

Unified No-Code platform for Interactive Cultural Heritage Experiences

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Introduction and Motivation

- Financial & Technical Barriers:** Most CH institutions (especially smaller ones) lack the significant budget and specialized programming expertise required to produce advanced 3D, VR, or AR content.
- Fragmented Toolsets:** Current digital transformation efforts are hindered by siloed, non-interoperable tools that lead to high production costs and inconsistent visitor experiences.
- Engagement Gaps:** Institutions struggle to meet the expectations of "digital-savvy" audiences who increasingly demand immersive, personalized, and hybrid (onsite/remote) interactions.
- Inaccessible Physical Sites:** Many heritage locations face severe access constraints, ranging from geographical isolation to physical fragility, thus making them effectively "invisible" to the public without digital intervention.
- Data-Void Design:** Professionals often lack the analytical tools to track visitor behavior, resulting in exhibition designs that are not informed by actual user engagement or accessibility needs

The UNICHE Solution

- UNICHE is developing a no-code, collaborative platform that helps cultural heritage professionals **create, share, and evaluate interactive experiences** across museums, archaeological sites, and hybrid settings **without the need of programming skills**.
- By combining **AI-assisted authoring, multimedia storytelling, XR tools**, and **visitor feedback** analysis, it makes advanced digital experience design accessible to institutions of all sizes.
- Integrated with the Cultural Heritage Cloud**, UNICHE supports richer audience engagement, reuse of cultural assets, and inclusive heritage interpretation.

A platform with AI at the core of the authoring tools and the end-user apps

- Curatorial Support and Narrative Design:** The AI Curatorial Assistant acts as a bounded expert assistant to help heritage professionals with curatorial co-design. It provides evidence-grounded recommendations for thematic discovery, suggests alternative story scenarios, and offers narrative scaffolding to guide the authoring process.
- Intelligent Content Retrieval and Enrichment:** AI is integrated into the UNICHE Repository to evolve it from a standard storage layer into a context-aware retrieval engine.
- Adaptive Visitor Engagement:** A generative AI conversational agent designed to discuss cultural topics with visitors based on loaded content, create multilingual mediation and personalised assistance, allowing experiences to adapt to different audience profiles.

Pilots and Scenarios

4 scenarios in 3 internal pilots + 1 open call for Third Parties (up to 10 projects)

open-air archaeological sites

Archaeological site of Kalapodi, Greece

museum exhibitions

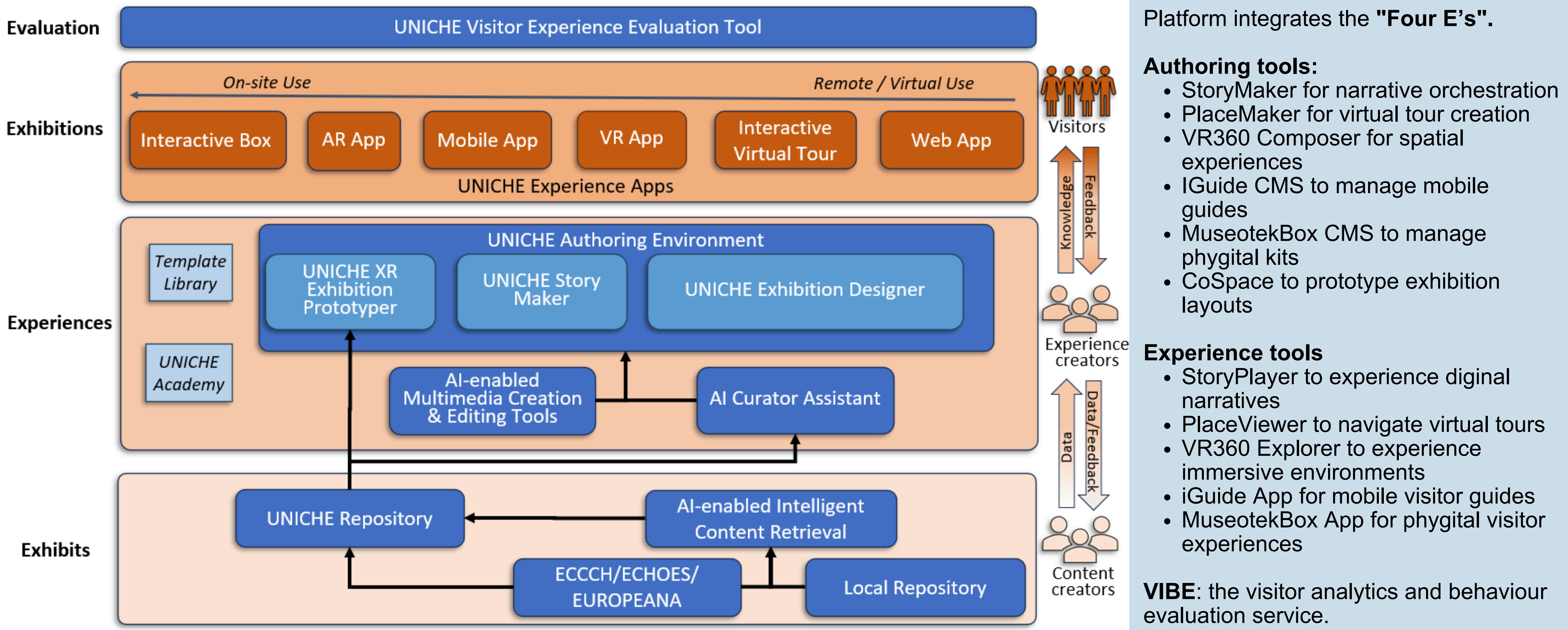
Messapian city walls in Ugento, Italy

portable exhibitions

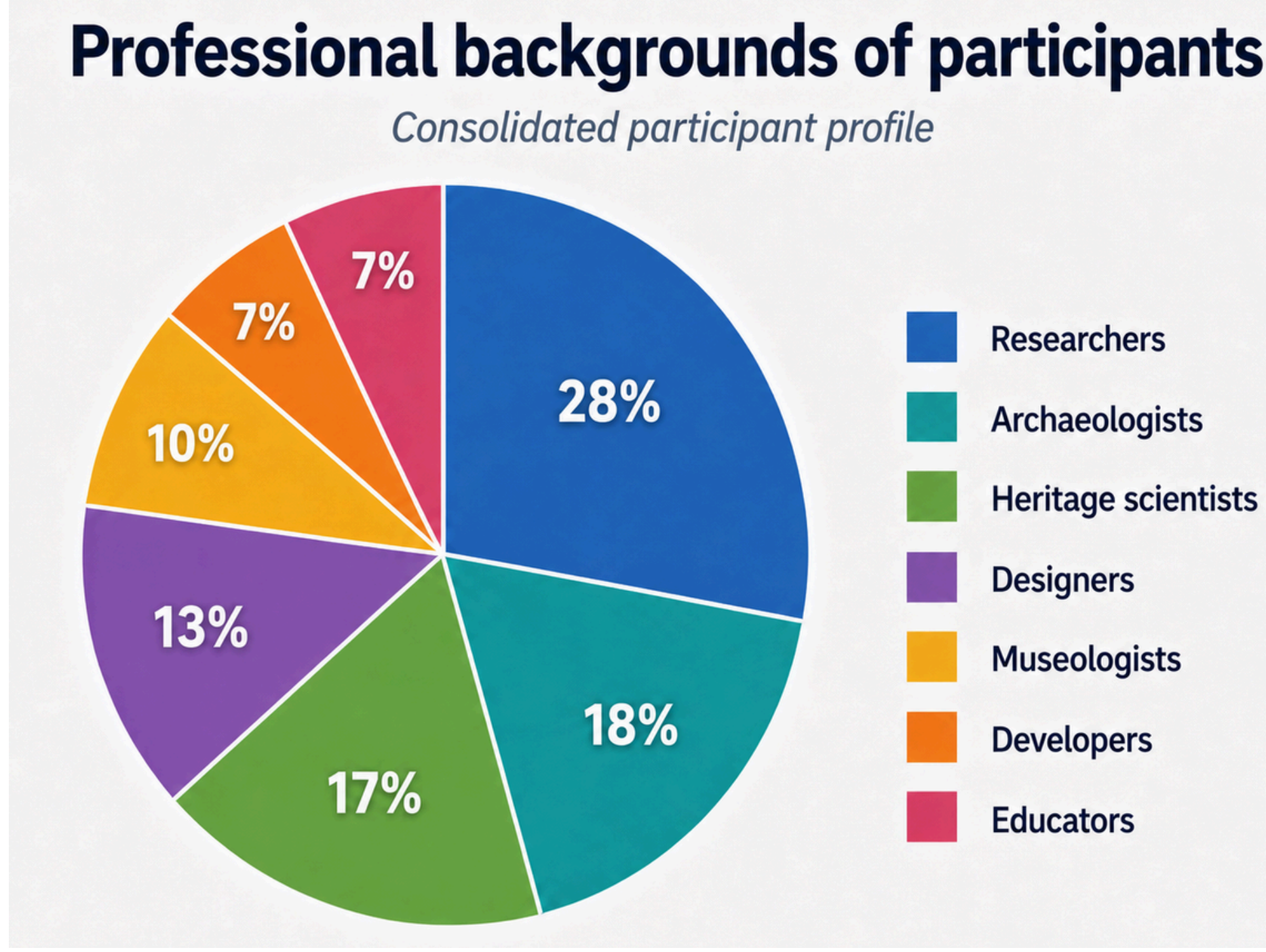
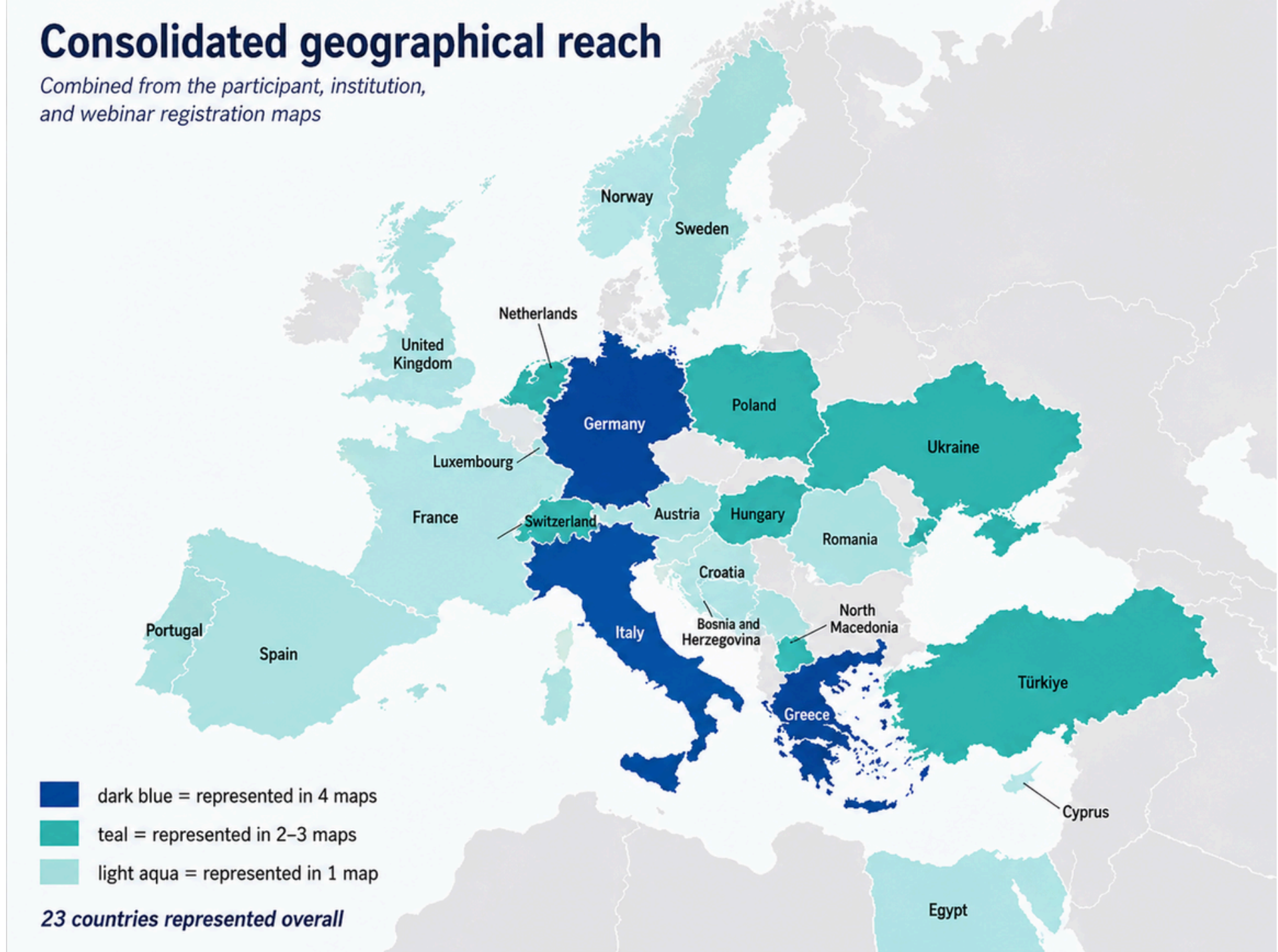
Museo Galileo, Italy

OPEN CALL

Museum of Architecture in Wroclaw



User requirements elicitation, Scenario and Pilots Co-Creation



Pilot 1 - Kalapodi

GREECE

"A site you cannot visit."

Physical access is impossible for most audiences. Every use case must function from a distance — **remote experience is the baseline**, not the fallback.

UC1.1 The Warrior · **UC1.2** Quest at Kalapodi · **UC1.3** Async/Sync Quest

Pilot 3 - Museo Galileo

ITALY

"Instruments nobody knows how to use anymore."

Conceptual accessibility is the central challenge. A rich existing digital asset base — most direct test of the no-code authoring proposition.

UC3.1 Vespucci's Crew · **UC3.2** The Storm · **UC3.3** Retro Innovation · **UC3.4** The Parrot

Pilot 2 - Ugento

ITALY

"Three places that must become a system."

Museum, excavation, and urban fabric must function as a **connected heritage network**. The excavation itself is inaccessible until October 2026.

UC2.1 Not My War · **UC2.2** The Single Rock · **UC2.3** The Rolling Stones

Pilot 4 - Wroclaw

POLAND

"An exhibition that travels without bringing everything along."

Spatial variability is the defining condition. Platform must adapt to different venues. Professional curatorial workflow co-primary with visitor experience.

UC4.1 Hidden Remains · **UC4.2** Architecture in Transit · **UC4.3** Assembly Guide

Six platform components appeared in every pilot's technology mapping — independently, across 4 separate workshops, 3 countries, different partners.

UNICHE.StoryMaker Narrative authoring	ALL 4 PILOTS	UNICHE.StoryPlayer Narrative delivery	ALL 4 PILOTS	UNICHE.CoSpace AR spatial interaction & collaborative design	ALL 4 PILOTS
UNICHE.iGuideApp Location-based mobile delivery	ALL 4 PILOTS	XR-360 Framework Immersive and 360° content	ALL 4 PILOTS	AI Curatorial Assistant Content retrieval & conversational agent	ALL 4 PILOTS

UNICHE is a project funded by the European Union under Grant Agreement n. 101233650 – UNICHE. The views and opinions expressed in this website are the sole responsibility of the author and do not necessarily reflect the views of the European Union. UNICHE is part of the Cultural Heritage Cloud initiative coordinated by ECHOES.



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