

## **INESC-ID** objectives

This presentation emphasizes only the activity of INESC-ID in relation to the Control of Concentrated Solar Plants (CSP).



For a full institutional presentation and further details see

#### http://www.inesc-id.pt

INESC-ID is a R&D created in 2000, that is dedicated to advanced research and development in the fields of Information Technologies, Electronics, Communications and Energy.

## **INESC-ID** mission



- Integrate competences from researchers in electrical engineering and computer science to advance the state of the art in computers, telecommunications and information systems.
- Support the first stages of the value generation chain: basic research, applied research and advanced education.
- In cooperation with other institutions, perform technology transfer, support the creation of technology based startups and provide technical support.

# **INESC-ID** strategic programme, 2015-2020

INESC-ID aims at being the main research center for combined Computer Science and Engineering (CSE) and Electrical and Computer Engineering (ECE) in Portugal, addressing a wide range of related fields, including: energy systems, control, signal processing, electronics (circuit design, quality, and test), embedded systems, networks, distributed systems, software engineering, algorithms, data management, bioinformatics, information systems, intelligent agents, human computer interfaces and graphics, and natural language processing. The laboratory is committed to achieving excellence in all of these topics and the indicators of scientific quality of INESC-ID have been steadily improving over the years since its creation. In several of its areas, INESC-ID already competes at the highest level in the international arena.

Our strategic plan is to leverage these strong foundations to embrace, larger, multi-disciplinary projects with higher impact in society. Namely, INESC-ID plans for the next years:

- To continue and expand the set-up of inter-disciplinary projects;
- To reinforce the experimental infrastructures of the laboratory;
- To further increase the internationalization, by augmenting the participation in research networks and by increasing the number of international post-doc and PhD students;
- To also increase the number of on-going technology-transfer activities to the Portuguese CSE and ECE industrial sectors;
- In cooperation with the universities and schools associated with INESC-ID, to continue to serve as one of the largest contributors of qualified people (BSc, MSc, and PhD) in the areas of CSE and ECE;
- To improve the number and qualifications of the supporting staff;
- To continue to improve its internal quality assessment mechanisms;



### **INESC-ID** structure

INESC-ID was created in 2000 and currently has an annual budget of 4M€ and integrates more than 100 PhD researchers and two hundred post-graduate students, divided in 19 research groups that are organized in 5 main Research Areas:

- Computing Systems and Communication Networks
- Embedded Electronic Systems
- Information and Decision Support Systems
- Interactive Intelligent Systems
- Energy Systems





INESC-ID participates in STAGE-STE through the research group on Control of Dynamic Systems. This research group is part of the Energy Systems Research Area.



## **INESC-ID** research activities related to CSP

Over the past 20 years, INESC-ID developed a significant experience on developing advanced control algorithms for CSP.





This was achieved through the participation in European and national research projects, including SFERA, SOLFACE and several editions of European program of access to large scale installations. These projects provided a "hands on" experience on the testing of advanced controllers in places like the Promés (CNRS) complex at Odeillo, France (solar furnaces) and Plataforma Solar de Almeria, Spain (distributed collector solar fields).