



COST Action CA24131

European Network for Radiation-Detection-based Research
and Innovation addressing increasing societal Challenges -
ENRICH

1 st Call for applications for hosting STSMs

Host Organization (Name, website)	CNR-Nanotec Rome Italy https://www.tomalab-cnr-nanotec.it/ https://nanotec.cnr.it/biotech-en/ https://nanotec.cnr.it/facilities_roma/
Location/Country	Rome/ Italy
Short description of the activities that could be done during the period of stay	During the STM stay at CNR-NANOTEC Rome, the visitor will undertake interdisciplinary research activities beginning with advanced X-ray tomography and radiography, X ray diffraction and fluorescence, supported by dedicated tools for image reconstruction and quantitative analysis. Work will further include the use of confocal and AFM microscopy for high-resolution imaging and nanoscale material characterization. The chemical facility will support the processing of molecular and biological samples and their preparation for multimodal imaging workflows. The stay will also involve AI-based imaging analysis, including reconstruction, segmentation, and integration of heterogeneous datasets. Additionally, the visitor may participate in multimodal X-ray/MRI experiments through collaborations with IRCCS, strengthening clinical translation and biomedical relevance.
Available Resources (Laboratories, experimental set-ups, beamlines, spectrometers, software, etc....)	X ray tomography lab Confocal microscopy and AFM 3D rendering software for imaging 3D reconstruction Advanced data analysis method for x ray diffraction and X Fluorescence

<p>Specific instrumental details (γ-, X-ray Detectors, X-ray sources, data acquisition systems, etc.)</p>	<p>The X-ray laboratory is equipped with the following instruments:</p> <ul style="list-style-type: none"> - X ray detector : PCO digital camera - X Ray source: the Hamamatsu L12161-02 150 KeV Microfocus X-ray source <p>The bio laboratory is equipped with:</p> <ul style="list-style-type: none"> - Confocal Microscope and AFM Zeiss - Microscopes.... - Microtome - AFM 	
<p>Relevance with ENRICH WGs</p>	<p>WG2</p> <p>WG3</p> <p>WG4</p> <p>WG5</p> <p>WG6</p> <p>WG7</p>	<p>Technological Advancement</p> <p>Software Advancement</p> <p>Electronics and DAQ</p> <p>Multidisciplinary and Societal Applications</p> <p>Integration and Interchange</p> <p>Mentoring, Training, and Dissemination</p>
<p>Length of the STSM</p>	<p>From 1 week to 1 months</p>	
<p>Contact person (name, surname, email)</p>	<p>Michela Fratini : michela.fratini@cnr.it</p> <p>Alessia Cedola: alessia.cedola@cnr.it</p>	