# ETIKETO

FilmEU**Label** 

### **Technical approach Goals**

- Students should be able to request their joint diploma credential from any partner institution;
- Participating Higher Education Institutions should be able to add their signature to the Verifiable Credential Diploma;
  - Participating Higher Education Institutions should be able to store and deliver, upon student request, the final credential signed by all;
- Future credential verifier should be able to verify the multi-signature credential and to identify each signing institution;
  - Compliance with EBSI, W3C VC standard, and with future EUDI Wallet

## Technical limitation

The W3C standard for Verifiable Credentials demands that each VC can only have one issuer. Joint Diplomas can have several issuers.

### **Abstract**

The future European Degree will encourage the creation of more joint degree programmes requiring joint signatures for joint diplomas to be issued to students. Looking ahead at the future of European Digital Credentials and recognition of skills and diplomas, the ETIKETA project proposes a Multi-Signature approach using the Verifiable Credentials standard from the W3C.



# Implemented use case

- Eva West is a bachelor's student at KU Leuven, Belgium.
- Having received her bachelor's degree from KU Leuven, she navigates to the FILMEU European University Alliance application portal to pursue the KinoEyes European Joint Master Degree.
  - Initiating her application, she shares her verifiable diploma from KU Leuven.
- Upon enrollment, she receives an education ID, which she securely stores in her digital wallet.
  - The education ID grants her access to the FILMEU student portal, where she can select from various wallet providers to log in.
- Utilizing her wallet, she selects and shares the right education ID to log in.
  - After completing the studies, she initiates a request for her joint diploma via the student portal.
- This diploma requires signatures from all the participating institutions issuing the certificate.
  - Once each institution has signed, she can request her verifiable joint diploma, and store it in her wallet for future use.

Multi-Signature approach using Verifiable Credentials: the way forward in implementing digital services that support European Degrees and Joint Degrees Label.

### partners































Credential Payload: e.g. Verifiable Diploma



**DIPLOMA** 

The final VC will contain proofs from all the partipants in the issuing process.

**JOINT** 

**DEGREE** 

**DIPLOMA** 

Credential Payload: e.g. Jwt Multisig Joint Diploma

### Technical Workflow proposal for Multisignatures

- A student requests the Joint Diploma credential from their university.
- The initiating university creates the body of the Verifiable Diploma and signs it, creating a JWT.
  - It then sends the JWT to the partner universities.
- The partner universities unpack the JWT to get the Verifiable Diploma credential.
  - They sign the Verifiable Diploma credential and send the resulting JWT back to the initiating university.
- The initiating university combines the returned JWTs along with its own into the Joint Diploma credential.
  - The verifiable diploma credential is available to be issued to the student.