

# Deliverable n. 6.4

Deliverable Title: Draft components for  
the report on the Virtual Campus

Date 31/08/2025

**AURORA**



Co-funded by  
the European Union



Palacký University  
Olomouc



<b>Deliverable Number</b>	<b>6.4</b>		
<b>Deliverable Name</b>	D.6.4	<b>Lead Beneficiary</b>	1. UI
<b>Type</b>	DEM – Demonstrator, pilot, prototype		
<b>Due Date (month)</b>	22	<b>Dissemination level</b>	PU - Public
<b>Contributors</b> (selects relevant partners and associate partners)	10	<b>Work Package No</b>	WP6
	UI, STICHTING VU, UDE, UNINA, URV, UIBK, UP, CBS, UPEC, CIMEA		

## Table of Content

<b>Table of Content</b> .....	<b>2</b>
<b>1. Introduction</b> .....	<b>3</b>
<b>2. Description</b> .....	<b>4</b>
<b>3. Discussion of the final outcome</b> .....	<b>7</b>
<b>4. Conclusion</b> .....	<b>7</b>
<b>5. Annex</b> .....	<b>7</b>

### Disclaimer:

Funded by the European Union. Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union.

Neither the European Union nor the granting authority can be held responsible for them.

# 1. Introduction

Work Package 6 of the Erasmus+ funded “Aurora 2030” project aims to further improve sustainability within the Aurora Alliance, as well as its partner universities, and increase international cooperation through advancements in digitalization efforts, primarily through the relaunch of the Aurora Virtual Campus. The grant agreement states the following objectives related to the Virtual Campus:

“The overall goal of WP6 Green and Digital Campus is to support the establishment of an Aurora Alliance inter-university campus through advancing our IT and sustainability capacities.

More concretely, this WP will address the following specific objectives:

O6.1 To provide the necessary digital administrative processes and data as well as IT- and business services, to enable the students and university staff to successfully participate in curricular activities spanning all partner universities. This is a continuous effort. It also aims to initiate and foster cooperation with other European University Alliances, to implement and promote shared interoperability standards for European higher education institutions.” (Aurora 2030 Grant Agreement, p. 81)

These objectives should be met through the activities of T6.1 “Aurora IT Development & Services”, which is described as follows:

“Through the expansion of EU standards for online authentication and authorization to access digital services - e.g. for registration and access to Learning Management System – this task will deliver on shared interoperability among the partner institutions (organisational, legal, semantic and technical).

This task will apply a particular focus on creating, issuing and managing Digital Credentials for Aurora Alliance educational activities in close coordination with educational experts working on this topic. Therefore, a dedicated committee will be set up with representatives from other relevant task teams within the Aurora Alliance, in particular from WP2 Transdisciplinary European Research-Driven Educational Hubs and WP8 Enabling Mobility & Exchange.

The task will also work on the further development of the Aurora Virtual Campus, as a “shopping window” for results and activities of the whole of the Alliance. Integration of key Aurora IT services to be agreed upon all Aurora members – like a joint course catalogue, or enrolment processes – are part of this, but not exclusively. These key processes will be built upon shared interoperability standards and agreed use cases, taking into account existing EU references (e.g., European Learning Model), existing building blocks (e.g. European Digital Credentials for Learning, European Blockchain Services Infrastructure, MyAcademicID, European Student ID), EU ongoing initiatives (e.g. Single Digital gateway, eIDAS review), In the choice of technologies, the variables of sustainability and efficiency will also be considered.” (Aurora 2030 Grant Agreement, p. 81)

In a nutshell, T6.1 aims to enhance shared interoperability across the Aurora Alliance by expanding EU standards for online authentication and digital credentials, coordinating

with educational experts and key work packages, while further developing the Aurora Virtual Campus and integrating core IT services using sustainable, efficient technologies aligned with EU frameworks.

Closely related to these endeavours are the following deliverables and milestones:

- D6.1: Aurora IT Handbook by month 24. “Aurora IT Development & Services handbook for Alliance-wide guidance and implementation.”
- D6.2: Aurora Virtual Campus by month 48. “Relaunched website with variety of Aurora IT-services implemented.”
- D6.4: Draft components for the report on the Virtual Campus by month 22. “Draft components for the report on the website.”
- MS17: First Aurora Digital Credential Issued by month 24.
- MS20: Aurora Virtual Campus Relaunch by month 40.

In this context, the following report provides draft components of work done to develop, implement, and relaunch the Aurora Virtual Campus as described in the grant agreement. Most of the components are in written form, as the proper implementation of the procedures, systems, protocols and other elements described within these documents still needs to be done and couldn't have been done earlier as the Aurora IT Handbook (D6.1) is not yet finalized and approved.

## 2. Description

In a kick-off workshop at Innsbruck in March 2024, all partners were invited to work collaboratively on the baselines to define the Aurora Virtual Campus. During this four-day-long workshop, the modules for the Virtual Campus and their requirements were defined:

- **Joint Centralized Course Catalogue**  
Requirement: To offer a central website/point where "Aurorarised"<sup>1</sup> courses are offered by partner institutions and are displayed and updated in an automated, real-time manner.
- **(Semi)Automated local enrolment & course registration**  
Requirement: To allow well-identified students to enroll as seamless as possible in the institution providing an Aurora course. User accounts and provided student data from the student's home-universities should be used for this purpose.

---

<sup>1</sup> **Aurorarised Course:** A course designed or adapted within the Aurora framework, often SDG-aligned and based on co-creation, transdisciplinarity, or innovative teaching methods.

**Level 1:** Course is linked to a Pilot Domain and at least one SDG.

**Level 2:** Course is linked to a Pilot Domain, at least one SDG and develops at least one key competence incl. in the Aurora Competence Framework (ACF).

**Level 3:** Course is linked to a Pilot Domain, at least one SDG, develops at least two key competences incl. in the ACF and uses at least one teaching method described in the Aurora Education Principles.

- **Issuance, exchange and recognition of digital credentials**

Requirement: The university providing a course through the Aurora course catalogue will issue, upon successful completion of a course by students, an appropriate credential in a digital way. These digital credentials, which have to be well defined and commonly understood within the alliance, shall be issued in a form that enables seamless portability and recognition among Aurora institutions (and beyond).

- **(Semi) Automated access to local learning environment and infrastructure**

Requirement: To enable authenticated students to access the local learning environment (e.g. learning management systems, virtual classroom tools) for their Aurora courses as seamless as possible. For this purpose, user accounts and, if necessary, student data provided by the student's home universities should be used.

In a series of further meetings, workshops, consultations, and other activities, draft-component documents have been produced for the Aurora Virtual Campus. Be it the plan on how to implement eduXchange<sup>2</sup> to realize the Joint Centralized Course Catalogue, how to use eduGAIN<sup>3</sup> and EMREX<sup>4</sup> to enable (semi)automated registration and enrolment processes as well as access to a local learning management system, and how to utilize European Digital Credentials for Learning (EDCL)<sup>5</sup> and European Digital Credential Infrastructure (EDCI)<sup>6</sup> to provide a solution for the issuance, storage, and exchange of digital credentials. This report provides an overview of the most important documents for these purposes and will include them as annexes:

---

<sup>2</sup> eduXchange is a central linking point where educational data can be offered from an institution to various data consumers in a uniform and secure manner.

<sup>3</sup> „The eduGAIN interederation service connects identity federations around the world, simplifying access to content, services and resources for the global research and education community. eduGAIN comprises over 80 participant federations connecting more than 8,000 Identity and Service Providers.” (<https://edugain.org/>)

<sup>4</sup> „EMREX is an international (European) data protocol that can be implemented with simple means to exchange education data (with focus on educational data from Higher Educational Institutions (HEI)), between two digital systems in a digitally machine-processable and GDPR-compliant way. The benefit of EMREX, with its electronic data exchange solution, is to empower individuals to control their own student data and exchange throughout lifespan, across borders for various purposes in a GDPR-compliant way.” (<https://emrex.eu/strategy-and-vision/>)

<sup>5</sup> „A European Digital Credential for Learning (EDC) is a verifiable, digital version of a credential issued by an organisation to a learner to document their learning. These include diplomas, training certificates, micro-credentials, certificates of participation, and more. They can be issued in all EU and Europass languages and are signed with an electronic seal (a form of digital signature belonging to a trusted institution or organisation).” (<https://europass.europa.eu/en/european-digital-credentials-learning>)

<sup>6</sup> „The EDC infrastructure allows institutions or organisations to issue digital credentials directly to a learners' wallet, a personal online space for storing credentials, such as the one available in the My Library section of a person's Europass account.” (<https://europass.europa.eu/en/stakeholders/european-digital-credentials>)

- The master presentation of the T6.1 workshop in March 2024 in Innsbruck containing every content from the workshop.
- The minutes from the T6.1 workshop in March 2024 in Innsbruck.
- The workshop summary of the T6.1 workshop in March 2024 in Innsbruck as it was also presented to the Aurora Institutional Coordinators.
- The master presentation of the T6.1 workshop in November 2024 in Amsterdam containing every content from the workshop.
- The notes from the T6.1 workshop in November 2024 in Amsterdam.
- The agreed upon draft of the data model for the course data of the Aurora Joint Centralized Course Catalogue as discussed in the T6.1 workshop in November 2024 in Amsterdam.
- The SURF presentation from the Amsterdam workshop.
- The short concept paper as provided to the Peer-to-Peer Consultation by the Hochschulforum Digitalisierung.
- The evaluation of the short concept paper as provided to the Peer-to-Peer Consultation by the Hochschulforum Digitalisierung as well as the appendix to the evaluation.
- The evaluation of the long concept paper / Aurora IT Handbook as provided to the Peer-to-Peer Consultation by the Hochschulforum Digitalisierung.

Currently, only the test environment for the Aurora Joint Centralized Course Catalogue is online and it is accessible only to members of the Aurora Alliance.

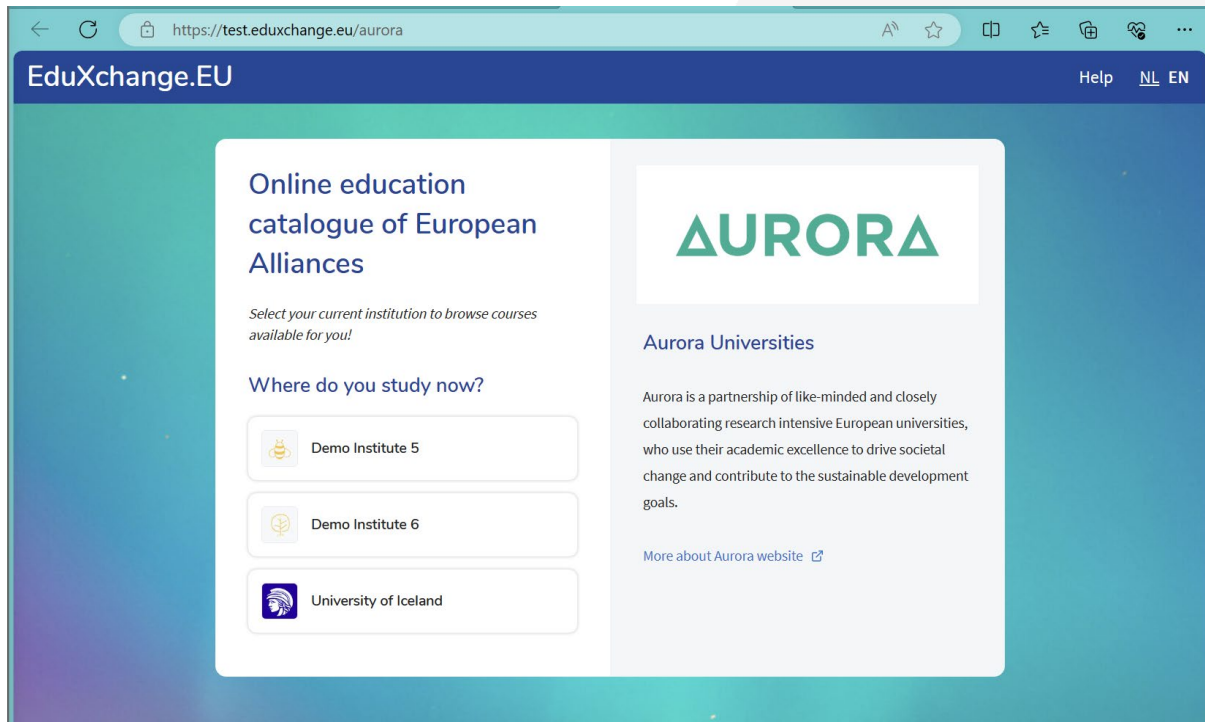


Figure 1 Test Environment for the Aurora Alliance

### **3. Discussion of the final outcome**

Through this report, we are able to show the significant progress that was already achieved within T6.1, without duplicating work that also needs to be done for D6.1, which is due in month 24, so just two months past this deliverable.

### **4. Conclusion**

The Aurora Virtual Campus is a complex endeavor consisting of many different parts that need to be addressed in a systematic way, to properly implement them. This report on the draft components helps us to create an overview of the next needed steps, which will be described in detail in the report on D6.1, the Aurora Handbook, as well as its annexes.

### **5. Annex**

Annex A - Aurora 2030 T6.1 - Masterpresentation Workshop March - 2024.03.08.pptx

Annex B - Minutes - Aurora 2030 T6.1 Workshop March 2024.docx

Annex C - Workshop Summary - T6.1 Workshop.pdf

Annex D - Aurora 2030 T6.1 - Masterpresentation Workshop November 2024 - 14.11.2024.pptx

Annex E - Notes Amsterdam Workshop - 2024.11.15.docx

Annex F - Merged Fields Aurora Joint Centralized Course Catalogue

Annex G - SURF Presentation Amsterdam Workshop.pptx

Annex H - Short\_concept\_P2P\_AURORA\_VC.pdf

Annex I - 2025\_02\_13\_Evaluation\_of\_the\_AURORA\_Virtual\_Campus\_Short\_Concept.pdf

Annex J -  
2025\_02\_13\_Appendix\_Evaluation\_of\_the\_AURORA\_Virtual\_Campus\_Short\_Concept.pdf

Annex K - 2025\_07\_24\_Review\_AURORA-IT-Handbook.pdf