

Ciências ULisboa

Faculdade
de Ciências
da Universidade
de Lisboa

Research @ CIÊNCIAS

WELCOME SESSION

2023

OUTLINE

1. Being a researcher @ CIÊNCIAS
2. What you need to know about research @ CIÊNCIAS
3. CIÊNCIAS research environment
4. Duties and responsibilities of CIÊNCIAS researchers
5. CIÊNCIAS support to research

3 Researchers types

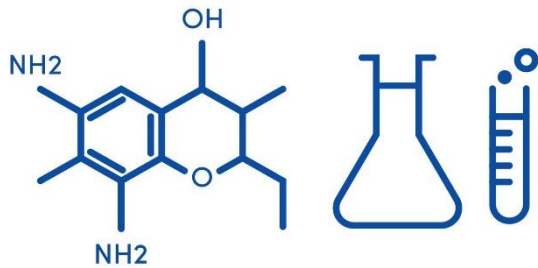
- Professors
- Contracted Researchers
- Post-Doctoral Fellows

Main ≠: time devoted to research vs teaching and other duties

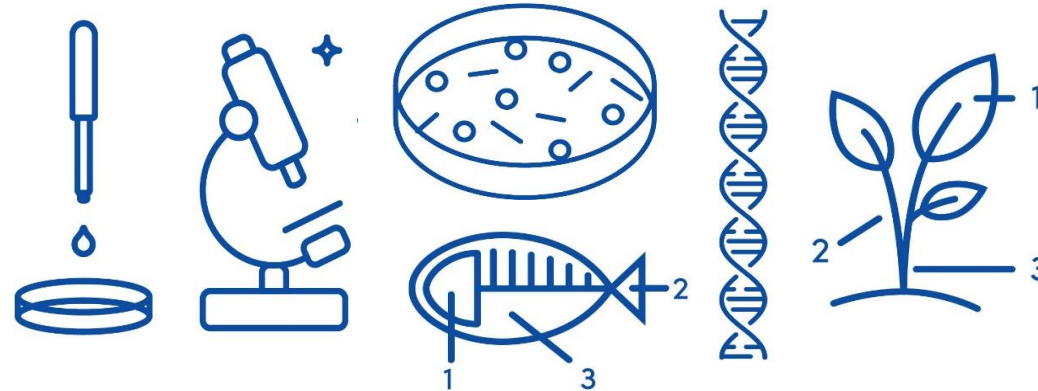
2. What you need to know about research @ CIÊNCIAS

7 scientific areas

Chemical Sciences and Technologies



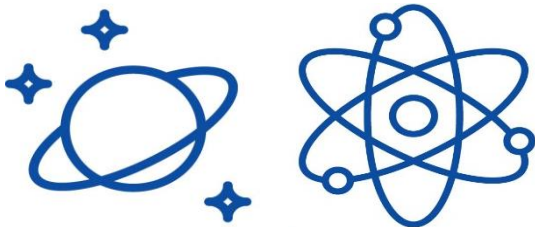
Life Sciences



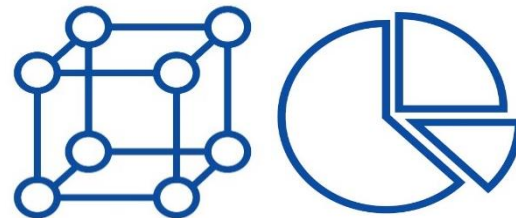
Earth Sciences



Physical Sciences and Engineering



Mathematical Sciences



Computer Science and Engineering



History and Philosophy of Science



73735	45963	78134	63873
02965	58303	90708	20025
98859	23851	27965	62394
33666	62570	64775	78428
81666	26440	20422	05720

15838	47174	76866	14330
89793	34378	08730	56522
78155	22466	81978	57323
16381	66207	11698	99314
75002	80827	53867	37797

99982	27601	62686	44711
84543	87442	50033	14021
77757	54043	46176	42391
80871	32792	87989	72248
30500	28220	12444	71840



From data mining to artificial intelligence

From molecules to ecosystems

From the Arctic to the Antarctic

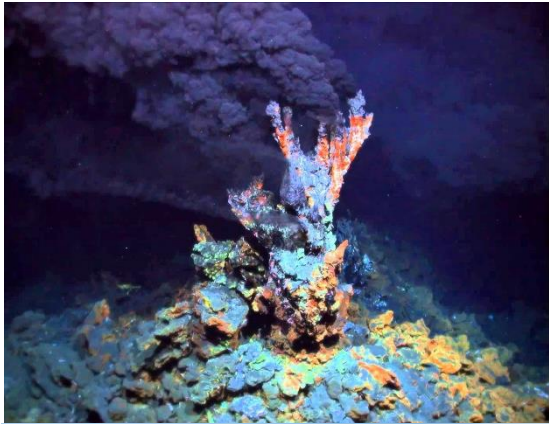
From planet earth to the outer world

From theory to practice



Analytical techniques, lab and field experiments, modelling and numerical simulations

... we investigate all over earth



From the deep sea hydrothermal vents to top mountain lakes

Mediterranean Woodlands



African Savannas

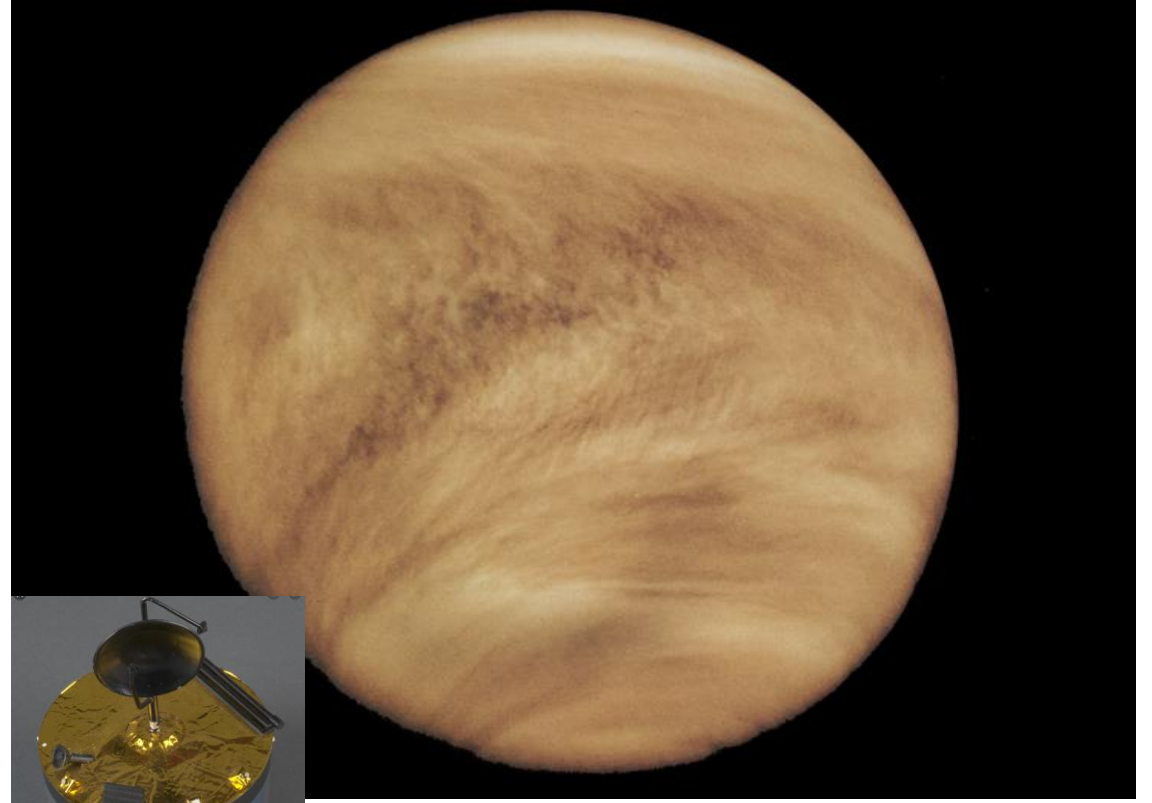


Tropical Rainforests





Black Hole – Event Horizon Telescope



Pioneer Venus Orbiter (NASA)

3. CIÊNCIAS research environment

19

R&D Units



10

Departments



>1000

Academics &
Researchers

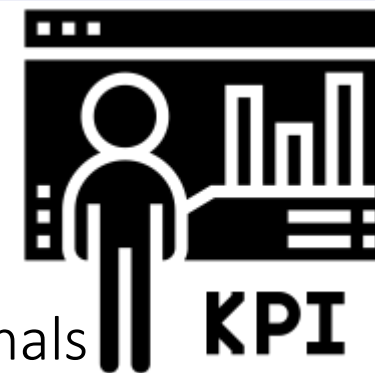


DRIVEN BY EXCELLENCE

90% of R&D units rated as **Excellent or Very Good**, well above 64% average at national level (last evaluation exercise 2017/2018)

25% of 2020 ULisboa publications
and **one of the two highest**
publication rates per capita

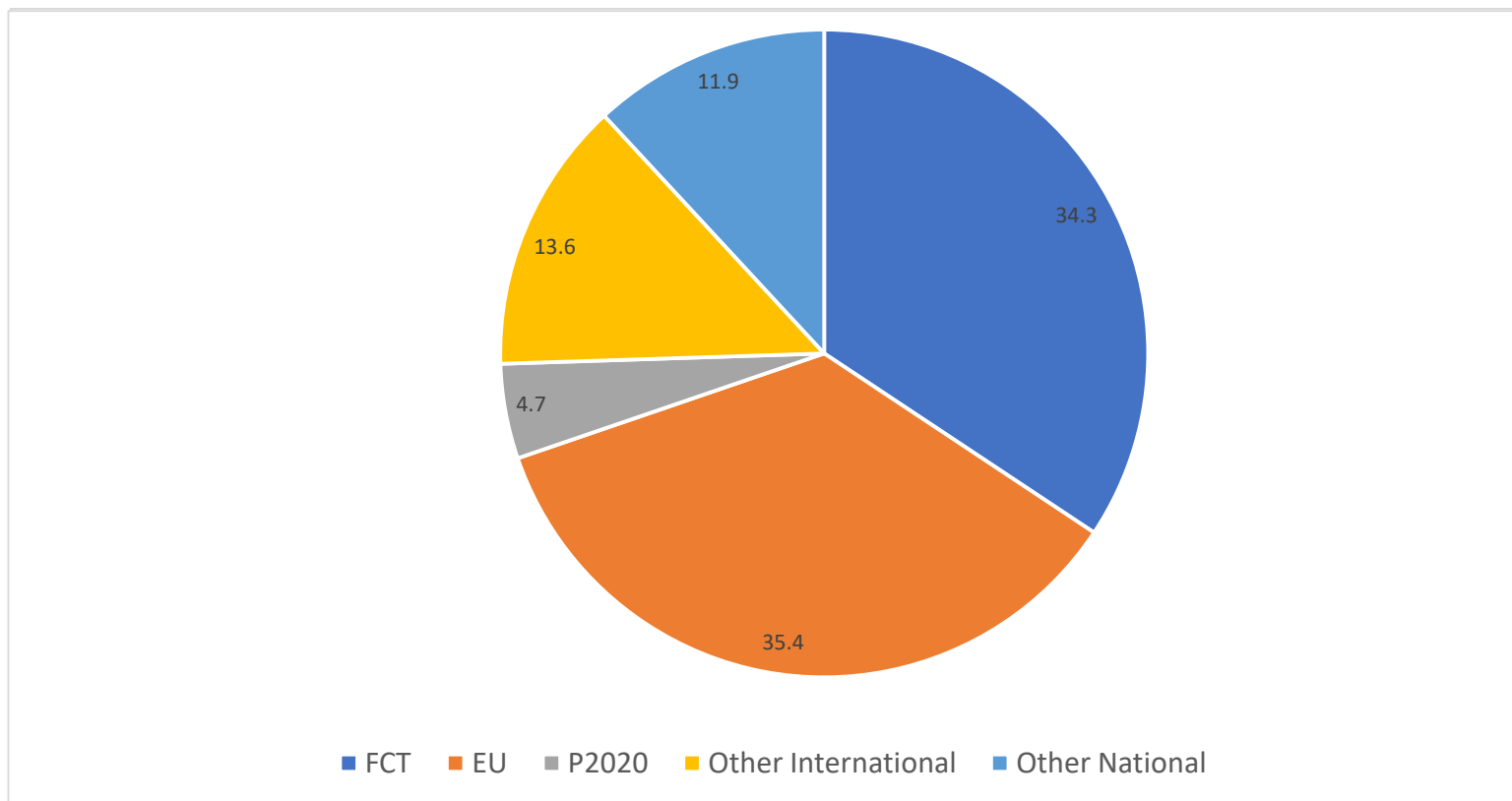




2022

468	Funded Projects (national and international)
1242	Scientific articles & reviews published in international journals
>85%	Q1 and Q2 ranks
152	Books (33) and book chapters (119)
11	European Individual Grants: ERCs (6) + Marie Curie (5)
57	European Collaborative Grants: Marie Curie (8) + other (49: Erasmus+, Twining, COST actions, LOS-COST, ESA, Societal Challenges)
641	Cooperation Protocols (132 new)

Who funds our research?



468

ongoing projects 2022

38,6 M€

executed in 2022

13,72 M€

approved in 2022 (150 new projects)

EU: 4,86M€

P2020: 0,65M€

FCT: 4,71M€

Other internationals: 1,87M€

Other nacionais: 1,63M€

Some of our *in-campus* research infrastructures

Mass Spectrometry



BioImaging Lab



Genomics Labs



Stable Isotopes



Computer Labs



Bioterium



From COVID 19 to the next X disease

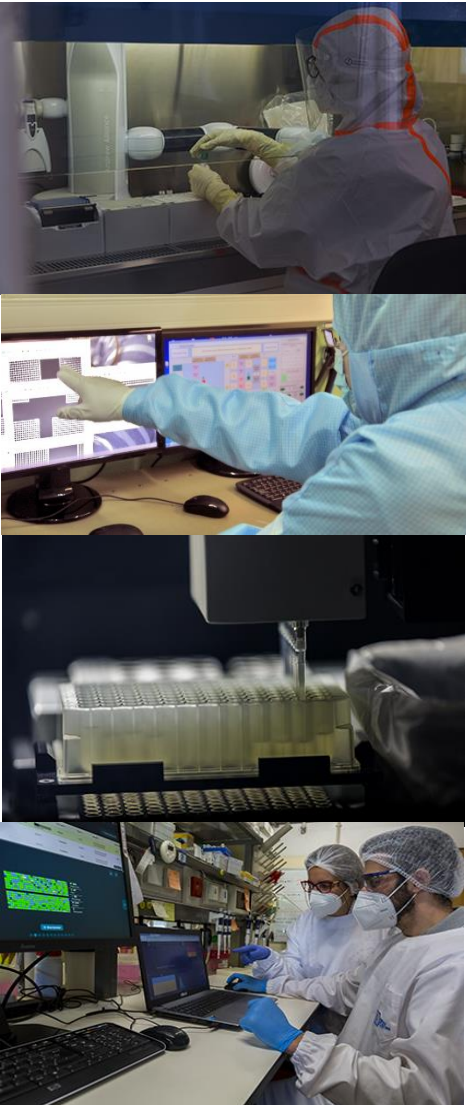
Center of Excellence for co-creation and validation of new processes for detection, identification, surveillance and mitigation of the next pandemic (Disease X).

Objective

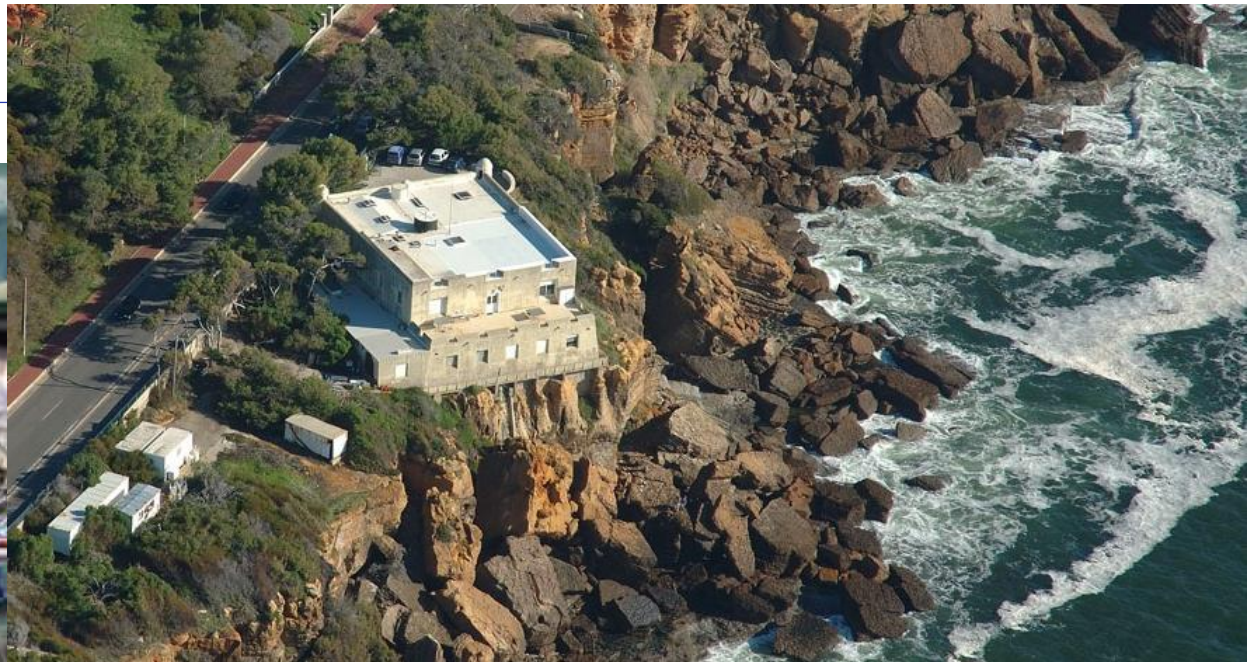
Achieve a high level of response readiness and institutional interoperability, contributing to the ability to incisively contain and mitigate new emerging biological threats

Mission

Innovate, Monitor, Protect, Defend Portugal against new emerging biological threats of natural, synthetic, intentional or unintentional origin.



*Ex-campus
facilities*



Herdade da Ribeira Abaixo (Grândola)

FCT

Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E ENSINO SUPERIOR

**PORTUGUESE
ROADMAP
OF RESEARCH
INFRASTRUCTURES
– 2020 Update**

FCT – Fundação para a Ciência e a Tecnologia

10 PT RI

Biological and Medical Sciences

Portuguese Mass Spectrometry Network (RNEM)

Portuguese Platform of BioImaging (PPBI)

Health & Food

National Infrastructure for Chemical Biology and Genetics (PT-OPENSREEN)

Environmental Sciences

Collaboratory for Geosciences (C4G)

Portuguese Coastal Monitoring Network (CoastNet)

Portuguese E-Infrastructure for Information and Research on Biodiversity (PORBIOTA)

European Multidisciplinary Seafloor and Water Column Observatory (EMSO.PT)

Physical sciences and engineering

Network of Extreme Conditions Laboratories (NECL)

WindScanner Facility (WindScanner.PT)

Social Sciences and Humanities

Common Language Resources and Technology Infrastructure of Portugal (PORTULAN CLARIN)

...EU partner research infrastructures

C4G |



ESFRI

European Strategy Forum
on Research Infrastructures



EMSO.PT |



RNEM |



EMPHASIS |



PORTULAN CLARIN |



PPBI |



PORBIOTA |



ICOS



...EU partner research networks



European Space Agency



European Southern
Observatory



European
Organization for
Nuclear Research





5 Competence Centres (CC) promoted by the Ministry of Agriculture:

- CC for the cork oak and cork
- CC for aromatic, medicinal and spicy plants
- CC for the stone pine and pinion
- CC for the fight against desertification
- CC for the Mediterranean diet



creation of economic
and social value

3 Collaborative Labs (CoLAB) promoted by the FCT:

- BIOREF – CoLAB for Biorefineries
- Smart farm – CoLAB for Digital Innovation in Agriculture
- Smart Hub Energy – CoLAB Smart Energy Services Innovation Hub

World's Top 2% Most Influential Scientists

Stanford University, USA (ELSEVIER data)

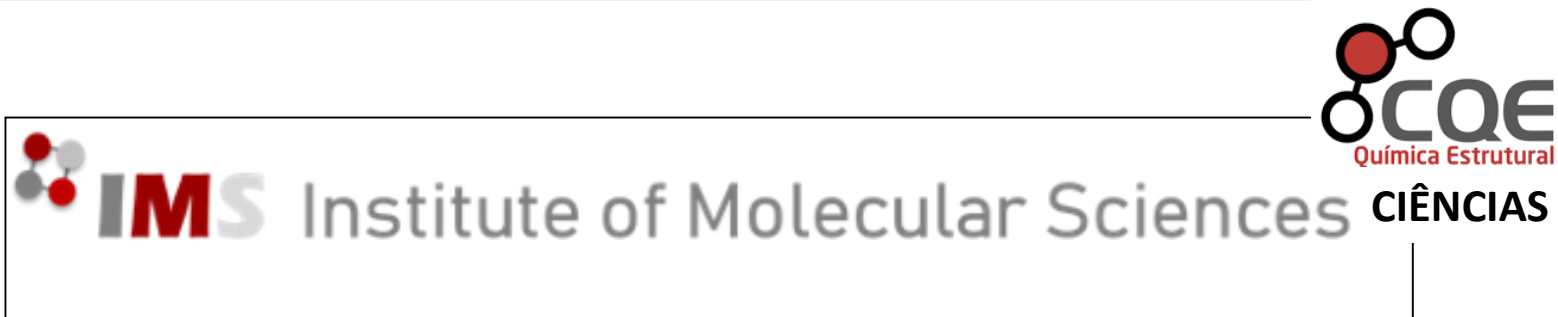


CiÊNCIAS has several scientists in the 2022 *individual ranking* in various disciplines...

... and several in the *career impact ranking* (1960-2022)



... from science to public policies



5 Associate Labs promoted by FCT to support public policies



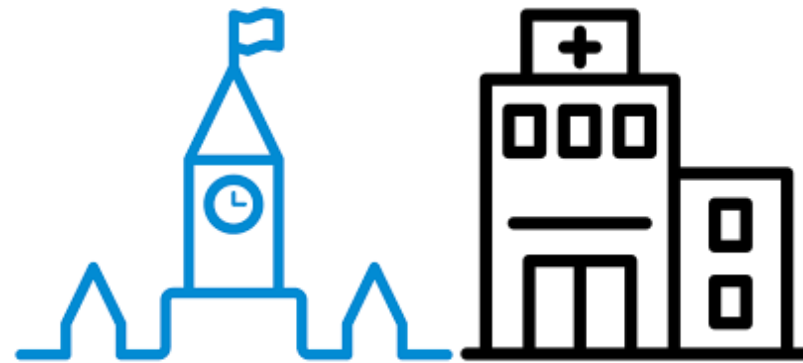
To whom we relate



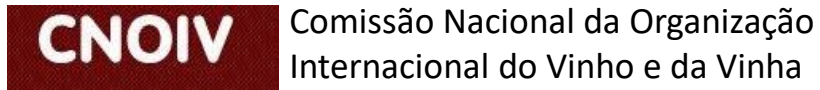
Universities and Research Institutions



Public institutions and business enterprises



Government, Municipalities and Hospitals





Mapping
Protocols

4. Duties and responsibilities of CIÊNCIAS researchers

- **To coordinate with the R&D unit(s) and the Department(s)** to determine research objectives and resource needs
- **To create a plan of action**, set project goals, and manage to completion
- **To conduct high-quality research** on a topic of interest according to the research strategy of CIÊNCIAS and that of the R&D unit and project to which they belong
- **To pursue funding opportunities** and apply for projects/contracts (as PI or partner) for supporting the research activities

4. Duties and responsibilities of CIÊNCIAS researchers

- To mentor students research assignments (advanced training)
- To work ethically and collaboratively
- To participate in the CIÊNCIAS Research Day, held annually (2023 - October 23)



4. Duties and responsibilities of CIÊNCIAS researchers

- **To create a CIÊNCIAS e-mail account** to be used in all work-related communications
- **To regularly publish results** envisaging top journals on the field of specialization and following the **CIÊNCIAS affiliation rules**
<https://ciencias.ulisboa.pt/en/affiliation-rules>
- **To engage with the image and communication offices** (from the R&D unit and the central office) to promote Ciências research quality (via the media – journals, TV, etc.) whenever impact research is produced (e.g. high impact papers, prizes, patents, etc...). Email: info.ciencias@fc.ul.pt
- **To regularly update BIBLIOS** (Bibliographic Reference Management System of CIÊNCIAS) <https://biblios.ciencias.ulisboa.pt>

<https://ciencias.ulisboa.pt/pt/biblios>

BIBLIOS

Ciências References Management System

Visitor Mode (Login)

- 1st step: Insert DOI and reference details will be automatically filled
- 2nd step: Associate authorship / UI&D and Department
- 3rd step: Select publication ranking (e.g., Q1 - list available after ISSN is provided)

SEARCH

Q Search by author, editor, title, DOI, ISBN



44804 PUBLICATIONS FOUND

Stats

2021	An anthropomorphic axillary region phantom S. Abedi et al., with 10 authors including: R.C. Conceição	Conference papers
2020	More tolerant than expected: Taking into account the ability of Cladonia portentosa to cope with increased nitrogen availability in environmental policy S. Munzi et al., with 10 authors	Journal articles

Besides space, access to research infrastructures, IT support and links to media, we provide:

- Info on funding and networking programmes
- Administrative and management support for contracts and projects submission
- Support to entrepreneurship, innovation and technology transfer actions
- Research prizes and internal funding opportunities

This is done by...

5. CIÊNCIAS support to research



<https://ciencias.ulisboa.pt/pt/direcao-de-id>



<http://www.fciencias-id.pt/>

Project Management Office



Administrative and financial management of projects

Research Support Office



Interface with contractors and participants, monitoring and decoding of public policies and financing for R&D and Innovation,

Innovation and Entrepreneurship Area



Knowledge enhancement activities; promotion and operationalization of entrepreneurship, innovation and technology transfer



<https://teclabs.pt/>



Private entity, created in 2017 by CIÊNCIAS and 6 private companies as associates, being responsible for the administrative and financial management of CIÊNCIAS R&D Units, research projects and contracts for services provision

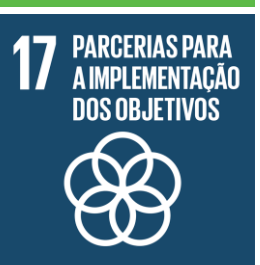


Ciências ULisboa

Commitment to sustainable development goals



- Sustainability Report
- Sustainable Campus Network
- Sustainability Training (FSE 1st, 2nd and 3rd Cycles)
- Idea Contest



1788 painéis solares | 566 000+ kWh produzidos



290 estruturas de reciclagem
1 central de compostagem | 1 central de vermicompostagem



A melhor CIÊNCIA faz-se @ CIÊNCIAS

The every day challenge is to do it even better