The project aims at conceptualising a **user-centred infrastructure** that allows access and use of learning and teaching material for higher education, specifically Open Educational Resources (OER), from **diverse relevant sources** like learning management systems and existing university repositories.

### Challenges

#### Technical // Infrastructure
- de-duplicating and merging resources
- assigning missing unique identifiers
- extracting usage data for learning analytics support

#### Inter-relational // Metadata
- mapping different metadata schemes
- integrating structured vocabularies for different disciplines
- managing different resource versions
- enriching metadata with user-generated data

### User-centred participatory design

**How are OER created and used?**

Interviews with lecturers concerning practices on learning and teaching resource creation and use.

**What supports users in describing OER?**

**user study on OER tagging**
- Important categories: Content, type of school, grade level, subject, material
- Combination of free tags and drop-down
- Free tag fields with auto-completion
- drop-down for fields like subject, domain
- Additional field with "free tags"
- Explanation of CC-License → License Guide
- Useful expansions:
  - Number of tags being allocated by users
  - recommendation system → suggesting useful tags

**Which criteria are relevant for users?**

**user study on repository design**

First mock-ups

### Realisation of FAIR Principles

**Findability:**
- (F1) unique identifiers for metadata
- (F2) metadata scheme based on common standards like LOM and LRMI
- (F3) unique identifiers for resources
- (F4) registry of relevant OER sources

**Accessibility:**
- (A1) metadata is accessible through a secure HTTPs client communication protocol.
- (A1.1) the HTTPs protocol facilitates the accessibility of EduArc metadata.
- (A1.2) authentication through concrete licences for each resource and user-specific rights for OER creation
- (A2) efforts to archive metadata independently from resources

**Interoperability:**
- (I1) common data model based on Learning Object Metadata (LOM) standard (transferred to json format), with focus on higher education, developed by Länderübergreifende AG OER-Repositorien
- (I2) use of vocabularies that are currently developed within OER community
- (I3) mapping of standard metadata schemes LOM, LRMI, schema.org, and Elixier (German meta search for OER in school education)

**Reusability:**
- (R1) metadata contains a variety of relevant mandatory and recommended fields for learning and teaching resources.
- (R1.1) including concrete (CC) licencing.
- (R1.2) author and institution information, and the repository of a harvested resource
- (R1.3) collaboration with German OER communities and working groups, and seeks feedback from higher education lecturers