



External Services Technical Expert

ENI CBC MED Strategic projects iHERITAGE

Project Title:	B_A.2.1_0056 - iHERITAGE
Program:	ENI CBC Mediterranean Sea Basin
Financing:	European Union
Contracting authority:	Chamber of Commerce, Industry & Agriculture of Beirut & Mount Lebanon –CCIA-BML-PP10
Experts to be selected:	Technical Expert in ICT, AR/VR and cultural Heritage
Location of the contract:	Based in Lebanon
Duration	June 2023 until the end of the project foreseen October 14 th , 2023.

Background

The Chamber of Commerce, Industry & Agriculture of Beirut & Mount Lebanon (CCIA-BML) is a non-profit private business support organisation working for the public benefit. CCIA-BML is partner 10 in the consortium of ENI CBC MED Project iHERITAGE. The Chamber is looking for senior technical expert who will support and ensure the successful implementation of iHERITAGE activities and deliverables as described under each Working Packages of this TORs.

iHERITAGE aims at developing new techniques to improve the Mediterranean UNESCO cultural heritage interpretation, taking advantage of new technologies and commercializing the latest research results. iHERITAGE will provide new solutions through an innovation-driven growth process to promote cross border technological transfer, Living Labs, industry-academia collaboration and the creation of spin-offs and new products, using the latest Information and Communication Technologies (ICT): Augmented Reality (AR), Virtual Reality (VR) and Mixed Reality (MR).

The objective of the project includes the following results:

- To create cross-border living labs for R&D, high training courses and, among other, research agreements, and co-publications aimed at strengthening people-institutions-industry-academia collaboration and creating new ICT solutions applied to relevant cultural sites, likely to be commercialized.
- To promote the spread out of AR, VR, MR and other innovative ICT solutions applied to cultural heritage and their integration with social networks, in order to ensure an enhanced access and amplified communication of the cultural heritage of Mediterranean countries.

To encourage the creation of cross-borders spin-offs dedicated to co-patenting and commercialisation of innovative products and services based on the use of AR, VR, MR and other ICT solutions applied to cultural heritage and creative industries.

For further info on IHERITAGE, <https://www.enicbmed.eu/projects/iheritage>

Expert Role

The Technical Expert will coordinate, follow up and ensure the successful implementation till completion of the requested activities and deliverables stated under each of the below WPs. The Expert will be monitoring and evaluating the development of the activities and products to ensure compliance and technical integrity with respect of deadlines. He will present to the contracting authority "Chamber" the related reports upon completion of each activity.

The stated fees are the maximum possibly paid fees for experts with extensive experience and references and a proven track record of similar assignments.

WP3

The Expert will coordinate the setup of 3 research agreements, 3 co-publications, and AR/VR products and trainings (15.500 euros)

Timeline: June-August 2023

The iHERITAGE think tank Living Lab will be the framework for collaborations among public institutions, researches, universities, academies and business innovation centers, SMEs and also spin-offs created by the project. Within the living lab the following activities are requested:

Three Research Agreements

Living Labs will foster research agreements among universities, researchers, scientists and SMEs with the aim to develop, prototype and test products and services envisaged by the project. In order to involve the most creative minds at international level, the project will launch specific calls aimed at identifying innovative projects, proposed by SME's, which can further extend the innovative products and services planned in the preparatory phase. One research agreement is already signed by USJ for intangible heritage.

The 3 research agreements should generate the following activities:

-Three co-publications should be produced by researchers (jointly with third parties). Co-Publications will focus on the creation of AR/VR/MR new products and services, specifications on innovative ICT approaches and methodologies adopted by the project or ICT for the safeguarding and valorization of tangible and intangible cultural heritage.

- Creation of at least **five** ICT and AR/VR innovative products/services as follows:

The activity refers to technology transfer of innovative solutions achieved as the result of research agreements previously carried out into new products/services. Also the created spin-offs in WP4 will be helped to market their products/services in a logical interrelation of consecutive activities. Furthermore innovative products may include those selected by specific calls launched within Living Labs (WP3.1.) and proposed by SME's and researchers, NEET and young creative, which will be encouraged to constitute startups. Contracts are signed with developers companies to develop the following products.

1- A3.3.1 - AR/VR INTANGIBLE HERITAGE: REIM - Register of intangible cultural heritage of Mediterranean countries

With regard to intangible heritage, innovative ICT applications will lead to the creation of the first database of registered intangible cultural heritage of the Mediterranean countries (REIM). New AR/VR solutions related to food products at the basis of the Mediterranean Diet as well as other ICH practices, representations, expressions, knowledges, or skills will be created, consisting of a marker on the label activating AR/VR contents showing production sites, methods, memories, etc.

2- A3.3.2 - AR/VR GUIDED TOURS

iHERITAGE will introduce to the most outstanding Mediterranean UNESCO cultural heritage AR/VR audio-video guides, accessible cross media, on PC, smartphone, tablet and AR glasses. AR/VR audio-video guides for Points of Interest (POI) for archaeological sites, accessible in augmented and virtual reality, including: 3D reconstructions, 3D recontextualisation, VR cardboard excursions etc... accessible pre, during and post visit.

3- A3.3.6 - PAST ORIENTEERING: ARCHEO VIDEO GAME ENGINE

A 3D engine for archaeological gamification, based on the format of orienteering, applied to the past. In this way it is possible to influence and change the behavior of people, favoring the creation and consolidation of active interest by the users towards the message that developers have chosen to communicate. This product will be developed and tested by PP6 in the UNESCO site of **Byblos**, with monitoring of results of online users and leading to a pilot project.

4- A3.3.10 – VIRTUAL ARCHAEOLOGICAL RECONSTRUCTION (VAR)

The virtual archaeological reconstruction fascinates and involves the public, but divides the experts in archaeology. VAR will involve: laser scanning and photogrammetry, scenes of life, comparative analyses etc. Virtually reconstructed archaeological sites will be implemented in the following products: AR audiovideo guides; VR rooms-booths; holographic exhibitions. Common ICT standards for producing and archiving 3D contents related to Mediterranean cultural heritage will be set.

5- A3.3.5 - VR CARDBOARD EXCURSIONS: brandable with the logo of companies and institutions; it's based on users' smartphones; along with the purchase of AR SMART GLASSES (oculars).

-Follow up on trainings

Within the living lab, Training programs will be organized and target researchers and SMEs' researchers, providing them with improved capabilities of commercial and marketing exploitation of research results. Training courses will also involve ICT marketing experts and will lead to the development of dedicated marketing campaigns. Trainings contracts are already signed and follow up on trainings material and sessions should be followed up.

W4- Coordination and technical assistance to establish 7 spin-offs and newco (4.500 euros)

Timeline: July-Mid October 2023

"Spin-offs", or newco, will be established by individual researchers, university departments, or organizations as new enterprises whose aim is to put mainly the results of the research previously carried out in WP3 to commercial value, and to have a market medium for technology transfer and commercialization. iHERITAGE will encourage the process of spin-offs creation by providing the following facilities: ICT infrastructures; funding; commercialization and capitalization activities etc. The related subgrants scheme is of 50.000 euros for 7 spin offs.

WP5- Technical assistance-Capitalization and Commercialization of new products and services (11.000 euros)

Timeline July-Mid October 2023

5.1 Commercialisation

5.1.2 Coordinate the registration of co-patents related to research agreements, which will be oriented to the development of new products envisaged by the project and the selection of projects submitted by SMEs through specific calls (WP3.1).

5.1.3 Coordinate on organizing 3 business brokerage events. ICT Brokerage events will be organized alongside international trade fairs

5.2 Capitalisation activities

5.2.1 organising the International UNESCO conference in Beirut-A capitalization event to disclose results of the project by September 2023

5.2.4 iART Festival of digital Arts for Mediterranean UNESCO cultural heritage. digital artists will be involved in the creation of AR/VR contents introducing a new form of site related audiovisual art, accessible off site and on site through smart cross media devices.

Qualifications and skills

- University degree (MS, Engineering) in the specified fields such as archeology, augmented reality applications, game development, Virtual Reality and creating VR/AR content and experiences.
- A minimum of 5 years demonstrable experience in the specified field.
- Track record in developing similar products
- Track record in working in relevant EU projects
- Excellent communication skills in English
- Networker within academic, R&D, innovation, and startups environment in Lebanon
- Experience in the field of cultural heritage is an asset

Period of assignment

iHERITAGE	June 2023 until the end of the project foreseen October 14 th , 2023.
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Evaluation:

CCIA-BML will evaluate applicants on the basis of responsiveness to the TOR with a key focus on:

- General and additional qualifications: Relevant education and training, length of experience, positions held, time as a consultant, experience in ENI countries.
- Suitability for the assignment: experience in the innovation and AR/VR and archeology, tourism sector in Lebanon and other information relevant to the particular assignment.
- Experience of having undertaken similar assignments in the past.

All submissions (curriculum vitae, references and expression of interest letter, and other materials useful for the evaluation) must be consistent with the TOR and should arrive no later than 12 pm, Beirut Time June 23, 2023 by email to: hr@ccib.org.lb ; it@ccib.org.lb.