



UBI Atlas of Research Units

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01

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Foreword Vice-Rector for Research



The University of Beira Interior (UBI) is one of the youngest public universities in Portugal and a member of the UNITA (*Universitas Montium*), an alliance of 6 European mountain Universities, all Romanic language speaking and committed to foster the socio-economic development of rural and cross-border mountain areas.

Carrying on research activities that lead to the advance of knowledge and development of innovative products and solutions for industry and society is a central pillar of the UBI's mission and strategy. Fundamental and applied research activities are developed within 18 research and development (R&D) units or poles through national and international projects and consortia, in close collaboration with regional, national, and international industry partners and other organizations.

The UBI R&D Units or poles are associated with the different UBI' Faculties, i.e. the Faculty of Sciences, Faculty of Engineering, Faculty of Social

Sciences and Humanities, Faculty of Arts and Letters, and Faculty of Health Sciences, functioning as departmental organic sub-units. 13 of the 18 UBI' R&D units were rated as Very Good or Excellent in the 2017-2018 evaluation process by the Fundação para a Ciência e a Tecnologia (FCT) that was ended in 2019. This makes us proud, being also a motivation and a will to continuing improving the UBI's research and innovation capacity.

The broad nature of research activities covering nearly all areas of knowledge, the richness of scientific areas, and the international environment, nurtured by the UNITA membership, place UBI in a privileged position to tackle global societal problems, contributing to human well-being and a more sustainable future for the next generations.

This Atlas depicts the architecture of research organization at UBI, highlighting the value of activities performed and scientific achievements. It will be instrumental in promoting interdisciplinary research, which can

be a driver for excellence and innovative science.

Overall, I wish this Atlas may foster the visibility of UBI's research in the national and international context and its valorization and use by society.

The Vice-Rector

Sílvia Socorro



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Foreword President of ICI



Since its inception, the University of Beira Interior has had a matrix organization that, in addition to facilitating the sharing of resources between the different organic units, enables and encourages cooperation between them without jeopardizing the indispensable independence and autonomy of the various faculties.

In this spirit the University has an organic unit (at the same hierarchical level as the other faculties), ICI, "Instituto Coordenador da Investigação" that joins all the research and development units (UID) at the University. The Research Coordinating Institute (ICI) is an organic unit established under Article 7 of the University of Beira Interior (UBI) Statutes.

The ICI mission is to promote scientific culture at the UBI, stimulate Research in the UBI, and support the various research centers, poles, or delegations based at the University to collaborate in implementing new research and development Units.

To fulfill its mission, ICI has, in particular, the following attributions:

a) Participate in the implementation of UBI's strategic decisions regarding

research;

b) Identify and propose priority research areas, in particular in the form of Research and Development Units, Laboratories, Consortia, or other forms of association, as appropriate;

c) To promote the quality of the scientific work of the Research and Development Units, specifically:

c1) Propose initiatives to enhance its competitiveness.

c2) Support Research Workshops and Laboratories, including the acquisition of material resources and coordinating the hiring of human resources;

d) Promote scientific meetings at the University;

e) Promote scientific awards and scholarships;

f) Promote the production of scientific dissemination content;

g) Promote the interconnection between Research Units to enhance interdisciplinary projects/collaborations;

h) Motivate the Region's community, young people in particular, for scientific and technological topics;

i) Support, with scientific support, the creation of science, computer,

and arts clubs in schools in the Region.

All the 20 UID at the UBI are part of the ICI scientific council, and thus all share the ICI responsibility. Together they are directly responsible for scientific development in the University, the Region, and the world.

After reading the following few pages, with a brief description of UBI's UIDs, it will become clear that, despite the UBI being a small university, it is a giant in its research that covers a wide range of areas of knowledge.

UBI is prepared to face the challenges of the future that will require more knowledge, more innovation, and more science.

The ICI president

António Tomé



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Executive Summary



The UBI Atlas of Research Units aims to be a vehicle for disseminating UBI's research and the institutional framework of the Research Units and Poles supported by the Fundação para a Ciência e a Tecnologia (FCT). The UBI Research Units and poles are central players in the UBI strategy and vision for research and innovation. They are pivotal in developing fundamental and applied research in close collaboration with the business sector and society. These connections provide a fruitful environment for the creation of collaborative work in line with societal challenges and sustainable development goals. R&D units are also the space and the supportive structures of creativity and innovation, as well as offer highly qualified employment and advanced training in several scientific domains.

The UBI R&D units are included in the FCT Atlas of Research Units in the scientific domains of Engineering and

Technology Sciences, Natural Sciences, Social Sciences, Humanities, and Medical and Health Sciences. Their average dimension is of 37 researchers per unit and the amount of base and programmatic funding ranges from 0,3 to 1,41 M€. Data was obtained from the FCT Portuguese Atlas of Research Units 2022 and R&D Units websites.

This Atlas highlights the landscape of the UBI's FCT-funded Research Units and Poles and presents their detailed description, namely the strategic aims, activities, and impact.

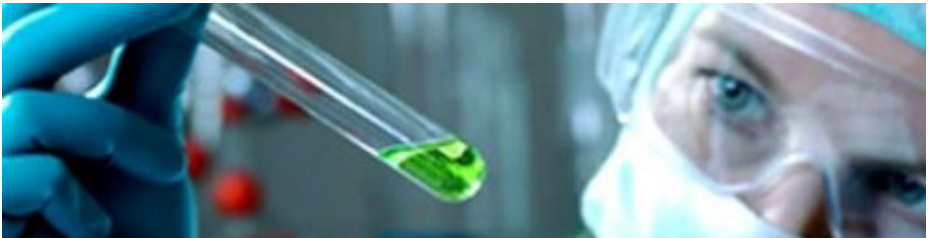


05

List of Research Units



Faculty of Sciences



- CMA - UBI | Center of Mathematics and Applications of University of Beira Interior
- IDL-UBI | Instituto Dom Luiz | (UBI Pole of R&D Unit)

Faculty of Health Sciences



- CICS-UBI | Health Sciences Research Centre

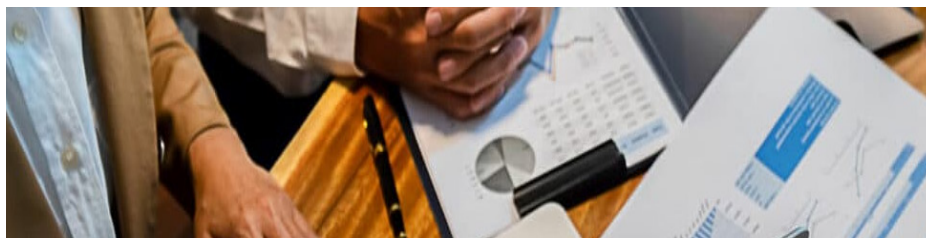




- FibEnTech | Fiber Materials and Environmental Technologies
- C-MAST | Center for Mechanical and Aerospace Sciences and Technologies
- C-MADE | Centre of Materials and Building Technologies
- CISE | Electromechatronic Systems Research Centre
- IT-UBI | Institute for Telecommunications (Pole of R&D Unit)
- AERO G | LAETA | Associate Laboratory of Energy, Transports and Aeronautics
- GeoBioTec-UBI | GeoBioSciences, GeoTechnologies and GeoEngineering (Pole of R&D Unit)
- NOVA | LINCOS-UBI | Laboratory for Computer Science and Informatics (Pole of R&D Unit)
- CiAUD | Research Centre for Architecture, Urban Planning and Design (Pole of R&D Unit)

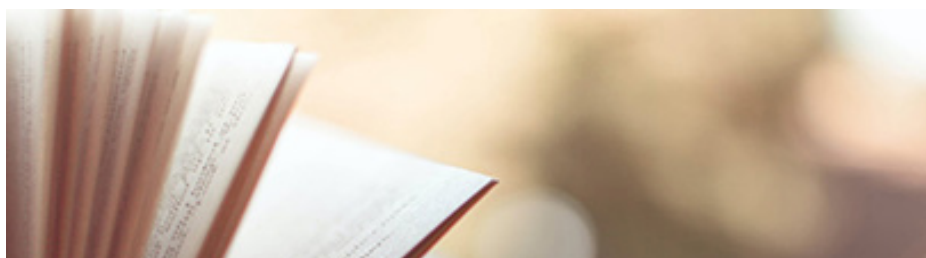


Faculty of Human and Social Sciences

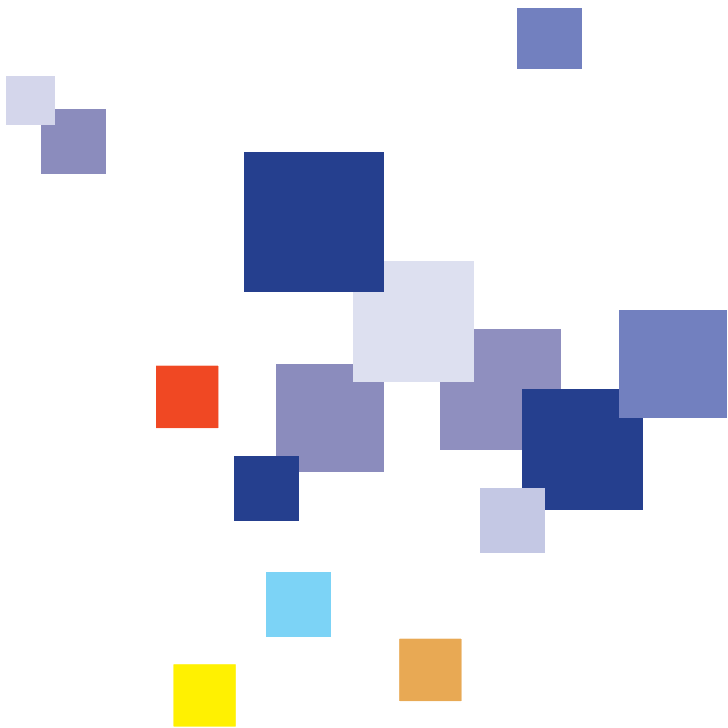


- NECE | Research Unit in Business Sciences
- CIDESD | Research Center in Sports Sciences, Health and Human Development
- CEFAGE-UBI | Center for Advanced Studies in Management and Economics (Pole of R&D Unit)
- CIES-UBI | Centre for Research and Studies in Sociology (Pole of R&D Unit)

Faculty of Arts and Letters

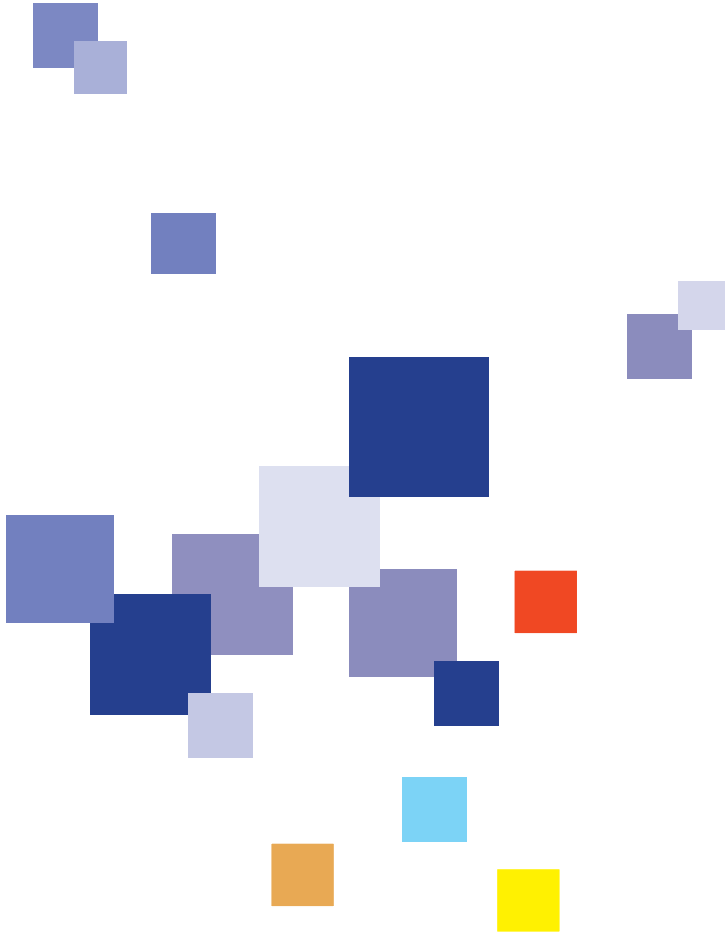


- LABCOM | Communication and Arts
- PRAXIS | Centre for Philosophy, Politics and Culture



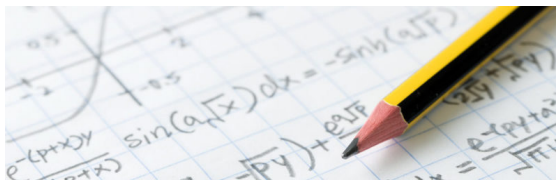
06

UBI Research Units





CMA - UBI | Center of Mathematics and Applications of University of Beira Interior



Date of Foundation: 1988

Funding FCT: 0,75 M Euros

Website: <http://www.cma.ubi.pt/>

Researchers: 28

Keywords: • Analysis and differential equations • Algebra and Geometry • Probability and Statistics • Theoretical Physics

STRATEGIC AIMS

CMA-UBI strategic aims embrace an unequivocal commitment towards high-level scientific research in mathematics, its applications and theoretical physics. The main areas are: Dynamical Systems, Algebra and Geometry, Theoretical Physics, Probability and Statistics, and Numerical Analysis and Differential Equations. Our guidelines encompass the following components: Quality, Internationalization, Multidisciplinary focus, post-graduate training, and public engagement with mathematics and scientific knowledge.

RESEARCH UNIT DESCRIPTION

The CMA-UBI was created to undertake high-level scientific research in several areas of mathematics, their applications and theoretical physics. It is a research unit hosted by the University of Beira Interior. CMA-UBI has two research groups: Physics and Mathematical Modelling Group (PMMG); Mathematics Group (MG). PMMG areas of research span from probability theory and stochastic processes, statistics, numerical analysis, partial differential equations to theoretical physics. MG research interests include: differential geometry, dynamical systems, ergodic theory, ordinary differential equations, linear and multilinear algebra, associative and non-associative rings and algebras. CMA-UBI

has also the support of an External Advisory Board composed of internationally recognized experts in areas of research that are representative of the scientific work done in CMA-UBI. CMA-UBI has been involved in the organization of several regular seminars (with internal and external speakers), short courses, national and international conferences and workshops. CMA-UBI is deeply committed with two PhD programs run by UBI: PhD in Mathematics and Applications and PhD in Physics (mathematicians and physicists of CMA-UBI integrate the directive board of this degree). Although the main core of its research is of fundamental nature, many of its integrated members, especially in statistics, have important and regular collaborations with research units in different areas, such as in health sciences. CMA-UBI contributed to: A wider form of gravity fitting Starobinsky's $R+R^2$ was proposed; Within nonautonomous perturbations, loss of hyperbolicity and non-exponential were found; Differential equations for reaction-diffusion with applications to chemical problems; Extending results of extreme value theory to non-stationary and anisotropic random fields; A conjecture related to the validity of positivity of Lyapunov exponents in symplectic contexts was proved.



CICS-UBI | Health Sciences Research Centre



Date of Foundation: 2003

Funding FCT: 1,16 M Euros

Website: <https://www.ubi.pt/sites/cics/en>

Researchers: 67

Keywords: • Hormones and metabolism • Oncobiology • Health Biotechnology • Biomaterials • Neurosciences • Drug research

STRATEGIC AIMS

CICS-UBI's strategic aims are to characterize the molecular and cellular mechanisms underlying the onset and progression of neurological and neurovascular diseases, endocrine disorders, and cancer, for the identification of disease biomarkers and therapeutic targets. CICS-UBI also pursues the development of novel drugs, biopharmaceuticals, biomaterials, and improved drug delivery methods for diagnostic and therapeutic applications, with impact in clinical outcomes and quality of life.

RESEARCH UNIT DESCRIPTION

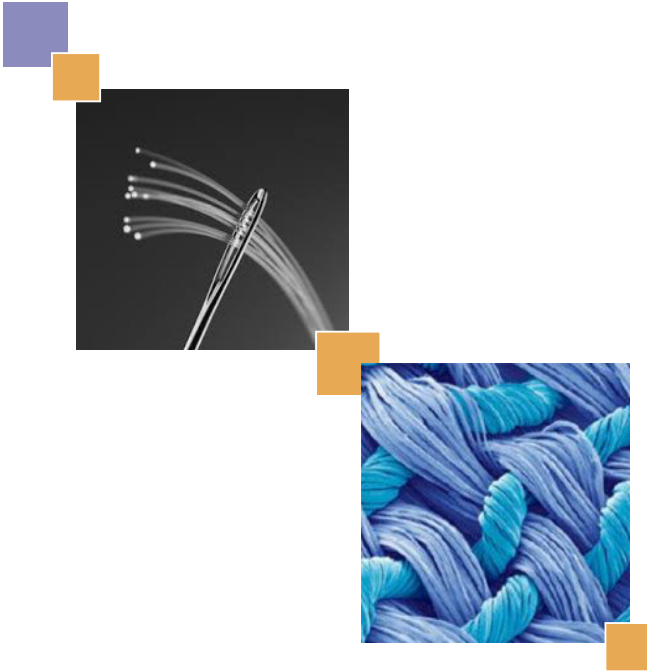
The Health Sciences Research Centre (CICS-UBI) is a research unit of the University of Beira Interior (UBI), whose mission is to conduct basic biomedical research, pre-clinical, translational, and advanced training, stimulating innovation and transfer of knowledge and technology to society and industry. The unit is installed in a 2000 m² building on the Faculty of Health Sciences campus and includes laboratories with state-of-the-art equipment for proteomics, cell culture, electron microscopy, flow cytometry, electrophysiology, microbiology, chromatography, organic synthesis, and pharmaceutical technology. The fluorescence microscopy, nuclear magnetic resonance and genomic laboratories

are nodes of the Portuguese Platform of Bioimaging, Portuguese Nuclear Magnetic Resonance Network, and Portuguese Platform of Genomics.

CICS-UBI also has a licensed and equipped animal facility with exceptional conditions for pre-clinical studies.

The CICS-UBI team brings together researchers with scientific backgrounds in various fields such as biochemistry, biology, pharmaceutical sciences, chemistry, biomedical sciences, and medicine. Researchers are organized in research groups in the following areas: Biopharmaceuticals and Biomaterials; Biomedicinal Chemistry and Drug Research; Hormones and Metabolism and Neurologic and Neurovascular Disorders.

CICS-UBI's achievements: Development of methods to diagnose drug intoxications, and assay the consumption of drugs of abuse. Development of a patented product of natural origin to treat recurrent vulvovaginal candidosis. Development of biopharmaceuticals (proteins and nucleic acids) for the therapy of cancer and Alzheimer disease. Demonstration that the metabolic profile of prostate cancer is dependent on androgens. Development of microformulations with therapeutic actions in models of Parkinson's disease and stroke.



FibEnTech | Fiber Materials and Environmental Technologies



Date of Foundation: 2012

Funding FCT: 0,40 M Euros

Website: <https://www.ubi.pt/Entidade/FibEnTech>

Researchers: 32

Keywords:

Fiber Materials • Cellulose materials • Textile Materials • Water and wastewater treatment and reuse • Materials functionalization

STRATEGIC AIMS

FibEnTech has elected as main objective to carry out fundamental and applied research in the areas of Fiber Materials and of Environmental Technologies.

RESEARCH UNIT DESCRIPTION

The R&D Unit FibEnTech, created in 2012, came up from the interaction between the former Textile and Paper Materials Unit, created in 1991, and other research groups, from UBI and other Portuguese institutions. The Mission defined for the FibEnTech unit is to establish strategic projects in partnership with other research institutions, and enterprises, integrating in the working teams primarily master and doctoral students, to have a continuous increase of critical mass and knowledge that allows transferring and licensing technology. Having in mind its Mission, this research unit has elected as main objective to carry out fundamental and applied research in the areas of Fiber Materials and of Environmental Technologies, to: -Contribute to develop optimized performance properties of classical and/or advanced textile materials for classical or new applications considering the improvement of design and

aesthetics aspect, and the influence of technology. -Develop mass customization strategies for more competitive textile and clothing companies by personalized production -Contribute to establish a state-of-the-art laboratory dedicated to the design of smart clothing capable of interacting in an efficient and reliable mode with the wearer through embedded electronic sensors, actuators, and interfaces in several types of contexts. -Within the scope of biorefinery, develop cost-effective processes to produce chemicals/energy/polymers from lignocellulosic materials. -Produce advanced functional composites and regenerated cellulose filaments based on biopolymers. -Find integrated solutions. -Articulate research activities with PhD curricula and encourage scholarships and training among researchers. -Develop research activities in collaboration with various national and international companies and institutions. -Promote productivity, quality, and competitiveness in the textile and paper industries and contribute to the economic development of the region and of the country.



C-MAST | Center for Mechanical and Aerospace Science and Technologies



Date of Foundation: 1994

Funding FCT: 0,50 M Euros

Website: <http://www.aerospace.ubi.pt/new/index.html>

Researchers: 25

Keywords: • Materials and Aerospace structures • Energy and Fluid mechanics • Dynamics and control of space systems • Optimization of production and T. innovation

STRATEGIC AIMS

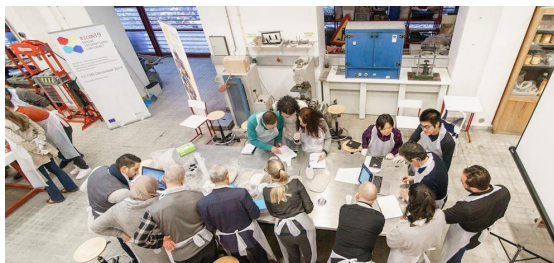
C-MAST aims to create the melting pot that helps researchers feel a motivating research environment in which they can reach their full potential. Its specific objectives are to carry out high-level focused research on its strategic topics; promoting international research collaboration, specially through C-MAST focuses on highly qualified human resources, as well as the intensification of research, internationalisation, development of cooperation with industrial partners and dedication of additional effort to technology transfer and communication of science.

RESEARCH UNIT DESCRIPTION

The Center, that started as CMAT, develops studies in Mechanical and Aerospace Engineering within a wide spectrum of areas, from Astrodynamics to Energy and Structures. In 2013 it was renamed “Centre for Mechanical and Aerospace Science and Technologies” (C-MAST). The centre organises itself in 2 research groups: AeroMaS - Aerospace Materials and Structures; EnerMeF - Energy and mechanics of fluids, and 2 cross-cutting thematic lines that provide cross-fertilization between the 2 groups: space systems, and optimization of production and technological Innovation. AeroMaS performs research on: space structures and systems; Composites, struc-

tures and nanotechnologies; Multifunctional materials, and Sustainability and innovation. EnerMeF working in the topics: Optimization of Energy Systems; Heat Transfer and Thermal Systems; Aerodynamics and Aerospace Propulsion Systems, and Computational Models for Rheology and Magnetohydrodynamics/Electrohydrodynamics Some of C-MAST main achievements include the identification of a novel fluid mechanical instability at low local Reynolds numbers which is manifested by the formation of a spiral vortex when two fluid streams collide with each other and then evolve along a line perpendicular to the original motion, thus creating an elongational flow, in altitude, orbital dynamics, and control of spacecraft and distributed systems research the most important and original new results have been obtained in research on tether systems and other example of novel findings: on Magnetohydrodynamics-Electrohydrodynamics (MHDEHD) numerical models created by our team have been acknowledged internationally For ms DBD type a phenomenological model, free of empirical parameters and able to model high altitude flows, allowed to demonstrate the change in exit velocity angle of thrusters through boundary layer control. The plasma fluid model accuracy implied a super-time-stepping treatment, for improved.





Date of Foundation: 2006

Funding FCT: 0,30 M Euros

Website: <https://cmadeubi.wordpress.com>

Researchers: 25

Keywords: • Sustainable materials and binders • Mechanical behaviour and durability • Energy efficiency and environment • Resource efficiency and raw materials • Territorial analysis and building design

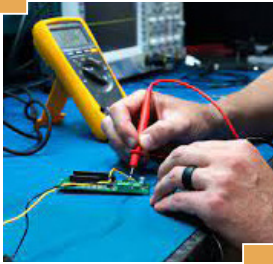
STRATEGIC AIMS

To develop a research and innovation agenda focused on sustainable construction, climate change mitigation and development of eco-materials; to attract young researchers, empowering the Portuguese Interior for its science-based development and contributing to creating highly qualified scientific jobs; and consolidate a cluster of knowledge of excellence of the research and innovation agenda developed at C-MADE.

RESEARCH UNIT DESCRIPTION

The CMADE is a research unit formed by two Portuguese universities with a well-known reputation for its welcoming environment that promotes learning-research: the University of Beira Interior (UBI) and the University of Trás-os-Montes e Alto Douro (UTAD). The research unit carries out scientific and technological activities and dissemination ac-

tions, with the involvement of national and foreign researchers, fostering collaborative innovation and knowledge transfer, particularly with industry. C-MADE's mission is to promote excellence in science and contribute to new developments in civil engineering and related areas, including sustainable materials and binders, mechanical behaviour and durability, energy efficiency and environment, resource efficiency and raw materials. C.MADE's achievements are: Environmentally sustainable technologies for mining and industrial waste up-cycling. Technologies for eco-materials production with co-utilisation of waste and carbon dioxide. Patents (e.g., ECO2BLOCKS/GEOGREEN) for sustainable and energy-efficient construction. Hydrodynamic models of transport processes in watercourses (e.g., ash from forest fires). and Numerical optimisation of models for the design of structural members and components.





Date of Foundation: 2015

Funding FCT: 0,43 M Euros

Website: <http://www.cise.ubi.pt/>

Researchers: 17

Keywords: • Electric Grids • Energy Efficiency • Reliability

STRATEGIC AIMS

CISE is focused on the study of electromechatronic systems, integrating into a single domain the following three main engineering areas: electrical, mechanical and electronic engineering. The general objectives of its scientific plan are focused on the areas of: fault diagnosis; fault tolerance; reliability; energy efficiency; asset management; control, design and characterisation of electrical machines, power electronics, and electric grids.

RESEARCH UNIT DESCRIPTION

CISE comprises four dedicated research facilities, the Electromechatronic Systems Laboratory (LSE) at the University of Beira Interior, the Laboratory of Electric Energy Systems (LSEE) at the University of Algarve, the Laboratory of Electromechatronic Systems Modelling (LESM) at the University Mohamed Khider in Biskra, Algeria, and the Guarda International Research Station on Renewable Energies (GIRS-RES) at the Polytechnic of Guarda. LSE is equipped for simulation studies and experimental tests in some of the research areas of the electromechatronic

systems domain. At LSEE the research work is focused on fault detection and diagnostics of transmission and distribution network components and power systems protection devices. LESM facilities provide the tools required to the development of research activities aiming the theoretical and computational modelling of electromechatronic systems. The research activities are complemented by GIRS-RES, which is especially dedicated to the renewable energies study. This facility provides, among others, the appropriate conditions for the installation of bulky equipment, both indoor and outdoor. The general objectives are accomplished through the implementation of seven distinct work packages (WPs): WP1: Energy Sources; WP2: Power Systems; WP3: Power Electronics Components; WP4: Hybrid/Electric Transportation; WP5: Industry Applications; WP6: Trigeneration Systems; WP7: Facilities. CISE's highlight achievements are: Establishment of the first research facility abroad (Biskra, Algeria). Internationalisation of the research team (members spread over 13 countries). European public policy initiatives: elaboration of position statements.



Research Unit in Business Sciences - NECE



Date of Foundation:

Funding FCT: 0, 64 M Euros

Website: <https://www.ubi.pt/entidade/NECE>

Researchers: 32

Keywords: • Management • Business • Economics

STRATEGIC AIMS

The NECE mission is to catalyse and drive pioneering research in the Business & Economics sciences integrating knowledge and methods from across these complementary fields. NECE strategic challenge involves increasing its scientific research outputs in order to take up an international positioning as a recognised R&D unit in the business sciences field.

RESEARCH UNIT DESCRIPTION

NECE Research Unit is a Management and Economics Department research centre at the University of Beira Interior (UBI). The NECE mission is to catalyse and drive pioneering research in the Business & Economics sciences integrating knowledge and methods from across these complementary fields. The RU undertakes research across a wide variety of different contexts. As a research unit, NECE

is committed to its focus on the interface between the business and economics world and the optimisation of excellent research. NECE contributes to advanced scientific knowledge within its fields of expertise by intercon-

ting scholars from different areas who deploy their knowledge and methods to attain a common understanding of the under analysed issues. NECE provides its members with the infrastructural conditions for research through supporting the acquisition of specialized software packages, corporate, energy and macroeconomic databases and gives financial support for presentation of their on-going work in renowned scientific conferences. Although the research interests of NECE members span different themes, it is organised in three research groups: i) Entrepreneurship, Competitiveness and Innovation (EC&I); ii) Organisational Management (OM); and iii) Economics and Finance (E&F). NECE's members are engaged in international networks either through the participation in prestigious international conferences and training and integrating research associations or by signing bilateral agreements or institutional protocols.



CIDESD | Research Center in Sports Sciences, Health and Human Development



Date of Foundation: 2007

Funding FCT: 1,41 M Euros

Website: <https://www.cidesd.utad.pt>

Researchers: 64

Keywords: • Sports Sciences • Physical Activity • Exercise and Health

STRATEGIC AIMS

The mission of CIDESD is help developing human resources, capable of handling autonomous interventions under the domains of sports sciences, health and human development. This mission is particularly integrated in the goal 3 from the Sustainable Development Goals described in the 2030 agenda from the United Nations. CIDESD's goals are articulated in 3 major domains: Research (CreativeLab; Geron; Strong); Community Intervention and Continuous Education.

RESEARCH UNIT DESCRIPTION

The CIDESD is a cross-institutional technical and scientifically multi-disciplinary unity of applied research hosted in the University of Trás-os-Montes and Alto Douro and is affiliated to the European College of Sports Sciences.

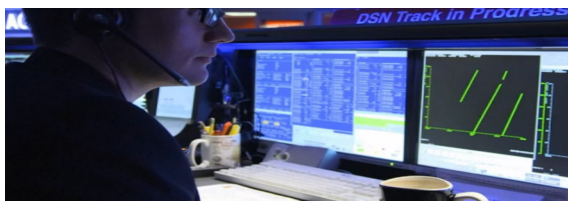
CIDESD is a research consortium of ten higher education institutions. Currently, the unit consists in three research communities: CreativeLab, GERON e STRONG. This research unit has the mission of developing human resources, capable of handling autonomous interventions under the domains of sports sciences, health, and human development. This mission is integrated into the Sustainable Development Goals described in the 2030 United Nations agenda: Ensure healthy lives

and promote well-being for all at all ages. The CIDESD reports described a funding of 11.6 M € for 2008-2017, has more than 500 publications and more than 80 doctoral theses.

Aligned with the 2030 agenda for sustainable development CIDESD is committed to promote physical and mental health and well-being for all and to contribute to reducing the burden of chronic diseases through prevention and treatment. The centre will continue to participate in the Director General of Health Priority Program for the Promotion of Physical Activity and in the European Innovation Partnership on Active and Healthy Ageing, as well as collaborations with key institutions such as the NIHR-Leicester Biomedical Research Centre, the National Centre for Sport and Exercise Medicine, the Department of Health Sciences and the NIH-National Institute on Ageing. CIDESD is currently engaged in the summer university entitled Geoparks, Sustainable Regional Development and Healthy Lifestyles. CIDESD's achievements: Promotion of relevant research activity in the field of Sports Science. Leader in research and intervention in the community in some areas of Sports Science. Pedagogical intervention and knowledge transfer to society with impactful projects.



LABCOM - Communication and Arts



Date of Foundation: 2002

Funding FCT: 0,98 M Euros

Website: <http://www.labcom-ifp.ubi.pt>

Researchers: 53

Keywords: • Communication • Media • Identity • Representation • Intermediality • Interface

STRATEGIC AIMS

LabCom's strategic aims are: to study, theoretically and empirically, the multilevel and multiform impacts of communication and new media technologies that drive the contemporary mediatization processes; to analyze the technological mediation of communication in the social, economic, and political domains, with emphasis on the areas of science, journalism, culture, arts, and everyday life; and to study the relationship between art, communication and new media technologies and interfaces.

RESEARCH UNIT DESCRIPTION

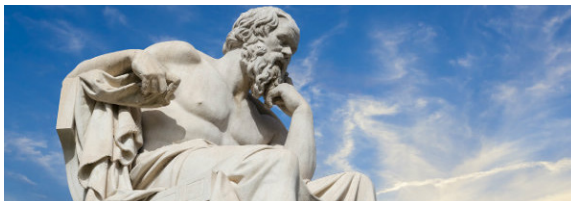
LabCom - Communication and Arts is a research unit in the field of Communication Sciences, created in 2002, at the Faculty of Arts and Letters of the University of Beira Interior. The unit carries out advanced research in communication and new information technologies, with an emphasis on online and digital processes, to assess their impact on everyday life and to understand communication phenomena on an individual, community and societal basis.

The unit is organized into two Research Groups that operate in an interdisciplinary way: (1) Communication and Media, which investigates the impact and effects of communication and new information technologies in their

multiple forms and levels; and (2) Arts, which works on the relationship between communication and new information technologies in the arts, from Fine Arts to Cinema and Design. The two groups include researchers from UBI and other Portuguese universities and polytechnics and carry out their research in close connection with the PhDs in Communication Sciences (2007) and in Media Arts (2017). Since its inception, LabCom has had a strong commitment to online publishing and Open Access, being a pioneer in making its research results available on the web. This commitment led LabCom to create a set of digital infrastructures that brought it international recognition in the field of Communication Sciences, attracting millions of visits and downloads per year, mainly from Portuguese-speaking countries like Brazil. Some of LabCom notable achievements are the research projects "MediaTrust.Lab" and "Filming and looking at oneself in the mirror"; 7 Open Access academic journals (Studies in Communication; DOC On-Line; EIKON; Comunicando; Studies in Journalism; Rhêtorikê; and Re-censio); the Publisher LabComBooks, with 3 collections and about 250 published volumes; and the BOCC - Online Library of Communication Sciences, and 3 databases in the areas of Image and Cinema.



PRAXIS - Centre for Philosophy, Politics and Culture



Date of Foundation: 2017

Funding FCT: 0,38 M Euros

Website: <http://www.praxis.ubi.pt>

Researchers: 26

Keywords: • Ethics • Political Philosophy • Democracy • Phenomenology • Culture • Action

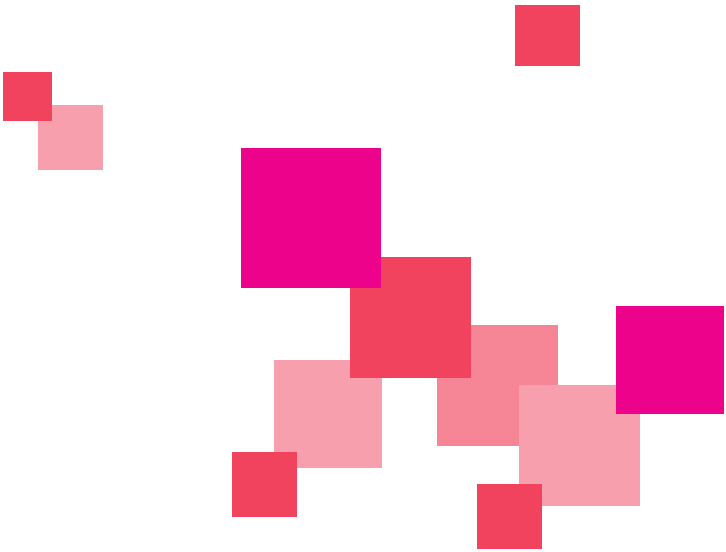
STRATEGIC AIMS

The main purpose of PRAXIS is to develop research programs in the field of practical philosophy, namely, ethics, political philosophy and culture philosophy. The Centre pays particular attention to the study of works by philosophers of the phenomenological movement, without neglecting the works of important philosophers of all tendencies, specially from the areas of the philosophy of action, ethics, political philosophy and social philosophy.

RESEARCH UNIT DESCRIPTION

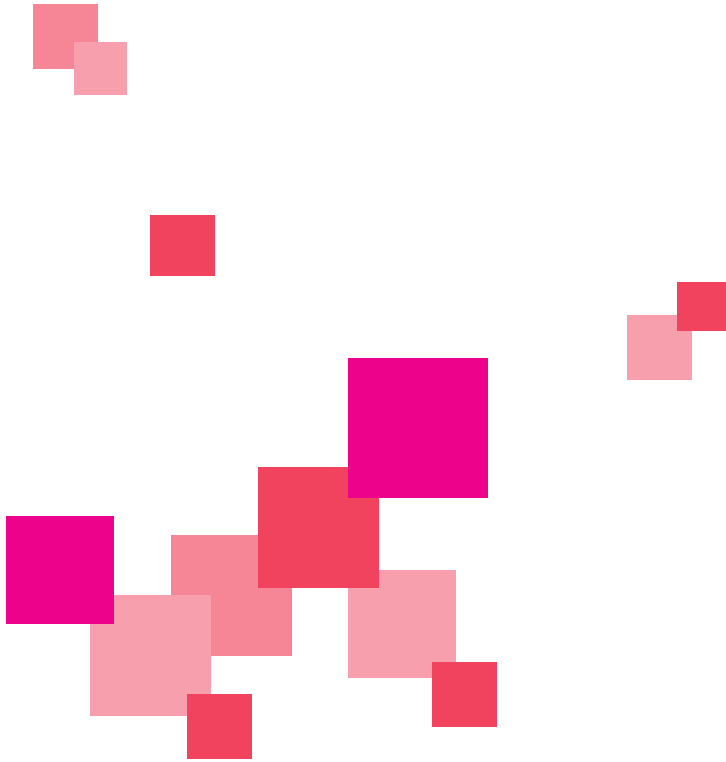
PRAXIS, a recently set-up research unit, comes in the wake of a unit set up in 2003, active until 2014, named Practical Philosophy Institute (IFP), and Practical Philosophy Group (GFP), an autonomous research group within the unit Labcom.IFP, active 2015-2017. PRAXIS' main research areas are phenomenology, philosophy of action, ethics and political philosophy. In the area of phenomenology, besides the study of works by relevant philosophers of this philosophical movement, the researchers dedicate special attention to the theme of intersubjectivity, namely in the perspective of the application of this phenomenological theory in ethics and political philosophy. More recently, an interdisciplinary project has begun to be developed which aims to apply several intersubjecti-

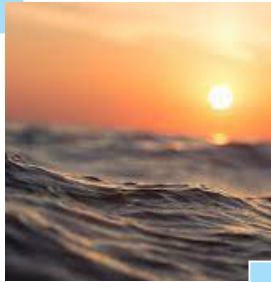
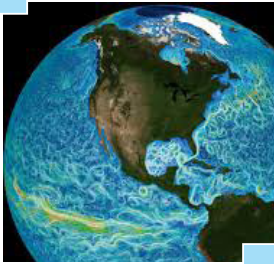
vity theories to the field of psychotherapy. In the area of ethics, research is focused on the foundation of morals, carried out from several different philosophical perspectives (naturalism, deontology, virtue ethics, existential phenomenology). Concerning action theory, work is being developed which bears in mind both classical authors, (Aristotle), and modern (Arendt, Davidson, Ricoeur). There is a project under development about practical rationality and motives for action. In the area of political philosophy, research focuses on the categories of the political and power, as well as on questions about rationality, motivation, and legitimacy of political action. PRAXIS most notable achievements include: the project "Practical Rationality, Judgment and Moral Motivation", a two-year bilateral research project (2014-2015) in partnership with the Centre de Philosophie Contemporaine (Université de Paris I-Sorbonne), which aim to analyse the structures of practical judgment in connection with moral motivations of action; the companion *Teorias Políticas Contemporâneas [Contemporary Political Theories]* (2015), edited by J. M. Santos and J. Gomes André, with several contributions from PRAXIS members; and Irene Borges Duarte's book *Arte e Técnica em Heidegger [Art and Technology in Heidegger]* (2015).



07

Research Units Poles





IDL-UBI | Instituto Dom Luiz



**INSTITUTO
DOM LUIZ**



Website: <http://www.ubi.pt/Entidade/idl>

The IDL-UBI is the research unit at UBI of Instituto Dom Luiz (IDL), an Associated Laboratory with a wide research agenda in Earth and Environmental Sciences (<http://idl.campus.ciencias.ulisboa.pt/>).

Established in 1853 as the first Portuguese Meteorological and Geophysical Observatory, Instituto Dom Luiz (IDL) has developed into an integrated Earth System Institute, with research in solid Earth, Ocean and Atmospheric processes, their interactions, and their relevance for a sustainable society. IDL hosts a vibrant community, that include Geologists, Physicists, Mathematicians and Engineers, pursuing research within international collaborations, all focused in contributing to leading scientific journals in their fields, from geological to human timescales. IDL-UBI is hosted by the Faculty of Science, University of Beira Interior, and where about 10 researchers (Ph.D., M.Sc.) develop their

research activities in several topics:

- Climate Change, atmosphere-land-ocean processes and extremes
- Solid Earth dynamics, hazards and resources
- Geoinformatics

The members of IDL-UBI are also deeply involved in C4G - Collaboratory for Geosciences (<https://www.c4g-pt.eu/>), the leading Research Infrastructure on Geosciences that is hosted by UBI.

Our research efforts are supported through the Fundação para a Ciência e Tecnologia, the Portuguese Government's leading funding agency for research, European Framework Programmes for research and other projects.





Website: <http://www.it.ubi.pt>

The IT - Covilhã is a research unit of the IT (Instituto de Telecomunicações, Pole of Coimbra).

It is hosted by Faculty of Engineering, University of Beira Interior, and where about 20 faculty members and 40 researchers develop their research activities in seven major topics:

- Computer Graphics and Multimedia
- Mobile Technologies and Telecommunications
- Network and Multimedia Computing
- Soft Computing and Image Analysis
- Next Generation Networks and Applications
- Applied Mathematics
- Power Systems

Our research unit provides the following facilities: a high-performance network, network

servers, computer clusters running grid and cloud technologies, several high-end graphics workstations and PCs, laptops, network laser printers, wireless access to university network, and free access to online journals worldwide.

Our research efforts are supported through the Fundação para a Ciência e Tecnologia, the Portuguese Government's leading funding agency for research, European Framework Programmes for research, and Institute for Telecommunications (IT) itself.



Associate Laboratory of Energy, Transports and Aeronautics



website: <http://aeronautics.ubi.pt>

The Aeronautics and Astronautics Research Center (AeroG) is dedicated to the research and technology development in the field of Aeronautics and Space, with a view to improving safety and environmental protection, while promoting the socioeconomic growth and the quality of life of citizens. The activities of the AeroG aim at contributing to strengthen the excellence of European science base in the scientific and technological fields of aeronautics and astronautics.

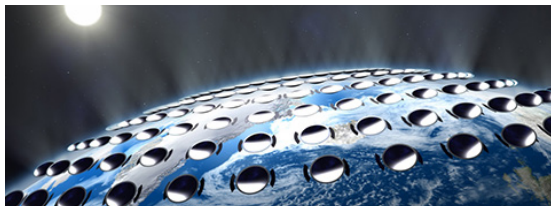
The AeroG research activities include basic

and applied research in the specific areas of Aerodynamics and Propulsion, Satellites and Aircraft Systems, Air Transport, and short takeoff/ vertical landing aircrafts (VSTOL). AeroG was evaluated by an International Evaluation Panel, under the FCT evaluation initiative, and received a classification of Very Good.

AeroG is a member of the National Associated Laboratory LAETA.



GeoBioTec-UBI | Geobiosciencies, Geotechnologies and Geoengineering



website: <http://www.ua.pt/geo/PageText.aspx?id=17534>

The GeoBioTec-UBI is a research pole of the GeoBioSciences, GeoTechnologies and GeoEngineering research unit. It is hosted at the Faculty of Engineering.



NOVA Laboratory for Computer Science and Informatics



NOVALINCS
LABORATORY FOR COMPUTER
SCIENCE AND INFORMATICS



Website: http://www.ubi.pt/Entidade/nova_lincs

NOVA-LINCS UBI is the research center of NOVALINCS research unit located at the UBI. Its mission is to develop cutting edge scientific research in key areas of Computer Science and Informatics as defined by its strategic program, contribute to advanced education in the field, and share the produced knowledge, results, and innovation with users and communities within society. Towards consolidating its long-term objectives and its position as a reference research lab in its field, NOVA LINCS is committed to:

- Sustaining the high profile international level of its research activities, fostering effective networking links with the relevant international and national scientific communities.
- Promoting top quality post-graduate education in Computer Science and Informatics,

contributing to consolidate an internationally competitive PhD level education at the host department.

- Leveraging the results of its research activities in society, by pursuing and expanding existing partnerships and projects with companies and public institutions at the local, national, and international level.

The Research Activity of the center is scientifically organized around four expertise areas and their interplay

- Computer Systems
- Knowledge-Based Systems
- Multimodal Systems
- Software Systems

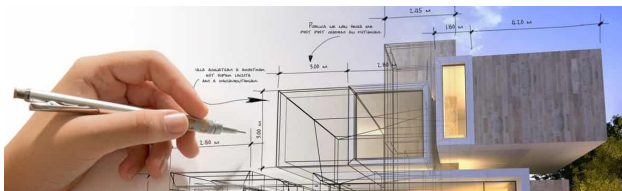


CiAUD - Research Center for Architecture, Urbanism and Design

CIAUD-UBI

Centro de Investigação
em Arquitectura,
Urbanismo e Design

Polo da Universidade
da Beira Interior



Website: <http://www.ubi.pt/Entidade/ciaud>

CIAUD-UBI is a research and development unit dedicated to Architecture and Urbanism, located at the University of Beira Interior, associated to the I&D unit of the Centre for Architecture, Urbanism from the Faculty of Architecture University of Lisbon.

CIAUD-UBI's mission is to develop scientific research and transmission of knowledge in the fields of Architecture and Urbanism, in articulation with the study programs of Integrated Master and Doctorate in Architecture, guaranteeing the quality and depth of the pedagogical activity of the Department of Civil Engineering and Architecture at UBI. CIAUD-UBI synthesizes in a holistic and collaborative way, research, teaching and practice, seeking for differentiation through research innovation and its geographical proximity and specificity.

CIAUD-UBI develops basic and applied research in cooperation between arts, humanities, sciences and technologies, oriented to the challenges and opportunities of the academia, industry and society.

CIAUD-UBI is structured in thematic fields developed by research groups articulating and complementing themselves, through a common strategy taken by the integrated members and collaborator members of the CIAUD. Therefore, CIAUD-UBI promotes scientific interest and development structured in two fields of architecture knowledge, through two research groups: 1. Laboratory of Design, Construction and Representation; 2. Laboratory of Territory and Society.



Center for Advanced Studies in Management and Economics



Website: <http://www.cefage.uevora.pt/>

The Center for Advanced Studies in Management and Economics of the University of Beira Interior (CEFAGE-UBI) was created in 2011 and is a scientific branch of CEFAGE-UE, with administrative and financial autonomy. CEFAGE-UE was founded in 2006, with the aim of promoting research in the areas of Management and Economics. Since 2009, CEFAGE-UE is funded by Fundação para a Ciência e Tecnologia (FCT) and in the most recent evaluation it achieved the grade of Very Good. Its objective is to promote the basic and applied research to be published in a selective set of international peer-reviewed journals.

The research interests of CEFAGE-UE's mem-

bers cover, among other fields, agricultural economics, econometrics, environmental resources, finance, industrial organization, innovation and entrepreneurship, international economics, labour economics, operations research, tourism economics, spatial economics and sustainable growth. Therefore, CEFAGE-UE is divided into four research groups: "Industrial Economics and Business Strategy", "Econometrics, Statistics and Operations Research", "Finance" e "Labour, Regional and Macroeconomics".





Website: <http://www.ubi.pt/Entidade/CIES-UBI>

The CIES-UBI, a pole of the Center for Research and Studies in Sociology (CIES-IUL) in UBI, was founded in 2012 as a result of meeting the objectives pursued either by ISCTE-IUL, through the CIES-IUL, either by UBI, within the scientific research and diffusion of knowledge in the field of sociology and other social sciences.

Its main goals:

- Develop projects of pure or applied research in the field of sociology or other related social sciences;
- Develop theoretical models and methodologies within the framework of the different lines of research and projects;
- Promote and support national and interna-

tional publication of research results, in the areas of knowledge considered relevant and innovative;

- Promote and assess the social intervention based on research;
- Organize and assist in the organization of congresses, symposia, seminars, specialized courses, scientific meetings and conference cycles;
- Stimulate and deepen the connection of the University with the community, actively promoting inter-institutional forms of cooperation that contribute to the formation of policy-making and action.



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Annexes

Distribution of Research Units and Poles by Scientific Domains

Acronym	Name	Webpage
Natural Sciences		
CMA-UBI	Center of Mathematics and Applications of University of Beira Interior	http://www.cma.ubi.pt/
IDL-UBI	Instituto Dom Luiz - UBI	http://www.ubi.pt/Entidade/idl
GeoBioTec-UBI	GeoBioSciences, GeoTechnologies and GeoEngineering	http://www.ua.pt/geo/Page-Text.aspx?id=17534
NOVA-LINCS	NOVA Laboratory for Computer Science and Informatics	http://www.ubi.pt/Entidade/nova_lincs
Medical and Health Sciences		
CICS-UBI	Health Sciences Research Centre	http://www.ubi.pt/Entidade/CICS
CIDESD	Research Center in Sports Sciences, Health and Human Development	http://www.ubi.pt/Entidade/CIDESD

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Annexes



Acronym	Name	Webpage
Engineering and Technology Sciences		
AERO G LAETA	Associate Laboratory of Energy, Transports and Aeronautics	http://aeronautics.ubi.pt
CISE	Electromechatronic Systems Research Centre	http://www.cise.ubi.pt
C-MADE	Centre of Materials and Building Technologies	https://cmadeubi.wordpress.com
C-MAST	Center for Aerospace Sciences and Technologies	http://www.aerospace.ubi.pt/new/index.html
FibEnTech	Fiber Materials and Environmental Technologies	https://www.ubi.pt/Entidade/FibEnTech
IT-UBI	Institute for Telecommunications	http://www.it.ubi.pt

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Annexes



Acronym	Name	Webpage
Social Sciences		
CEFAGE-UBI	Center for Advanced Studies in Management and Economics	http://www.cefage.uevora.pt/
CIES-UBI	Centre for Research and Studies in Sociology	http://www.ubi.pt/Entidade/CIES-UBI
LabCom	Communication and Arts	http://www.labcom-ifp.ubi.pt
NECE	Research Unit in Business Sciences	https://www.ubi.pt/entidade/NECE
Humanities		
CiAUD-UBI	Research Centre for Architecture, Urban Planning and Design	http://www.ubi.pt/Entidade/ciaud
PRAXIS	Centre for Philosophy, Politics and Culture	http://www.praxis.ubi.pt



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Credits



UBI ATLAS OF RESEARCH UNITS

EDITION

University of Beira Interior
Vice Rectory for Research Innovation and Development

DESIGN

UBI - Public Relations Office

DATE

October 2022

