Integration of data systems: Steps towards interoperability

Session: Integration of data systems -Peppi and Sisu vs. Virtual campuses o How can universities streamline digital infrastructure to support seamless learning and administration?

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Challenges and experiences in solving or circumventing them

- HEIs in alliances are facing quite similar problems in arranging their support for the processes of students and staff – when numbers of students are growing, the need for efficient digital support is necessary

- In ECIU alliance, Tampere University is currently developing integrations between the common platform of the alliance and Sisu student information system. In this context, we have identified some problems that hinder the development of smooth processes for mobility.

    - **Discovery:** There are no integrations to publish the offered courses to common platform yet. The amount of courses is still limited, making it possible to do this manually.

    - **Apply and get recognition: This has been detected as a major bottleneck, requiring a lot of manual work**. Even when the common platform with application function uses eduGAIN for students to sign in with their home university's account, *the assurance level* of the authentication is still too low for the majority of students to enable straightforward integration to register students to Sisu. Current target aims at strong authentication for all registered students, when they activate their mandatory TUNI-account.

Challenges and experiences in solving or circumventing them

- **Access tools and educational resources:** When arranging MOOCs or other online courses that use Digicampus Moodle, the students can sign into Moodle with eduGAIN or other means. It is quite difficult to *instruct the students* to follow the proper protocol of registration to earn credits, when they can access the Moodle course differently.
- **Generate data (for learning analytics):** We are not there yet. Current basic statistics of the students and their credits are sufficient for current situation.
- **Earn a credential:** There is a common solution for HEIs to issue European Digital Credentials for students centrally. *There is no full integration for this*, and some data needed in the credential (such as learning outcomes and related ESCO skills) should be taken into account in the curriculum process way before issuing credentials. For the transfer of credit data between host and home universities the possibility to use EMREX is in current discussion. Currently the recognition of prior learning follows normal process with EDC or transcript of records as an attachment to the application.

Challenges and experiences in solving or circumventing them

- **User identity:** For mobility purposes, eduGAIN could be a good solution, **if** the assurance level of authentication and individual data fields would be medium of high and all HEIs could deliver the data set needed for registration to all HEIs.
  - Activation of accounts in IDM should be integrated into student registration process with strong authentication, if the assurance level is currently low – no technology changes needed
  - Adding attributes to eduGAIN needs IT work from IDM people (and SIS integrations people)
- For first time authentication, hopes are in the EUDI wallet that will be adopted in the member states in the end of 2026.

Challenges and experiences in solving or circumventing them

- **Institutional identity:** Proper management of institutional identity will be needed when the European Digital Credentials are taken into use. European-wise the problem is that there is no single format of institutional id, that all HEIs would be using. The DEQAR register of official European HEIs has several parallel id:s, against which the awarding body of eSealed credentials can be checked,
  - In Finland we could make sure that all Finnish HEIs would have at least one common id in the DEQAR register.

Supporting materials for the roadmap work

- European Higher Education Interoperability Framework
  - Set of materials: [Interoperability framework: innovating cross-border learning and collaboration in higher education - European Education Area](#)
  - EduXS-service for sharing information on used services and standards in alliances and other collaboration for each use case: [EduXS | Find and be found](#)
  - Finnish translations of the 8 use cases are currently available for comments until 22.12.2025: https://wiki.eduuni.fi/x/nJW2Jw
- Finnish recommendations for the HEIs in alliances
  - Materials in wiki (in Finnish): [Toimintaperiaatesuositukset eurooppalaisissa korkeakoulualliansseissa toimimisessa - Koulutus- ja opetusyhteistyö - Eduuni-wiki](#)