

Center for Sensors & Devices

At the Center for Sensors & Devices, researchers are engaged in four main topic areas: radiation sensors, integrated and quantum optics, electromechanical microsystems, and advanced and digital electronics.

Due to the peculiarity of the Sensors & Devices center, **FBK is a hybrid between a pure research center and an application and mini-production center**, needed to test usability, reproducibility and reliability of large-scale sensor prototypes.

For sensor production, the center has a specialized, state-of-the-art infrastructure - the **Micro Nano Fabrication Facility** - equipped with analysis, testing and development laboratories. The main infrastructure of the Micro Nano Fabrication Facility is the **Clean Room**, a laboratory that is more sterile than an operating room where silicon wafers are processed, from which researchers obtain radiation detectors used in fundamental physics experiments.

The Center for Sensors & Devices collaborates with **CERN**, as the only producer of silicon- 3D detectors, with **INFN-National Institute of Nuclear Physics** and **INAF-National Institute of Astrophysics**, with the **European Space Agency (ESA)** and the **Italian Space Agency (ASI)**