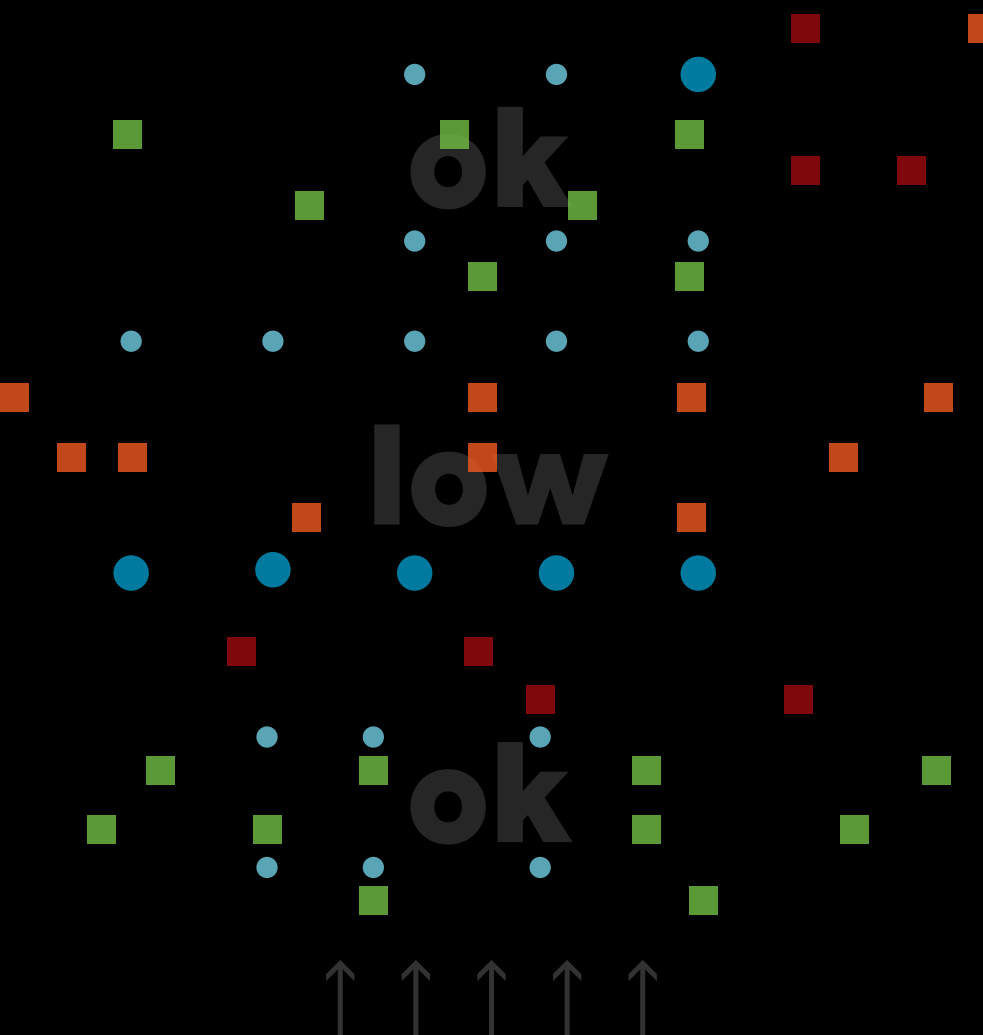# CISTER

RESEARCH CENTRE
IN REAL-TIME & EMBEDDED
COMPUTING SYSTEMS

INESCTEC
TECHNOLOGY & SCIENCE

CISTER

RESEARCH CENTRE IN REAL-TIME & EMBEDDED COMPUTING SYSTEMS

Real-time computing systems are those in which correctness depends not only on the logical result of computation, but also on the time at which the results are produced. This implies that, unlike more traditional information and communication systems, where there is a separation between correctness and performance, in real-time computing systems – like those deployed in the aerospace domain -these two aspects are closely related.

INESC TEC's Real-Time Embedded Computing Systems Research Centre has been active in both theoretical and applied research, exploring the synergies between these areas for more than 15 years. The highest practical impact of the activity stems from participations in national and international R&D projects and from the fact that the Centre is a member of the European Networks of Excellence in the area (ArtistDesign, CONET and HiPEAC). The ultimate goal is to explore knowledge and technology transfer on the design, implementation and validation of real-time and embedded computing systems with several industrial partners.

The expertise at INESC TEC makes it possible to jointly address competences that are providing advances and services in architectures for distributed embedded real-time systems, real-time wireless sensor networks, cyber-physical systems, operating systems and quality-of-service distributed computing:

- Wireless Sensor and Actuator Networks
- Embedded Middleware
- Real-time Operating Systems
- Multicore Platforms
- Mission Critical Software
- Adaptive Energy Control
- Avionics

The Real-Time & Embedded Computing Systems Research Centre (CISTER) is an Associate Unit of INESC TEC hosted by the School of Engineering (ISEP) of the Polytechnic Institute of Porto (IPP), PT.

PARTNERS INCLUDE Airbus (FR) // Critical Software (PT) // EADS (DE) // Embraer (BR) // Finmeccanica (IT) // Honeywell (US/CZ) // Space Systems Finland (FI) // SYSGO (DE) // Thales (FR)