Cross Border Blockchain for diploma data in the EU

A Network of trust for Education
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Goal presentation: Update about partnership and cooperation between several
EU Member states

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Blockchain for diploma data

Many EU Member States are actively exploring the potential for Blockchain to provide a decentralised, transparent, validated and indelible management of student/citizen diploma data.
All higher education institutions, central education administrations and students must work together and use a common Blockchain ecosystem.
Network of trust for education was prepared and discussed as a use case/project for the EU blockchain partnership (via DG_connect and member states involved in the partnership).
OUR AMBITION:
To build a network of trust for education.

The enrolment by a (prospective) student in higher education at an institution abroad should be as easy as registering with an institution in their home country.
Focus of network of trust

- Student/citizen as central actor in the network
- Governance of the decentralized network by the central educational administrations (national/regional)
- GDPR-compliant / privacy by design
- Focus on standardization of the diploma data
- Open ecosystem
- Secure and clear governance / architecture to ensure trust in the network
- Link with self sovereign identity
- Re-use existing knowledge/tools where possible
December 2018:

Use case Diplomas selected as one of the use cases for EBSI
Feb 5th Workshop Brussels

- 50 participants – 16 countries – 3 DG’s
  - Blockchain experts and educational experts/stakeholders
  - BE, NL, GER, CRO, NOR, UK, SP, IT, PT, POL, SLK, LUX, LAT, GRE, FRA, IRE
  - DG EAC, DG EMPL en DG CNT

- Agenda:
  - Introduction project
  - Related projects (Europass, EU Student Card, Diplome, Qualichain)
  - Work session on vision text, collaboration text and workplan

Feb 6th EBP Meeting

- Presentation of findings of the diploma workshop of Feb 5th
  - Shared vision text
  - Workplan

- Call for participants for the EBP workgroups
  - 2 per MS
  - Policy and technical groups
  - Use case workgroups: SSI, Diplomas and notarisation
March 27th Meeting Brussels

- Deep dive on preparation
  - Draft project plan
  - Architecture

- Attendants: Belgium (Fla & Wall), UK, Spain, Greece, Norway and Netherlands together with the DBC Members

- Dive into:
  - Clear vision statement
  - Use cases
  - Governance
  - Scope and interdependencies
This resulted in a draft project plan.
Project plan - Key Objectives

- **Determining** ethical and regulatory issues
- **Exploring** existing EU initiatives and solutions and their possible evolutions with blockchain technology
- **Identifying** the existing low cost and sustainable blockchain technologies
- **Specifying** relevant rules, policies and governance
- **Understanding** and **documenting** use cases
- **Taxonomies**
Project plan – Mapping Activities

1. The existing standards and processes followed for issuing and certifying diplomas
2. The processes in place for translating diplomas in support of mobility
3. The procedural steps and legalities involved that require identity verification in the case of diplomas
4. How new technology will change the relationship between different actors and the benefits for students.
Project plan – Definition Activities

1. The **scope of diplomas** that are of interest and directly correlated with the goals of the project

2. The **stakeholders** that need to be addressed within the frame of this project

3. A **strategic approach** to consolidate educational credentials at a European level
Project plan – Interdependencies

1. Various solutions and initiatives in the European/global market
2. Various research projects and initiatives in the field of education and credentials
3. Various EU identity services
4. GDPR and other regulations
Project plan – Resources

- Educational experts
- Software engineers
- Blockchain experts
- Business architects
- Information management experts
- Communication and PR experts
- Project management experts
- Legal experts
- Compliance/risk experts
- Cybersecurity experts
**Timeline**

- **Workshop**
- **EBP Meeting report**

**Project’s Vision Report**
- Stakeholders will be generated and verified
- Key use cases will be generated

**Technical Feasibility Study**

**Technical Implementation Roadmap**

**Stakeholders & Processes Report**

- Proposed long-term architecture leveraging blockchain technology, taking into account interdependencies, compliance outcomes, and other activities
- Detailed map of stakeholders & Communication, dissemination, collaboration
- Development guide and work plan, including required activities for drafting an EU policy plan recommendation

Timeline:
- May
- Jun
- Jul
- Aug
- Sep
- Oct
- Nov
- Dec
- 2020
Project plan – Partners

**Belgium:**
- Agency for Higher Education, Adult Education, Qualifications and Studygrants (AHOVOKS)
- Information Flanders
- Académie de Recherche et d’Enseignement Supérieur

**The Netherlands:**
- Education Executive Agency of Dutch Ministry of Education, Culture and Science (DUO)
- Dutch Blockchain Coalition

**Norway:**
- Unit – The Norwegian Directorate for ICT and Joint Services in Higher Education and Research

**Greece:**
- Information Technologies Institute – CERTH

**UK:**
- Open University

**Spain**
- DG EAC, DG EMP, DG DIGIT and DG CNECT are involved
Project plan – Conceptual Architecture layer
use case diplomas and digital society
Project plan – Approach

- Not a multi-ICT project, but complex system with many stakeholders
- Vision: Sustainable ecosystem – public and private – with global mindset
- Many market solutions but no ‘one-size-fits-all’
- Agreements above standards above solutions
- Learn and innovate and experiment cross border
- There are still a lot of questions to be answered
Project plan - Summary

- Lot of pre-work on informal basis with group of MS
- Vision and plan for first phase
- Ready to move and take next steps

In order to move on:
- We like to see more Member States participating in this approach and proposed plan
- Support from EBP
April 9<sup>th</sup> EBSI User Group Diplomas

- Presentation of this use case by Hennie Bulstra
- Comments on draft-project plan by new comers
- Defining roadmap for the use case for 2019 and 2020
- Parallel meeting of USG SSI
Next Steps

- Finalize project plan and roadmap
- Cooperation between working groups SSI and Diplomas
- Next meeting USG end of May
Thank you for your attention!

Questions?

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