI wallet
- EUDI wallet supports many of EMREX use cases
- EMREX-network already exists and can easily be connected to the wallet ecosystem
- The wallet would immediately get access to a user base via the EMREX nodes
- The EMREX network would benefit of an increased user base via the wallet
So...

- Strategic decision was taken by EMREX Executive Committee to aim for a wallet solution
- Large Scale Pilot project suitable way forward
- Some Emrexians joined the DC4EU-project
- Goal to connect EMREX to the wallet via a gateway
Simple wallet solution

Example on education domain

<table>
<thead>
<tr>
<th>MS A</th>
<th>Mobile</th>
<th>MS B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trusted Accreditation Organisation (TAO)</td>
<td>Issuer</td>
<td>Relaying Party/Verifier</td>
</tr>
<tr>
<td>Gov. Entity or equivalent agency</td>
<td>Educational institution A</td>
<td>Educational institution B</td>
</tr>
<tr>
<td>Citizen/Learner</td>
<td></td>
<td>Company</td>
</tr>
</tbody>
</table>
Important considerations

- Trust!
- Authentic sources
  - Qualified providers of electronic attestations of attributes
- Legal validity in all MS
  - Cross border recognition of information
  - Equivalence principle
  - Non discrimination principle
- Many parties involved
  - Issuers
  - Wallet providers
  - Relying party
  - Identity provider
  - Attestation provider
  - Accreditation bodies
Specific tasks in WP5

Relating to educational credentials

- ELMO to ELM converter
- eduGAIN gateway
- EDSSI gateway
- EMREX gateway
- EWP – OLA-connectivity
- OpenBadges to ELM converter
- Europass & EDC alignment
Final remarks

- If you join EMREX-network now you will have an entrance to the wallet (and an entrance to OOTS; Single Digital Gateway)
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