

Project Proposal: CemoMemo-AI – Revitalizing Intangible Heritage through Intelligent Memorial Spaces

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Topic: Safeguarding & transmission of intangible cultural heritage (HORIZON-CL2-2027-01-HERITAGE-08)

Type of Action: HORIZON Research and Innovation Action

Objective: To create a software platform to allow communities to document, preserve, and transmit the intangible cultural heritage (ICH) embedded in cemeteries and memorial sites using advanced digital technologies, making them accessible to global audiences through immersive, AI-driven experiences.

1. Project Context and Current State

Cemeteries are vital repositories of **Intangible Cultural Heritage (ICH)**, reflecting burial customs, religious rituals, and community identities. Cemetery and gravestone digitization platforms such as [CemoMemo](#), [epidat](#), and [BillionGraves](#) document graves from cemeteries across the world, enabling genealogical and historical research. Integrating automation for textual analysis, spatial analysis, and multi-lingual **Optical Character Recognition (OCR)** can incrementally improve scalability and usability, but cutting-edge artificial intelligence and agentic systems show how memorialization and heritage platforms can take a quantum leap forward.

2. Proposed Innovation: The Next Generation Platform

This project aims to develop an **interactive, intelligent platform** that empowers communities to take ownership of their heritage and memorial spaces. The proposed AI-driven features include:

- **Automated Spatial Intelligence:** Using AI to process cemetery imagery and metadata to generate **interactive digital maps**. This enables precise **GPS-guided navigation** for self-guided tours, highlighting notable burials and local history for on-site visitors.
- **Immersive 3D & Audio Experiences:** The platform will allow curators and tour guides to create **virtual 3D tours** for remote "Couch Tourism." To support intergenerational transmission, curators and community members can record **audio and video overviews** of local burial customs and personal histories, which are then embedded directly into the visitor's digital interface using Extended Reality (XR) tools.
- **Conversational Heritage Interfaces:** We will deploy **Generative AI chatbots** trained on cemetery data and external data sources. Visitors will be able to "interact" with the memorial space or virtually chat with notable individuals buried there, gaining deep insights into historical social norms and cultural values.

Many communities have built custom websites and content portals to present their heritage to the world. The goal of this project is to create a software stack and portal engine that communities can use to create their own websites and experiences, taking control of their heritage and telling their own stories.

3. Expected Outcomes and Impact

In alignment with the EU Call, this project will:

- **Safeguard Intangible Cultural Heritage:** Create an advanced digital platform that helps communities document living heritage before it is lost to weathering or neglect.
- **Empower Remembering Communities:** Provide memorial organizations with tools to enhance their memorial spaces and achieve global reach.
- **Drive Social Innovation:** Mobilize ICH as a resource for education and "Dark Tourism," fostering a harmonious relationship between the public and memorial spaces.

4. Transdisciplinary Partnership & Division of Labor

This project requires an international transdisciplinary consortium to meet the call’s requirements.

Partner Type	Proposed Roles
Research Universities and Institutes	Lead the historical and anthropological research for background on burial traditions and memorial language; manage project goals and ICH convention alignment.
AI & Technical Institutes	Develop and refine Multi-modal LLMs for conversational and agentic interfaces, 3D reconstruction algorithms, and multi-lingual OCR refinement.
Software/Tech Companies	Develop the mobile application infrastructure and web backend , 3D visualization engines, and cloud-based media storage systems for the software stack and website generators.
Memorial Organizations	Act as data providers and curators ; record oral histories and manage community engagement to ensure participatory safeguarding.

Note: This proposal builds upon the existing memorialization frameworks such as CemōMemo and seeks to integrate into the European Collaborative Cloud for Cultural Heritage (ECCCH) to ensure long-term data sustainability.

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Collaborative online Brokerage event:

**“Artificial intelligence in Horizon Europe calls:
an interdisciplinary challenge”**

Flash Presentation



CemōMemō

Revitalizing Intangible Heritage through Intelligent Memorial Spaces

- ▶ [CemoMemo](#) founded at [Kinneret College](#) to document hard to reach and crumbling cemeteries in northern Israel
- ▶ Reached ~10,000 gravestones in over 180 cemeteries across the world through **volunteers**
- ▶ Seek to **advance digital memory** through AI-driven features:
 - ▶ Automatic documentation and mapping through spatial intelligence
 - ▶ Immersive 3D and Audio experience through data-based content generation for visitors and researchers
 - ▶ Conversational interfaces for visitors and researchers to explore burial culture and memory

Topics of interest

Digital heritage preservation using AI, especially related to **cemeteries and burial culture**

Extended and Augmented reality systems for digital heritage preservation related to cemeteries and burial culture

Call of interest: [HORIZON-CL2-2027-01-HERITAGE-08](#)

We are a **College Software Engineering** department with expertise in large scale systems development, AI, and big data.

We have a **Virtual Reality lab** with students and equipment for AR and VR experiences.

Role in the STEM-SSH collaboration

Have:

Experience in cemetery documentation and burial culture

Multi-cultural team with experience with Jewish and Islamic burial

Languages: English, Hebrew, Yiddish, Judeo-Aramaic, Arabic, Russian

Software development and design experience

Looking for:

Experts on **different European cultures**

Community and memorial organizations with history, data, and imagery

Technical experts on **creating and deploying AI based platforms**

Project managers

Contact us!



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**Thank you
for listening!**

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