

**Instituto de  
Investigação  
Aplicada**

Politécnico de Coimbra



**Applied Research Institute (i2A)**  
**Research to Innovate: bridges to success**

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# Politécnico de Coimbra



  
**Escola Superior Agrária**  
Politécnico de Coimbra

  
**Escola Superior de Educação**  
Politécnico de Coimbra

  
**Escola Superior de Tecnologia e Gestão**  
Politécnico de Coimbra

  
**Escola Superior de Tecnologia da Saúde**  
Politécnico de Coimbra

  
**Instituto Superior de Contabilidade e Administração**  
Politécnico de Coimbra

  
**Instituto Superior de Engenharia**  
Politécnico de Coimbra



**Instituto de Investigação Aplicada**

Politécnico de Coimbra

Applied Research Institute (i2A)



**INOPOL Academia de Empreendedorismo**

Politécnico de Coimbra

Entrepreneurship Academy



**Centro Cultural Penedo da Saudade**

Politécnico de Coimbra

Cultural Academy

# Polytechnic of Coimbra

## > 180 Courses

24 Technologic Specialized Courses (CTESP)  
49 Bachelor Degrees  
51 Master Degrees  
5 Post-Graduate Courses  
other vocational and professional courses

## An inspiring and dynamic environment...

> 800 teachers/researchers (invited and carrier)  
101 Specialists  
395 PhD

> 420 non-teaching personnel

> 35 Research fellows (annual average)

> 11 000 students





## VISION

The Applied Research Institute (i2A) was created with the vision of the Polytechnic of Coimbra to gain national and international scientific scale.



## MISSION

- a) promote, stimulate, support and manage **applied research activities**;
- b) contribute to the **rationalization and integrated management of the Polytechnic of Coimbra scientific resources**;
- c) **develop applied research and technology**, contributing to **knowledge transfer** to industries and to the community to better develop and improve **products, processes and services**.



## VALUES

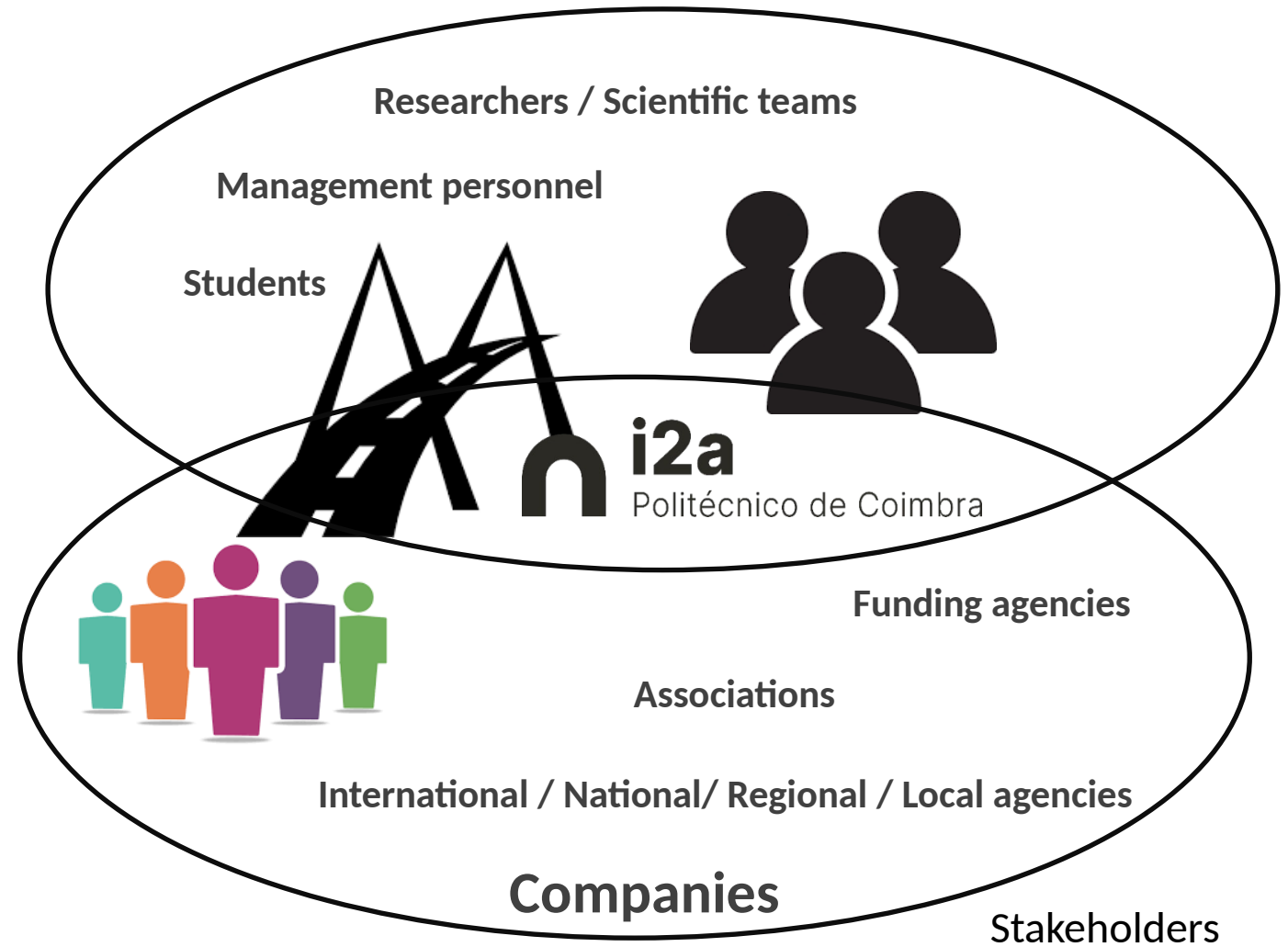
Excellence  
Experience  
Interdisciplinarity  
Sustainability  
Accuracy

# Build bridges

There are two ways...



hard way...



easy way...

# SPECIFIC OBJECTIVES OF i2A

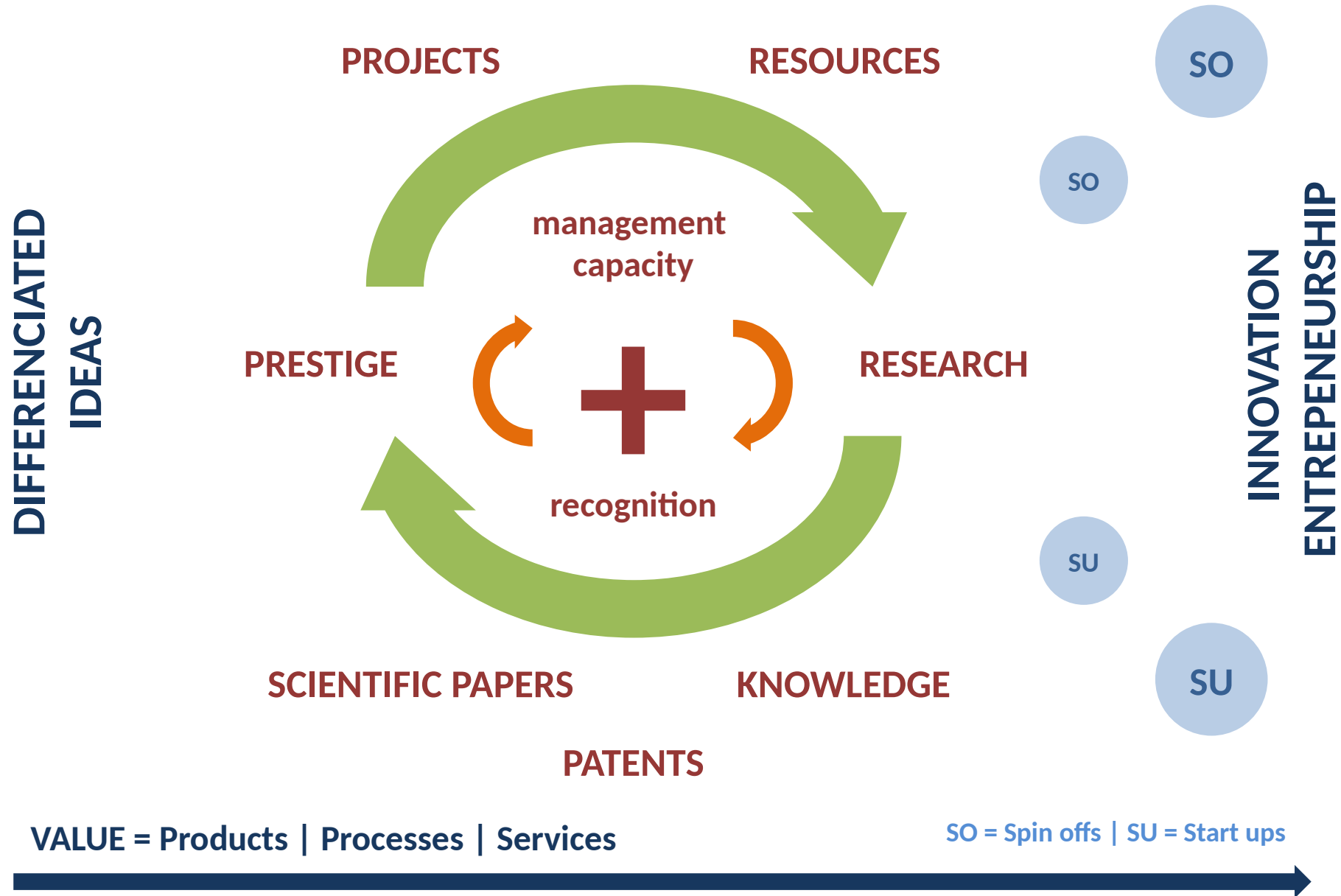
## Management and internal organization:

- To support research groups in the **preparation of application/calls procedures** for national and international research projects, as well as their **administrative and financial management**;
- To **promote the integration of R&D efforts of the functional units** of the IPC and **promote the careful and rational management of the available resources**, especially regarding the maximum profitability of the existing **scientific equipment, laboratory infrastructure and human resources** of the IPC;
- To **stimulate (new) forms of organization** of the scientific activity and assure an **adequate scale to the research teams**.

## Community interface

- To **promote the implementation of applied research and technology transfer activities and knowledge** to help the industry and the community to better **develop and improve products, processes and services**;
- To promote the development and **strengthening of regional, national and international networks with RD&I institutions** to promote the development of **research projects and scientific co-creation activities**;
- To **support the economic development of Portugal Central Region**, through partnerships with **institutions and industries - especially SMEs - by promoting applied research and business innovation**.

i2A + RD&I MODEL





# i2a

Politécnico de Coimbra

## Laboratórios

LBA - Laboratório de Biomecânica Aplicada  
LABINSAÚDE - Laboratório de Investigação Aplicada em Saúde  
LACED - Laboratório de Computação de Elevado Desempenho  
ROBOCORP - Laboratório Robocorp  
SISUS - Laboratório de Sistemas Industriais Sustentáveis  
VALOREN - Laboratório de Valorização de Recursos Endógenos e Naturais

## Unidades de I&D

CERNAS - Centro de Estudos de Recursos Naturais, Ambiente e Sociedade  
CITUR - Centro de Investigação, Desenvolvimento e Inovação em Turismo  
CDPH - Centro de Desenvolvimento do Potencial Humano

RCM2 – Unidade de Investigação em Manutenção e Gestão de Ativos Físicos  
CBS Research Centre – Centro de Investigação em Ciências Empresariais da Coimbra Business School

## Polos de Unidades I&D

CEF - Centro de Ecologia Funcional

## Núcleos de I&D

ASSERT/UNICID - Unidade de Investigação Aplicada em Ciências do Desporto  
NICSH - Núcleo de Investigação em Ciências Sociais e Humanas  
NIEFI - Núcleo de Investigação em Educação, Formação e Intervenção  
UrbH - Núcleo de Saúde Urbana  
CCCA - Centro de Competências em Ciber Actividades

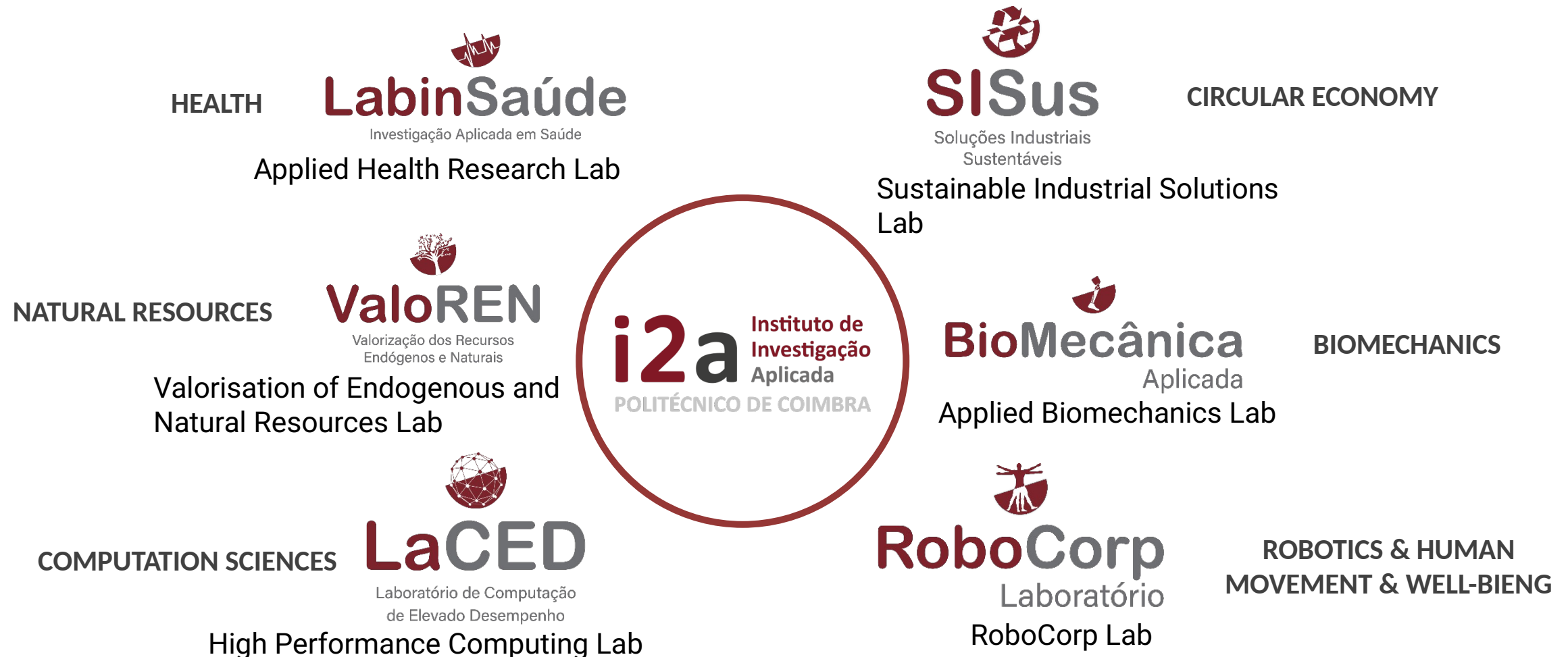
SusCita – Núcleo de investigação em SUStentabilidade, Cidades, e InTeligênciA Urbana



Politécnico  
de Coimbra



# Laboratories



*External R&D groups and units*

(Over 120 IPC researchers integrate more than 30 external research FCT recognized R&D centres)

## Research Centers and Poles recognized by the Portuguese Foundation for Science and Technology - FCT



It is the only research center in the Central Region that develops research in the strategic areas of **agriculture, agroindustry, forestry and rural development.**

It is in three territorial poles: Coimbra, Castelo Branco and Viseu.



It is an R&D unit of the national polytechnic subsystem that focuses its **research on tourism.**



Center its research in the field of **forest ecology.**

projects

core  
research  
areas

- Agriculture
- Biological and Environmental Sciences
- Forests
- Biotechnology
- Agrifood
- Civil Engineering
- Electronic and Computer Engineering
- Mechanical Engineering and Biomechanics
- Health
- Economics and Management
- Sociology

## Funding Programs



# HiRezBrainPet

neurofunctional cerebral imaging by high resolution Positron  
Emission Tomography (PET)

We aim to develop an innovative PET scanner with sub-millimeter spatial resolution using a disruptive detection technology based on Resistive Plate Chambers (RPC-PET), a technology in which the promoters are world leaders, capitalizing on the acquired experience of more than a decade in this area.

# H2020 Projects in Health

- **MEDIRAD**

Implications of medical low dose radiation exposure

- **EURAMED Rocc-N-Roll**

European Medical Application and Radiation Protection Concept: Strategic Research Agenda and Roadmap Interlinking and digitization Aspects

- **i – VIOLIN**

Implementing verifiable Oncology Imaging by quality assurance and optimization

Health School Research Team  
Leadership of Professor Graciano Paulo

20%

Internacional projects

80%

Nacional projects

50%

Projects with **companies**  
directly involved

of which 25%  
in **business co-promotion**

provision of services to  
companies at the RI&TD level

11%

> 12 M€

of investment

> 9 M€

of incentive



Instituto de Investigação Aplicada

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