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DELIVERABLE D4.5 – EU SERVICES AND PORTALS CONNECTED WITH THE EDUC PORTAL

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Abstract	This document explains why the objective of connecting external EU services to our portal has unfortunately not been achieved.
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1 General

During the last years, the European Union has founded numerous projects, which have developed IT-services (e. g. ERASMUS+ App, ERASMUS without papers) and standards (e. g. EMREX) to support individuals and HEIs. The OpenU project started to develop a European online Hub through connecting these infrastructures.

Unfortunately, the circumstances described below prevented us from achieving the objective of connecting European services to our portal. This can be attributed mainly to limited human resources specialized in IT to develop our digital infrastructure, the prioritization of other tasks given the above circumstances and their centrality for the alliance, as well as the COVID crisis at the time, but also to external factors such as the fact that the results of the OpenU project were not as expected.

2 Limited IT-Human Resources

This is not new, but it is part of our reality: In most of the country-members of our Alliance, the job market for IT specialists is very competitive. This creates enormous challenges for universities, not only in attracting qualified staff, but also in retaining them due to limited contracts and not well-paid positions.

During the pilot phase of EDUC, this situation had an impact on the expected outcomes planned in the original proposal.

Starting the project only a few months before the pandemic, and the demand for IT specialists that this phenomenon created, resulted in our IT architect starting work on EDUC on 1st January 2021.

Similar situations occurred with our partners, which meant that the originally planned technology development team could not be set up with the human capacities defined in the proposal. The active members of the development team varied greatly during the pilot phase. On average, the development work was carried out by two developers, one full-time and one part-time. In addition to coordinating and managing the digital infrastructure and contributing to the development itself, our IT Architect (full-time) and two part-time student assistants supported him with development tasks and technical support, while operating and maintaining the infrastructure and trying to fulfill the requirements requested by the pedagogical engineers.

In addition to the difficulties in finding additional IT specialists and the need to harmonize the infrastructure designed in EDUC with the needs of EDUC-SHARE (see details in D4.1: researchers), it was necessary for our IT Architect to support the coordination of the technical developments of EDUC-SHARE during the period 01.02.2021 to 31.01.2022. This reduced his capacity to take care of EDUC's own needs.

Finally, in June 2022, our IT architect left his position and from that moment on, the coordination of the technological development work was carried out by our pedagogical engineer, without being an IT specialist.

3 Setting priorities

3.1 LMS & Data Privacy

In January 2021, when our IT architect joined the team, the priority was to create a common LMS to implement the virtual mobility scenarios, which were the only programs that could be implemented at the time due to the health crisis. By March 2021, a test LMS was in place that all Alliance members could access, but a common agreement on privacy and data management was needed (see D4.3).

In June 2021, the LMS test-phase was completed, all partners signed the common privacy and data management agreement (applicable only to the EDUC LMS) and started to develop and transfer courses from local Moodle to EDUC Moodle.

3.2 Media Server

One of the most time-consuming technical challenges was finding a solution for storing, managing and streaming multimedia content (mainly video) in our LMS. After exploring several possible solutions, the most plausible seemed to be for the University of Potsdam to share its media server (Medial) service with the Alliance. Unfortunately, the way in which this service was linked to Moodle through its plug-in did not allow users at the other universities to manage the videos properly. Also, the only way for them to see them would be to make them public on the internet. This is not possible due to local copyright laws in some of the Alliance's member countries.

The final solution was to opt for a new media server (based on Panopto), to which the University of Potsdam plans to migrate gradually from 2023. EDUC piloted the coupling of this service with EDUC LMS and so far, it appears to be the ultimate solution for the Alliance.

3.3 Course Catalogue

Once we had a common platform (our EDUC LMS) to work collaboratively to deliver international learning opportunities virtually. A logical and necessary consequence of this prioritization was the creation of a means of promoting the new learning opportunities to the EDUC community and enabling interested individuals to apply for such opportunities. This task was far from simple and even required a new organizational structure involving several work packages. The creation of the so-called Ephemeral Working Group was the answer to this need. We started working on our EDUC Course Catalogue project in October 2021. In a very agile way and in record time, we had a first functional version of the Course Catalogue by the beginning of December 2021, which allowed us to begin the dissemination of the courses starting from the spring semester 2022 with a decentralized application process, linking to the local forms of the leading university of each project (course). The development of the next version of the course catalogue took longer than expected to allow users to log in to the platform to apply for courses. This eduGAIN-enabled functionality was achieved in a test version by May 2022. After a period of debugging and functional improvements, the current version of the course catalogue was launched in June 2022, which still offers both a decentralized application process and a basic process via a letter of motivation, which is processed centrally by the system.

3.4 Portal

Before our IT architect left the project, he proposed a series of steps to be taken to develop the EDUC Portal in its pilot version during the second half of the year. Under the coordination of our pedagogical engineer and relying only on the human resources mentioned above, we were able to develop the foundations of the EDUC portal, which for the moment serves as a gateway to the main services we have (see more details in D4.1). With the limitations mentioned above and the priorities dictated by the circumstances, we believe that we have made the right choices, although we have not been able to achieve the objectives originally set.

4 OpenU

In addition to the limitations mentioned above, from a technical point of view it would not have been possible to connect the expected services, because the results of the OpenU[1] project were not what was expected when the objectives were set in the original proposal.

The technical basis (business service bus or integration middleware) for connecting and using open APIs had not been provided.

The only tangible result of the OpenU project in terms of infrastructure with the potential to connect to our portal is the BLOOM Hub (to be released in November 2022) and unfortunately, there is no efficient way yet to make this LMS (based on Sakai) compatible with the EDUC LMS (based on Moodle). Theoretically, it should be no problem to connect it from our portal as it is enabled in EduGAIN, but as they mention in their report[2], it is possible that some of our partners will have to do some local configuration.

5 The EDUC roll-out strategy

Learning from the pilot phase of EDUC, we have decided that the leadership of the infrastructure development will continue in the hands of our new partner, the University Jaume I, as the Spanish labour market makes it easier to attract and retain qualified IT personnel. In addition to human resources, we have allocated more financial resources to ensure the success of one of the fundamental pillars of our long-term partnership: our digital infrastructure. The collaboration between the new Task Leaders (Task 2.1) and the University of Potsdam (WP4) will undoubtedly be crucial, as the infrastructure is currently "physically" located in Potsdam. In addition, the development team will need to be strengthened by having active contributors in each of our 8 partner universities to ensure the following tasks. Cross-coordination with EDUC-SHARE and its outcomes has already begun and will enrich the digital infrastructure to be rolled out over the next years. We are confident that these measures will improve the conditions for achieving the goals that have not yet been achieved.

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[1] https://openu-project.eu/
[2] https://openu-project.eu/images/BLOOM_hub_Technical_Specifications.pdf