

Designing a geospatial technologies-enabled Eastern Mediterranean science, engineering and technology centre of excellence for archaeology and cultural heritage

Phaedon Kyriakidis
Cyprus University of Technology
2-8 Saripolou Str., 3036
Lemesos, Cyprus
phaedon.kyriakidis@cut.ac.cy

Athos Agapiou
Cyprus University of Technology
2-8 Saripolou Str., 3036
Lemesos, Cyprus
athos.agapiou@cut.ac.cy

Vasiliki Lysandrou
Cyprus University of Technology
2-8 Saripolou Str., 3036
Lemesos, Cyprus
vasiliki.lysandrou@cut.ac.cy

Abstract

MedSTACH is the acronym for an AGILE-supported, Phase 1 Teaming for Excellence project, funded for one year under EU’s H2020-Widespread call to design the Eastern Mediterranean Science, Engineering and Technology Centre of Excellence for Archaeology and Cultural Heritage (CH). More specifically, project MedSTACH aims to establish Cyprus as an excellence hub in Archaeology and CH in the Eastern Mediterranean region and beyond, capitalising on multidisciplinary research, engineering practice, and technological innovation. To this respect, Cypriot public universities and relevant national stakeholders team up with leading international institutions to lay the groundwork towards the creation a geospatial technologies-enabled centre of excellence focusing on the study, protection, promotion and ultimately valorisation of the unique CH of Cyprus and the Eastern Mediterranean region.

Keywords: Horizon 2020, Teaming for Excellence, Coordination and Support Actions, Cyprus.

1 Teaming for Excellence

Despite long-standing funding mechanisms established to promote research and innovation in EU countries, significant disparities in these domains still exist among EU member states. Reasons for such disparities include among others the insufficient critical mass of science of in “low in Research & Innovation” performing (or “Widening”) countries, as well as the lack of centres of excellence having sufficient competence to strategically lead such countries towards innovative growth.

The Teaming Widespread call of the H2020 EU Framework Programme 2016-2017 aims at reducing research and innovation-related disparities between EU member states by supporting the creation of new centres of excellence (CoE), or the upgrade existing ones. Teaming-funded CoEs should be based in “Widening” countries, and should include as key partners leading EU-based research institutions.

Teaming projects should be aligned with the Smart Specialisation Strategy of the Widening country applying for funding, and should convincingly demonstrate the potential for sustainable research excellence. As Teaming projects encompass coordination and support actions, eligible actions include, among others, networking, dissemination, awareness-raising and communication, coordination or support services, policy dialogues and mutual learning exercises and studies. Successful Teaming projects will be receiving funding up to 15 million euros for a period of 5-7 years, with the requirement of an equal amount of national co-funding.

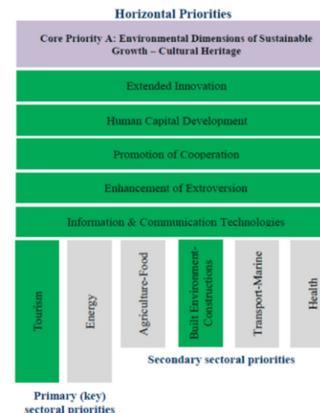
2 The MedSTACH project

MedSTACH is an AGILE supported, Phase 1 Teaming project, aiming to establish Cyprus as an excellence hub in Archaeology and Cultural Heritage (CH) in the Eastern Mediterranean region, capitalising on multidisciplinary

scientific research, engineering practice, and technological innovation. MedSTACH’s mission is the development of the necessary scientific and technological environment for advancing the state-of-the-art in (geospatial) technology-enabled research in Archaeology and CH, as well as related applications/services in Cyprus, the Eastern Mediterranean region, Europe and beyond.

MedSTACH’s mission is fully aligned with the Smart Specialisation Strategy for Cyprus (Figure 1), as it responds to the need for the study, protection, promotion and ultimately valorisation of Cyprus’s unique CH, as well as the development of alternative forms of specialised (thematic) tourism, e.g., cultural tourism.

Figure 1: Horizontal and sectoral priorities of the Smart Specialization Strategy for Cyprus; purple and green colours denote priorities addressed by MedSTACH.



Source: Smart Specialization Strategy for Cyprus, Directorate General for European Programmes, Coordination and Development, Cyprus.

The MedSTACH consortium includes the Cyprus University of Technology (Department of Civil Engineering and Geomatics) as project coordinator, the University of Cyprus (Archaeological Research Unit), as well as the key national stakeholders and policy makers of the island responsible for CH management, the Department of Antiquities, and for the promotion of Cyprus’s touristic product, the Cyprus Tourism Organization. The Cypriot institutions join forces towards sustainable research and innovation excellence with two renowned international institutions ranked among the region’s and world’s leaders in the field of archaeology and CH research and education: the Institute of Archaeology of the University College London (UCL) and the Institute for Mediterranean Studies of the Foundation for Research and Technology – Hellas (FORTH). The MedSTACH consortium constitutes a first-ever established alliance of this scale in Cyprus for archaeology and cultural heritage, both in terms of the number and diversity of partners involved, as well as the duration of their engagement in such a long-term joint venture.

Apart from the consortium members, support for the Phase 1 MedSTACH proposal, was also provided by several relevant entities/institutions shown below (Figure 2), including AGILE. This list is expected to grow further prior to the Phase 2 proposal submission in November 2018.

Figure 2: MedSTACH’s Phase 1 supporters

No.	Organization	Short Name	Description
1.	RoC, Directorate General for European Programmes, Coordination and Development	RoC	Public Authority responsible for European Programmes
2.	UNESCO-Cyprus National Commission	UNESCO-Cyprus	UNESCO Representatives
3.	Association of Cypriot Archaeologists	ACA	Archaeologist
4.	Cyprus Scientific and Technical Chamber	ETEK	Engineers
5.	Center for Virtual Arts & Research	CVAR	Private Centre
6.	Committee of Missing Person	CMP	Government
7.	Cyprus University of Technology	CUT	Academia
8.	University of Cyprus	UCY	Academia
9.	University College London	UCL	Academia
10.	Computer Applications on Archaeology (Gr)	CAA-Gr	Regional representatives of CAA
11.	National Hellenic Research Foundation	NHRF	Public Centre
12.	Association of Geographic Information Laboratories in Europe	AGILE	European Association

3 MedSTACH’s conceptual design

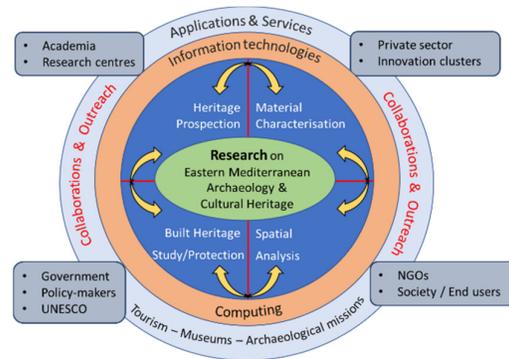
The main activities of the proposed Centre of Excellence in relation to its research thematic priorities are encapsulated in the following Key Research Domains (KRDs) shown in

Figure 3, covering multiple facets of archaeological inquiry and CH priorities:

- Heritage Prospection
- Material Characterization/Artifacts Studies
- Spatial Analysis
- Built Heritage Study & Protection

These KRDs will be supported by the Heritage Information Technology and Computation (ITC) Unit, which will constitute the technical backbone for the Centre, both in terms of data used for conducting research, as well as in terms of services and products for the scientific community and broader public (e.g. digital archiving and database management, ontologies and metadata creation, web services).

Figure 3: MedSTACH’s design



4 Expected impact

MedSTACH is expected to build critical scientific mass in Cyprus and the Eastern Mediterranean, by connecting existing pockets of excellence in the region, overcoming local barriers and modernizing research culture. MedSTACH is also expected to foster multidisciplinary research and training activities, modernise research culture, and become a leading provider of geospatial and related services in support of archaeological research and education in the region.

As MedSTACH will dynamically promote excellence in relevant research fields, it is expected to enhance Cyprus’s role as a pole of attraction for scientists and researchers from the Eastern Mediterranean region and the rest of the world, while promoting in a sustainable way smart specialization and new job creation.

References

European Commission, Horizon 2020 Work Programme 2016-17. [Online] Available from: http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-intro_en.pdf [Accessed 10th April 2018].

Directorate General for European Programmes, Coordination and Development (2015) *Smart Specialization Strategy for Cyprus Technical Report*, Nicosia. [Online] Available from: http://www.dgepcd.gov.cy/dgepcd/dgepcd.nsf/page44_en/page44_en?OpenDocument [Accessed 10th April 2018].

Acknowledgments

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 763635.