

associate
laboratories
@ U.PORTO

SERVIÇO DE INVESTIGAÇÃO E PROJETOS

U.PORTO

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TITLE

ASSOCIATE LABORATORIES @ U.PORTO

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FOREWORD

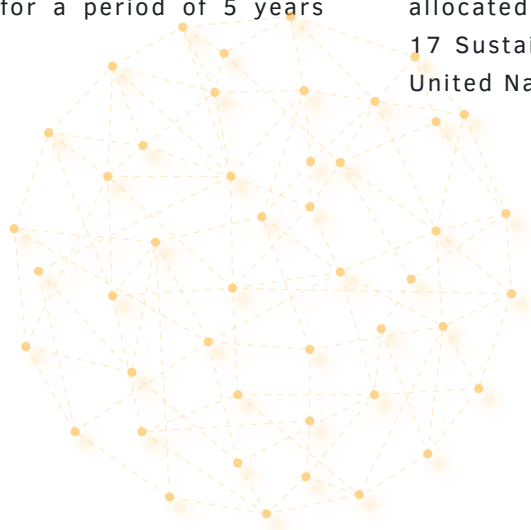
This publication is dedicated to the **Associate Laboratories (LA)** in which the University of Porto (U.Porto) participates through its Research Units.

The Ministry of Science, Technology, and Higher Education (MCTES) awards the statute of Associate Laboratory to Research Units or consortia of Research Units that stand out for their strategic research agendas, research excellence, and contribution to national scientific and technological policy.

As a result of the last assessment in 2020/2021, the national agency for the public funding of science – Portuguese Foundation for Science and Technology - awarded 40 LA statuses and granted these 118.5 M€ for a period of 5 years (2021-2025).

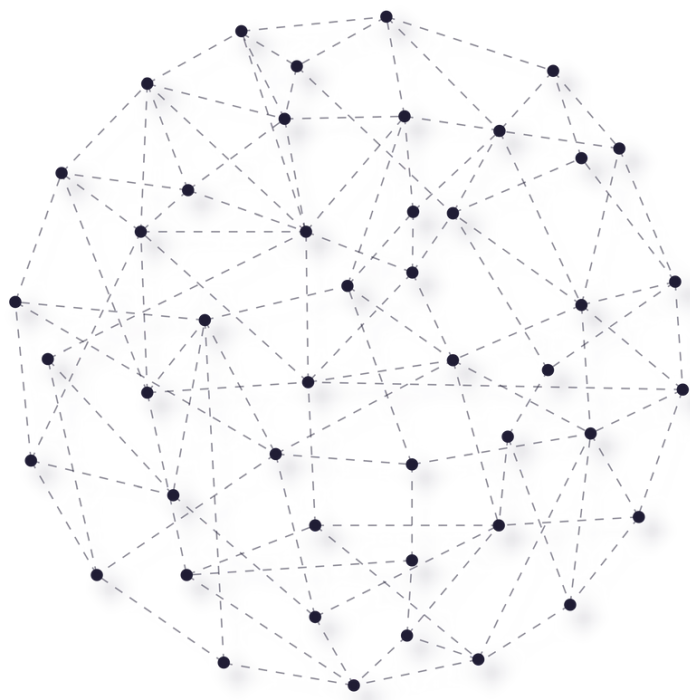
U.Porto participates in 17 Associate Laboratories (6 statuses renewed, 11 LA newly created), with a total funding of 33.8 M€ allocated to its research ecosystem. Following the national trend, the largest number of LA at U.Porto operates in the scientific domains of Engineering & Technology Sciences (6 LA) and Natural Sciences (6 LA).

This publication complements the already published Research Units @ U.Porto, dedicated to the 48 Research Units of the U.Porto research ecosystem. It provides an overview of U.Porto Associate Laboratories (Facts and Figures) and, for each LA, details are provided, including aims and activities, partner institutions and R&D Units, integrated researchers, allocated funding, and alignment to the 17 Sustainable Development Goals of the United Nations.



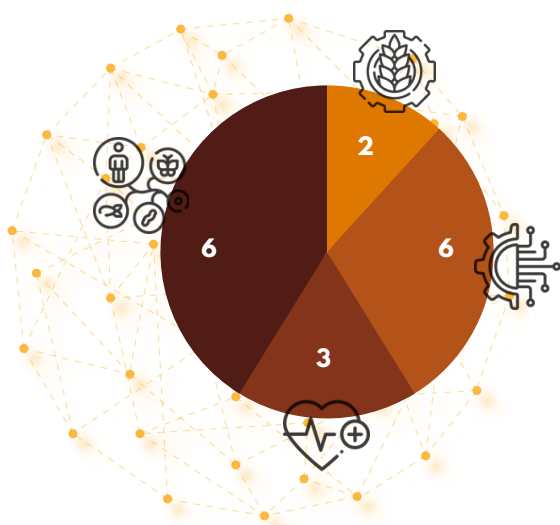
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FACTS & FIGURES



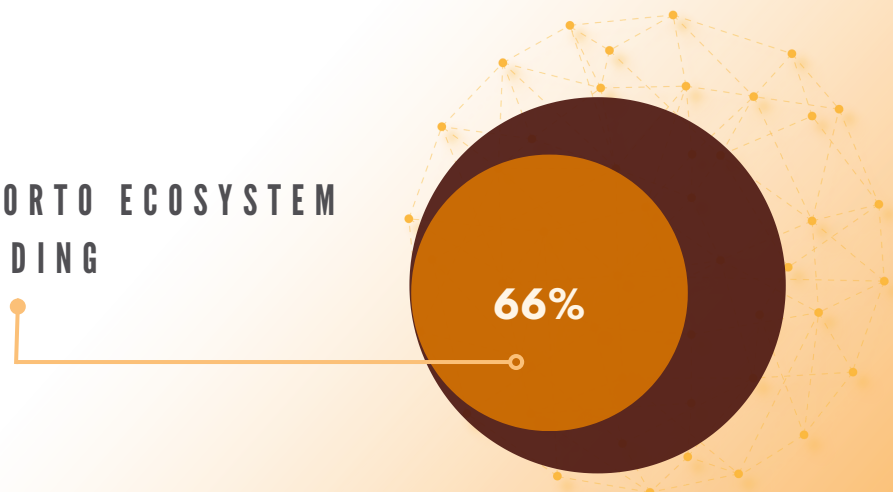
17 ASSOCIATE LABORATORIES

4 SCIENTIFIC AREAS



- Agricultural Sciences
- Engineering and Technology Sciences
- Medical and Health Sciences
- Natural Sciences

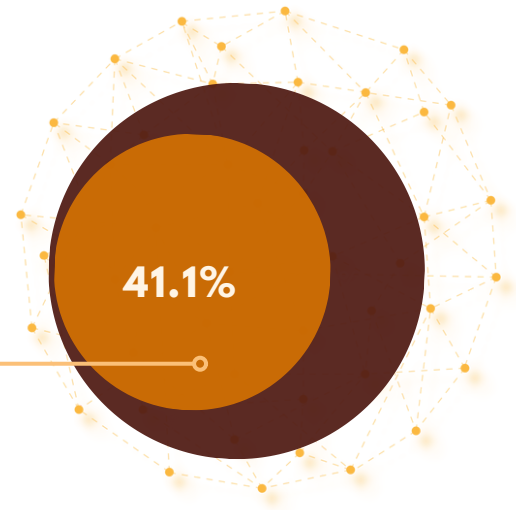
33.8 M€ U.PORTO ECOSYSTEM
FUNDING



51.1 M€ TOTAL FUNDING

1938

U.PORTO ECOSYSTEM
INTEGRATED
MEMBERS



4718 TOTAL INTEGRATED
MEMBERS

2000 TO 2011

10 LA

IN 2020/21

6 LA WITH
RENEWED
STATUS

+ 11 NEW
LA

2000 IBMC INEB
IPATIMUP

2001 LAQV/REQUIMTE
IT

2002 INESC TEC
CIMAR LA

2004 LSRE
LAETA

2008 IN

2011 InBIO



LAQV/REQUIMTE
IT
INESC TEC
CIMAR LA
LAETA
InBIO



AL4Animals
ALiCE
ARISE
i3S
i4HB
IMS
Inov4Agro
ITR
LaPMET
LASI
RISE

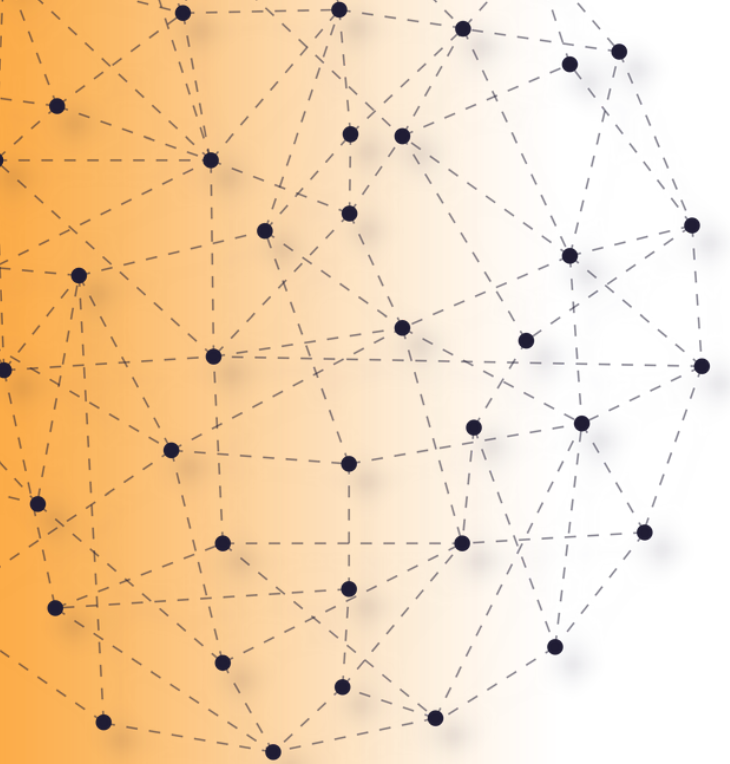


associate laboratories

BY SCIENTIFIC AREA

A golden wheat field at sunset with a network overlay. The background is a warm, orange-hued sunset over a field of wheat. In the foreground, several wheat stalks are in sharp focus. Overlaid on the image is a complex network of dashed lines connecting small dots. The dots are colored in a gradient from dark blue/black to light blue, and the lines are a light, translucent blue. The network structure is dense and irregular, covering most of the upper half of the image. The overall mood is one of agricultural science and technology.

AGRICULTURAL SCIENCES



AL4Animals

ASSOCIATE LABORATORY FOR ANIMAL AND VETERINARY SCIENCES



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COORDINATOR AT U.PORTO

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R&D UNITS

Main

CIISA [FMV/ULisboa]

Others

CECA [ICETA], CECAV [UTAD]

MANAGEMENT INSTITUTIONS

Main

Faculty of Veterinary Medicine of the University
of Lisbon (FMV/ULisboa)

Others

University of Trás-os-Montes and Alto Douro (UTAD),
Science, Technology and Agri-Environment Institute
of the University of Porto (ICETA)

FUNDING FCT 2021-25

375 k€ [U.Porto ecosystem: N.A.]

INTEGRATED RESEARCHERS

169 [U.Porto ecosystem: 22]

KEYWORDS

Biomedical Research & Biotechnology;
Comparative & Translational Medicine; Emergent
Diseases & Zoonosis; Green Animal Production

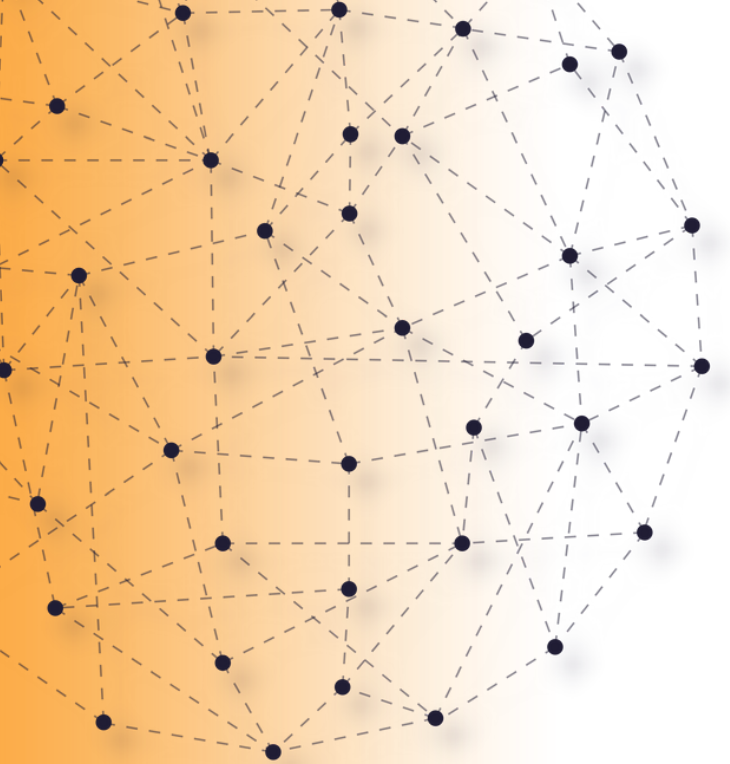


AL4Animals sets its main objective to develop science and knowledge directed to three major global challenges. The first challenge is put forward by the need to feed an ever-growing world Human population with safe and nutritious animal products. A second major challenge is met by the need to control emergent infectious animal diseases and zoonoses. A third major challenge is the need to innovate novel therapeutic solutions for animal disease, which may be used as models for Human disease. All these major challenges are priority targets of public policies. The AL4Animals is organized in 3 thematic lines: “Green Animal Production” (TL1), “Emergent Diseases and Zoonosis” (TL2) and “Comparative and Translational Medicine and Biotechnology” (TL3). In TL1, the challenge of sustainable animal production is met, with respect for animal welfare and the environment, simultaneously promoting consumer health, helping to improve the competitiveness of the livestock sector, and valuing traditional products. In TL2, we aim to respond to the challenge of proactively controlling zoonosis and emergent animal diseases, where climate change may significantly increase their potential for emergence and/or spread, through innovation in diagnostics and vaccine development. As for TL3, we meet the challenge of innovating therapeutic solutions, in animal medicine and animal models of human disease, involving preclinical and clinical trials.

THEMATIC LINES

TL1 Green animal production
TL2 Emergent diseases and zoonosis
TL3 Comparative and translational medicine and biotechnology





Inov4Agro

INSTITUTE FOR INNOVATION, CAPACITY BUILDING AND SUSTAINABILITY OF AGRI-FOOD PRODUCTION

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 inov4agro.pt

Inov4Agro is a strategic consortium of R&D units CITAB and GreenUPorto, with a track record of successful long-lasting cooperation and representing the highest scientific productivity in agriculture within their region. Combining multidisciplinary background and complementary expertise, Inov4Agro joins high-quality PhD researchers working on cross-disciplinary groups with high problem-solving capacity, and with the greatest ability to achieve highly reputed brand value. The mission of Inov4Agro will be to support the Government during the next crucial decade of transition to sustainability with the application of public policies in a multilayer approach, promoting smart and conservation agriculture (in particular of the horticulture sector), fostering adaptation to climate changes, mitigating territorial dissimilarities by increasing the attractiveness of low-density territories and by fitting the primary sector to the regional diversity of endogenous resources. This will be done by acting as an actor of capacitation closest to the youngest generations of growers and farmers, providing them with the scientific and technological grounds required for essential upgrades to the digitalization of agriculture. Inov4Agro has 4 thematic lines: "Resources use and efficiency and product quality" (TL1), "Water resources, soil health & food" (TL2), "Leverage local food systems" (TL3), "Technological development & innovation" (TL4). TL1 is aligned with the public policies to increase plant food production, improve its quality and reduce the environmental impact of the agri-food sector. TL2 aims to provide society with contributions to better manage water resources, improve soil health and increase food production. This TL joins a group of researchers able to address relevant topics such as conservation agriculture, organic farming, sustainable use of phytopharmaceutical products, big data, bioeconomy, circular economy, soil quality, the relationship between soil health and food, water quality assessment and management, protection of aquatic ecosystems and ecosystems modelling. TL3 addresses the creation of a food consumption environment that makes "healthy and sustainable choices" easy for consumers. TL4 aims to develop and foster the adoption of digitalization in agriculture to help close the gap between Portugal and leading countries.

COORDINATOR AT U.PORTO

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R&D UNITS

Main

CITAB [UTAD]

Others

GreenUPorto [U.Porto/FCUP]

MANAGEMENT INSTITUTIONS

Main

University of Trás-os-Montes and Alto Douro (UTAD)

Others

Faculty of Sciences of the University of Porto (U.Porto/FCUP)

FUNDING FCT 2021-25

656 k€ [U.Porto ecosystem: 131 k€]

INTEGRATED RESEARCHERS

132 [U.Porto ecosystem: 27]

KEYWORDS


Added value; Horticulture (value chains); Resource efficiency; Technological upgrade



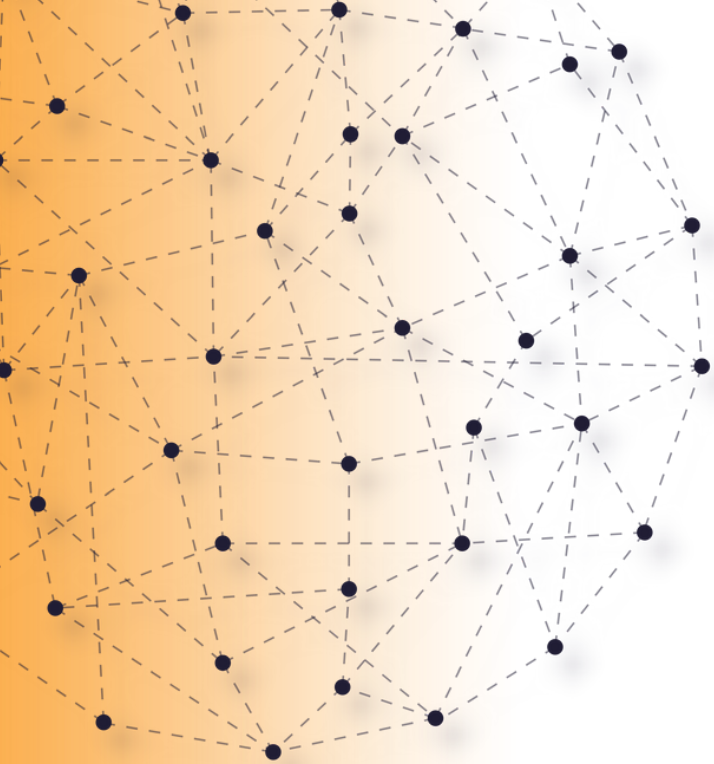
THEMATIC LINES

TL1 Resources use and efficiency and product quality
TL2 Water resources, soil health & food
TL3 Leverage local food systems
TL4 Technological development & innovation





ENGINEERING AND TECHNOLOGY SCIENCES



ALiCE

ASSOCIATE LABORATORY IN CHEMICAL ENGINEERING

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ALiCE is a consortium, formed in 2021, of 3 R&D Units evaluated as Excellent by FCT: LEPABE, LSRE-LCM and CEFT. Comprising 440 researchers, of which 40% hold a PhD degree, ALiCE is the largest Portuguese Associate Laboratory in Chemical Engineering and relies on over 30 years of relevant and internationally recognised research (top-1, 20 and 100 at National, European and World level, respectively, according to well-known rankings). ALiCE's mission is to contribute to scientific knowledge and its technological applications for the development of sustainable and efficient innovative processes and products to respond to societal and industry challenges. Its vision is to be the driving force for relevant scientific advances to produce sustainable technological innovation for companies and society, to encourage advanced training governed by the highest standards of scientific excellence and to strengthen the leadership position and international recognition in interdisciplinary research. ALiCE is organized in 5 thematic lines: "Chemical Industry" (TL1), "BioIndustry" (TL2), "Materials" (TL3), "Energy" (TL4) and "Environment" (TL5). ALiCE is strongly committed to support public policies, while endorsing the strategic development goals of UN 2030 Agenda, namely: (1) water quality improvement; (2) advances in energy efficiency and access to alternative clean, renewable and affordable alternative energy sources; (3) development of clean and environmentally sound technologies and industrial processes to increase resource-use efficiency to enhance resilient infrastructures and industries; (4) use of renewable sources, sustainable management and efficient use of natural (bio)resources; (5) use of renewable sources with zero-emissions in devices, enabling decarbonization of the economy and tackling climate change.

COORDINATOR AT U.PORTO

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R&D UNITS

Main

LEPABE [U.Porto/FEUP]

Others

CEFT [U.Porto/FEUP], LSRE-LCM [U.Porto/FEUP]

MANAGEMENT INSTITUTIONS

Main

Faculty of Engineering of the University of Porto (U.Porto/FEUP)

Others

Polytechnic Institute of Leiria (IPLeiria)

FUNDING FCT 2021-25

2.1 M€ [U.Porto ecosystem: 1.8 M€]

INTEGRATED RESEARCHERS

192 [U.Porto ecosystem: 140]

KEYWORDS

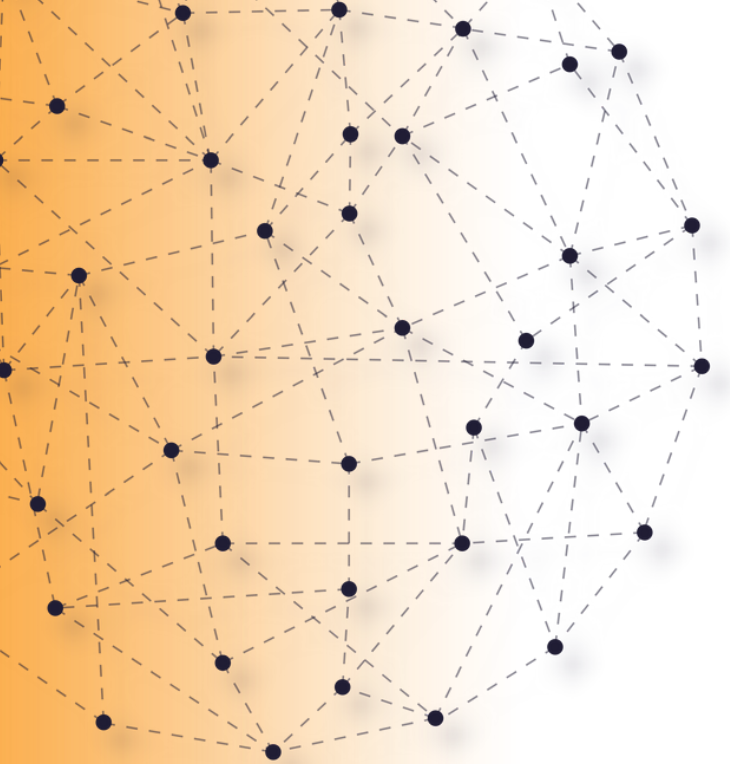
Bioprocesses; Chemical Processes;
Environmental Technologies;
Sustainable Energies



THEMATIC LINES

TL1 Chemical industry
TL2 BioIndustry
TL3 Materials
TL4 Energy
TL5 Environment





ARISE

ADVANCED PRODUCTION AND INTELLIGENT SYSTEMS

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🌐 arise-la.pt

COORDINATOR AT U.PORTO

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R&D UNITS

Main

SYSTEC [U.Porto/FEUP]

Others

CDRSP [IPLeiria], CEMMPRE [UC],
ISISE [UM & UC], ISR [ISR]

MANAGEMENT INSTITUTIONS

Main

Faculty of Engineering of the University of
Porto (U.Porto/FEUP)

Others

Polytechnic Institute of Leiria (IPLeiria),
University of Minho (UM), University of Coimbra
(UC), Institute of Systems and Robotics (ISR)

FUNDING FCT 2021-25

999 k€ [U.Porto ecosystem: 287.5 k€]

INTEGRATED RESEARCHERS

251 [U.Porto ecosystem: 23]

KEYWORDS

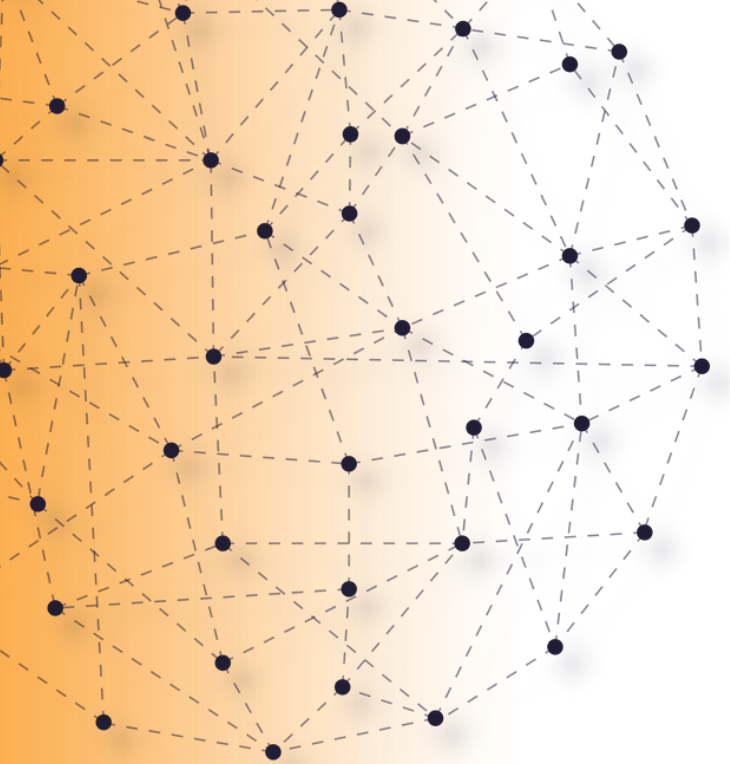
Digital Ecosystems, Sustainability & Management;
Innovation and Technology Transfer; New Materials
and Components; Robotic and Intelligent Systems;
Sustainable Production and Energy Systems

The ARISE AL is an association of five leading R&D Units in Norte and Centro regions of Portugal, hosted across 3 Universities (U.Porto, UM and UCoimbra) and 1 Polytechnic Institute (IPLeiria). ARISE brings together around 250 integrated PhD researchers working in the emerging fields of advanced and high-performance manufacturing, cyber-physical production systems, digital twins and simulation, new materials and components, sustainable energy systems, intelligent robotics, data science and circularity, with key very diverse branches of Engineering – Civil, Electrical and Computing, Informatics, Biomedical and Mechanical – yielding, in this way, a proper synergistic context and unique position to support the reindustrialisation, digitalisation, and renovation of production systems and of the built environment. ARISE has 5 thematic lines covering the value chain: "New Materials and Components" (TL1), "Advanced Production Systems and Processes" (TL2), "Sustainable Energy Systems" (TL3), "Intelligent Systems and Robotics" (TL4), and "Digital Ecosystem, Sustainability, Risk and Management" (TL5). TL1 concerns the development and production of various types of materials (bio-based, metal-based, ceramic-based, polymer-based, timber-based, masonry-based, smart, meta and multimaterials) and shapes (particles, films, liquid, inks and bulk) for various applications such as Fabrication Technologies, Additive Manufacturing, Energy & Environment, Mobility, Construction, Safety, and Smart Sensing for Robotics, Automation, Advanced Manufacturing and Health. TL2 aims to develop novel approaches in different pivotal areas, namely advanced and conventional manufacturing systems and their digital counterparts, smart machinery and cyber-physical production systems, advanced robotics for manufacturing, advanced logistics and transportation systems for suitable production, and novel processes and personalized products for well-being to reply to demanding challenges. TL3 plans to work out four activities fully aligned with the NECP and European Union Green Deal: Renewable Production, Energy-Efficiency in Industry and Buildings, Storage Systems, and Electric Mobility. TL4 addresses fundamental and applied R&D to foster the embedding of intelligence in Cyber-Physical architectures and Robotic systems. TL5 targets the integrated sustainable development and maintenance of infrastructures, facilities and cultural heritage relying on the current trends for a fully digital ecosystem targeting a robust and resilient society.

THEMATIC LINES

TL1 New materials and components
TL2 Advanced production systems and processes
TL3 Sustainable energy systems
TL4 Intelligent systems and robotics
TL5 Digital ecosystem, sustainability, risk and management





INESC TEC

INSTITUTE FOR SYSTEMS AND COMPUTER ENGINEERING, TECHNOLOGY AND SCIENCE

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 www.inesctec.pt

COORDINATOR AT U.PORTO

João Claro presidencia@inesctec.pt

R&D UNITS

Main

INESC TEC [INESC TEC]

MANAGEMENT INSTITUTIONS

Main

Institute for Systems and Computer Engineering,
Technology and Science (INESC TEC)

FUNDING FCT 2021-25

6.5 M€ [*U.Porto ecosystem*: 3.3 M€]

INTEGRATED RESEARCHERS

323 [*U.Porto ecosystem*: 212]

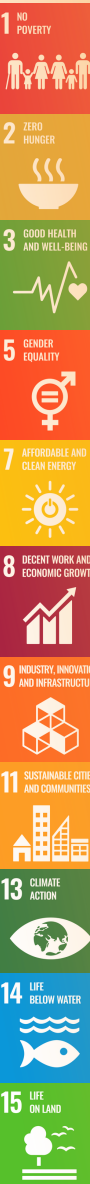
KEYWORDS

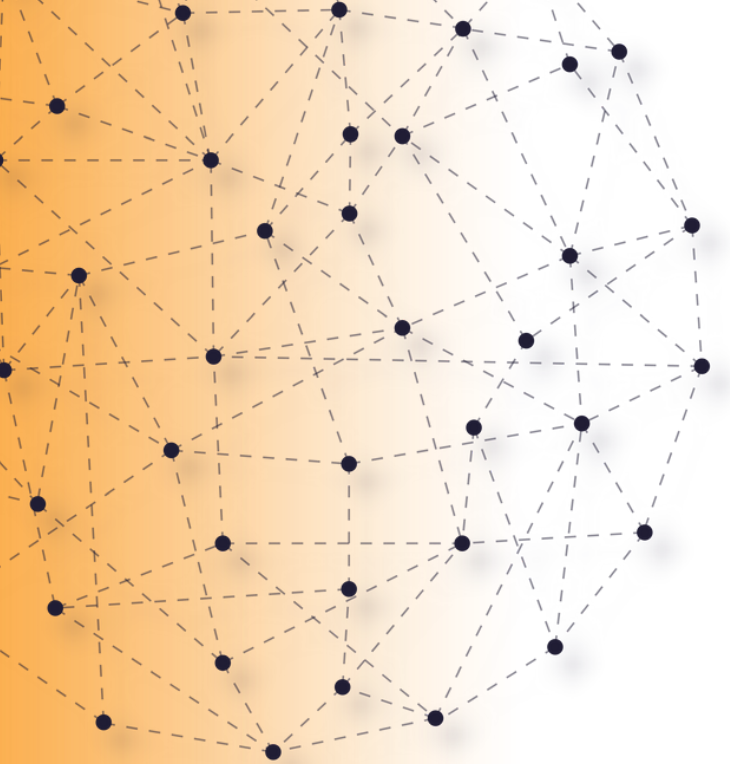
Electrical and Computer Engineering; Computer
Science; Industrial Engineering and Management;
Bioengineering; Photonics

INESC TEC's purpose is to create a fulfilling and sustainable future through impactful science, technology, and innovation. As a freethinking and diverse community, its mission is to take on bold science, technology, and innovation challenges, empowering talent, collaborative ecosystems, and public policies that make a difference in economy and society. From its roots and over nearly four decades, INESC TEC has evolved as a private, nonprofit institution stemming from the university to leverage its missions. Research at INESC TEC varies from basic to applied, and from established and well-known topics in which INESC TEC is internationally renowned, to strategic topics nearing critical mass. INESC TEC's comprehensive and inclusive model captures the dynamics and multidisciplinary nature of the activities of its centres and individual researchers, spanning across its 8 scientific domains. INESC TEC's management and operational model implements the concept of end-to-end knowledge value chain, driving knowledge from its generation in research activities to its valorisation through different technology transfer instruments. The TEC4 initiatives (TEC4AGRO-FOOD, TEC4ENERGY, TEC4HEALTH, TEC4INDUSTRY and TEC4SEA) articulate INESC TEC's activity towards the strategic market sectors and address current societal challenges, defining market strategies and planning the interaction with major application areas.

THEMATIC LINES

TL1 Artificial intelligence
TL2 Bioengineering
TL3 Communications
TL4 Computer science and engineering
TL5 Photonics
TL6 Power and energy systems
TL7 Robotics
TL8 Systems engineering and management





IT

INSTITUTO DE TELECOMUNICAÇÕES

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 www.it.pt

The Instituto de Telecomunicações (IT) is a private, not-for-profit, multi-site association of six universities, one polytechnic institute and two private companies, which was granted the statute of Associated Laboratory in 2001. Having a wide national coverage, the three main sites of IT are located at Universidade de Aveiro, Universidade de Coimbra and Instituto Superior Técnico of the Universidade de Lisboa, but has also delegations at U-Porto, UBI-Covilhã and IP-Leiria. IT is managed by a Board of Directors with individualized responsibilities regarding human resources, finances, planning and control and business development. IT scientific organization encompasses a Scientific Board, arranged in 16 clusters of research groups and an Advisory Board composed by a Scientific Committee and a Business Committee. IT mission addresses the creation and dissemination of scientific knowledge, technology transfer and societal challenges on technologies of information, communication and electronics (TICE), with a strong emphasis on Telecommunications. Its research is organized around 4 thematic lines devoted to major TICE topics - "Wireless Technologies" (TL1), "Optics and Photonics" (TL2), "Information and Data Science" (TL3), "Networks and Services" (TL4) -, and a line that supports the previous ones with fundamental research on "Basic Sciences and Support Technologies" (TL5). IT is a member of 2 Digital Innovation Hubs and co-promoter of a Technological Free Zone (ZLT). IT activities are focused on both fundamental research on TICE, and on applied research, technology transfer aligned with portuguese societal challenges and public policies (e.g., Information and Communication Technologies, Digital Transition of the Economy, Defense, Mobility, Space, Education, and Health). Building on IT rich track-record on those challenges, IT strategic plan is focused on supporting related R&D, on continuing technology transfer and intellectual property through cooperative projects with industry. Additionally, IT will continue hosting and training MSc and PhD students, to feed national highly qualified work force on TICE, and continue supporting (with its own patents and laboratory facilities) the creation of technological startups.

COORDINATOR AT U.PORTO

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R&D UNITS

Main

IT [IT]

MANAGEMENT INSTITUTIONS

Main

Instituto de Telecomunicações (IT)

FUNDING FCT 2021-25

4.6 M€ [*U.Porto ecosystem*: 300 k€]

INTEGRATED RESEARCHERS

194 [*U.Porto ecosystem*: 3]

KEYWORDS

Electronics; Information;
Technology; Telecommunications

THEMATIC LINES

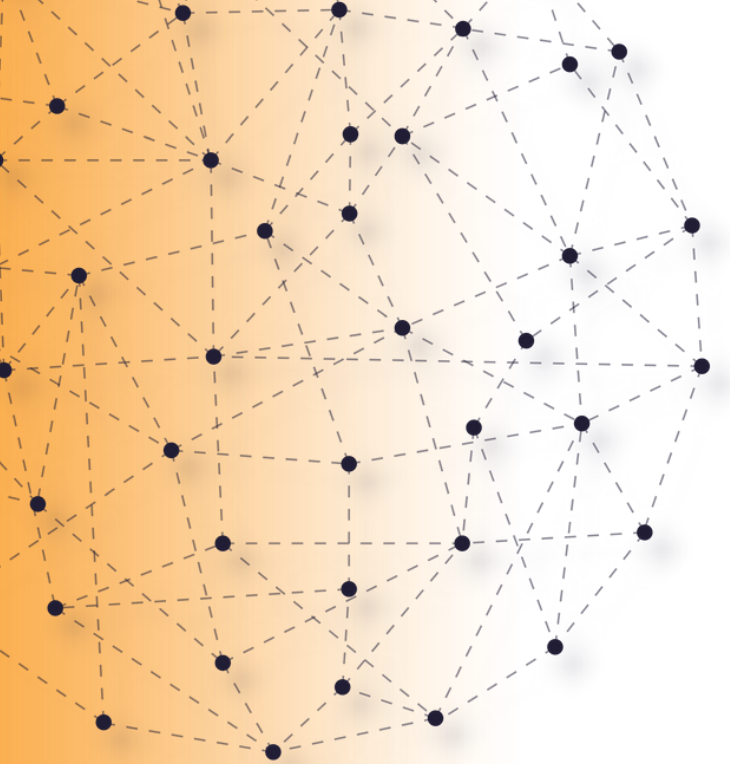
TL1 Wireless technologies

TL2 Optics and photonics

TL3 Information and data science

TL4 Networks and services

TL5 Basic sciences and support technologies



LAETA

ASSOCIATE LABORATORY OF ENERGY, TRANSPORTS AND AEROSPACE

 laeta@inegi.up.pt

 laeta.pt/

LAETA is an Associate Laboratory in the fields of Energy, Transportation and Aerospace, which also addresses other emerging fields where its scientific knowledge, grounded on Mechanical, Materials and Aerospace Engineering, can be applied. Main objectives: (i) Ensure the transfer of fundamental scientific knowledge to public policies; (ii) Promote the effective integration of multidisciplinary knowledge and results into complex decision-making / policy processes; (iii) Attract new talent and raise international funds to leverage the main training results within the target economic sectors (Energy, Transport, Space and Industry). LAETA is organized in 4 thematic lines: "Energy, environment and forests" (TL1), "Surface and air transport" (TL2), "Technologies for space" (TL3), "Resilient industry" (TL4). "Energy, environment and forests" research line aims to implement at local level the national, European and international objectives associated with the response to climate change, with a focus on the energy system, on the management and recovery of natural systems, but also on the improvement of existing infrastructures. "Surface and air transport" research line aims to promote the use of more sustainable transport, with a 25% reduction in greenhouse gas emissions in 2030, compared to 2005, in particular in the automobile, aeronautics and railway sectors. It focuses above all on durability, recyclability and vehicle safety, contributing to the decarbonization of the sector and, at the same time, to increasing the competitiveness of national companies operating in these value chains. "Technologies for space" research line aims to accelerate the implementation of the Portugal Espaço 2030 Strategy, particularly in the area of Technologies for Space, with regard to increasing the level of maturity of the most promising scientific and technological results, increasing Portugal's participation in international scientific missions, contributing to the implementation of a competitive national scientific and industrial network and promote employment in this area. "Resilient industry" research line aims to increase the resilience of the national industrial fabric involved in its value chains, through support for national scientific and technological policy in the areas of Circularity and Resource Efficiency, Digitization and Human-centered Production.

COORDINATOR AT U.PORTO

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R&D UNITS

Main

LAETA [INEGI]

MANAGEMENT INSTITUTIONS

Main

Institute of Science and Innovation in Mechanical and Industrial Engineering (INEGI)

Others

Association for the Development of Industrial Aerodynamics (ADAI), University of Beira Interior (UBI), Mechanical Engineering Institute (IDMEC)

FUNDING FCT 2021-25

967 k€ [*U.Porto ecosystem*: 304 k€]

INTEGRATED RESEARCHERS

276 [*U.Porto ecosystem*: 163]

KEYWORDS

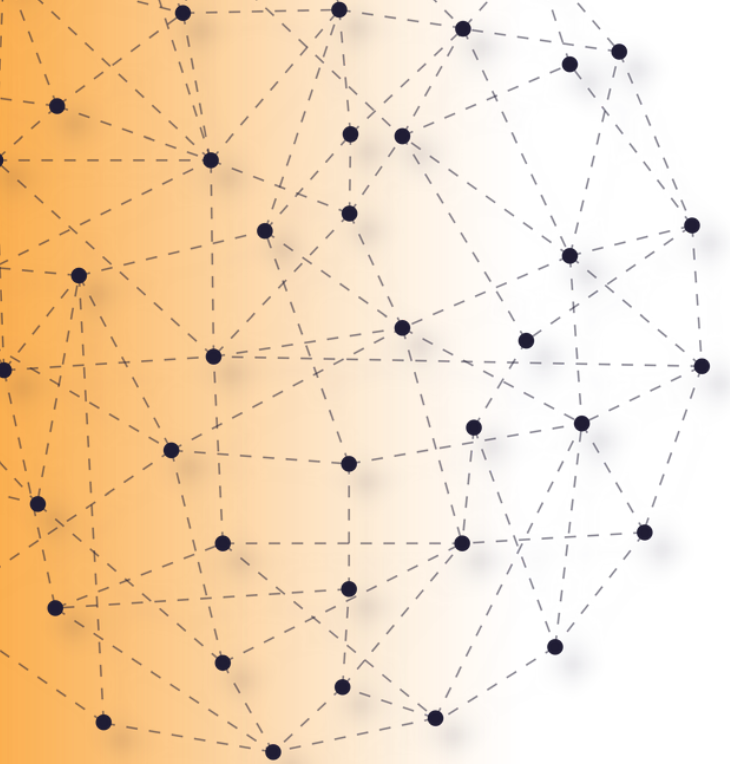
Aerospace Engineering; Energy;
Mechanical Engineering;
Transport Technologies



THEMATIC LINES

TL1 Energy, environment and forests
TL2 Surface and air transport
TL3 Technologies for space
TL4 Resilient industry





LASI

INTELLIGENT SYSTEMS ASSOCIATE LABORATORY

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 lasi-research.pt

The Intelligent Systems Associate Laboratory (LASI), is headquartered at the Centro ALGORITMI, University of Minho in Guimarães. LASI is a reference laboratory for Artificial Intelligence and Data Science in Portugal. It intends to create sustainable and inclusive innovation for our society, improving applications/materials/products and using advanced intelligent systems technologies, providing high levels of precision, performance and adaptation over time. It will, therefore, enable new business models and processes in industry, services, community and improve the way we interact with everything around us. LASI is organized in 5 thematic lines: "Innovative and Sustainable Industries" (TL1), "Smart Cities, Mobility and Energy" (TL2), "Health and Well-being" (TL3), "Infrastructures and Highly Connected Society" (TL4), "Public Administration and Governance" (TL5). "Innovative and Sustainable Industries" focus on advanced AI-powered IT solutions to address the relationships between humans and online services, and the use of AI to improve public policies, public administration services and decision-making processes. "Smart Cities, Mobility and Energy" aims to help solving structural real-world problems faced by Cities, namely in Smart Grids and Energy Communities, in Intelligent Vehicles and Transportation Systems, and in Urban Spaces. "Health and Well-being" focus on timely challenges related to Active Ageing, Personalized Health and Assisted Living, Biomedical Informatics and Systems, Improved diagnostic and prognostic biomarkers based on BIG DATA approaches and stimulate the research and contribution of new methodological solutions and their application in realistic clinical and non-clinical contexts. "Infrastructures and Highly Connected Society" addresses the scientific challenges posed by an integrated highly connected and digital society, namely, (i) developing a robust data infrastructure (from computation to communications); (ii) deploying reliable and ubiquitous CPS for a connected future and (iii) implementing a digital approach for a more efficient and fair society. "Public Administration and Governance" focuses on advanced AI-powered IT solutions to address the relationships between humans and online services, and the use of AI to improve public policies, public administration services and decision-making processes.

COORDINATOR AT U.PORTO

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R&D UNITS

Main

ALGORITMI [UM]

Others

LIACC [U.Porto/FEUP], CMUP [U.Porto/FCUP], CISUC [UC], CIBIT [UC], IEETA [UA], TEMA [UA], CTS [UNINOVA/FCTUNL/UNL], UNIDEMI [NOVA.ID.FCT/FCTUNL/UNL], IPC [UM], CISTER [ISEP/IPP], GECAD [ISEP/IPP], 2Ai [IPCA]

MANAGEMENT INSTITUTIONS

Main

University of Minho (UM)

Others

Polytechnic Institute of Cavado & Ave (IPCA), Superior Institute of Engineering of Porto (ISEP/IPP), University of Aveiro (UA), University of Coimbra (UC), Faculty of Engineering of the University of Porto (U.Porto/FEUP), Faculty of Sciences of the University of Porto (U.Porto/FCUP), NOVA University of Lisbon (UNL)

FUNDING FCT 2021-25

679 k€ [U.Porto ecosystem: 61 k€]

INTEGRATED RESEARCHERS

569 [U.Porto ecosystem: 67]

KEYWORDS

Computer Science and Artificial Intelligence, Robotics and Cyber-Physical Systems; Sustainable Computing; Intelligent Materials, Manufacturing and Services



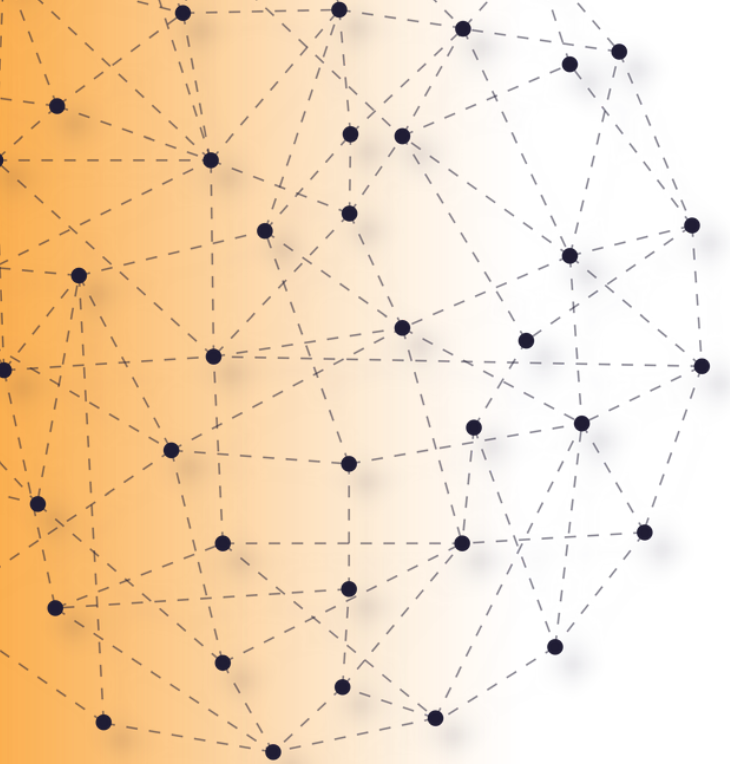
THEMATIC LINES

- TL1 Innovative and sustainable industries
- TL2 Smart cities, mobility and energy
- TL3 Health and well-being
- TL4 Infrastructures and highly connected society
- TL5 Public administration and governance





MEDICAL & HEALTH SCIENCES



i3S INSTITUTE FOR RESEARCH AND INNOVATION IN HEALTH

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🌐 www.i3s.up.pt

COORDINATOR AT U.PORTO

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R&D UNITS

Main

i3S [i3S]

MANAGEMENT INSTITUTIONS

Main

Institute for Research and Innovation in Health -
Association (i3S)

Others

Institute for Molecular and Cell Biology (IBMC),
Institute of Molecular Pathology and Immunology of
the University of Porto (IPATIMUP), Biomedical
Research Institute (INEB)

FUNDING FCT 2021-25

19.6 M€ [U.Porto ecosystem: 19.6 M€]

INTEGRATED RESEARCHERS

435 [U.Porto ecosystem: 385]

KEYWORDS

Bioengineering; Biological Sciences;
Biomedicine; Cancer; Infection;
Immunity; Regenerative Medicine; Health

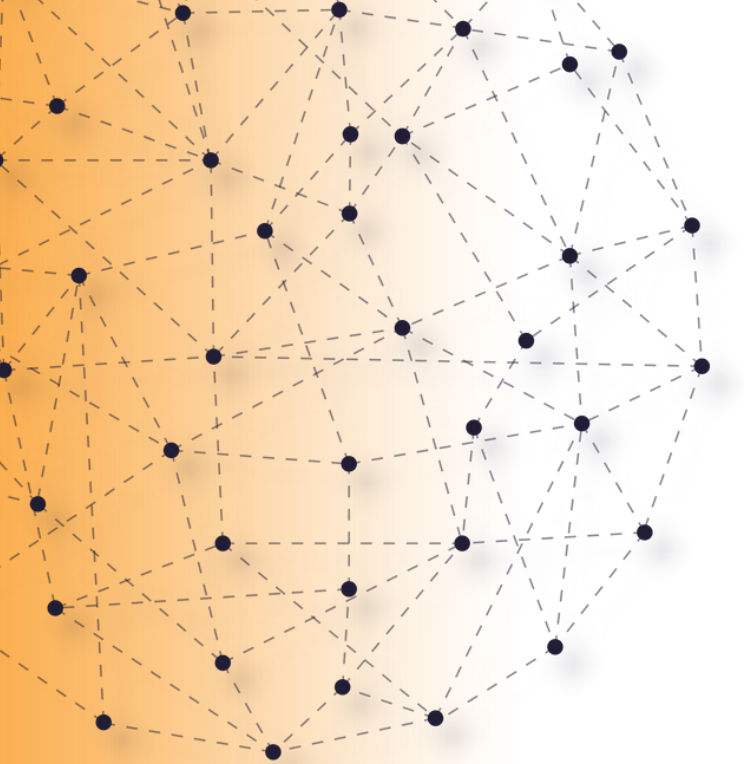
i3S is an international center for outstanding research in the health sciences that aggregates competencies and a relevant critical mass aimed to develop research that impacts the life of patients. For this, i3S has more than 400 researchers organized into 73 research groups and distributed across 3 thematic lines: "Cancer" (TL1), "Neurobiology and Neurologic Disorders" (TL2), and "Infection, Immunity and Regeneration" (TL3). i3S collaborates with 4 PhD programs for the University of Porto and hosts over 300 PhD students that carry out their theses within the research groups. i3S has centralized facilities and state-of-the-art technological platforms that help to train scientists and support all aspects of research. The mission of i3S is to promote curiosity-driven research that will result in breakthroughs in our understanding of biological principles, uncover the basis of disease, carry out postgraduate and advanced training, transfer of technology, and the promotion of the public understanding of science. i3S also supports clinical initiatives in the areas of molecular diagnostics and pathology of Cancer, neurological, neurodegenerative, and infectious diseases. i3S is run by a private not-for-profit Association of public interest. The goals for the 3 thematic lines of i3S are as follows: TL1) "Cancer": aims to unravel fundamental genetic, molecular, and cellular mechanisms relevant to cancer biology, and to translate this knowledge into practical and tangible benefits for cancer patients; TL2) "Neurobiology and Neurologic Disorders": aims at comprehending the molecules and mechanisms governing the nervous system function in health and disease, and at developing strategies to prevent degeneration and promote neuro-regeneration; TL3) "Infection, Immunity and Regeneration": aims to conduct ground-breaking research to comprehend and tackle infections, autoimmune and degenerative disorders, and tissue injuries.

THEMATIC LINES

TL1 Cancer

TL2 Neurobiology and neurologic disorders

TL3 Infection, immunity and regeneration



ITR LABORATORY FOR INTEGRATIVE AND TRANSLATIONAL RESEARCH IN POPULATION HEALTH

 itr@ispup.up.pt

 ispup.up.pt/laboratorio-associado-itr

COORDINATOR AT U.PORTO

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R&D UNITS

Main

EPIUnit [ISPUP]

Others

UMIB [U.Porto/ICBAS], CIAFEL [U.Porto/FADEUP]

MANAGEMENT INSTITUTIONS

Main

Institute of Public Health of the University of Porto (ISPUP)

Others

School of Medicine and Biomedical Sciences (U.Porto/ICBAS), Faculty of Sport of the University of Porto (U.Porto/FADEUP)

FUNDING FCT 2021-25

375 k€ [U.Porto ecosystem: 375 k€]

INTEGRATED RESEARCHERS

163 [U.Porto ecosystem: 95]

KEYWORDS

Life course; Multifactorial causality;
Population Health; Translation

ITR embraces the mission to integrate public health research, based on the multidisciplinary and complementary valences of each research unit. ITR is organized in 4 thematic lines: "Life Course Research and Healthy Ageing" (TL1), "Syndemics, health inequalities and vulnerable populations" (TL2), "Genetic, Behavioural and Environmental Determinants of Health and Disease" (TL3), and "Patient and Population Outcomes Research" (TL4). "Life Course Research and Healthy Ageing" intends to serve the purpose of guiding Public Health interventions that improve populational well-being, integrating the perspectives of policymakers, clinicians and citizens, to define the most relevant research topics for populations. "Syndemics, health inequalities and vulnerable populations" research line aims to identify how the structure of society influences population health and contributes to health inequities. "Genetic, Behavioural and Environmental Determinants of Health and Disease" emphasizes the study of lifestyles, such as sedentary behaviour and physical activity/exercise, as well as nutrition. "Patient and Population Outcomes Research" research line aims to uncover better ways to understand the mechanisms of disease, to prevent, diagnose and treat so that improved overall health outcomes are possible. These include the identification of epidemiological trends, new syndromes, more precise characterization of previously known diseases, as well as the development of new diagnostic tests, and therapeutic approaches.

THEMATIC LINES

TL1 Life course research and healthy ageing

TL2 Syndemics, health inequalities and vulnerable populations

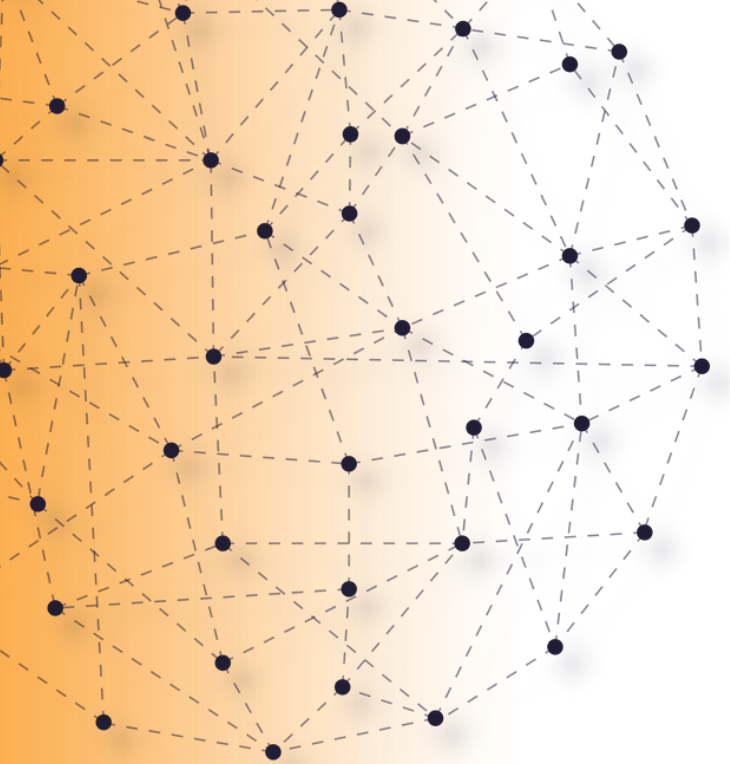
TL3 Genetic, behavioural and environmental determinants of health and disease

TL4 Patient and population outcomes research



LABORATORY FOR INTEGRATIVE
AND TRANSLATIONAL RESEARCH
IN POPULATION HEALTH





RISE HEALTH RESEARCH NETWORK: FROM THE LAB TO THE COMMUNITY

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 rise-health.pt

RISE's mission is to reinforce health research in the Portuguese Scientific and Technological System, from the pre-clinical and clinical phase to the community level, supporting and promoting the objectives of the Portuguese science and technology policy, actively participating in the elaboration and definition of public policy. RISE is organized in 5 thematic lines: "Clinical and translational research in cardiovascular sciences" (TL1) focuses on preclinical, clinical, and translational research in cardiovascular disease, pathophysiology, prevention, diagnosis, treatment, and prognosis. Main scientific topics include heart failure, ischemic heart disease, atherosclerosis, arrhythmias, cardiomyopathies, and vascular diseases. "Clinical and translational research in oncology" (TL2) focuses on the pathogenesis, prevention, diagnosis, treatment and prognosis of oncological diseases. Research activity ranges from revealing the pathobiological mechanisms of carcinogenesis to evaluating the effectiveness of new therapies against cancer. "Clinical and translational research in inflammatory and degenerative diseases" (TL3) focuses on preclinical, clinical, and translational research, studying the etiology, pathophysiology, prevention, diagnosis, treatment and prognosis of a wide range of areas, particularly associated with inflammatory and degenerative diseases. Research topics include aging and dementia, neuronal degeneration, critical care medicine, inflammatory bowel disease, and medical microbiology. "Healthcare policy, technology, and digital transformation" (TL4) concerns health services' effectiveness, efficiency, sustainability, and digital transformation. It develops and evaluates methods and technologies to improve biomedical sciences and health care. Main scientific topics include health evidence and decision, health technology assessment, health economics and management, health policy, data science and artificial intelligence, patient-centered, technologies, medical informatics, and information systems in health. "Community health and societal challenges" (TL5) aims to address relevant, well-recognized societal challenges, including the promotion of healthy and active living and disease prevention, displaying strong links with the primary health sector and the community. Its main scientific topics include active and healthy aging, community health, family medicine, preventive medicine, nutrition and metabolic diseases, nursing, and ethical challenges.

COORDINATOR AT U.PORTO

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R&D UNITS

Main

CINTESIS [U.Porto/FMUP]

Others

UnIC [U.Porto/FMUP], CCUL [ULisboa], CI-IPOP [IPO Porto]

MANAGEMENT INSTITUTIONS

Main

Faculty of Medicine of the University of Porto
(U.Porto/FMUP)

Others

University of Aveiro (UA), University of Madeira (UMa)
University of Algarve (UALg), Association for Research and
Development of the Faculty of Medicine (AIDFM/FM/ULisboa),
Faculty of Sciences of the University of Porto
(U.Porto/FCUP), School of Medicine and Biomedical Sciences
(U.Porto/ICBAS), NOVA University of Lisbon (UNL), Nursing
School of Porto (ESEnf Porto), Oncology Institute of Porto,
Francisco Gentil, EPE (IPO Porto)

FUNDING FCT 2021-25

375 k€ [U.Porto ecosystem: 148 k€]

INTEGRATED RESEARCHERS

450 [U.Porto ecosystem: 213]

KEYWORDS

Clinical Research; Community Health; Digital
Transformation; Translational Medicine



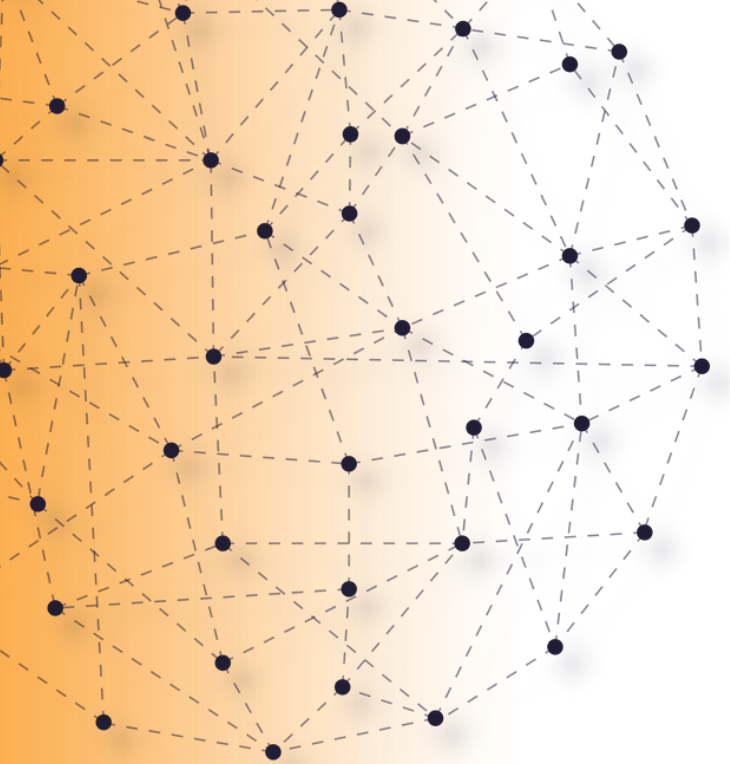
THEMATIC LINES

- TL1 Clinical and translational research in cardiovascular sciences
- TL2 Clinical and translational research in oncology
- TL3 Clinical and translational research in inflammatory and degenerative diseases
- TL4 Healthcare policy, technology, and digital transformation
- TL5 Community health and societal challenges



A composite image of Earth from space, showing the Western Hemisphere. The Earth's surface is covered in clouds, oceans, and landmasses. Overlaid on the image is a network of black dots connected by dashed lines, forming a global web. The dots are more densely packed in the Western Hemisphere. The background is a deep blue space filled with stars. The text "NATURAL SCIENCES" is written in large, white, bold, sans-serif capital letters across the lower half of the image.

NATURAL SCIENCES



CIMAR LA

CENTRE FOR MARINE AND ENVIRONMENTAL RESEARCH

✉ secretariado@ciimar.up.pt

🌐 www.ciimar.up.pt

CIMAR-LA brings together two excellent marine research centers in Portugal: CCMAR and CIIMAR. The mission of CIMAR-LA is to understand, protect and sustainably explore the full potential of marine and aquatic ecosystems through multidisciplinary research, innovation, and advanced training. CIMAR LA is organized in 2 thematic lines: "Global Change, Ecosystem Services and Conservation" (TL1) and "Exploration and Exploitation of Marine Resources" (TL2). "Global Change, Ecosystem Services and Conservation" addresses the following topics: i) Documenting ecosystems and the services they provide, the processes and functions of biodiversity, and the oceanographic factors to better preserve them; ii) Understanding global changes, and forecasting their repercussions such as climate change, sea level rise, ocean acidification and the response of biodiversity; iii) Identifying threats on ecosystem services, such as invasive species, toxic species, overfishing and pollution; iv) Studying *in situ* solutions for conservation and restoration of ecosystems such as species management with fisheries policies, Marine Protected Areas, blue carbon sequestration, sea forestation and other restorations, and rewilding. "Exploration and Exploitation of Marine Resources" addresses the following topics: (i) Changing economic models toward a circular economy, valuing biomass, de-plastification and decarbonization, integrated industry and integrated farming; (ii) Developing new resources from the sea and marine organisms such as new foods and new feeds, naturally-derived pharmaceutical and nutraceutical compounds, innovation in drug delivery to fight cancer and non-communicable diseases; (iii) Elaborating better processes from farm to fork, or from sea to fork, with water and soil restoration, oligotrophic aquaculture, and food processing to reduce food waste; (iv) Adapting human activities to future challenges, such as an aquaculture sustainable and resistant to climate change, more organic and sustainable farming preserving the Mediterranean diet, greener wastewater treatment; (v) Finding innovative solutions to mitigate coastal and marine anthropization, such as salinization of soils, following depollution, and brine management.

COORDINATOR AT U.PORTO

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R&D UNITS

Main

CCMAR [CCMar/CIMAR]

Others

CIIMAR [CIIMAR]

MANAGEMENT INSTITUTIONS

Main

Algarve Centre of Marine Sciences (CCMAR)

Others

Interdisciplinary Centre of Marine and Environmental Research (CIIMAR)

FUNDING FCT 2021-25

4.4 M€ [U.Porto ecosystem: 2.2 M€]

INTEGRATED RESEARCHERS

339 [U.Porto ecosystem: 155]

KEYWORDS

Biodiversity; Blue growth;
Circular economy; Global change

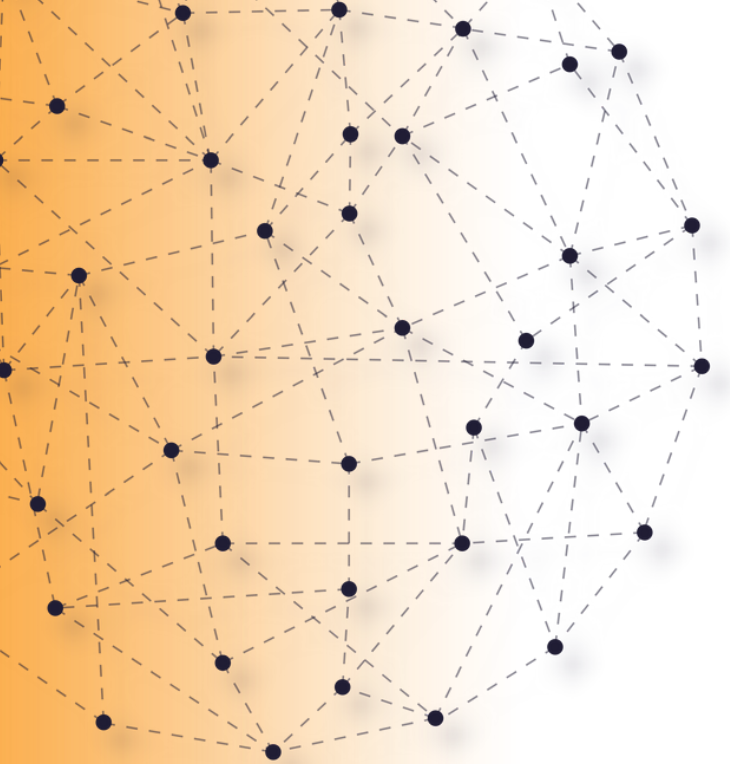
CIMAR
Laboratório Associado

THEMATIC LINES

TL1 Global change, ecosystem services and conservation

TL2 Exploration and exploitation of marine resources





i4HB INSTITUTE FOR HEALTH AND BIOECONOMY

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🌐 www.i4hb-la.pt

The i4HB mission is to become a leading interdisciplinary Institute, to address societal demands and to provide knowledge and sustainable technological solutions to improve the wellbeing of the population. Through world class R&D, i4HB aims to foster the development of integrated knowledge to support innovation in Public Policies at the leading-edge of research and education, with major impact in the Health and the Bioeconomy sectors. i4HB is organized in 4 thematic lines. “Platforms for Drug Development and Discovery” (TL1) activities are focused on (1) Basic Research for the first phase of Drug Discovery (Target Identification and Validation, Hit Identification, and Lead Discovery) and (2) Development and Non-clinical and preclinical Research for Drug Discovery and Development (Pharmacokinetics Characterization, Toxicity/metabolism Evaluation, *In vitro/ex vivo* Studies for Drug Testing, *In vivo* Studies for Drug Testing, Optimizing Drug Formulation). “Advanced Diagnostics and Therapies” (TL2) activities are focused on (1) Advanced Diagnostics (Materials and biological reagents for diagnostics, Devices for point-of-care diagnostics) and (2) Novel Therapeutics for Regenerative and Precision Medicine (Mechanistic aspects of human diseases, Tools for molecular and cell-based therapies, Disease Modelling and Innovative Therapies). “Human Health and Environmental Safety” (TL3) research topics comprise 1) Safety Assessment of Chemicals (Assessment of chemicals’ human and environmental hazards, Assessment of toxicants’ mechanistic signatures); 2) Antimicrobial Resistance (AMR): understanding the mechanisms behind selection and transmission of AMR using Multiomics and multilevel population analysis, and 3) Microbe-Host interactions in human diseases. “Bioresources Valorisation and Bioproducts Production” (TL4) research topics include (1) Yeast cell factories - development of superior yeasts and bioprocesses for the valorisation of bioresidues; (2) Marine bioresources - biosynthesis of new drugs, Macroalgae explored as a source of new products with uses on food, cosmetics and pharmaceuticals; (3) Sustainable biopolymer technologies for a Circular Economy - sustainable production of microbial biopolymers, foster plastic biodegradation and bio-transform persistent synthetic plastics, conversion of organic wastes, and (4) Advanced biomanufacturing (Bioprocess miniaturization, Innovative downstream processing, New materials, Process monitoring and modelling, Product characterization, applications, process scale up).

THEMATIC LINES

TL1 Platforms for drug development and discovery

TL2 Advanced diagnostics and therapies

TL3 Human health and environmental safety

TL4 Bioresources valorisation and bioproducts production

COORDINATOR AT U.PORTO

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R&D UNITS

Main

iBB [IST-ID]

Others

UCIBIO [FFUP], INESC MN [INESC MN]

MANAGEMENT INSTITUTIONS

Main

Association of Instituto Superior Técnico for Research and Development (IST-ID)

Others

INESC Microsystems & Nanotechnologies (INESC MN), NOVA University of Lisbon (UNL), Chemistry and Technology Network - Association (REQUIMTE-P), FCT's Association for Innovation & Development (NOVA.ID.FCT/FCTUNL/UNL)

FUNDING FCT 2021-25

2.2 M€ [U.Porto ecosystem: 443 k€]

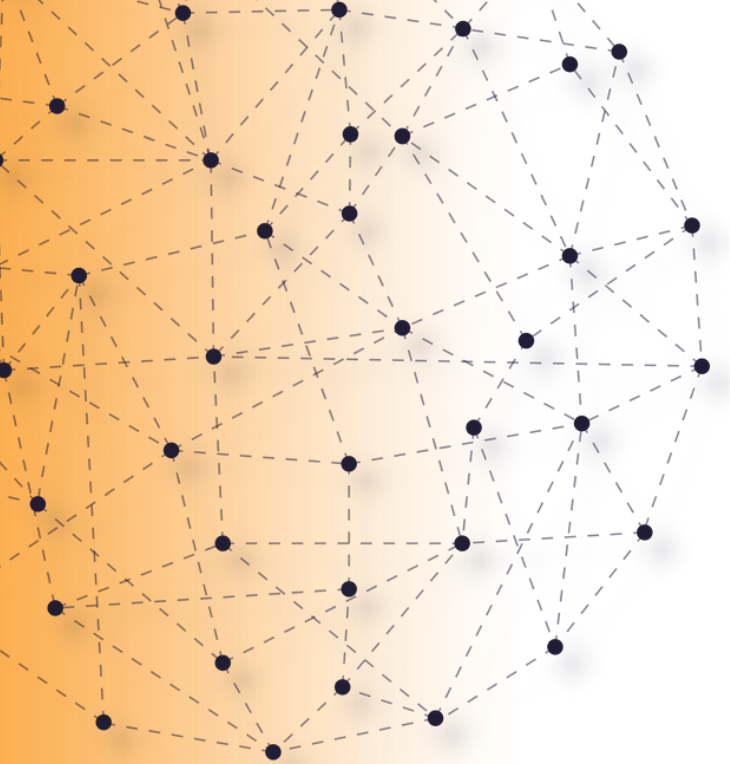
INTEGRATED RESEARCHERS

213 [U.Porto ecosystem: 59]

KEYWORDS

Bioprocesses & Circular Economy; Human Safety and Antimicrobial Resistance; Innovative Diagnostics, Therapies and Devices; Tools for Drug Discovery & Development Pipeline





InBIO

RESEARCH NETWORK IN BIODIVERSITY AND EVOLUTIONARY BIOLOGY

 cibio.up@cibio.up.pt

 cibio.up.pt

InBIO is an Associate Laboratory (AL) established in 2011, upon formal recognition of its key position to advise the Portuguese State in public policies related to the conservation and management of biodiversity and the environment. It involves a partnership between CIBIO – Research Centre in Biodiversity and Genetic Resources, hosted by the Universities of Porto (headquarters), Azores and Lisbon, and CEABN – Centre for Applied Ecology Baeta Neves, hosted by the University of Lisbon. Besides the main hosting institutions, there are integrated researchers from other universities, polytechnic institutes, state laboratories and the public administration. InBIO obtained an overall grade of EXCELLENT, and maximum rating in all criteria (5), in the evaluation of R&D Units in 2017-2018. Since then, InBIO is undergoing a major boost in its activities due to the granting in 2019 of the BIOPOLIS Teaming project by the European Commission, whereby it will be upgraded to a Centre of Excellence in Environmental Biology, Ecosystem Research and AgroBiodiversity. The vision of InBIO is to firmly establish itself as a strong, competitive, and internationally recognized network of excellence in the fields of evolutionary biology, biodiversity (including agrobiodiversity), and social-ecological research, integrating all levels of biological organization from genes to ecosystems. Research at InBIO aims to advance knowledge on the origins and maintenance of biodiversity to apply this knowledge to address societal challenges related to climate and land-use changes, environmental degradation, the loss and sustainable use of biodiversity and agrobiodiversity, and the management, restoration, and sustainable use of ecosystems and their services. Along with research, InBIO is strongly committed to promoting advanced training, mainly through the MSc in Biodiversity, Genetics and Evolution, and the PhD programs BIODIV5 and SUSFOR6 funded by FCT, but also through the organization of advanced courses. InBIO also aims to communicate and disseminate science and improve public awareness, appreciation, and understanding of biodiversity. Finally, there is a strong focus on knowledge transfer and exploitation of results through the establishment of long-term strategic partnerships with public and private organizations.

COORDINATOR AT U.PORTO

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R&D UNITS

Main

InBIO [BIOPOLIS]

Others

CEABN [ULisboa]

MANAGEMENT INSTITUTION

Main

BIOPOLIS Association (BIOPOLIS)

Others

School of Agriculture (ISA/ULisboa),
Gaspar Frutuoso Foundation, FP (FGF)

FUNDING FCT 2021-25

873 k€ [*U.Porto ecosystem*: 772 k€]

INTEGRATED RESEARCHERS

203 [*U.Porto ecosystem*: 153]

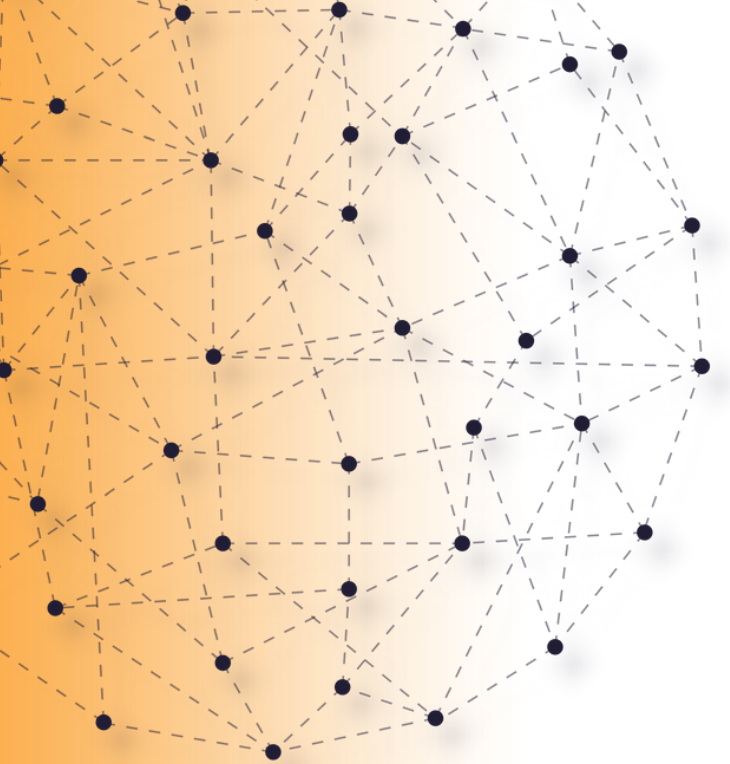
KEYWORDS

Biodiversity; Conservation and
Evolutionary Biology; Genomics;
Landscape Ecology and Planning



THEMATIC LINES

TL1 Evolution, Genetics & Genomics
TL2 Biodiversity, Ecology & Conservation
TL3 Sustainability, Ecosystems & Environment



LaPMET

LABORATORY OF PHYSICS FOR MATERIALS AND EMERGENT TECHNOLOGIES

 lapmet@fc.up.pt

The Laboratory of Physics for Materials and Emergent Technologies (LaPMET) has created new far-reaching opportunities and synergies for the involved partners, providing a unique networking environment in our country for a transversal approach in the field of Physics of Materials for Emergent Technologies. LaPMET offers unique expertise in Quantum materials and Quantum Technologies, Advanced materials, Processes and Technologies for Energy, Health and Environment, as well as New Technologies for Sensing, grounded in the vast experience of the partners. LaPMET structures its intervention in 4 main thematic lines, which are the driving vectors for excellent scientific research: “Quantum Materials and Quantum Technologies” (TL1) aims to ensure that no quantum technological gap is imposed on national industries; promote national technological independence in quantum technologies; sustain and train highly skilled human resources capable to innovate and sustain R&D; and to ensure national sovereignty in key areas such as secure communications and computation. “Advanced Materials and Processes for Energy” (TL2) was structured to transversely contribute to the main goals of Portuguese and European strategies by developing new materials and processes in the Energy sector, with strategic partnerships with industries from economic sectors such as water, textile, cement, space, oil & gas. “Advanced Materials and Technologies for Health and Environment” (TL3) provides a competitive edge to the Portuguese industry and economy, boosting new companies and jobs. “New Principles and Technologies for Sensing” (TL4) focuses on the development of innovative sensors and innovative sensing techniques by: i) using new materials, such as nanomaterials, smart materials, or their hybridization, allowing to give new multi functionalities to the sensor; ii) using new technologies, such as using the new physical properties of 2D materials; iii) developing, for a better adaptation, flexible sensors either using deposition techniques or printable materials and devices through tuned inks; iv) using NMR and new small portable devices suitable to probe contaminants in both natural and synthetic products for quality control and counterfeit detection in health and food industries.

COORDINATOR AT U.PORTO

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R&D UNITS

Main

IFIMUP [U.Porto/FCUP]

Others

CF-UM-UP [UM], CeFEMA [IST-ID]

MANAGEMENT INSTITUTIONS

Main

Faculty of Sciences of the University of Porto
(U.Porto/FCUP)

Others

University of Minho (UM); Association of
Instituto Superior Técnico for Research and
Development (IST-ID)

FUNDING FCT 2021-25

766 k€ [U.Porto ecosystem: 382 k€]

INTEGRATED RESEARCHERS

148 [U.Porto ecosystem: 32]

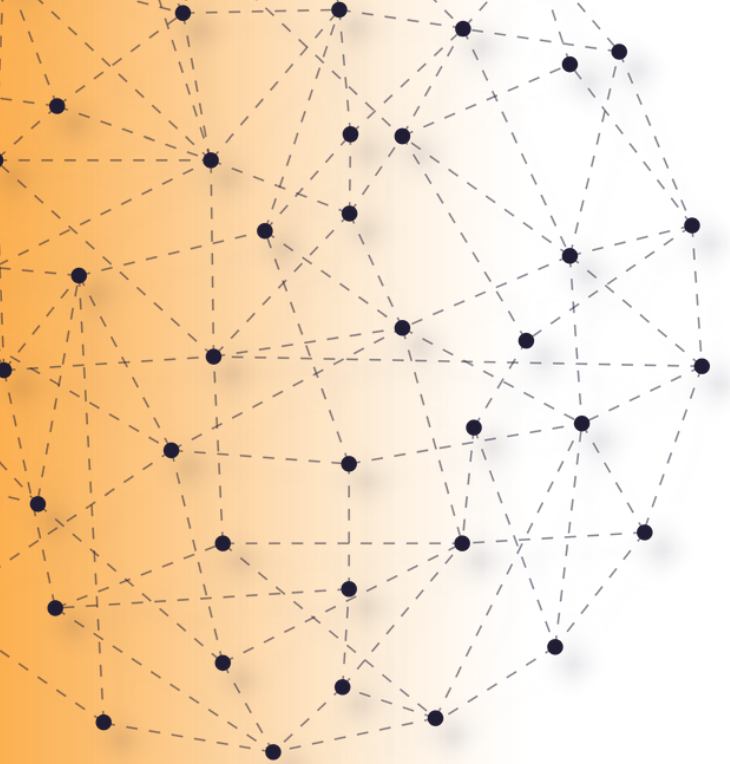
KEYWORDS

Advanced Materials for Energy; New Materials/Processes
for Health and Environment; Physics and Technology of
Sensing; Physics of Quantum Materials and Technologies

THEMATIC LINES

TL1 Quantum materials and quantum technologies
TL2 Advanced materials and processes for energy
TL3 Advanced materials and technologies for
health and environment
TL4 New principles and technologies for sensing





LAQV/REQUIMTE

ASSOCIATED LABORATORY FOR GREEN CHEMISTRY - CLEAN TECHNOLOGIES AND PROCESSES

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🌐 laqv.requimte.pt

LAQV/REQUIMTE's mission is to initiate, advance, and promote the principles of Sustainable Chemistry through a multiplicity of research, networking, training, and outreach activities. It aims to: (i) increase the international impact of research in Sustainable Chemistry; (ii) ensure that more research outputs lead to economic and social outcomes, through cooperation with industrial partners and the creation of spin-offs; (iii) attract the best young researchers to be trained in the multiple topics supporting Sustainable Chemistry; (iv) seek industrial partners focused on implementing clean technologies and processes; (v) assist stakeholders in making decisions on health and safety issues related to (bio)chemical products or processes through increased collaboration with regulatory bodies; (v) share the principles of Sustainable Chemistry and research outputs with the general public, governments, and industry, thereby increasing LAQV's presence in the community. LAQV/REQUIMTE is organized in 5 thematic lines. "Chemistry Towards a Greener World" (TL1) is focused on Green Chemistry regarding the development of products and processes that may be used per se or may be part of materials and renewable energy. "Food Science and Technology" (TL2) engages several research groups, responding to public policies and priorities of the sector towards a sustainable future. The proximity between R&D, higher education institutions, and the different agents of the agri-food chain is a strategic key for the development of the agri-food sector in Portugal. "Chemical Engineering for Sustainability" (TL3) brings together different research groups, benefiting from a close interaction between chemists and chemical engineers, aiming to contribute to the development and promotion of materials and processes required for sustainable production. "Chemistry to Health & Wellbeing" (TL4) research and innovation has three focuses: chemistry and disease, chemistry and drugs, and novel chemicals for diagnosis. "Cultural Heritage" (TL5) has the general objective of promoting better access and engagement with cultural heritage. The proximity between R&D, higher education institutions, and the different agents of cultural heritage is strategic for the development of this sector nationally and internationally.

COORDINATOR AT U.PORTO

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R&D UNITS

Main

LAQV/REQUIMTE [REQUIMTE]

Others

VICARTE [NOVA.ID.FCT/FCTUNL/UNL]

MANAGEMENT INSTITUTIONS

Main

Chemistry and Technology Network - Association (REQUIMTE-P)

Others

University of Aveiro (UA), University of Évora (UE), Nova University of Lisbon (UNL), FCT's Association for Innovation & Development (NOVA.ID.FCT/FCTUNL/UNL)

FUNDING FCT 2021-25

4.2 M€ [U.Porto ecosystem: 2 M€]

INTEGRATED RESEARCHERS

349 [U.Porto ecosystem: 143]

KEYWORDS

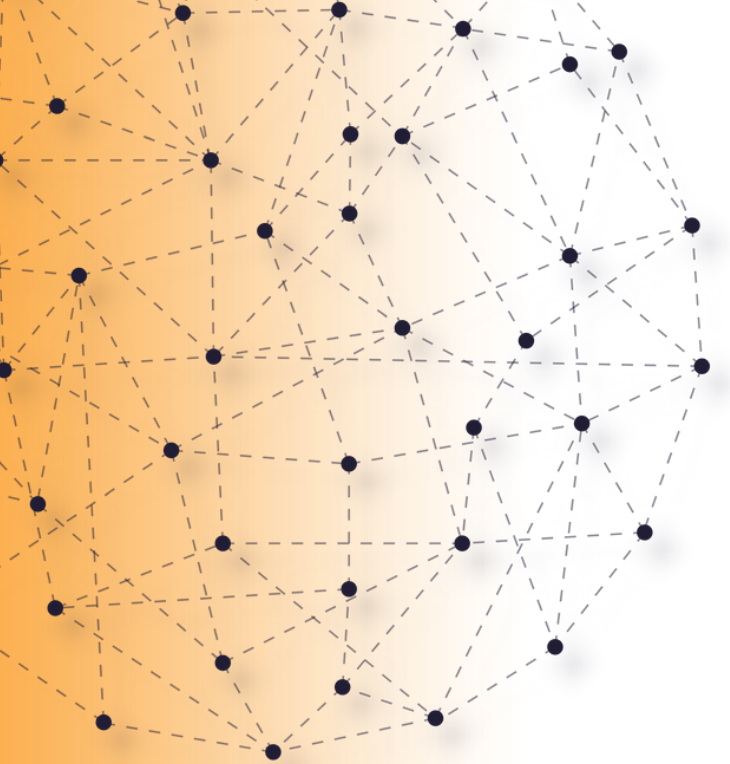
Chemistry to Health & Wellbeing; Cultural Heritage; Food Science and Technology; Sustainable Chemistry and Clean Processes



THEMATIC LINES

- TL1 Chemistry towards a greener world
- TL2 Food science and technology
- TL3 Chemical engineering for sustainability
- TL4 Chemistry to health & wellbeing
- TL5 Cultural heritage





IMS

INSTITUTE OF MOLECULAR SCIENCES

COORDINATOR AT U.PORTO

Luís Belchior Santos lbsantos@fc.up.pt

R&D UNITS

Main

CQE [IST-ID]

Others

CIQUP [U.Porto/FCUP], CQC [UC]

MANAGEMENT INSTITUTIONS

Main

Association of Instituto Superior Técnico for Research and Development (IST-ID)

Others

University of Coimbra (UC), Faculty of Sciences of the University of Porto (U.Porto/FCUP), Association for Science Research and Development (Fciências.ID)

FUNDING FCT 2021-25

1.2 M€ [U.Porto ecosystem: 179 k€]

INTEGRATED RESEARCHERS

312 [U.Porto ecosystem: 46]

KEYWORDS

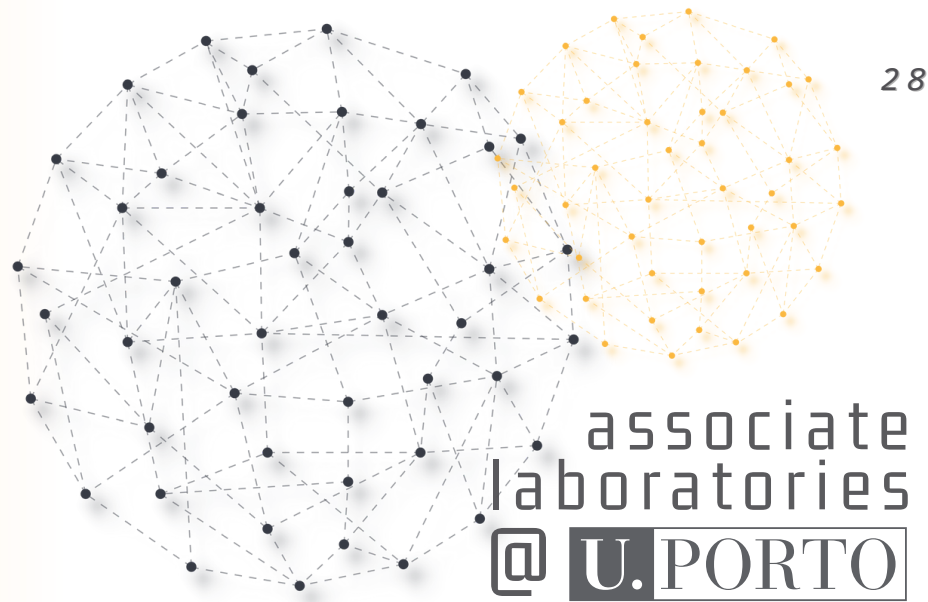
Advanced Materials and Chemical Processes;
Chemical Sciences for Health; Energy &
Environment: a molecular perspective;
Molecular-based Innovation

The Institute of Molecular Sciences, IMS, is a newly created Associate Laboratory that encompasses three R&D units, namely Centro de Química Estrutural (CQE, based both at Higher Technical Institute, CQE@IST, and at the Faculty of Sciences of the University of Lisboa, CQE@FCUL), Coimbra Chemistry Centre (CQC, Faculty of Sciences and Technology of the University of Coimbra) and Research Center in Chemistry (CIQUP, Faculty of Sciences of the University of Porto). The three R&D units have been evaluated as Excellent in the 2017-2018 FCT evaluation process of all Portuguese R&D units. CQE (the largest of the three R&D units) has two management institutions: Higher Technical Institute Association for Research and Development, IST-ID (a private non-profit organization that acts as the main management institution of this proposal) and Association for Science Research and Development, Fciências.ID (another participating private non-profit organization). The management institutions of CQC and CIQUP are the University of Coimbra (public entity) and the Faculty of Sciences of the University of Porto (public foundation), respectively. IMS has as its main objective the fostering of research to provide solutions to specific societal challenges that can be confronted using chemistry and molecular-based tools. The organization of IMS as three R&D units sharing 5 thematic lines (TLs) is an integrated, multidisciplinary and flexible concept: i) all research groups from the R&D units are encouraged to develop research work contributing to meet the ambitions of the TLs; ii) TLs are not compartmentalized: instead, they overlap in multiple research areas (e.g. a novel nano-structured material (MATsoft) can have its most important applications in pollution control or clean water (H2Oenv)); iii) collaborations between R&D units are expected to solve specific challenges posed by a given TL from different perspectives synergistically.

THEMATIC LINES

- TL1 MATsoft: Functional materials, soft matter and nanoscience
- TL2 MEDlife: Medicinal, biological and biophysical chemistry for health
- TL3 H2Oenv: Technologies for water, environment and energy
- TL4 SYNcat: Synthesis, catalysis and chemical processes
- TL5 CHEMfocus: Fundamentals and awareness





CONTACTS

Coordinator at U.Porto

Email

AGRICULTURAL SCIENCES

Associate Laboratory for Animal and Veterinary Sciences	AL4Animals	Ana Maurício	acmauricio@icbas.up.pt
Institute for innovation, capacity building and sustainability of agri-food production	Inov4Agro	Ruth Pereira	ruth.pereira@fc.up.pt

ENGINEERING AND TECHNOLOGY SCIENCES

Associate Laboratory in Chemical Engineering	ALICE	Arminda Alves	aalves@fe.up.pt
Advanced Production and Intelligent Systems	ARISE	António Pedro Aguiar	pedro.aguiar@fe.up.pt
Institute for Systems and Computer Engineering, Technology and Science	INESC TEC	João Claro	presidencia@inesctec.pt
Instituto de Telecomunicações	IT	Ana Aguiar	anaa@fe.up.pt
Associate Laboratory of Energy, Transports and Aerospace	LAETA	Pedro Camanho	pcamanho@fe.up.pt
Intelligent Systems Associate Laboratory	LASI	Luís Paulo Reis	lpreis@fe.up.pt

MEDICAL & HEALTH SCIENCES

Institute for Research and Innovation in Health	i3S	Claudio Sunkel	cesunkel@i3s.up.pt
Laboratory for Integrative and Translational Research in Population Health	ITR	Henrique Barros	henrique.barros@ispup.up.pt
Health Research Network: From the Lab to the Community	RISE	Fernando Schmitt	fschmitt@med.up.pt

NATURAL SCIENCES

Centre for Marine and Environmental Research	CIMAR LA	Vítor Vasconcelos	vmvascon@fc.up.pt
Institute for Health and Bioeconomy	i4HB	Luísa Peixe	lpeixe@ff.up.pt
Research Network in Biodiversity and Evolutionary Biology	InBIO	Nuno Ferrand	director@cibio.up.pt
Laboratory of Physics for Materials and Emergent Technologies	LaPMET	João Araújo	jearaujo@fc.up.pt
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SOURCES

Portuguese Foundation for Science and Technology (FCT), Department of R&D Units;

Portuguese Atlas of Associate Laboratories, 2022 (FCT);

Portuguese Foundation for Science and Technology (FCT) results lists:

1) *"Financiamento Plurianual de Unidades de I&D para o período 2020-2023; Parcelas e componentes do financiamento de 348 Unidades de I&D após resultados das reclamações"*;

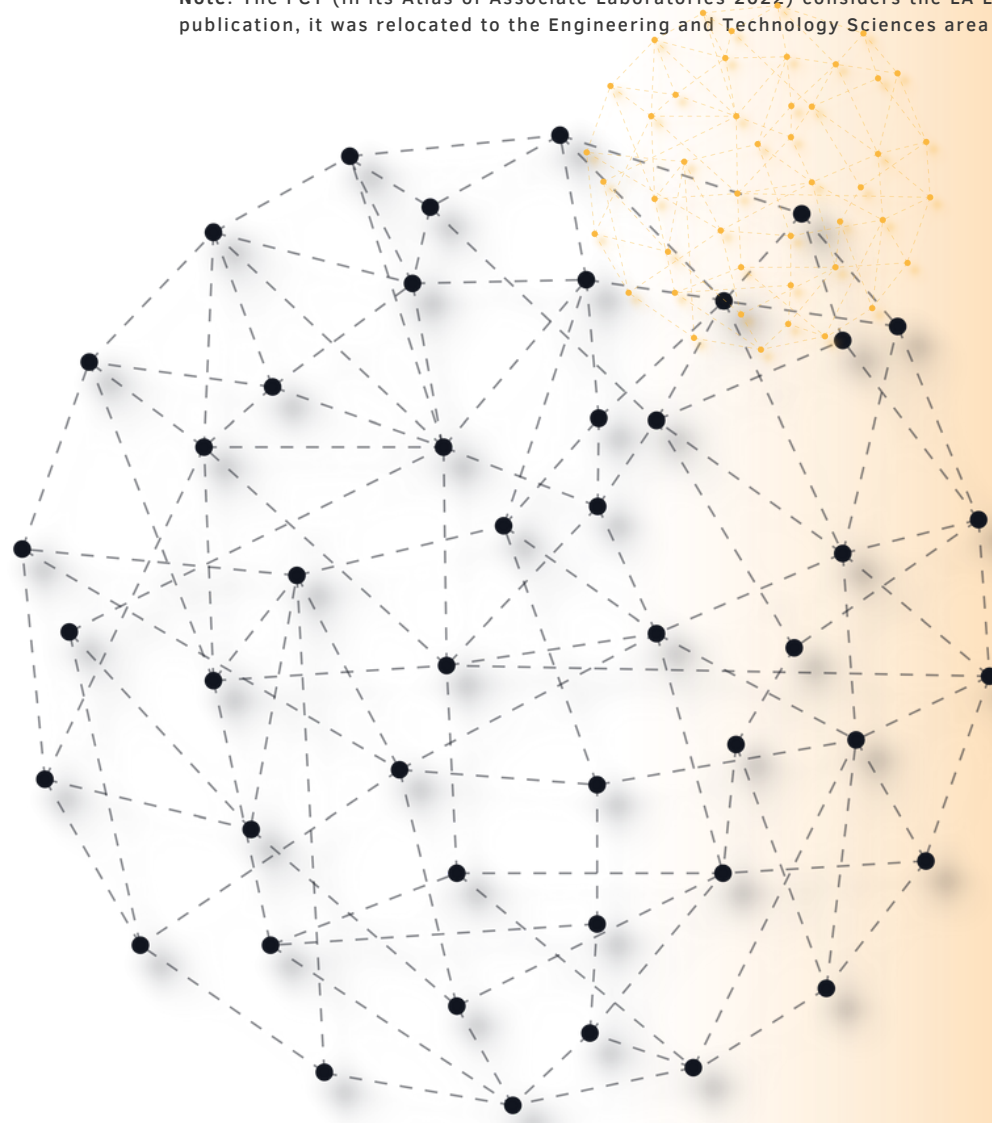
2) *"Concurso para atribuição do estatuto e financiamento complementar de Laboratórios Associados (LA) 2020"; "Proposta de decisão final após audiência prévia dos interessados"*;

LA Sheet, *"Conselho dos Laboratórios Associados"*;

U.Porto Associate Laboratories' Coordinators;

U.Porto Associate Laboratories' Websites.

Note: The FCT (in its Atlas of Associate Laboratories 2022) considers the LA LASI in the area of Natural Sciences. In this publication, it was relocated to the Engineering and Technology Sciences area due to the scope and objectives of the LA.





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