



## «Natural sciences & engineering for the protection of Cultural Heritage»

### Objectives and Brief Description:

*This panel will investigate the optimum exploitation of the expertise sourcing from the long term involvement of FORTH's Institutes in the field of research for Heritage Science (HS).*

*Frontier multidisciplinary research combined with the know-how derived from the participation in numerous EU and National projects related to HS, as well as the leading infrastructures and state of the art instruments available in FORTH's laboratories form an ideal environment in order to deliver Innovative, Reliable and Efficient tools for addressing demanding challenges in Cultural Heritage research.*

*The panel will discuss existing and new synergies towards strengthening the role of FORTH in future national and EU calls as well as other funding.*

*FORTH's involvement is described in three terms:*

**Micro:** *methods and tools appropriate for analytical studies of CH objects and materials, namely at the **microscopic** level. These involve novel laser/spectroscopic techniques for compositional analysis and mapping of materials on works of art, advanced methods for studying archaeological DNA and also modern laser-based technologies for conservation and restoration.*

**Macro:** *Non-invasive remote sensing, geophysical and geochemical measurements for surveying and mapping **macroscopically** the landscape of archaeological and historical sites including underwater ones.*

**Info:** *Development and use of innovative management systems that enable efficient documentation and handling of new data and **information** enhancing our understanding about CH sites, monuments and objects.*

### Moderators

Paraskevi Pouli (IESL-FORTH), Athanasios Argyriou (IMS-FORTH)

### Outline

#### A. State-of-the-Art

*(8-min presentations)*

1. Safeguarding CH monuments in the times of Climate Change - A. Argyriou (IMS)
2. Ancient DNA: Advancing Knowledge and Collaboration in Cultural Heritage Studies- N. Psonis (IMBB) *remotely*
3. Digital Infrastructures for Cultural Heritage – M. Theodoridou, C. Bekiari (ICS) *remotely*
4. FORTH in the EU Research Infrastructures ecosystem for Heritage Science; a culture of synergies, P. Pouli (IESL)

#### B. Discussion on future synergies