

Project Name: Investimento C05-i13 - Unidades de Investigação Científica

Contract Number: UID/PRR/5367/2025

Funding Program: FCT

Start Date: 01/01/2025

Completion Date: 30/06/2026

Coordinator: INESC Microsistemas e Nanotecnologias

Objectives, Activities, and Expected Results:

INESC MN aims to consolidate its national and international position in micro- and nanotechnologies by expanding research, training, and industry engagement. Research will focus on three transversal initiatives: (1) Post-CMOS multifunctional sensor systems for physical, chemical, and biological applications; (2) Sensor microsystems for agrifood and environmental monitoring; and (3) Novel optoelectronic devices with quantum, organic, and nanophotonic features. These initiatives build on core areas—spintronics, MEMS, microfluidics, and microsystems—while integrating emerging fields such as metasurfaces, organic electronics, wide bandgap semiconductors, and sensor interfaces.

The Cleanroom facility remains central to INESC MN's R&D, technology transfer, and collaboration with academia and industry. Human resource growth will continue with new group leaders in quantum electronic devices and in advanced packaging or bioelectronic interfaces. Planned investments include lithography, ion milling, and nanoimprint tools.

A new Tagus Park facility will host technology transfer and training activities, supporting INESC MN's ISO-certified services and strong engagement in the national semiconductor roadmap.

Total Project Budget: 685.244,34€ EUR