

JUNE 2021



AGREEMENTS

THE STAR X-RAY SOURCE UPGRADE BEGINS AT THE UNIVERSITY OF CALABRIA

The University of Calabria and the INFN have signed a contractual agreement for the enhancement of the X-ray source of STAR, the

University of Calabria's research infrastructure dedicated to advanced materials analysis. The agreement is funded by the Italian Ministry of University and Research in implementation of Action II.1 of the 2014-2020 National Operational Program for Research and Innovation.

The INFN, consistently with its specific mission to promote the use, innovative development and exploitation of its own technologies in large scientific infrastructures, especially those developed in the particle accelerator sector, will equip the STAR X-ray source with features that are unique in Europe, allowing the use of two distinct beamlines that will operate at different energies and on different materials. A high-energy line (up to 350 keV) will be dedicated to non-invasive and non-destructive investigations of objects and devices, even under operating conditions. The second, low-energy line (up to 160 keV), will instead be dedicated to the investigation of biological matter and, in general, of so-called soft matter (i.e. polymers, biomaterials). STAR is conceived as a facility open to external users, taking advantage of its operation within a large university campus. Guest researchers of the infrastructure will be able to conduct their experiments in the STAR experimental stations, also in synergy with other international centres, and they will have the opportunity to prepare their samples and immediately start analysing the obtained data directly in the six support laboratories that complete the infrastructure.