



Report no. 4.4

Submission of research project

Version: 1.0

Language: English

Project name: **Intelligent avatars for digital heritage applications**

Project acronym: **IntAvaVR**

Project no: **09I03-03-V04-00495**

Authors:

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Date: **31.8.2026**



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SLOVENSKEJ REPUBLIKY
PRE PLÁN OBNOVY
A ZNALOSTNÚ EKONOMIKU



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Cooperation in the preparation of research projects

We established research cooperation with the Sarajevo School of Science and Technology (SSST) and the University of Sarajevo from Bosnia and Herzegovina. Together with other European partners, we used the partial project outputs as a basis for further research. During the project, we submitted 4 research projects to international schemes. Some were not accepted for funding, but all received an assessment above the threshold. In the next section, we present an overview of the submitted projects.

Horizon projects

We submitted two projects in the Horizon scheme. We present their basic structure.

Acronym: **EXCEL4WIDEN**

Project name: **Excellence Alliance for Digital Innovation in Widening Universities**

Programme: **HORIZON**

Type of Action: **HORIZON-CSA**

Call: **HORIZON-WIDERA-2025-01**

Draft ID: **SEP-211262970**

Final ID: **101311251**

Abstract

The project strengthens institutional excellence and accelerates digital transformation in widening HEIs by establishing a sustainable transnational Alliance aligned with the EEI. It addresses key institutional gaps: the absence of ERA-aligned frameworks, limited digital skills, weak innovation ecosystems, and insufficient structures for research collaboration and SME engagement. The consortium unites widening HEIs from the Bosnia, Croatia, North Macedonia, Portugal, Slovakia and Greece with leading partners from Austria, Italy and Spain, forming a complementary network capable of driving systemic change. It introduces coordinated institutional reforms through new CoARA-aligned assessment practices, Open Science measures, and career development frameworks. It builds staff competences through 5 advanced training modules, mentoring schemes, and mobility programmes, equipping researchers and



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academic staff with skills in AI, data analytics, FAIR data, IoT, and Industry 4.0. Joint research agendas and cross-border research clusters are developed in strategic digital domains, while five SME-driven seed projects stimulate applied research and innovation. Living labs established at widening HEIs serve as open environments for experimentation and co-creation, enabling the development and validation of digital tools. Dissemination activities ensure broad uptake of results through HEI networks, SMEs, innovation actors and public institutions. By the end of the project, widening HEIs will benefit from stronger institutional capacity, improved digital maturity and increased research capacities. SMEs gain access to practical digital solutions and sustained collaboration with HEIs, while students and early-stage researchers acquire hands-on experience with real industrial challenges. The project creates long-term impact by building a digitally skilled workforce and strengthening innovation digital ecosystems in Widening countries.

Consortium

PIC	Organisation Name
991577942	UNIVERZITET-SARAJEVSKA SKOLA ZA NAUKU I TEHNOLOGIJU PU UNIVERSITY SARAJEVO SCHOOL OF SCIENCE AND TECHNOLOGY
988690058	SVEUCILISTE U SPLITU, PRIRODOSLOVNO-MATEMATICKI FAKULTET PRIRODOSLOVNO-MATEMATICKI FAKULTET U SPLITU
999846610	UNIVERSIDAD DE SALAMANCA USAL
999979888	TECHNISCHE UNIVERSITAET WIEN TU WIEN
949111148	ASOCIACION OBREAL GLOBAL OBSERVATORY OBREAL
890075493	ASSOCIATION DIGITAL FABRICATION LABORATORY Association FabLab
999895692	ARISTOTELIO PANEPISTIMIO THESSALONIKIS ARISTOTLE UNIVERSITY OF THESSALONIKI
895367716	EIT MANUFACTURING SOUTH SRL EIT MANUFACTURING SOUTH
949587709	PANEUROPSKA VYSOKA SKOLA NO null
972180367	REPUBLIC OF NORTH MACEDONIA STATE UNIVERSITY STIP GOCE DELCEV STIP State University GOCE DELCEV
878342179	instituto Politécnico de Viseu Instituto Politécnico de Viseu

Acronym: **HERITASTE-XR**

Project name: **Immersive Experiences of Traditional Food Heritage**

Programme: **HORIZON**

Type of Action: **HORIZON-CSA**

Call: **HORIZON-WIDERA-2026-02**

Draft ID: **SEP-211312952**

Final ID: **101339262**

Abstract:

The HERITASTE-XR project ensures to strengthen the research capacity, scientific excellence, and international integration of the University of Sarajevo in the interdisciplinary field of immersive technologies for the digital preservation and experiential representation of food heritage as intangible cultural heritage. The project focuses on the development and application of Virtual Reality environments enriched with multisensory interaction, Artificial Intelligence, and virtual flavour technologies to enable more authentic and engaging representations of traditional culinary practices. Food-related rituals constitute a significant form of intangible cultural heritage, encompassing knowledge, skills, social practices, and cultural identities transmitted across generations. However, these complex and embodied experiences remain difficult to capture using conventional digital heritage approaches, which are predominantly visual. Immersive and AI-driven technologies offer a transformative solution by enabling interactive, adaptive, and multisensory engagement with reconstructed cultural environments. HERITASTE-XR addresses this challenge through the integration and application of expertise in AI, food science, computer graphics, immersive media, and human-computer interaction. AI is used to support modelling, interaction, and user-centred evaluation, enabling more dynamic, personalised, and datadriven representations of food heritage. Through the Twinning mechanism, the project establishes a structured and long-term collaboration between UNSA and leading European partners, University of Warwick, Bournemouth University, and Pan-European University Bratislava, ensuring effective knowledge transfer, co-creation, and institutional learning. By addressing key structural weaknesses in advanced methodologies, interdisciplinary integration, and international networking, the project will deliver sustainable institutional upgrading and strengthen UNSA's position within ERA.

Consortium

PIC	Organisation Name
995549995	UNIVERZITET U SARAJEVU UNSA
999862906	BOURNEMOUTH UNIVERSITY



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VÝSKUMNÁ
AGENTÚRA

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999976784

UNIVERSITY OF WARWICK

949587709

PANEUROPŠKA VYSOKÁ ŠKOLA NO

Creative Europe project

We submitted one project in the Creative Europe scheme. We present its basic structure.

Acronym: **FACADES**

Project name: **Storytelling Facades: AR Characters narrating European Architectural Heritage**

Programme: **CREA2027**

Type of Action: **CREA-LS**

Call: **CREA-CULT-2026-COOP**

Draft ID: **SEP-211325828**

Final ID: **101349471**

Abstract:

The project addresses a key challenge in the European cultural sector: the limited visibility and interpretation of architectural details embedded in historic urban environments. Although European cities are rich in facade ornaments, sculptures, reliefs, and symbolic motifs that once conveyed meanings about identity, beliefs, and social order, these elements are now often overlooked or misunderstood. Changes in urban lifestyles, limited interpretive tools, and fast-paced, screen-based engagement reduce opportunities for meaningful interaction, leaving much of this heritage inaccessible. Aligned with the Creative Europe objectives, FACADES supports digital transition, audience engagement, and innovative heritage interpretation. It introduces a novel approach that transforms facade decorations into Augmented Reality (AR) storytelling characters, enabling intuitive and immersive access to cultural narratives embedded in architecture. A dedicated digital transformation strategy will guide the development and scalability of these solutions across diverse contexts. The project has a strong European dimension, connecting architectural elements across six countries that reflect shared artistic movements such as Gothic, Baroque, and Art Nouveau, while expressing distinct local identities. Through pilot implementations in multiple cities, the approach will be tested and refined in real conditions to ensure transferability, cross-cultural relevance, and sustainability. AR content will be deployed across mobile, XR, and web platforms. Capacity building and knowledge exchange are integral to the project, equipping cultural professionals and stakeholders with skills and tools for digital heritage innovation. Dissemination activities include the organization of the



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international “AR Experience of Cultural Heritage” Conference and the publication of the book “AR for Cultural Heritage and Tourism”, ensuring visibility, knowledge transfer, and long-term impact.

PIC	Organisation Name
916570461	UDRUZENJE ZA DIGITALIZACIJU I INFORMATIZACIJU KULTURNE BASTINE DIGI.BA DIGI.BA
949587709	PANEUROPSKA VYSOKA SKOLA NO null
956998024	ARHEOLOSKI INSTITUT ARCHAEOLOGICAL INSTITUTE BELGRADE
985294476	NOHO LIMITED NOHO Limited
909971648	Association of citizens for scientific research and promotion of culture HAEMUS Skopje HAEMUS - Center for scientific research and promotion of culture
880619642	NK Icomos in Bosnia and Herzegovina NK ICOMOS in B&H
888217458	SKEIRON LIMITED LIABILITY COMPANY SKEIRON LIMITED LIABILITY COMPANY

Erasmus+ project

We submitted one project in the Erasmus+ scheme. We present its basic structure.

Project name: **ZAŽITO – Experiential Activities for Living Inclusion, Tolerance and the Courage to Act**

Programme: **Erasmus+**

Type of Action: **Cooperative partnerships in the youth sector (KA220-YOU)**

Call: **20265**

Abstract:

The objective is to innovate youth work using virtual reality (VR) and storytelling to prevent bullying and promote inclusion. We aim to develop critical thinking, empathy, and civic courage, empowering youth to transition from passive bystanders to active upstanders. By transforming libraries into safe community hubs for digital learning, the project fosters regional cooperation and modernizes non-formal education methods across Slovakia, Czechia and Poland. Implementation involves 7 work packages: starting with youth focus groups to create authentic scripts, followed by international collaboration among acting students to produce 360° VR videos. We will ensure technical processing and dubbing into 4 languages. Key activities include training



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PAN-EUROPEAN UNIVERSITY

library staff (multipliers) in VR facilitation and reflection, culminating in pilot testing and EU-wide dissemination of the project's results. The main output is the "ZAŽITO" methodology for VR-based youth work in libraries. Key results include 360° videos simulating bullying and an interactive educational game. We will train more than 30 multipliers across 15 libraries, reaching more than 900 young people. Outcomes include a validated inclusive education model, improved digital skills for youth workers, and increased capacity of young people to confront intolerance and act with civic courage.

Consortium

EDUMA, n.o.

GLAFKA s.r.o.

Paneurópska vysoká škola, n.o.

Justyna Kołodziej Kozub SelfDiscovery

Fundacja Edumocni

MORAVSKA ZEMSKA KNIHOVNA V BRNE

The submitted projects directly follow up on the partial research results implemented in the current project. Their outputs are implemented in project applications and further research activities are implemented in connection with the outputs.



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