

IMmersive digitisation: uPcycling cULtural heritage towards new reviving StratEgies





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### **About IMPULSE**

IMPULSE, we're pioneering
IMmersive digitisation to uPcycle
cULtural heritage, driving new
reviving StratEgies. Our EU-funded
project shapes sustainable futures
from our past's rich tapestry.
Launched on Feb 2nd, we breathe
life into timeless stories, engaging
with cultural heritage like never
before.

### **Our vision**

Enter the Metaverse with us, witness upcycled digitised cultural heritage content, inviting collective, engaging interactions. Redefine how we engage, fostering collaborations, bringing unsung narratives to life.



IMPULSE is more than a project; it's a revolution in how we perceive and interact with our cultural heritage. Through immersive digitization, we're not just preserving the past; we're reshaping its narrative for a vibrant future.



Żaneta Kubic Project coordinator Jagiellonian University

### **Activities**

- 1. Co-create Values: We prioritize stakeholder needs, synthesizing requirements into policy actions for long-term societal impact. Let's simplify metadata sharing strategies, fueling creativity and opening doors for creative reuse in education, arts, and Creative and Cultural Industries (CCSIs).
- Connect & Bridge Expertise: Join us in promoting next-generation experiences, fostering collaborations across sectors.
   Collaborate with artists and researchers to create meaningful interactions, bringing hidden perspectives to the forefront.
- 3. Experiment & Learn Together: Embrace experimentation in dynamically changing landscapes. Join our Community of Practice and explore narratives reaching diverse audiences across Europe and beyond.
- 4. Amplify Digital Empowerment: Overcome fragmentation and showcase the discoverability of immersive digitization. Together, let's foster inclusive access and use of digital content and

environments for collective advancement.



At the heart of IMPULSE is a vision of a **European immersive digitization** driven by culture and creativity, upcycled technology, vivid storytelling and simplified but safe standardizations.

In the fast-evolving landscape of European digital cultural heritage , it is important to improve accessibility, interoperability, and innovative (re)use of digital collections. The IMPULSE project (funded by Horizon Europe) aims to revolutionize digitization methods and foster a more immersive, accessible, and interconnected experience for diverse audiences in the realms of

- 1.Education and research
- 2. Artistic professions
- 3. Cultural and creative sectors.

Its collaborative approach includes a Community of Practice, a Hackathon, and an Acceleration & Mentoring Hub, connecting stakeholders for capacity building in immersive digitization.

the European Union

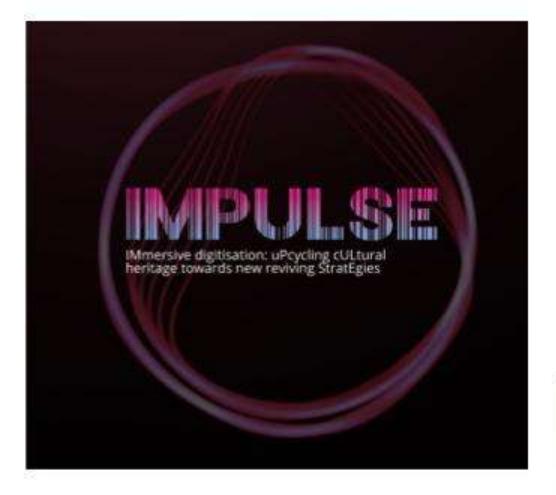


# WP1 - Extended Storytelling Towards Vivid User Experiences (EX-STORY)

Investigate user behaviors and needs in virtual environments for digital cultural heritage

- Identify user demands
- Introduce audiences to digital heritage archives
- Create socially engaged XR experiences
- Showcase hidden stories and underrepresented communities













# Digital Heritage Online

Collection of all heritage materials from KU Leuven Libraries that have been digitised, comprizing items from the 9th up to the 20th century.

Sort items by Relevance ▼

Showing items for palmyra X

Didn't find what you were looking for? Try searching in all collections

### Items (31)



OTHER Palmyra. Twee fragmenten van sarcofagen met hoogreliëf van de overledene



OTHER Palmyra. Reliëf van een echtpaar



OTHER Palmyra. Hoogreliëf



OTHER Palmyra. Fragment van een hoogreliëf



View

OTHER Palmyra. Hoogreliëf van Maliku en Hadira aan de funeraire maaltijd



OTHER Palmyra. Hoogreliëf van een



OTHER Palmyra. Hoogreliëf met buste



OTHER Palmyra. Hoogreliëf met buste



OTHER Palmyra. Sculpturaal



OTHER Palmyra. Romeinse











### **Descriptive Information**

### ▼ Palmyra. Necropolis: Romantis...

This object is available as open data check our terms and conditions

Title: Palmyra. Necropolis: Romantische

tekeningen

Material type: Slide

Location: KU Leuven Libraries 2Bergen -Campus Arenberg, PRECA GD004650/box

047

Full description (6)

#### ▼ DIGI\_0007\_0001\_004650

#### Download this file:

4609\_DIGI\_0007\_0001\_004650\_VIEW.jp2

PID: FL2317846

MIME type: image/jp2

Size: 11206493 Height: 3203

Width: 3716

Bit Depth: [8, 8, 8]



# WP2 - Immersive Technologies for Digital Cultural Heritage Upcycle (TECH)

Reuse of digitized content and adoption of novel XR technologies

- Address interoperability challenges
- Provide centralized aggregation solution
- Design and develop multi-user virtual environments
- Implement pilot studies for virtual environments
- Populate virtual worlds with partners' digitized assets





# WP3 - Standards Simplification (STAND)

- Examine current digitization standards and identify gaps
- Develop strategies for standardized data delivery
- Create a digitization competence audit toolkit for cultural heritage data sharing
- Facilitate data sharing on emerging platforms and new European dataspaces

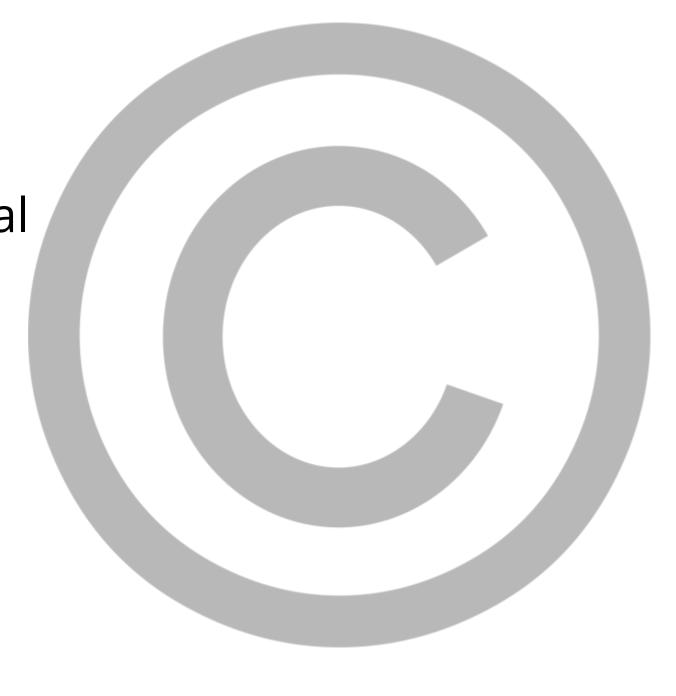




# WP4 - Legal Safety (LEGAL)

Improve digitization standards and develop legal frameworks for emerging platforms

- Develop strategies for standardized data formats
- Create legal models for using digital cultural heritage in metaverse environments







# WP5 - Dissemination, Communication and Mentoring (DISS)

Foster connections among cultural heritage digitization actors and promote project sustainability OBJECTIVES

- Engage diverse stakeholders through innovative communication tools
- Support interplay among networks and platforms
- Promote the project in relevant EU programs



# What's next?



### **Explore the Open European Metaverse**

By experimenting with the digitisation of cultural objects and collections in virtual environments, we aim at enabling collective, embodied, and immersive interactions through extended reality (XR).





### Resonate with different perspectives

We encourage collaboration between artists and researchers to create more meaningful interactions, bringing hidden and unsung perspectives into engaging game-like experiences



### Documents

Language

Select...

Select Type

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Private Public



PDF Document

English

Public

## D1.2\_IMPULSE\_results\_User Research Report, UX Evaluation of IMPULSE VR prototype

This deliverable, D1.2 – Report on qualitative and quantitative UX research, presents the results of a multi-method user study conducted within Work Package 1 (WP1) – Extended Storytelling Towards Vivid User Experiences – of the IMPULSE project (GAP-101132704). The research was carried out in Task 1.1.3, coordinated by the Jagiellonian University, and aimed at identifying how diverse user groups perceive, interpret, and interact with immersive cultural heritage content.

Attached File
IMPULSE\_D1.22\_version-8.0.pdf
AVATAR.png



PDF Document

**English** 

Public

# D1.1\_IMPULSE\_results\_Review of UX Methodology and Tool Proposition

The Deliverable 1.1 presents an overview of UX methodologies resulting from a scoping review of the available scientific and research literature, as well as from various analysis and exploration activities, a research methodology and a proposal of tools to explore the experiences, behaviours, needs and affective-cognitive factors of different user groups, as envisaged by the IMPULSE project.

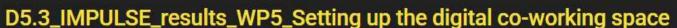
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IMPULSE-D1.1\_version-6.0-compressed.pdf
AVATAR.png



PDF Document

English





The Deliverable D5.3 provides the information about the process and the implementation of the collaborative space that will be adopted by IMPULSE





### IMPULSE Update | Platform Prototype Development

As we approach the one-year mark since the project kick-off, in May 2024 in Krakow, the project consortium continues to advance the development of the IMPULSE platform for creating multi-user

#### Read More



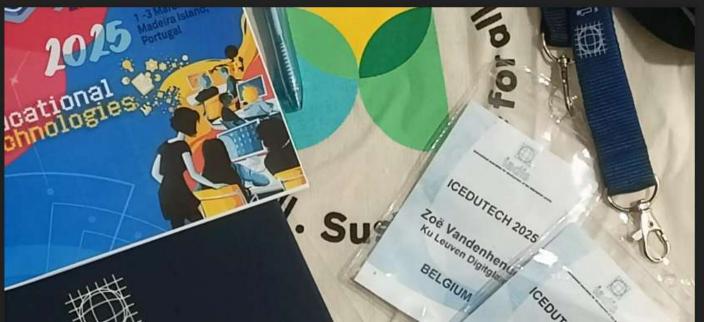


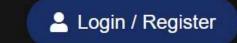
23/04/2025

### **IMPULSE at YOUTH HERITAGE DAYS 2025**

The IMPULSE project is pleased to share its active participation in the "Youth Heritage Days" held from March 26–30, 2025, in Albarracín, Spain. Organized within the framework of the European

#### Read More





# Workshop Application: Reimagining Learning. Transforming Education Through VR and Cultural Heritage

What kind of stories lie hidden in the Vesalius manuscript, educational glass slides of ancient temples, or the ruins of great civilizations? What if ancient murals were designed to speak to multiple cultures, blending artistic traditions into a shared narrative? What if Palmyra had never fallen and we could explore how it evolved into the present day? What if Vesalius' anatomical work was reimagined from the perspective of a female anatomist?

The IMPULSE project invites you to participate in a two-day workshop that explores how Virtual Reality (VR) can unlock new ways to connect with cultural heritage and transform educational processes. You will get the opportunity to reimagine and reshape teaching and learning through the use of immersive storytelling practices and innovative technology.

Whether you are an educator, creator, cultural heritage enthusiast, or simply curious about the potential of VR, this event is open to you. No technical expertise is required! Only curiosity and willingness to collaborate and explore new ideas.

### **Workshop Highlights**

- Design Interactive VR Experiences: Utilize authentic cultural objects from the KU Leuven Collections to craft compelling VR learning scenarios.
- Shape an Innovative VR Platform: Test and contribute to the development of cutting-edge immersive technology.
- Collaborate with Peers: Engage with professionals and thought leaders to co-create innovative approaches to learning.



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