

Press Release

THE UNIVERSITY OF CALABRIA AND ELETTRA SINCROTRONE TRIESTE SIGNED A CONTRACT FOR A NEW EXPERIMENTAL MICROTOMOGRAPHY STATION.

The new instrumentation will be installed at Star, the university's research infrastructure for advanced materials analysis. It will allow to reveal many of the mysteries hidden in archaeological finds and other artifacts



Following a competitive tender procedure, the University of Calabria and Elettra Sincrotrone Trieste S.C.p.A., an international research center specialized in the generation of synchrotron light, have stipulated a contract for the construction of μ Tomo 2, a new experimental microtomography station that will be installed at STAR, the UniCal Research Infrastructure dedicated to advanced materials analysis.

Thanks to this agreement, the beamline that uses the high quality X radiation produced by the STAR lab, the innovative source that is the heart of STAR, will be equipped with an instrumentation that will allow to examine the internal structure and the chemical and physical composition of objects and artifacts in a non-invasive and non-destructive way, through the acquisition of three-dimensional images to very high resolution (as in the case of the Magna Graecia Bronze Mirrors from the National Museum of Locri represented in the image). In this way, many of the mysteries hidden in archaeological finds and in materials of interest to mechanics, electronics and energy can be revealed. This is a field of great

interest for the scientific community and for researchers of advanced technology companies that has already seen significant achievements in the region of Calabria, particularly in the field of diagnostics of cultural heritage (the "deciphering" of some fragments of the papyri of Herculaneum and the analysis of the constituent materials of the statues of Tepe Narenj in Afghanistan).

The construction and commissioning of μ Tomo 2, funded under the "STAR 2" project of the *Piano Operativo Nazionale* for the upgrading of research infrastructures, will see the close collaboration between a team of Trieste experts led by Dr. Diego Dreossi and the research group of the Physics Department of the University of Calabria led by Prof. Vincenzo Formoso.

Professor Riccardo Barberi, the scientific director of STAR, declared: *"Our University, unique in Italy, is going to be equipped with an infrastructure open to users that, with a multidisciplinary approach, will offer advanced scientific investigation services associated with the ability to produce new materials and devices, and to build prototypes that will exploit its performance. μ Tomo 2 is an essential device for investigating the interior of each object, protecting its integrity with obvious advantages for every discipline that, from biology to archeology, studies fragile materials".*

For more info

Riccardo Barberi, Scientific Director of STAR Research Infrastructure –
riccardo.barberi@fis.unical.it

Marco Peloi, Head of Industrial Liaison Office, Elettra Sincrotrone Trieste –
marco.peloi@elettra.eu