Founded in 1973, NOVA University Lisbon (NOVA) is a public university that has adopted since its inception an innovative multidisciplinary model in the Portuguese university context.

The mission of NOVA is to serve society through knowledge and education on a local, regional and global level. Delivering high quality teaching that assures the preference of employers and the success of graduates in the job market is a key priority for NOVA together with the development of topnotch research that contributes to tackle major societal challenges.

The recognition of this quality, both in teaching and research, guarantees the presence in prestigious international rankings, and the participation in networks such as YERUN - Young European Research Universities Network.

Considered one of the 50 best young universities in the world, NOVA stands out for its comprehensive nature, internationalization culture and commitment to the grand challenges of society.

NOVA is the Portuguese university with the best performance in the Horizon 2020 Programme and boasts a track record of 19 ERC grants awarded to its researchers.

The university has more than 20,000 students and 1,800 teaching staff and researchers, and over 2,500 international students from 109 nationalities enrolled in its programmes.

With nine academic units distributed throughout the metropolitan area of Lisbon, NOVA offers an intense and unique academic experience to its community.
The future of research at NOVA University Lisbon will be a creative tension between: fundamental research and innovative value creation; disciplinary hyper-specialization and interdisciplinary approaches to complex issues.

NOVA University fully endorses the vision that takes knowledge and knowledge-based innovation as two crucial springs for sustainable development, both at national and global levels. And for NOVA this entails five general lines of action:

- to assume and develop international agendas for research and innovation with a focus on impact and value creation;
- to pursue smart specialization by identifying our strong research areas;
- to enhance our capability for interdisciplinary research;
- to foster collaboration with top level research groups, national and international, with corporations and with other social sectors (Municipalities, NGOs, and others);
- to outreach some other regions besides Europe, namely but not exclusively, Portuguese speaking countries and Portuguese speaking communities.

To implement these general lines of action, several measures and initiatives were taken or are forthcoming. They focused mostly, although not exclusively, on three aspects: scientific employment and talent attracting; NOVA’s interdisciplinary capability; creating impact and value.

In order to support the talented people working at NOVA, and they are plenty, and also the ones that are going to be hired in the near future, we created a special program: “Talent@NOVA” with several subprograms - NOVA Doctoral School; “Preparing for my ERC Grant Application” Program; Individual Hiring Regulations; Merit Reward Regulation; and Merit Prizes Regulation.

In what concerns social impact and value creation at national level, it should be said that this is a challenge where NOVA has made many recent progresses and has still plenty of room to progress. We coined this overarching project “NOVA Value Creation Project”. Its mission is to contribute to the social and economic development of the country and, in particular, to its exporting activity. Here I will emphasize the Collaborative Laboratories, a true cornerstone of this value creation project (presented in this brochure).

I foresee that the future of research at NOVA will be a dynamic balance between four different poles: fundamental research and innovative value creation with social and economic impact; disciplinary hyper-specialization and interdisciplinary approaches to complex issues.

These four poles will generate, so to speak, a permanent creative tension and to cope with this dynamic tensional equilibrium in the right way, NOVA will progress on four fronts: enhancing the profiling of our researchers; stimulating them by designing systems of incentives; developing clear ways for rotating people; and keep on communicating in all sorts of ways: to increase mutual knowledge, to enhance mutual trust, and to engage with society. ‘Silo culture’ is not an option anymore at NOVA, nor is an ivory tower. All open inside and out, that’s the name of the game now.

I think it may be appropriate to use a metaphor here, one that put us close to the Portuguese character itself, let’s just imagine the future of research at NOVA as a fleet of very diverse but well-coordinated boats, with plenty of busy sailors boldly searching the seas of knowledge.

João Sàágua
NOVA’S HORIZON

Research at NOVA is our most important asset that will make the difference and will shape the future of NOVA University Lisbon for the coming years, the Horizon of our ambition as a great University is to reach excellence in all areas.

NOVA is proud to host 41 Research Units covering all the scientific and technological areas, where one third are research partnerships between NOVA and other national institutions.

In terms of key performance scientific and technical indicators I would like to highlight the following ones:

• Since the launch of the European Research Council Grants programme in 2008, NOVA’s researchers have been awarded a total of 19 grants, placing NOVA as one of the top national institutions with a national share of 25%.

• NOVA is the Portuguese University with the best performance at Horizon 2020 Framework Program;

• According to the Leiden ranking 2018, NOVA University Lisbon is the Portuguese institution with the greatest impact in terms of published scientific articles on a global scale, with 11.8% of all scientific production on the TOP 10% of the most cited publications;

• NOVA participates in 10 Collaborative Laboratories funded by FCT.I.P. and coordinates two of them;

• 77% of NOVA’s Research Units have been classified with “Exceptional”, “Excellent” or “Very Good” during the last evaluation performed by FCT.I.P.;

• Strengthening of the Collaborative Research Award SANTANDER-NOVA with 11 successful editions;

• NOVA integrates the Young European Research Universities Network due to the excellent results achieved in the main rankings of Universities with less than 50 years.

The new Rectoral Team aims to strengthen and to increase the scientific visibility inside and outside NOVA, by promoting cross-cutting issues collaboration, providing tools to the different types of Research Units of NOVA, aiming to explore and take profit of the existing different synergies, to which we would like to associate the societal impacts, as the driving element of our strategies for the future.

Targeting this goal, we promoted the first edition of the NOVA Science Day 2018 that had more than 350 participants.

In order to materialize and share our “best” with NOVA community and their national and international partnerships, we launched in 2018 the NOVA Science journal (paper/digital edition) covering all the research activities at NOVA.

At NOVA we believe that the combined strengths of a collaborative team is by far bigger than the sum of the individuals, and at the end we want to prepare the future generations in order to promote a Strong Academia, a Powerful Industry and a Respect Society.

It is a time of great challenges as well as opportunities for the university community and our partners to work together to increase NOVA’s impact, by applying research to address critical global missions.

All of you are welcome at NOVA.

Elvira Fortunato
NOVA UNIVERSITY
LISBON
NOVA University Lisbon hosts 41 Research and Development Units (R&D), 15 of which are research partnerships between NOVA and other national institutions. In 2013, the Portuguese Foundation for Science and Technology (FCT, I.P.) evaluated 77% of NOVA’s R&D Units with “Exceptional”, “Excellent” and “Very Good”. These results were way above the national average of Portuguese Universities.

Research at NOVA has been growing and developing, both at quantitative and qualitative level. NOVA is responsible for approximately 10% of the national research papers indexed to the Web of Science (source: DGEEC – Directorate General for Education and Science Statistics and NOVA University Lisbon).

NOVA is the Portuguese University with the best performance (scores/FTE) in the Horizon 2020 framework Programme. It is worth highlighting that, since the launch of the European Research Council (ERC) Grants programme in 2007, NOVA’s researchers were awarded a total of 19 grants, placing NOVA as one of the top national institutions. Given the competitiveness of current funding programmes, NOVA has started a capacitation programme for researchers, TALENT@NOVA, aiming at increasing their competitiveness both at national and international levels.

The improved performance of NOVA in terms of research can be seen in the international rankings’ scores and positioning. The good results achieved in the main rankings of Universities with less than 50 years, have granted NOVA the inclusion in YERUN (Young European Research Universities Network). The goal of YERUN is to have young research universities to cooperate towards increasing the influence of the young universities on research policies promoted by the European Union. NOVA participates in 10 Collaborative Laboratories (CoLAB) funded by FCT, I.P. and is the Coordinator Institution of two of them.
NOVA SCHOOL OF SCIENCE AND TECHNOLOGY

CEFAGE Centre for Advanced Studies in Management and Economics
CEFITEC Centre of Physics and Technological Research
CENIMAT i3N Institute for Nanostructures, Nanomodeling and Nanofabrication
CENSE Centre for Environmental and Sustainability Research
CIUHCT Interuniversity Centre for the History of Science and Technology
CMA Centre for Mathematics and Applications
CTS Centre of Technology and Systems
GeoBioTec GeoBioSciences, GeoTechnologies and GeoEngineering
LAQV-REQUIMTE Associated Laboratory for Green Chemistry - Clean Technologies and Processes
LIBPhys Laboratory for Instrumentation, Biomedical Engineering and Radiation Physics
MARE Marine and Environmental Sciences Centre
ME3RICs Mechanical Engineering and Resource Sustainability Centre
NOVA LINCS NOVA Laboratory for Computer Science and Informatics
UCIBIO Applied Molecular Biosciences Unit
UNIDEMI Research and Development Unit in Mechanical and Industrial Engineering
VICARTE Glass and Ceramic for the Arts

NOVA SCHOOL OF SOCIAL SCIENCES AND HUMANITIES

CESEM Musical Aesthetics and Sociological Studies Research Centre
CETAPS Centre for English, Translation and Anglo-Portuguese Studies
CHAM Centre for the Humanities
CIC.DIGITAL Centre for Research in Communication, Information and Digital Culture
CICS.NOVa Interdisciplinary Centre of Social Sciences
CITI Interactive Technologies Research Centre
CLUNL Linguistics Research Centre of NOVA University Lisbon
CRIA Centre for Research in Anthropology
IAP Institute for Archaeology and Palaeosciences of NOVA University Lisbon
IELT Institute for the Study of Literature and Tradition – Heritage, Arts and Cultures’s
IEM Institute of Medieval Studies
IFILNOVA NOVA Institute of Philosophy
IHA Art History Institute
ICH Institute of Contemporary History
INET-md Ethnomusicology Institute – Music and Dance Research Centre
IPRI Portuguese Institute for International Relations

NOVA SCHOOL OF BUSINESS & ECONOMICS

NOVA SBE Nova School of Business & Economics

NOVA MEDICAL SCHOOL

iNOVA4HEALTH iNOVA4Health Advancing Precision Medicine
ToxDmics Centre for Toxicogenomics and Human Health

NOVA SCHOOL OF LAW

CEDIS Research Center on Law and Society

NOVA INSTITUTE OF HYGIENE AND TROPICAL MEDICINE

GHTM Global Health and Tropical Medicine

NOVA INFORMATION MANAGEMENT SCHOOL

MagIC Information Management Research Centre

NOVA INSTITUTE OF CHEMICAL AND BIOLOGICAL TECHNOLOGY ANTÓNIO XAVIER

MOSTMICRO-ITQB Molecular, Structural and Cellular Microbiology Unit
GREEN-IT biore sources sustainability
iNOVA4Health iNOVA4Health Advancing Precision Medicine

NOVA NATIONAL SCHOOL OF PUBLIC HEALTH

CISP Public Health Research Centre
BRIEF DESCRIPTION

The Center for Advanced Studies in Management and Economics at NOVA School of Science and Technology (CEFAGE-FCT/UNL) was created by the end of 2003, as a branch of the Center for Advanced Studies in Management and Economics (CEFAGE), which was founded in 2000 with the aim of promoting research in the areas of Management and Economics. Since 2009, CEFAGE is funded by the Portuguese Foundation for Science and Technology (FCT, I.P) and, in its first evaluation, achieved the highest FCT grade: "Excellent". In 2014 it was evaluated as "Very Good" by the FCT I.P. panel. CEFAGE has a main office at the University of Évora, with Professor Jacinto Vidigal da Silva as current Director, and branches at the University of Algarve, University of Beira Interior and NOVA School of Science and Technology.

In the near future, the two main goals of CEFAGE are to promote the production and diffusion of high-quality research in Economics and Management and to educate PhD students in Economics and Management, providing them with an education that combines academic rigor with the excitement of discovery associated with doing research.

CEFAGE’s research activities are currently organized in 4 research groups (Strategy, Entrepreneurship & Operations; Finance; Industrial, Labor & Spatial Economics; Macroeconomics, Growth & Development) which are defined according to our main areas of research, and 4 thematic strands (Tourism; Agro-Food & Forestry; Education & Health; Sustainability & Performance) which are transversal to the various research groups.

CEFAGE possesses and subscribes to several databases of scientific journals and historical economic and financial data. CEFAGE possesses also a server where many software packages are available for its members.

Subscribed databases of journals available to CEFAGE-UE members include: b-on - Biblioteca do Conhecimento Online which allows access to, among others, ISI - Web of Knowledge, EBSCO, Elsevier Science Direct, Springer, Taylor & Francis Journals, CEPR Discussion Papers, JSTOR, NBER.

Subscribed databases of historical data available to CEFAGE-UE members include: Amadeus, Datastream 5.1, EIU - Country Data, EU-SILC: European Union Statistics on Income and Living Conditions, Moody’s Ultimate Recovery Database, Quadros de Pessoal.

In CEFAGE-UE’s server, the following software packages are available: Adobe Acrobat 9 Pro Extended, Eviews 7, GAUSS 12 & x64, GAMS 23.9.3.1, LIMDEP 9.0, Maple 10, Mathematica 8, MATLAB R2012b, R 2.12.1, Scientific Workplace 5.5, SPSS 19, StattransferStata/SE 12.0 (64 bits).

RESEARCH HIGHLIGHTS

The integrated members have been distinguished with The International Journal of Industrial Organization Best Paper Award 2015 and a NET Institute (competitive) Summer Grant, 2013 and have also taken part in several research projects, as principal investigators, consultants or team members. Examples include:

- The Welfare Effects of Bundled Discounts in Oligopoly (FCT/UID/EEG/56586/2019)
- Regulation in Telecommunications Industries (FCT/UID/EEG/56586/2019)
- Modelos Económicos Sobre Inovação e Empreendedorismo (FCT/UID/EEG/56586/2019)
- Urban Winners: Urban metabolism, accounts for building Waste Management Innovative Networks and Strategies (H2020 programme Grant No 800047)

FACTS AND FIGURES

SCIENTIFIC AREAS

Economics
Finance
Business Management and Entrepreneurship

- STAFF
  - PhD HOLDERS
  - NOVA BRANCH
- PUBLICATIONS
  - ARTICLES
- FUNDING
  - FCT, I.P. National Funding
  - Other Private Funding
CEFITEC (Centre of Physics and Technological Research) is a research centre of NOVA School of Science and Technology, NOVA University Lisbon, bringing together researchers devoted to explore activities in Engineering Physics, Applied Physics, Physics, Technological Physics and Biophysical sciences. Research within CEFITEC focuses on scientific and technological developments on Surface Science and Vacuum Technology, Atomic and Molecular Interactions, Thin Films production, Solar Pumping Laser and Functional Molecular Systems. We approach these fundamental and applied areas of science by applying unique analytical and technical methodologies with complementary techniques and facilities within an international environment. Currently we keep fruitful exchange collaborations with universities/research units in Spain, France, UK, Belgium, Austria, Denmark, Poland, Morocco, Algeria, Brazil, Japan and Australia.

RESEARCH HIGHLIGHTS
An effective technology for cork contaminants extraction has been developed. Electronic state spectroscopy of biological and aeronomic molecules, the latter with particular role to global warming and ozone depletion. Indirect treatments with a Cold Atmospheric Pressure Plasma jet device selectively kill human squamous carcinoma cells leaving the non-cancerous ones almost unaffected. Portuguese Virgin Olive Oils classification using lipidic layer-by-layer films as an Electronic nose and an Electronic Tongue.
BRIEF DESCRIPTION

Created in 2006 as Associate Laboratory by the Portuguese Minister of Science, Technology and Higher Education, i3N is a partnership between 2 leading research units in fundamental and applied sciences: CENIMAT (Materials Research Center, NOVA University Lisbon) and FSCOSD (Physics of Semiconductors, Optoelectronics and Disordered Systems, Aveiro University). Since 2018, i3N follows a strategic refocus of the main scientific activities in advanced functional materials/devices for nanosciences and nanotechnologies. i3N has demonstrated over the last years an excellent attractiveness for European funded projects, going from ideas (6 ERC grants: 2 AdG, 2 StG, 1 CoG, 1 PoC) to innovative applications, demonstrating a good potential of financial independence, considered an international reference in the area of Materials Science and Nanotechnologies.

i3N is an interdisciplinary institute built on existing institutional strengths, offering innovative, world-class research and education. It is organized in 6 research groups in order to address the challenges of its strategic research fields:

- Sustainable Micro and Nanotechnology
- Energy Efficiency
- Nanomaterials Engineering
- Biomedical Engineering

During the last years, i3N has consolidated its strategic research activity in order to overcome the innovation challenges associated to Nanotechnologies, Nanomaterials and Nanosciences in accordance with the policies established by Horizon 2020, with the purpose of improving the level of materials science and technology understanding and their use as enabler to serve multi-sector applications.

We believe that the combined strengths of a collaborative team are by far, orders of magnitude larger than the sum of the individuals. Nanoscience and Nanotechnology in strong relation with Advanced Functional Materials are the front of modern research. The fast growing economy here requires experts with outstanding knowledge in these areas in combination with the skills to apply it in new products. At i3N we are also training the future generations for academia and industry.

i3N integrates top facilities as required by high level research groups having as objective to be in forefront edge of research, technological development and innovation in the demanded areas of advanced micro/nano materials, nanotechnologies and nanosciences, and being responsible for boosting all known industry/applied research. This involves the use of sophisticated labs for characterization and processing activities, such as clean rooms, use of sophisticated equipments, in some cases highly expensive, such as SEM/FIB or ultra-high vacuum units to process materials and devices; use of raw materials, special gases or labels and animated billboards.

We refer to Nanofabrication as a cost-saving and energy-efficient alternative to silicon chips. Applications in daily life include biosensors, “smart” product packaging, networked shipping labels and animated billboards.

FACTS AND FIGURES

- 45 PhD HOLDERS
- 26 PhD STUDENTS
- 56 GRANT HOLDERS
- 480 SCOPUS Articles
- 34 Books and Book Chapters
- 11 granted / 7 pending Patents
- 8.5M€ FCT/UP National Funding
- 10.5M€ International Funding
- 2M€ Industry

SCIENTIFIC AREAS

- Transparent Electronics
- Paper Electronics
- Nanoelectronics
- Biosensors, Microfluidics & Bioelectronics
- Nanophotonics & Photovoltaic Solar Cells
- Flexible Electronics
- Thermoelectric Materials
- Chromogenic Materials
- Nanocomposites, Nanostuctured Polymers
- Cultural Materials
- Biomaterials
- New Glasses and Ceramics
- New Alloys for Bio/Aerospace Applications

RESEARCH HIGHLIGHTS

6 ERC GRANTS SINCE THE BEGINNING OF THE PROGRAM
2 AdG, 2 StG, 1 CoG and 1 PoC, representing one third of all the ERCs granted to NOVA (6/18 M€).

INTERNATIONAL PHYSICS OLYMPIAD - LISBON 2018
400 secondary school students from 87 countries came to Portugal to learn about and share their passion for Physics having an experimental competition focused on paper transistors.

SANTANDER AWARD EDITION 2015/2016
“Spring Inspire” - attributed to Professors Fátima Silva, Vincent Dabut, Elvira Fortunato, E. Fortunato and R. Martins

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In the Energy and Climate (E&C) area we work to innovate towards ‘prosperity with minimal resources and no emissions’, integrating future trends on climate change impacts, massive digitalization and ‘glocal’ cultural heritage. We study emerging local/hyper-local energy and food production/consumption systems based on shared resources & services and circular models, yet interconnected with the global sphere. The Open E&C Initiative is developed with ASHOKA to increase social impact, making available data & knowledge on households’ energy consumption and on energy & food systems climate risks.

In the Better Energy & Responsible Consumption and Production (BCP) area we work to assess the effectiveness of electric vehicles in European countries using integrated modeling. Energy Policy, 80, 165–176.


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**RESEARCH HIGHLIGHTS**

CIUHCT is a leading European research unit in the field of social studies in Science, Technology and Medicine (STM). Using a multidisciplinary approach and focusing mainly on Portuguese case studies, it aims at asserting the relevance of STM in building citizenship and European identity. CIUHCT participates actively in international debates on the concepts of center(s) and periphery(ies), on the relevance of STM knowledge in the construction of modern and contemporary societies, using an innovative methodological framework centered on the trilogy circulation, appropriation and innovation. CIUHCT participates in international research projects, networks and innovative pedagogical platforms and it is a hub for a new generation of Portuguese and foreign scholars. CIUHCT is also committed to outreach activities mainly by promoting and supporting exhibitions and public lectures.

RESEARCH HIGHLIGHTS

Making Europe Book Series
www.makingEurope.eu

By focusing on key dimensions of technological change, Making Europe's six volumes offer broad scope, sharp analysis, and critical knowledge, blending distinguished historians’ skills to learn how, where, and why technologies were fundamental to shaping modern Europe and how experts, innovation, and technological institutions helped generate 150 years of European advances and disasters, divisions and reunions.

InsSciDE - Inventing a shared Science Diplomacy for Europe
www.insscide.eu

H2020 project centered on the development of a shared science diplomacy across Europe through international, interdisciplinary and groundbreaking research. The project aims to create an inclusive and innovative dialogue, highlighting the contribution of Science Academies and networks of Science Diplomats to address global challenges. InsSciDE explores the history of science diplomacy, offers a framework for understanding and delivers stakeholder-supported strategy and policy recommendations.

The Anthropocene Curriculum and Campus
www.anthropocene-curriculum.org

In demanding structurally new commitments, the Anthropocene paradigm offers us the opportunity to make previously uncharted transdisciplinary connections, and to experiment with new forms of higher education, universities, academies, research platforms, and cultural institutions, as situated spaces of knowledge production and dissemination, most deeply integrate cross-disciplinary thinking, mutual learning, new modes of research, and new commitment in order to secure their future.

History of Global Health, Colonial and Tropical Medicine
events.fct.unl.pt/congmont/home

Based strongly, although not exclusively, on the Portuguese-Brazilian Meetings on the History of Tropical Medicine the network aims at bringing together historians of STM knowledge and its various forms of circulation and the political agendas of the various political regimes in Portugal and its colonies since the 18th century. It is particularly suited to enlighten contemporary hot topics such as innovation, knowledge and reflexive societies, through the seldom used, but extremely useful, lenses of history, philosophy and sociology of STM.

CIUHCT’s organization is based on two transversal thematic groups:

• Instruments and Practices, Visual and Material Cultures. It addresses STM actors and practices, objects, and their representations, including but not restricted to instruments, with a view to contribute to a renewed history of knowledge, encompassing scholarly and artisanal forms, bridging traditional conceptual, socio-professional and disciplinary barriers, and contributing to recent historiographical debates.

• Expert institutions and globalization. Aims at building an integrated historical narrative by focusing on the co-production of STM knowledge and its various forms of circulation and the political agendas of the various political regimes in Portugal and its colonies since the 18th century. It is particularly suited to enlighten contemporary hot topics such as innovation, knowledge and reflexive societies, through the seldom used, but extremely useful, lenses of history, philosophy and sociology of STM.

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• Expert institutions and globalization. Aims at building an integrated historical narrative by focusing on the co-production of STM knowledge and its various forms of circulation and the political agendas of the various political regimes in Portugal and its colonies since the 18th century. It is particularly suited to enlighten contemporary hot topics such as innovation, knowledge and reflexive societies, through the seldom used, but extremely useful, lenses of history, philosophy and sociology of STM.

CIUHCT is a leading European research unit in the field of social studies in Science, Technology and Medicine (STM). Using a multidisciplinary approach and focusing mainly on Portuguese case studies, it aims at asserting the relevance of STM in building citizenship and European identity. CIUHCT participates actively in international debates on the concepts of center(s) and periphery(ies), on the relevance of STM knowledge in the construction of modern and contemporary societies, using an innovative methodological framework centered on the trilogy circulation, appropriation and innovation. CIUHCT participates in international research projects, networks and innovative pedagogical platforms and it is a hub for a new generation of Portuguese and foreign scholars. CIUHCT is also committed to outreach activities mainly by promoting and supporting exhibitions and public lectures.

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BRIEF DESCRIPTION

The CMA (Centre for Mathematics and Applications), located at the Caparica Campus, is the only research unit dedicated primarily to mathematics at NOVA University Lisbon. It develops, promotes, and funds research in various areas of mathematics. The centre is organized into four research groups: Algebra and Logic (AL), Analysis (An), Operations Research (OR), and Statistics and Risk Management (SRM). Our focus is on cutting-edge research in both pure and applied mathematics, with its subsequent publication in top journals. CMA also promotes interdisciplinary research, being currently developed along three main lines: “Mathematical Biology”, “Mathematics for Health”, and “Maths for Big Data”. It is part of CMA’s strategic plan to engage with society by transferring knowledge to industry and business, either through providing specialized training courses or by giving solutions to real-world problems. CMA also values outreach activities and is probably the leading unit in Portugal for educational and outreach activities in Mathematics. The CMA is associated with national and international doctoral programs. In the last assessment made by the Foundation for Science and Technology, CMA received a rating of “Very Good”.

RESEARCH HIGHLIGHTS

- 3 FCT projects led by CMA researchers, with more than 200K€ each.
- 1 EU-sponsored programme involving 4 other EU countries.
- 2 Network COST Actions funded by the European Commission.
- Integrates PT-MATHS-IN (Portuguese Network for Industrial Mathematics and Innovation).

FINDING

- 1.9M€
  FCT, I.P. National funding
- 11K€
  Other National funding
- 47K€
  International funding
- 22K€
  Companies/Industry

SCIENTIFIC OUTPUT

5 MAIN PUBLICATIONS (2013–2017 PERIOD)

**BRIEF DESCRIPTION**

CTS is a research center hosted by the UNINOVA Institute, bringing together researchers of the School of Science and Technology of NOVA University Lisbon, Polytechnic Institute of Lisbon (ISEL), Polytechnic Institute of Setubal, and Polytechnic Institute of Baja.

CTS research activities focus on systems with growing levels of intelligence, autonomy, and hyper-connectivity. This entails data-rich environments, distributed intelligence, mobility and autonomy, where sensing, micro-electronics, embedded systems, machine learning, computational intelligence and qualitative reasoning, robotics and automation, interoperability and collaborative networks, security, and balanced human-systems collaboration play a major role. Global concerns of sustainability, including energy efficiency and systems optimization, encompass the development. Addressing such systems requires contributions from multiple knowledge areas. CTS covers a wide spectrum of competences and seeks an interdisciplinary integration of these multiple knowledge areas to cover the whole range of abstraction layers, from smart devices to large and networked cognitive systems-of-systems.

CTS is committed to: (i) Plan and conduct high quality research on advanced engineering systems (research excellence), (ii) Create value and societal impact with research results (society engagement excellence), (iii) Train the future generation of researchers in the area (education excellence).

CTS has become internationally recognized as a leading research center on inter-connected and cognitive cyber-physical systems. It will guarantee a supportive and agile interdisciplinary research environment, and a culture of excellence and responsible research for its members.

CTS pursues its objectives guided by the following values: Academic honesty and responsibility; Appreciation of excellence; Appraisal of creativity and entrepreneurial spirit; Respect for individual intellectual freedom; Attention to societal concerns.

CTS is concerned with contributing to contemporary societal challenges, including a strong component of applied research in industry and services, guiding its action by continuous strive for excellence in research and effective value creation and valorization of research results. This aim also includes a strong commitment to train young and early career researchers, and have an active presence in international networks, contributing to strategic research agendas and engaging with societal stakeholders. As part of its internationalization strategy, CTS members have a strong presence in scientific committees of international conferences, in partnership with relevant societies such as IEEE, IFIP, IFAC, and CIRP. Special attention is devoted to early career researchers with the organization of the series of annual international conferences DoCEIS and YEF-ECE.

**RESEARCH HIGHLIGHTS**

**WORLD-CLASS ADVANCES IN ELECTRONIC TECHNOLOGIES FOR SMART DEVICES**

Energy-efficient sensor-to-digital interfaces in deep nanoscale CMOS Technology | Photodetector devices and transducers in a-SiC:H & related materials.

**ADVANCES IN SENSOR NETWORKS, SIGNAL PROCESSING AND EMBEDDED SYSTEMS DESIGN**


**CONTRIBUTIONS TO COMPUTATIONAL INTELLIGENCE**


**WORLD-CLASS CONTRIBUTIONS TO COLLABORATIVE NETWORKS**

Novel models and mechanisms for collaborative networks IoT and collaborative business services creation | Progress on understanding and modeling behavioral aspects towards collaboration sustainability in business ecosystems | Concept of cooperative Net-Zero Community Building.

**SCIENTIFIC AREAS**

**COGNITIVE CYBER-PHYSICAL SYSTEMS**

Electronic and Embedded Systems | micro- and nano-electronic systems | reconfigurable and embedded systems | signal processing | Energy Efficiency and Decision Support Systems | energy systems | control and decision | computational intelligence

**Computer Engineering Systems**

collaborative networks and distributed systems | robotics and automation | interoperability and complexity systems.

**FACTS AND FIGURES**

- **STAFF**
  - 39 PhD HOLDERS
  - INTEGRATED MEMBERS
  - 34 COLLABORATORS
  - WITH PhD
  - 100 PhD STUDENTS

- **SCIENTIFIC OUTPUT**
  - 5 MAIN PUBLICATIONS (2013-2017 PERIOD)
    - R. Jardim-Bacelos, A. Gols, C. Agostinho, F. Lampalhã, V. Chalardidas. Systematisation of Interoperability Body of Knowledge, the foundation for Enterprise Interoperability as a service. Enterprise Information Systems, 8, pp 74-92.
**NOVA SCHOOL OF SCIENCE AND TECHNOLOGY**

**GeoBiotec**

- **NAME**
  Geobiologies, Geotechnologies and GeoenGINEERING

- **ACRONYM**
  GeoBiotec

- **COORDINATOR**
  José Almeida

- **CONTACTS, LOCATION**
  NOVA School of Science and Technology
  Department of Earth Sciences
  Campus de Caparica,
  2829-516 Caparica, Portugal
  +351 212 948 573

- **WEBSITE**
  sites.fct.unl.pt/geobiotec

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**BRIEF DESCRIPTION**

GeoBiotec is a research partnership between the University of Aveiro (UA, general coordination) and the Universities of NOVA of Lisboa (FCT NOVA) and Barca Interior. GeoBiotec develops interdisciplinary studies in geophysics, geochemistry, biology, soil, petrology, mineralogy, industrial minerals, geo materials, geotectonics, isotopic geology, hydrogeology, structural geology, volcanology and remote sensing. It integrates 71 researchers and 65 collaborators and is organized in five research groups, three with researchers from FCT NOVA:

- Georesources, Geotechnics and Geomaterials (3G) – geological and geotechnical mapping, modelling and geostatistics, prospecting, exploitation and processing of georesources, risk analysis.
- Sedimentary Basins and Paleontology – sedimentology, tectonics, biostratigraphy, evolusion, global changes, geological heritage (FCT NOVA coordination).
- Agro-Forestry – biofortification, phytoremediation, production and transformation of raw materials (FCT NOVA coordination).

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**SCIENTIFIC AREAS**

- Georesources, Geotechnics and Geo-environmental engineering
- Sedimentary Basins and Palaeontology
- Agro-Forestry – biofortification, phytoremediation

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**RESEARCH HIGHLIGHTS**

BIOFORTIFICATION | Development of functional vegetable foods, through calcium, magnesium, selenium, zinc biofortification, with potential prophylactic characteristics against several public health problems.

GEODENVEIRONMENTAL ENGINEERING | Application of emerging technologies for the assessment, modelling and rehabilitation of degraded industrial areas and with the management of natural, anthropogenic, and technological risks. It particularly covers issues related to the characteristics and the behaviour of contaminated ground, soils and groundwater and addresses problems associated to waste management and contaminated sites.

GEODEMOMELLING | Development of computational applications for the construction of 3D geological models by objects of complex structures (fractures and sand channels) and mapping of grades in mineral deposits evidencing strong zoning effects (massive, stockwork, and lenticular mineral deposits). Integration of different sources of data.

GEOGRAPHIC | Nowadays, more than ever, geomaterials (which include dimension stone, residues and ceramics) research is fundamental for a sustainable human society. The evaluation of the suitability of reusing different residues (foundry industry, waste bricks, sewage sludge, rock saving waste, bottom ash) in clay mixtures to sintering clay ceramics is very important for construction purposes and is a way to promote the circular economy.

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**FACTS AND FIGURES**

**GEOBIOTEC OVER THE PAST 5 YEARS:**

- **STAFF**
  - 110 PhD STUDENTS
  - 27 PhD HOLDERS
- **PUBLICATIONS**
  - 211 Indexed Journal Articles
  - 59 Book Chapters
  - 3 Books
- **CONFERENCE PROCEEDINGS**
  - 110
- **FUNDING**
  - 2.9M €
  - National Funding
  - 275K €
  - International Funding
  - 400K €
  - Companies/Industry

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**SCIENTIFIC OUTPUT**

5 MAIN PUBLICATIONS (2013-2017 PERIOD)

BRIEF DESCRIPTION
Associated Laboratory for Green Chemistry, LAQV, is the Portuguese Research Centre for Sustainable Chemistry affiliated to REQUIMTE, a network of Chemistry and Technology originally set up by researchers of the Chemistry Departments of the School of Sciences and Pharmacy of the University of Porto and of the School of Science and Technology of NOVA. In its present configuration, LAQV spreads out of its original location in the two main national metropolitan areas of Porto and Lisbon to cover most of the national territory. Researchers from University of Aveiro have joined LAQV, and the research unit also gathers researchers from the Universities of Coimbra, Évora and Vila Real.

LAQV team made important scientific contributions in Chemical Synthesis and Catalysis, Food Science and Technology, Natural Products, Analytical Monitoring, Intensification of Processes and Clean Technologies, Alternative Solvents, Smart Materials. Remarkably, conservation and restoration of Cultural Heritage at FCT NOVA has been a distinctive contribution of LAQV, where chemical analysis, photochemistry, synthesis of responsive materials paired with history and art studies to provide authoritative reports of art authenticity and restoration of ancient artefacts.

Likewise, our modern society relies on chemicals and chemical processes for its way of living, but to preserve life and for Sustainable Development a new way of thinking Chemistry has emerged among the implementation of clean chemical reactions and processes that reduce the amount of materials, energy, costs and risks.

LAQV aims to promote Sustainable Chemistry through research, networking, training and outreach activities actively contributing to Sustainable Development Goals. To achieve these goals LAQV focuses its activity in six Thematic Lines (TL) aligned with SUSCHEM Research Agenda: EII Horizon 2020 and the UN Sustainable Development Agenda.


In conclusion, LAQV is a research-based organization fully integrated in the international environment. LAQV at FCT NOVA will pursue to increase the impact of publications, especially onto the international Green Chemistry community. Furthermore, as a University-based research center, improving training at PhD level and attract the best young researchers is a second key objective. Fulfilling these two core objectives will allow LAQV to: a) seek industrial partners focused on implementing clean technologies and processes; b) co-operation with industrial partners and creation of spin-offs; c) share the principles of Sustainable Chemistry and research outputs with general public, government and industry, thereby increasing its presence in the community; d) assist stakeholders in making decisions on health and safety issues related to (bio)chemical products or processes.

RESEARCH HIGHLIGHTS
Lorvão Beatus (1883) UNESCO’s Memory of the World Register | Interdisciplinary chemical and historical research on the Manuscripts of the Commentary to the Apocalypse (Blados of Lisbon) in the Iberian tradition, leading to the successful entry of 10th century Portuguese Beatus into UNESCO’s Memory of the World Register.

Hydrosiilgenesis of Carbon Dioxide to Methane by Ruthenium Nanoparticles in Ionic Liquid | Transformation of carbon dioxide (CO2) into fuels, from methane (CH4), in an excellent alternative to methanol processes.

Prediction of Contamination in Refinery Wastewater through Multivariate Statistical Modelling | Implementation of this work allowed LAQV to save 300 K€/year in wastewater costs and target additional savings of 3 M€/year.


SCIENTIFIC AREAS
Energy - Clean & Renewable
Environment - Monitoring & Analysis
Food & Nutrition
Functional Materials
Health & Wellbeing
Resource Efficiency - Sustainable Processing

FACTS AND FIGURES @ FCT NOVA

LAQV OVER THE PAST 5 YEARS:

Scientific Output

- 14.4 M€
  - FCT UP National Funding
  - 300 K€
  - Other National Funding
  - 1.5 M€
  - International Funding
  - 500 K€
  - Industry
  - 200 K€
  - Other sources

- 125 PhD HOLDERS
- 45 PhD STUDENTS

- 3 STAFF

- 89 Indexed Publications

- 9 Patents

- 3 Spin-offs

- 859 Patents

- 14.4 M€
  - FCT UP National Funding
  - 300 K€
  - Other National Funding
  - 1.5 M€
  - International Funding
  - 500 K€
  - Industry
  - 200 K€
  - Other sources
BRIEF DESCRIPTION

The R&D activities of LIBPhys (Laboratory for Instrumentation, Biomedical Engineering and Radiation Physics) develop in three institutions (NOVA University Lisbon, University of Lisbon and University of Coimbra) in the areas of atomic, molecular, nuclear physics and electronic & industrial automation instrumentation with applications to analytical methods, radiation detection and biomedical engineering. To coordinate the scientific research interests, four thematic strands (TS) have been identified, compromising researchers from the three research groups, with several R&D programs established in each TS.

The Fundamental Parameters and Metrology focus on the ability to characterize new materials and products, and detailing chemical and structural (in a wider sense) analysis by electromagnetic radiation, from the infra-red to the x- and gamma-rays ranges, obtaining theoretically and experimentally data related to the interaction of the radiation with matter.

The Cryogenic, Electronics and Radiation Detection Instrumentation aims the R&D of innovative techniques for radiation detection with gaseous detectors, electronics for pulse acquisition and processing, contribution to the R&D of new instrumentation, innovation in cryo-energy storage units, heat switches and domestic & industrial energy management systems, also extended to ambient-assisted living, healthcare and security.

The Analytical Techniques Development and Applications aims to promote innovative, high sensitivity & efficiency x-ray spectrometry fluorescence systems for imaging and trace elements detection, combined with vibrational spectrometry, to promote the interdisciplinary of the research and application to preventive conservation, archaeometry, forensic sciences, biophysics, food chemistry, toxicology and environmental control.

The Biomedical Engineering aims at developing new and efficient devices able to provide more detailed information to be used as diagnostics support or to improve therapeutic strategies, e.g. hemodynamic status assessment (microcirculation and microcirculation), proposal of new methods for electrophysiological signal processing, development of monitoring and tracking devices on the scope of ambient assisted living, rehabilitation and well-being and vegetal and animal living tissue characterization through the use of bio-impedance spectroscopy and tomography techniques.

RESEARCH HIGHLIGHTS

MUONIC ATOMS | Test of fundamental physical models
CRYOGENIC ENERGY STORAGE | 300k-5mk cryogenic chain
PROJECT HAPPY | Development of toys for children with disabilities using PDA

SCIENTIFIC AREAS

Fundamental Parameters and Metrology
Cryogenic, Electronics and Radiation Detection Instrumentation
Analytical Techniques Development and Application
Biomedical Engineering

FACTS AND FIGURES

CONFERENCES AND SEMINARS

18 PhD STUDENTS

5 MAiN Publications

2.75MC

475K€

170K€

280

FCT, I.P. National Funding

International Funding

Industry

361 Publications in refereed journals (Web of Science)

43 Publications (other journal or book)

115 Conference proceedings
BRIEF DESCRIPTION

MARE was established in 2013. MARE - NOVA constitutes a Unit of MARE - Marine and Environmental Sciences Centre for research, technological development and innovation. Its mission is to seek excellence in the study of environment and disseminate knowledge to support policies for sustainable development. This mission is achieved through scientific research, education and knowledge and technology transfer to industry, as well as through the dissemination of science, establishing collaborative networks at the regional, national and international levels. MARE-Nova has 41 integrated members, working mainly in the mentioned five research lines, being the coordinator of the Environmental Risk and Governance and literacy thematic lines. Its main research projects address the issues: Environmental Toxicology & biotechnology. Microplastics and marine litter. Governance and Waste management.

Main objectives:

• Advance the knowledge on the functioning of marine ecosystems, and interrelated estuarine and freshwater systems;

• Develop scientific and technological tools towards the sustainable use of freshwater, estuaries and marine ecosystems under the framework of regional, national and international priorities;

• Develop scientific knowledge and sound technology to help providing food and other biotic and non-biotic resources to society;

• Promoting good ecological and healthy status of oceans and seas, estuaries and river basins;

• Drive international cooperation to advanced education and training resulting in a new generation of scientists and professionals prepared for the Blue Economy;

• Promote Ocean literacy and contribute to a participative Blue Society.

RESEARCH HIGHLIGHTS

ENVIRONMENTAL TOXICOLOGY & BIOTECHNOLOGY
Project: HERI | Environmental Risk Assessment of a contaminated estuarine environment.

WASTES MANAGEMENT
Project: Be Nature | Exploiting carbohydrates leather and footwear biodegradable development.

MARINE LITTER
Project: MARILISO | Marine Litter in Europe Seas: Social Awareness5 and Co-Responsibility

GOVERNANCE
Project: MARGov | Collaborative Governance of the Protected Marine Areas.

FACTS AND FIGURES

5 MAIN PUBLICATIONS (2013-2017 PERIOD)


SCIENTIFIC AREAS

Study of aquatic ecosystems, hydraulics, hydrology and sedimentary environments

Environmental toxicology, biotechnology and environmental risk

Marine litter and Waste valorisation and management

Governance and environmental literacy of marine areas

FUNDING (2013–2017 PERIOD)

258K€ FCT UP National Funding

238K€ EU funding

66K€ Public Sources

249K€ Other services

STAFF

41 PhD HOLDERS

11 PhD STUDENTS

PUBLICATIONS (2015-2017 PERIOD)

85 Articles (WoS)

12 Book chapters

105 Conference communications

SOURCES

5 MAIN PUBLICATIONS (2013–2017 PERIOD)


SCIENTIFIC OUTPUT (2013–2017 PERIOD)


METRiCS is a research centre in association, bringing together researchers of Engineering Schools – University of Minho and School of Science and Technology – NOVA University Lisbon, on the forefront of Mechanical, Materials and Biomedical Engineering, Energy and Bioenergy and Food Quality. The research activities focus on scientific and technological developments on advanced engineering design of mechatronic systems for health support, green mobility systems, conversion of renewable resources in biomaterials, bioliquids and biofuels, sustainable agriculture and forestry, food security and quality and recycling of biomass wastes. The centre activities are also embedded in the Centre for Residue Valorisation (CVR) and the Network for Bioenergy (CEBio). The centre cooperates with SMEs, European countries, emerging economies and developing countries for fostering industrial innovation and competitiveness.

RESEARCH HIGHLIGHTS

Strong collaboration with industry

- 36 technology transfer projects and 82 industrial projects with national companies (2014–2017)
- Average of 50 MSC theses per year in corporate environment (partnerships with national companies)

Provider of technical solutions and scientific knowledge for a cleaner, safer and sustainable world.

Regular participation in European and International Networks

- EIP-Agri - Agricultural European Innovation Partnership | EUBREN - The European Biomass Research Network | RedSumas - Sustentabilidad Energética, Medio Ambiente y Sociedad | AVM - Association for the Advancement of Industrial Crops


SCIENTIFIC OUTPUT

5 MAIN PUBLICATIONS


FACTS AND FIGURES

153 Articles (WoS)

48 Books & Book chapters

1.4M€ FCT, FP National Funding

1.3M€ Other National Funding

853K€ International Funding

MEtRiCS OVER THE PAST 5 YEARS:

24 PhD HOLDERS (5@NOVA)

50 PhD STUDENTS (28@NOVA)

NAME MECHANICAL ENGINEERING AND RESOURCE SUSTAINABILITY CENTER

ACRONYM METRiCS

COORDINATOR Benilde Mendes

CONTACTS, LOCATION

NOVA School of Science and Technology
Mechanical Engineering and Resource Sustainability Center
Campus de Caparica,
2829-516 Caparica, Portugal
+351 212 948 543

WEBSITE

www.metrics.unl.uminho.pt

SCIENTIFIC AREAS

Bioenergy & biofuels
Energy crops
Waste valorization
Food technology and packaging

MEtRiCS

Mechanical Engineering and Resource Sustainability Center
NOVA SCHOOL OF SCIENCE AND TECHNOLOGY
NOVA LINCS

> NAME
NOVA LABORATORY FOR COMPUTER SCIENCE AND INFORMATICS

> ACRONYM
NOVA LINCS

> COORDINATOR
Luis Caires

> CONTACTS, LOCATION
NOVA School of Science and Technology
NOVA Laboratory for Computer Science and Informatics
Campus de Caparica,
2829-516 Caparica, Portugal
+351 212 948 536

> WEBSITE
nova-lincs.di.fct.unl.pt

BRIEF DESCRIPTION
NOVA LINCS is a leading research unit in Computer Science and Informatics Engineering, hosted at the Informatics Department of School of Science and Technology of NOVA University Lisbon (FCT NOVA), a pioneering national institution in the field. The mission of NOVA LINCS is to develop cutting edge scientific research in key areas of Computer Science and Informatics, contribute to advanced education in the field, and share the produced knowledge, results, and innovation with users and communities within society. Our research roadmap targets the theme “Science and Engineering for the Global Software Ecosystem”. It unfolds in two lab-wide interacting streams: one on creating new foundations and engineering for the emergent computing and software ecosystems, another on developing innovative IT powered solutions for diverse technical, societal, and interdisciplinary fields such as service innovation, creative industries, healthcare, engineering, cyberphysical environments, sustainability and territory, cultural heritage, sports, arts, and entertainment.

RESEARCH HIGHLIGHTS
LEVERAGING CLOUD AND EDGE COMPUTING
New principles and methods to make global-scale information systems faster, more reliable, and more secure, leveraging cloud computing and geo-replication. New solutions and tools to build services that span from the cloud to the edge, including mobile devices, sensors, and all kinds of smart “things”.

SOFTWARE FOR BUILDING BETTER SOFTWARE SYSTEMS
New principles, methods, languages, and tools for automating software development, making it more trustworthy, more flexible, and more usable. Smarter development environments will help everyone to build better, bug-free, and easy-to-adapt software.

BIG DATA AND INTELLIGENT DATA ANALYSIS
New artificial intelligence principles and solutions to deal with dynamic heterogeneous knowledge sources, automate reasoning in the web, and extract explanations from neural-based systems. Leveraging big data sources for supporting intelligent decision-making.

INTERACTIVE MULTIMODAL SOLUTIONS
New techniques to process and interact with multimodal content in different contexts using multiple devices and modes, based on computer vision, touch and other devices to augment user interaction. Tools for interactive authoring and multimodal data search and classification.

NOVA LINCS OVER THE PAST 5 YEARS:

> STAFF
57 PhD HOLDERS
45 PhD STUDENTS

> SCIENTIFIC OUTPUT
5 MAIN PUBLICATIONS


FACTS AND FIGURES

106 Articles
447 Articles in peer review international conferences
1 Patent

702K€
FCT, I.P. National Funding

2.8M€
Competitive Funding

1.3M€
International Funding

1.1M€
Private Funding

SCIENTIFIC AREAS
Computer Systems
Knowledge-Based Systems
Multimodal Systems
Software Systems

Computer and Information sciences

40
41
BRIEF DESCRIPTION

UCIBIO, the Research Unit on Applied Molecular Biosciences, develops and disseminates scientific knowledge at the frontier of Chemistry and Biology, providing solutions for today’s societal challenges towards improving health and wellbeing and promoting the bioeconomy.

Created in 2015, UCIBIO results from the collaborative efforts of researchers from NOVA and from University of Porto.

UCIBIO’s key strength lies on its broad scope of fundamental and applied research, standing at the interface of Chemistry, Biology and Engineering to address pertinent questions at atomic, molecular, sub-cellular and cellular levels.

By combining key expertise in Chemistry and Biological Sciences, the UCIBIO team has led to important contributions with potential applications at areas of interface, addressing major societal challenges, such as: drug development and discovery; mechanisms of drug resistance; the fight of microbial virulence; nanoformulations for smart therapeutics; renewable sources for innovative biopolymers; safety assessment in human and environmental health.

Research at UCIBIO is highly interdisciplinary and integrative being organized around 8 Research Groups (RG) with different but complementary backgrounds that reflect our research strengths: Structural Molecular Biology (SMB), Molecular Microbiology & Genomics (MMG), Theoretical & Computational Biochemistry (TCB), Toxicology (TOX), Drugs Targets & Biomarkers (DTB), Nanoinmunotecnologia (NIT), Bioengineering (BENG) and Medicinal Technology (MEDTECH).

To fulfill its strategic goals, UCIBIO’s research is centered on four Thematic Lines (TL) that define focus areas of research to which the Research Groups contribute with their expertise: TL1 – Biological & Biomolecular Interactions; TL2 – Diagnostics, Drug Discovery & Development; TL3 – Safety in Human & Environmental Health; TL4 – (Nano)Bioengineering.

The organizational structure of UCIBIO supports its strategic plan, echoing the research strengths and synergies within and between TLs and RGs. UCIBIO’s portfolio of competences allows addressing complex problems from different but complementary angles, using fundamental and applied perspectives.

UCIBIO facilities and infrastructures (www.ucibio.pt) support our researchers and provide services to Industry and Academia (e.g. Culture Collection, (pycc.bio-aware.com), Pilot Installation.

RESEARCH HIGHLIGHTS
NON-INVASIVE DIAGNOSTICS | Hybrid Gels for Rapid Microbial Detection
ERC Starting Grant (SCIENCE-ERC-2014-StG-639123)

EXPLOITING CARBOHYDRATES IN CANCER AND IMMUNE SYSTEM FOR DIAGNOSIS AND THERAPY | Inqisol & Outcomes Molecular mechanisms of disease
PATENT PT16262: Antibody, functional fragment or probe thereof against tumour antigens.

NANODIAGNOSTICS RESEARCH TO PROVIDE INNOVATIVE SOLUTIONS FOR ONE STEP MOLECULAR IDENTIFICATION OF DNA/RNA AT POINT-OF-CARE (POC)
Spin-off: Nano4Global

PATENTED PROCESSES FOR THE PRODUCTION OF BIOPOLYMERS FROM FOOD AND INDUSTRIAL BYPRODUCTS
EC-142020-773872 Yenicik; EC-142020-773353 UlBioS; EC-142020-733549 RE3, RE3
Spin-offs: 75ml e 100l aqua in Silico
Collaborations with Industry: Águas de Portugal | Saram-Campal Bioedent | Pharma T3.

FACTS AND FIGURES of FCT NOVA

SCIENTIFIC AREAS
Biological & Biomolecular Interactions
Diagnostics, Drug Discovery and Development
Safety in Human and Environmental Health (Nano)Bioengineering

UCIBIO OVER THE PAST 5 YEARS:

546 Indexed Publications
81 Book chapters
10 Patents

9.5M€
FCT, I. P. National Funding

1.2M€
Other National Funding

4.4M€
International Funding

780K€
Industry

300K€
Other Funding

UCIBIO OVER THE PAST 5 YEARS:

2 SPIN-OFFS

MAIN PUBLICATIONS
AF Fernandes et al. 3 CONTROL. RELEASE. 945. 52-61
BRIEF DESCRIPTION

The UNIDEMI (Research and development Unit in Mechanical and Industrial Engineering) is a research centre of NOVA University Lisbon that aims to achieve world class Excellence in research, development and entrepreneurial results in the scientific areas of Mechanical Engineering and Industrial Engineering and Management. UNIDEMI structure has 3 research groups: Systems Engineering and Management (SEMI) that focus on themes of industrial systems design, engineering and management; Manufacturing and Technology Automation (MTA) has a focus on advanced manufacturing processes oriented to laser welding, friction stir processing, composites machining and non-destructive testing; and Fluid and Structures Engineering (FSE), with a focus on areas of fluid-structure interaction, related to efficient energy production and its utilization, and design of coastal structures and reliability of marine structures. Over the years, UNIDEMI has developed strong links with leading international academic partners and national industrial companies.

RESEARCH HIGHLIGHTS

Research topics are anchored in each of the thematic lines, but with a strong emphasis on the synergies that can be promoted:

FUTURE SUSTAINABLE DIGITAL FACTORIES AND SERVICES
- Lean, Green and Sustainability
- Supply Chain Management
- Digital Platforms
- Design Thinking and Systematic Innovation
- Quality Engineering
- Service Design and User Centered Design
- Aesthetic Design Theory
- Human-Systems Interfaces for Cognitive Ergonomics.

ADVANCED MANUFACTURING PROCESSES
- Welding
- Friction stir processing
- Composites machining
- Destructive and nondestructive testing in different materials, and manufacturing and operational contexts
- Innovative manufacturing processes

FLUID AND STRUCTURES
- Geometric and topologically optimized structures with different materials
- Aerodynamic studies
- Design and engineering of structures based on composite materials
- Structural studies on 3D and additive manufacturing elements

FACTS AND FIGURES

- 45 PhD HOLDERS
- 20 PhD STUDENTS
- 861K€ FCT, i.P. National Funding
- 586K€ Other National Funding
- 904K€ Industry (National)
- 624K€ International Funding (including industry)

SCIENTIFIC OUTPUT

5 MAIN PUBLICATIONS (2013-2017 PERIOD)


**BRIEF DESCRIPTION**

The Research Unit VICARTE – Glass and Ceramic for the Arts is devoted to the promotion of transdisciplinary research applied to glass and ceramics, focusing on the intersections between art and science, stimulating sharing of knowledge, experiences and methodologies. The mission of VICARTE is to promote excellence in glass and ceramics studies at national and international level. The research at VICARTE connects the present and the past, by studying traditional and historical practices, by developing new materials and by exploring different artistic concepts. We are committed to uphold and surpass VICARTE’s reputation as an RU that leads worldwide cross-disciplinary research, innovation and creativity in glass and ceramics studies applied to science, art, design and cultural heritage.

VICARTE is designed to weave together diverse strands of expertise in glass and ceramic, to create a web of knowledge by connecting creative minds across disciplines, encouraging experimentation, risk taking and highly imaginative problem solving.

**RESEARCH HIGHLIGHTS**

**Biographies – making history through objects made of glass and Ceramics**

Telling the story of the objects that have accompanied mankind throughout most of its history and continue to capture our attention, curiosity and imagination, are focused on the study and critical analysis of how historical glass and ceramic has developed over time, including raw materials, production and practices, uses, commercial routes and cultural interactions. This research will analyze the choices behind the production, shapes and uses of the objects to construct a bigger narrative from individual microscale stories. These historical objects are not merely curiosities, sometimes beautiful in their physical appearance. Many of them have fascinating stories very worth telling, and we suggest those stories are very worth hearing as well.

**Luminescent glasses – Creating innovation in Art and Industry**

Previous research developed with LAQV@REQUIMTE will extend to the production of innovative cost-effective luminescent glasses and surface coloring coatings. Several approaches and products are explored, including the use of economically viable elements to obtain luminescence in glass and new luminescent surface-coloring coatings using non-toxic glass-based paints and azides, to be applied on glass substrates using low-cost techniques, as spray or silk screen-printing. This work will result in new photophysical properties, commercial opportunities for new design products, luminescent solar concentrators and in art-making.

**Innovative Strategies for Traditional Colors in Glass Materials**

Promoting sustainable new materials and low-cost production processes aiming to contribute to a more versatile industry. With this approach, VICARTE will open new creative pathways for artists, allowing the manipulation of aesthetic effects by pioneering new materials and refining processes, and thus inspiring the creation of new artworks.

**Art and Crafts with Ceramic and Communities**

Disclosing and reinterpreting traditional techniques, exploring their translation into contemporary applications, aiming to design sustainable practices and transmission of traditional knowledge. Encouraging the sharing of know-how between generations through collaborations with artists and artisans on the international and local scales as a stimulus for the creation of a renewed market.

**SCIENTIFIC AREAS**

Glass and Ceramics in Contemporaneity
and in Cultural Heritage:
- to investigate and expand both practically and theoretically the ways in which artists and scientists think about and work with glass and ceramic.
- to support cutting-edge research with a strong impact on the history, preservation and appreciation of our cultural heritage.

**FACTS AND FIGURES**

- 20 PhD HOLDERS
- 18 PhD STUDENTS
- 136 Peer review Publications
- 80K€ Other National Funding
- 780K€ Other National Funding
- 365K€ FCT I.P. National Funding

- 5 MAIN PUBLICATIONS
  - The effect of three luminescent ionic liquids on corroded glass surfaces – first steps into stained glass cleaning, M. Vilarigues et al., Corrosion Science 118 (2017).
  - A multiproxy approach to evaluate biocidal treatments on biodeteriorated majolica glazed tiles, M.L. Coutinho et al., Environmental Microbiology, 18: 4794-4816 (2016).
NOVA SCHOOL OF SOCIAL SCIENCES AND HUMANITIES
CESEM

NAME
CENTRE FOR THE STUDY OF THE SOCIODY AND AESTHETICS OF MUSIC

ACRONYMN
CESEM

COORDINATOR
Manuel Pedro Ferreira

CONTACTS, LOCATION
NOVA School of Social Sciences and Humanities
Edificício I&D – salas 301 a 303 e 319
Avenida de Berna, 26,
1069-061 Lisboa, Portugal
+351 217 908 300

WEB SITE
www.cesem.fcsh.unl.pt

BRIEF DESCRIPTION
CESEM is a research unit committed to the study of Music and its correlations with the other arts and the social and cultural fields, addressing a variety of approaches—sociological, aesthetic, historical, philological, compositional, and performative—and engaging with the most recent perspectives and methodological trends in the Social and Human Sciences. Core areas of study on Music in CESEM include history and cultural heritage, repertories and their sources, socio-communicative models and reception, cognitive and psychoacoustic processes, and applied music technologies. International recognition has been achieved by CESEM in all these areas through the high quality and innovative character of its output, published in traditional media and the internet.

Research at CESEM takes largely an interdisciplinary approach and is structured internally in five Research Groups: 1- Early Music Studies; 2- Music in the Modern Period (with one nucleus: Caravelas Study Group for the History of Music in Portugal and Brazil); 3- Contemporary Music; 4- Critical Theory and Communication (with four nuclei: Music Iconography, Advanced Studies in Music and Cyberculture, Studies in Music and Gender, and Studies in Music in the Press); and 5- Music Education and Human Development.

CESEM runs three laboratories at NOVA School of Social Sciences and Humanities, equipped for specific tasks: 1- LIM-Music Computing Lab, a facility for electroacoustic research; 2-LAMCI-Music and Communication in Infancy Lab, created under the project “Musical Development in Childhood and Infancy”; 3-LAPEM-Palaeography and Music Editing Lab, supports source studies, specialized databases and palaeographic and music editing tasks.

DEVELOPMENT AND MAINTENANCE OF OPEN ACCESS DATABASES AND ARCHIVES:
Portuguese Early Music Database | pemdatabase.eu
Arquivo José Mário Branco | arquivojosemariobranco.fcsh.unl.pt

OPEN-ACCESS ONLINE PUBLICATIONS:
The Notation of the Cantigas de Santa Maria: Diplomatic Edition, 3 volumes, de Manuel Pedro Ferreira.
http://cesem.fcsh.unl.pt/en/a-notacao-das-cantigas-de-santa-maria-edicao-diplomatica/

CO-EDITION of the Portuguese Journal of Musicology, new series
http://rpm-ns.pt/index.php/rpm

PROJECT “GermAnArte”, resulting from a partnership between CESEM’s Music and Communication in Childhood Lab and Companhia de Música Teatral, with the support of the Calouste Gulbenkian Foundation.
http://cesem.fcsh.unl.pt/germanarte/

FCT-funded project “The Anatomy of Late 15th and Early 16th Century Iberian Polyphonic Music” | PTDC/CHC-MMU/0314/2014 PI João Pedro d’Alvarenga

FACTS AND FIGURES

STAFF
87 PhD HOLDERS

PUBLICATIONS
362 Articles
161 Book Chapters
73 Books

FUNDING (2013-2017 PERIOD)
3.2M€ FCT, I.P. National Funding
3K€ Other National Funding
152K€ International Funding

SCIENTIFIC AREAS

Historical Musicology
Philosophy and Sociology of Music
Music Psychology and Pedagogy
Music Technologies, Theory and Composition
Musical Heritage: Identification and Preservation
Music Creation and Practice: Contexts and Dynamics

RESEARCH HIGHLIGHTS

PENSAR SOCIOLÓGICAMENTE AS VIVÊNCIAS MUSICAIS
14/02/15
SALA MULTIUSOS 2.
PISO 4. ED I&D

PHD HOLDERS
362
161
73

ARTICLES
BOOK CHAPTERS
BOOKS

87
3.2M€
3K€
152K€

FCT, I.P. National Funding
Other National Funding
International Funding


Scientific areas

Musical Heritage: Identification and Preservation
Music Creation and Practice: Contexts and Dynamics

7.3M€
2017

FCT-funded project


S.3M€
2017

FCT-funded project


BRIEF DESCRIPTION

CETAPS is committed to research in English, Translation, and Anglo-Portuguese Studies, bringing together 141 individuals. Our research rationale is interlingual and intercultural and includes areas such as Anglophone and Portuguese Cultures and History, Shakespeare’s studies, utopianisms, medial and textual transits in Ireland and Britain, and teacher education and applied language studies. CETAPS is a joint research unit working at NOVA School of Social Sciences and Humanities and at the Faculty of Letters of the University of Porto, and hosts researchers from 11 different institutions in Portuguese Higher Education. CETAPS is organized into flexible and collaborative Research Areas (RAs), some of them accommodating Research Strands (RSs), under the same strategic programme called: CULTURE, LANGUAGE, MOBILITY. A PROGRAMME FOR INTERCULTURAL RESEARCH.

CETAPS has founded the platform JRAAS (Junior Researchers in Anglo-American Studies), which straddles our Lisbon and Porto academic venues, and aims to give junior researchers the opportunity to develop competences in such areas as science communication, preparing abstracts, posters and papers, and organizing conferences. Functionally, CETAPS is guided by the aim of fostering a collaborative and integrative research culture, while at the same time finetuning the relation between providing innovative teaching, offering the best conditions for the development of high-quality research, and investing in high-impact knowledge transfer, reaching out to non-academic environments and addressing societal challenges. Our plans for 2019-2020 reflect our 7 strategic goals (http://www.cetaps.com/strategic-project/), and include an integrated programme of 40 events and over 30 edited books and monographs, a structured communication and publication policy, involvement in international networks, 2 online courses, and the development of our databases and of our digital lab. The latter will allow us to explore the pedagogic, research and communication potential of digital resources by awarding doctoral and postdoctoral fellowships to early-stage researchers for projects relevant to CETAPS’ Research Areas and Research Strands.

RESEARCH HIGHLIGHTS

CETAPS has 3 funded projects:

ALIMENTOPiA | www.alimentopia.oxys.pt

A research project hosted by ECLM and CETAPS and funded by FCT/ COMPETE which offers a multi-disciplinary approach to the discussion about future conditions of food production and consumption through holistic and prospective utopian thinking.


“Facing Europe in Crisis. Shakespeare’s World and Present Challenges” is a European Strategic Partnership that aims to promote historical and binary understanding of the complexities of crisis, Cultural, linguistic, political, social, religious, and economic. To help face a complex contemporary European context.

“Valorga, Gilidade Utopica” integrated in the major project: UTOPiAS | www.utopias1900.net/valorga

DIGITAL LAB | https://sites.google.com/g.upspspark/digitallab/home

CETAPS has founded a digital lab, which has allowed us to explore the pedagogic, research and communication potential of digital resources by awarding doctoral and postdoctoral fellowships to early-stage researchers.
CHAM is an inter-university research unit of NOVA School of Social Sciences and Humanities and of the University of the Azores, headquartered in Lisbon. Most of its members are professors, full-time researchers, and students linked to one of the two universities. Funded by the Portuguese Foundation for Science and Technology (FCT, I.P.), it was scored as “Excellent” on the last evaluation process of R&D Units, in 2013-2014. Since then, CHAM has become one of the main centres of humanities research in Portugal, focusing its study on the notion of frontier. In 2018-2022, CHAM will pursue the project “Questioning Frontiers. Historical and Contemporary Perspectives”.

History is the foundational discipline of CHAM. However, across the Humanities, the study of the frontier brings the relational dimension of societies, languages, cultures and systems of thought to the forefront. The large heuristic potential of the frontier is thus at the centre of CHAM’s project, aiming to study exchange processes and dialogues, selective adoptions and rejections, constructions and erasures.

CHAM conducts groundbreaking research in the field of Humanities, is deeply involved in advanced professional training, and develops a broad range of knowledge transfer activities.

CHAM has a governance model suited to its research agenda, based on a stable and effective structure. CHAM is organised in 9 research groups defined by area of study and 8 thematic lines that function as interdisciplinary meeting zones, all contributing to a multi-perspectival approach to the frontier: African Studies; Asia: Peoples, Polities, Exchanges; Environmental History and the Sea; Europe in the Renaissance – Old and New Worlds; Global Cities; Heritage and Memory; History of Women and Gender; Theory and Methodology.

CHAM benefits from both NOVA FCSH and the University of the Azores facilities and infrastructures. And CHAM’s library is a leader in its areas of specialization. The collection currently includes 34,000 items, and it continues to grow through private donations and funding for acquisitions.

RESEARCH HIGHLIGHTS

UNESCO Chair: The Ocean’s Cultural Heritage.


E-Learning MA in The History of the Portuguese Empire.

FACTS AND FIGURES

CHAM OVER THE PAST 5 YEARS:

3.8M€
FCT, I.P. National Funding
368k€
EU Funding
622k€
Other National Funding

3.8M€
Total Funding

491
342
Articles
Books

715
239
Book Chapters
SCOPUS Articles

87 PhD STUDENTS
144 PhD HOLDERS

34 PhD DEGREES AWARDED

5 MAIN PUBLICATIONS


BRIEF DESCRIPTION
CIC.Digital FCSH branch is a research unit devoted to research in Media and Communication Sciences. The operational structure comprises three Research Groups and one Laboratory. CIC.Digital corresponds to a specific redesign of communication sciences, requiring the gathering of knowledge and synergies between the communication sciences and the sciences and technologies of information and communication.

The mission of CIC.Digital develops around several research goals:

- Fundamental and historical scientific research on media issues;
- Applied and experimental scientific research in the area of Communication and Information Sciences, focusing in societal dimensions;
- Advance training in the area of Communication and Information Sciences.

RESEARCH HIGHLIGHTS

DVinTV – Public Television and Cultural Diversity in Portugal
Coordinator: Francisco Rui Cádima | Funding: FCT/PTDC/VC-CRM/4968/2014

Media and Pluralism in Portugal
http://monitor.cmpf.eui.eu/
MMP – Media Pluralism Monitor – Monitoring Risks for Media Pluralism in EU Member States of CMPF – Centre for Media Pluralism and Media Freedom, European University Institute (Florence). Coordination of the Portuguese team: Francisca Rui Caíloma | Funding: European Commission.

AFRO-EUROPEAN NARRATIVES
http://africaneuropeanarratives.fcsh.unl.pt/

scientific output
5 MAIN PUBLICATIONS


BRIEF DESCRIPTION

CICS.NOVA’s mission is to undertake high quality and innovative interdisciplinary research for critical thinking in social sciences and policy-making. CICS.NOVA values in the same measure, fundamental and applied research from an interdisciplinary perspective, taking into account the complexity of territorial systems and human behavior, the particularity of the functioning of institutions and the relationship with the surrounding spatial and social context. The strong interdisciplinary strategy connects and enhances the knowledge in Sociology and Geography, as nuclear areas, and other Social Sciences, but also in Environmental and Natural Sciences, in its fundamental and applied components. CICS.NOVA’s research contributes to the building of regional strategies, aiming at the reconfiguration of regional maps through the development of research contracts with regional and local government bodies and civil society institutions.

CICS.NOVA is based at NOVA University Lisbon and has four regional hubs, in the mainland (Ebra-G University of Minho, Leiria-Polytechnic of Leiria, Évora-University of the Azores) and at the islands (Ponta Delgada, Azores-University of the Azores). The Research Groups (RG) and Thematic Lines (TL) were designed with the objective of cross-cutting classical research fields borders, thus enhancing cooperation between researchers and stimulating closer connections with public policies, business firms, other organisations and individual actors.

RESEARCH HIGHLIGHTS

A large number of projects from 2003 to 2018, CICS.NOVA has hosted and participated in 92 funded projects. Seven of those projects were awarded a funding superior to 750,000. 80% of CICS.NOVA also participates in two CoLAB constituted in 2018.

Value4Health.CoLAB - Portuguese Value-Based Healthcare: proposed by NOVA University Lisbon - CICS.NOVA is the partner research unit from the NOVA School of Social Sciences and Humanities (FCSH).

ProChild CoLAB – Against Child Poverty and Social Exclusion: proposed by University of Minho. NOVA University Lisbon participates in this CoLAB through CICS.NOVA contribution.

OCEANID | https://jeanmonnetchair.webview.pt/
Chair Jean Monnet OCEANID: Professor Regina Salvador, CICS.NOVA’s integrated researcher, is in charge of the Chair granted in 2017 to NOVA University Lisbon. The Chair has the objective of contributing to increase the knowledge concerning the EU Integrated Maritime Policy and Blue Growth.

Advanced Training: CICS.NOVA participates in 9 PhD programmes and 24 Master programmes, held by NOVA University Lisbon as well as by other higher education institutions members of the consortium (University of Minho, University of Évora, University of the Azores and the Polytechnic of Leiria).

Interface with civil society - CICS.NOVA hosts four Observatories and two Laboratories.

DNDV | https://fcsf.unl.pt
The National Observatory of Violence and Gender.

DATT | https://sites.fct.unl.pt/observatorio-analises-tecnologia
The Observatory of Technology Assessment.

JACT | http://jact.unl.pt/
The Inclusion and Accessibility in Action Research Observatory.

The Azorean Youth Observatory.

CEESVF | The Vale Formoso’s Soil Erosion Experimental Centre
LABID | The Laboratory of Ideas

FACTS AND FIGURES

> STAFF

138 PhD HOLDERS
121 PhD STUDENTS

> SCIENTIFIC AREAS

Thematic Lines (TL):
TLI - Human Development and Sustainability
TL2 - Innovations and Territorial Competitiveness

Research Groups (RG):
Social Inequalities and Public Action
Citizenship, Work and Technology
Cities, Environment and Regional Development
Modelling and Planning Systems
Health, Population and Well-being
Education, Knowledge and Culture

> CICS.NOVA OVER THE PAST 5 YEARS:

439 Articles
175 Scopus articles
587 Book chapters
92 Books (authorship)
643 Chapters in conference proceedings

1.7M€ FCT, I.P. National Funding
2.8M€ Other National Funding
798K€ International Funding

> SCIENTIFIC OUTPUT

5 MAIN PUBLICATIONS

CITI is a Research and Development Unit at NOVA University Lisbon, mainly focused on the development of applied research as well as providing training courses in its areas of expertise, combining activities that render services to the community.

With the achievement of around 220 multimedia applications developed between 1993 and 2018 CITI was placed as one of the research units with best results in its field of research, obtaining several international and national awards and also participating in several European projects.

This research unit also provides internships for university students from several university degrees enabling specialization courses leading to the attainment of master degrees and also PhD’s, when the students are enrolled in curricular units at NOVA University Lisbon.

RESEARCH HIGHLIGHTS

Literacy in health, 2016-2018
Plataforma digital dos concelhos de Portugal
www.pldcp.pt 2017

Alimentação saudável, segura, sustentável

An initiative of Jovo Desparraco and Desparraco together with the Gulbenkian Foundation and the New University of Lisbon. The goal is to inform the younger population about healthy, safe and sustainable food.

Biblioteca Digital do Plano Nacional de Leitura 2016
Integrated in the multiple actions of the National Reading Plan, the Digital Book Library is a space that revitalizes initiatives related to reading and writing, which assumes itself as an aggregate of books by authors who have been consecrated and approved by the National Reading Plan.

SCIENTIFIC AREAS

Digital systems for teaching and communication
Development of multimedia projects

FACTS AND FIGURES

CITI OVER THE PAST 5 YEARS:
14 Articles
2 Book Chapters
19 Other Publications

390.5K€
Other National Funding

STAFF
12 PhD HOLDERS
2 PhD STUDENTS

SCIENTIFIC OUTPUT

5 MAIN PUBLICATIONS


**NAME**
Linguistics Research Centre of NOVA University Lisbon

**ACRONYM**
CLUNL

**COORDINATOR**
Rute Costa

**CONTACTS, LOCATION**
NOVA School of Social Sciences and Humanities
Torre B – Sala T3
Avenida de Berna, 26C,
1069-061 Lisboa, Portugal
+351 217 098 300 – Ext. 1337

**WEBSITE**
clunl.fcsh.unl.pt

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**FACIAL DESCRIPTION**

The Linguistic Research Center of the NOVA University Lisbon (CLUNL) is a Research Unit that has as its main objectives the advancement of research in Theoretical and Applied Linguistics, the advanced training of researchers and the dissemination of scientific data on those domains concerned with the nature and structure of languages and texts. This Unit is funded by the Portuguese Foundation for Science and Technology (FCT, I.P), and has obtained the qualification of “Very Good” in the latest evaluation exercise carried out by this governmental institution.

CLUNL’s researchers are organized in four research groups: 
- **LIFE** – Formal and Experimental Linguistics; 
- **LLT** – Lexicology, Lexicography and Terminology; 
- **G&T** – Grammar and Text; 
- **CLCM** – Cognition, Language and Multimodal Communication.

These groups conduct research on language acquisition, comparative syntax, forms and constructions in Portuguese, lexicography and lexicology, multimodality, multilingualism, approaches to language teaching, natural language processing, theories of text and discourses, terminologies and ontologies, among others.

CLUNL’s facilities include fully equipped training and conference rooms with projectors and Wi-Fi, a research room, an office for 20 people, and a meeting room prepared to accommodate PhD and post-doc fellows, and people with scientific employment contracts.

**RESEARCH HIGHLIGHTS**

**European Portuguese–Standard Arabic Dictionary**
Portuguese Coordinator: Teresa Lino | Funded by Rabat Mohamed V University and Calouste Gulbenkian Foundation

**Promotion of scientific literacy**
Coordinator: Matilde Gonçalves | Funded by Calouste Gulbenkian Foundation

**Development of syntactic structures in Portuguese and French monolingual and bilingual acquisition**
Portuguese Coordinator: Maria Lobo | Portuguese Foundation of Science and Technology (FCT/IP), – PEst P2027/ProC/441.00

**Blackbox blackbox.fcsh.unl.pt**
A Collaborative Platform to Document Performance Composition: from conceptual structures in the backstage to customizable visualizations in the front-end.
Coordinator: Carla Fernandes | ERC Starting Grant 2013 | Reference 336200

**FACTS AND FIGURES**

- **35 PhD HOLDERS**
- **27 PhD STUDENTS**
- **43 COLLABORATORS**

**CLUNL OVER THE PAST 5 YEARS:**

- **167 Articles**
- **140 Book Chapters**
- **19 Books**
- **82 SCOPUS Articles**

**SCIENTIFIC OUTPUT**

**5 MAIN PUBLICATIONS**


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**SCIENTIFIC AREAS**

- Formal and Experimental Linguistics
- Lexicology, Lexicography and Terminology
- Grammar & Text
- Cognition, Language and Multimodal Communication
BRIEF DESCRIPTION
CRIA is an interuniversity R&D unit – ISCTE-IUL, NOVA FCSH – University of Coimbra and University of Minho. The 4 institutional subunits share management, fundraising, research dissemination, teaching and knowledge transfer capabilities.

CRIA is the main Portuguese research centre in Anthropology. It is the leading R&D unit associated to NOVA FCSH and ISCTE-IUL PhD program in Anthropology, Politics and Displays of Culture and Museology. Its VALUE lies in its independent approach towards knowledge production, unconstrained by perspectives and rhythms imposed by political urgency, committed to deep, prolonged qualitative enquiry as the basis for theoretical innovation, thus guaranteeing originality in its empirical and theoretical contributions to knowledge production and application.

CRIA makes a solid contribution to the knowledge of social dynamics. Research in different geographical contexts is also significant (Portuguese-speaking countries: Brazil, Angola, Cape Verde, Mozambique; South Asia: India, Malaca, Bangladesh, Morocco, Mauritania). Encouraging INTERDISCIPLINARITY and the coordination of sub-disciplinary fields CRIA promotes comparative and transversal analyses at different spatial and historical scales.

Research is structured in 4 RESEARCH GROUPS (RG) defined according to specific areas of expertise: 1) Circulation and Place-Making; 2) Environment, Sustainability and Ethnography; 3) Governance, Policies and Livelihoods; 4) Practices and Politics of Culture. More informally, bottom-up Thematic Lines (TL) build upon particular topics: a) Health; b) Visual Anthropology and Arts; c) AZIMUT. Studies in Arab and Islamic Contexts; d) Religion; e) Informal Resources and Social Capital. Each researcher is engaged in an RG while cooperating with TL’s activities, or partaking in lab-scale work. This enables them to stretch boundaries, challenge traditional ways of thinking and find new approaches.

The 4 LABORATORIES (Audiovisual; Environmental Anthropology and Behavioral Ecology; Biological Anthropology and Osteological Human Remains; Ethnographic Archives) are central infrastructures for research, storage and data processing, training and dissemination activities. The laboratory’s dimension contributes to the development of new areas of research, attracting students and others, and stimulating engagement with public institutions that increasingly rely on CRIA as an external consultant.

CRIA strongly advocates the relevance of anthropology’s fundamental research towards a differentiated understanding of the social and cultural worlds. While asserting this as crucial, CRIA’s ENGAGEMENT in public domains contributes to knowledge-based decision-making. Social, cultural and natural risks, as well as the demand for fair and creative policies for more inclusive and sustainable societies, are the main focus of this commitment.

CRIA acknowledges culture’s empowerment potential, therefore and as the demand for fair and creative policies for more inclusive and sustainable societies, are the main focus of this commitment.

CRIA’s ENGAGEMENT in public domains contributes to knowledge-based decision-making. Social, cultural and natural risks, as well as the demand for fair and creative policies for more inclusive and sustainable societies, are the main focus of this commitment. CRIA acknowledges culture’s empowerment potential, therefore engaging with public institutions that increasingly rely on CRIA as an external consultant.

Research highlights
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CRIA acknowledges culture’s empowerment potential, therefore engaging with public institutions that increasingly rely on CRIA as an external consultant.

Research highlights
CAPSAHARA
http://capsahara-cria.org

GROUND-BREAKING RESEARCH ON POLITICS, SOCIAL ACTIVISM AND ISLAMIC MILITANCY IN THE WESTERN SAHARAN REGION. In 2016, Francisco Freire won an ERC Starting Grant (€ 1,192,144) with CRIA as Host Institution.

CONTRIBUTING TO INNOVATIVE POLICIES ON INTANGIBLE CULTURAL HERITAGE (ICH). In 2017 CRIA was endorsed as a consultant NGO for the UNESCO Convention for the Safeguarding of ICH. Since 2016, CRIA integrates the WG for the ICH of the National Commission for UNESCO. CRIA strongly invests in research and academic training in this area. It is the leading R&D unit associated to NOVA FCSH and ISCTE-IUL PhD program in Anthropology, Politics and Displays of Culture and Museology.

ADDRESSING BIODIVERSITY LOSS, ANTHROPOLOGY AT THE LAB SCALE. Projects led by CRIA’s researchers have provided important data for a holistic framing of conservation policies in Guinea Bissau. The outputs were shared with local people, NGOs and NGOs, in partnership with Arouca Foundation and Bissau (Bi)cas Institute for Biodiversity and Protected Areas, in order to inform conservation policies. The collected data – plant and seed specimens and camera-trap videos/pictures and maps – have become referential collections available for future research and lab-scale work.

ACADEMIC AND PUBLIC ENGAGEMENT ON MEDITERRANEAN CRISIS. CRIA’s capacity to mobilise different of its skills in a concerted way was especially triggered by the Mediterranean crisis: social impacts of the economic crisis, the aftermath of the Arab Spring and the conflicts in the MENA region, the situation of the refugees, and the growth of Islamophobia.

FACTS AND FIGURES
CRIA OVER THE PAST 5 YEARS:

> STAFF
78 PhD HOLDERS
47 PhD STUDENTS

> PUBLICATIONS
210 Articles
164 Book Chapters
34 Books
118 SCOPUS Articles

> FUNDING
2.95M€
National Funding
855k€
International Funding

SCIENTIFIC AREAS
Circulation and Place-Making
Environment, Sustainability and Ethnography
Governance, Policies and Livelihoods
Practices and Politics of Culture

> SCIENTIFIC OUTPUT
5 MAIN PUBLICATIONS


BRIEF DESCRIPTION

IAP aims to promote scientific research in the field of Archaeology and associated sciences, both in Portugal as abroad, namely in territories where the Portuguese presence had been, directly or indirectly, felt.

The study of past societies and the dissemination of the achieved knowledge, through theoretical constructions and empirical information (archaeological testimonies, in land, maritime and underwater environments, and literary information), in a holistic and transversal way, resulting in the identification of human behaviours, in its economic, social, technological and, mainly, ideological features, as well as its patrimonial and identity importance.

At NOVA FCSH, in the Archaeology Laboratory, the IAP researchers develop their projects and attend students who conduct treatment and study of archaeological materials as well as academic works.

RESEARCH HIGHLIGHTS


IMARE Culture – EUROPEAN Union’s Horizon 2020 research and innovation programme Grant Agreement No 727633 (2017-2019).


Societies

Symbols

Material Culture
IELT - Instituto for the Study of Literature and Tradition – Heritage, Arts and Culture's mission focuses on the study of literature in its complex, multi-faceted and multidirectional relationship with tradition, considered as a vast reservoir of forms, images, figures, structures, senses and experiences that participate in the construction and in the repeated transformation of cultural, poetic and artistic identities.

In this perspective, IELT claims the decisive importance of the literary phenomenon (irrespective of its form, register, mode of transmission and reception) within a broad and interdisciplinary reflection on tradition and cultural identities. IELT favours the study of literature with memorial record and oral transmission (dynamics, contexts and specificities of production, fixation, reception and textual reproduction) and its persistence in the formation, consolidation and dissemination of identity, cultural and literary matrices; the importance of symbolic processes in the formation of cultural, literary and artistic imaginaries; the study of the relationships between literary and artistic modernity, memory and tradition, as well as the status of literary modernity as the creative epicentre of literary traditions; the study of literature as an unfolding and expansive space through its intersemiotic (relation of its dialogue with other arts and discursive modalities) and dialogic dimensions; the archive as a space of confluence between memory, tradition and reinvention and, in this sense, as a privileged space of thought for the articulation between literature and tradition.

IELT's facilities include two rooms equipped with working tables, computers, printers, scanners, personal work areas, central library of the research building (ID), meeting room, full time science management team.

**Research Highlights**

- Participation in International Networks
  - BRASPOR; CORPUS; CRICII2; FABULA NUMERICA, Red de Universidades Lectoras.
  - www.memoriamedia.net

- **Principal Projects**
  - “The Tale in Portuguese Literature: A Catalogue and Critical History” (FCT, I.P.)
  - “Orpheo Generation” (FCT, I.P.)
  - “Critical Poetry and Contemporary in Brazil and Portuguese trends and issues” (FCT, I.P./CAPES)
  - “Recovering Landscape Narrative in Urban and Rural Europe RELANUR”
  - “The Fall in Literary Traditions” (Gulbenkian)
  - “RELIT-Rom - Revisões literárias: a aplicação criativa de romances (séculos XV-XVII)” (Gulbenkian)
  - “Atlas das Paisagens Literárias de Portugal Continental”

IELT is Chair Infante Dom Henrique for Atlantic Studies and Globalization (UIDB) and Partner Research Unit – UNESCO Chair “The Ocean’s Cultural Heritage” (ELTM, IEM and IHC).

**Scientific Areas**

- Intangible heritage and symbolic imaginary
- Literary tradition, texts, arts, theories
- Spacialities of literature, arts and culture

**Facts and Figures**

IELT over the past 5 years:

- Staff
  - 96 PhD Researchers

- Publications
  - 318 Articles
  - 255 Book Chapters
  - 145 Books
  - 43 SCOPUS Articles

- Funding
  - 464K€ FCT, I.P. National Funding
  - 21K€ Other National Funding

- Scientific Output
  - 5 main publications
BRIEF DESCRIPTION

The Institute for Medieval Studies (IEM) is a Research Centre of the NOVA School of Social Sciences and Humanities at NOVA University Lisbon, sponsored by the Portuguese Foundation for Science and Technology (FCT, I.P.) and co-sponsored by the Portuguese Foundation for Science and Technology (FCT, I.P.) since 2002 by Luis Krus and José Mattoso. IEM is the only research unit exclusively devoted to Medieval Studies. It was granted the classification of “Very Good” in the Research Assessments of 2007 and 2014. We aim to promote high quality research in the medieval field by networking with other researchers, both in Portugal and elsewhere, so as to foster international collaboration that will contribute to new, multidisciplinary and comparative approaches to the Middle Ages. We are a body of 172 researchers, experts in the fields of Archaeology, Art History, History, Literature and Musicology, jointly working on two main transversal research axes: People and Knowledge in Motion. Portugal in Trans-European Medieval Networks & Medieval Heritage and Material Culture, and integrated in two Research Groups (RG).

1. Images, Texts and Representations
This RG is subdivided into four research areas: “Images and Texts: Meanings and Uses”, “Texts in Context”, “Sociocultural Representations and Constructions” and “Family Archives”.

2. Territories and Powers: a _Glocal_ Perspective
This RG is subdivided into the following research areas: “Mapping the political and Ideological Structures of the Kingdom”, “Landscapes for the Exercise of the Power Strategies”, “Large Cities and Small Towns”, “Medieval Rural Communities and Landscapes” and “Circulation of Elites, Models and Processes”.

The IEM is installed with two rooms and it is equipped with work places for 2 Science and Technology Management Scholarships (IBCT), and also several work places for researchers. The IEM also holds a specialised library on Medieval Studies, which is located at the Documentation Centre (R&D building of NOVA FCUL, 1st floor).

RESEARCH HIGHLIGHTS

Innovation & Interdisciplinarity: by combining very diverse scientific areas to advance knowledge in Medieval Europe: a cross-fertilization of Art History and Chemistry for the molecular study of illuminated manuscripts; Interdisciplinary projects for the study of Early Medieval rural communities and Late-Roman bringing together very disparate scientific disciplines: (Chemistry, Ecology, Bioarchaeology, Archaeology, Cartography and Geography); Interdisciplinary combining Literature and Music Studies applied to medieval Galo-Portuguese cantigas.

Open Access: Commitment to EU Open Science policies: open research data and databases, e-books and e-journals, deposit of all production in national and international repositories and infrastructures. In 2015, the IEM launched Medievalisca Online, the first journal of Medieval Studies online.

Partnerships: with municipalities, archives and businesses (e.g. 25 municipalities are today linked to IEM).

Research & Teaching: The IEM provides training in methodologies and specific skills fundamental to those engaged in Medieval Studies as well as courses in both undergraduate and graduate level programmes. The teaching staff of the IEM and some of its post-graduate researchers constitute the bulk of teachers in the only PhD Programme in Medieval Studies in Portugal: an e-learning programme offered in a joint venture with Universidade Aberta.
BRIEF DESCRIPTION

IFILNOVA’s main purpose is to develop research programs focused on the philosophical investigation of Value(s), particularly by investigating the nature of value, the role of values in human action, as well as their normativity as constituted through public argumentation and reasoning in the ethical, political and aesthetic fields. The programs aim also to apply philosophical theories to social practices and problems. Within such a framework, IFILNOVA has achieved international recognition in argumentation theory, pragmatics, history of philosophy and philosophy of education. The application of groundbreaking theoretical insights to social practices led IFILNOVA to being awarded funding from Horizon 2020. At a national level, the institute has always been rated as Excellent by the Portuguese Foundation for Science and Technology (FCT, I.P.).

The goal of the institute is pursued at different levels (theory, application, outreach) through four distinct strategies:
1. Fundamental research on philosophical problems.
2. Development of classic theories.
3. Development and application of new theories to empirical fields.
4. Direct intervention into social practices.

These goals are pursued by four Laboratories and a Dissemination interface with distinct methods and perspectives.

ARGLab considers the problem of Value from a formal perspective: it investigates the conditions of possibility for value construction and normativity via the structures of reasons and arguments; CultureLab considers the problem of Value from a material and historical perspective; EPLab inquires into the role that values play in a variety of contemporary individual and collective experiences; by developing ideas from the history of philosophy with an analytical perspective; CineLab is dedicated to the philosophical thinking through of the moving image, and it develops part of its research in an actual, societal involvement with film.

The Dissemination Interface (DI) aims to create value in and for society through the links with social stakeholders (public entities). This goal is pursued through activities and programs designed for improving or intervening in social practices, more specifically in the areas of education, medical communication, political deliberation, and cultural communication (cinema and philosophy). The DI is an organizational structure that plans, manages, and coordinates dissemination and outreach projects from the 4 laboratories, directing their research orientations and indicating possible developments. For this reason, it is a coordinating laboratory.

RESEARCH HIGHLIGHTS

Values in argumentative discourse
The project addresses a discrepancy between two popular, yet seemingly incompatible views concerning the way we argue about values.
Ph. Erich H. Paul. IF/CT/C/FIL/0521/2014

EcoReason I Ecological reasoning and decision making in innovation
Distributed industry sectors at the periphery of Europe: Recoupling divergent values and interests.
Ph. João Ságaal. TUBITAK/0230/2014

DIALLS I Dialogue and Argumentation for Cultural Literacy Learning in Schools
DIALLS answers the Horizon 2020 call ‘Understanding Europe’ – promoting the European Public and Cultural Space under the topic of Cultural Literacy of Young Generations in Europe (specifically promoting cultural literacy through formal education).
Portuguese Coordinator: Fábio Macagno . H2020-DAC-01: CULT-CT03P-03-2017

European network for argumentation and public policy analysis.
Ph. Marian Lewinski. Funding Entity: COST ACTION 2017

SCIENDIFIC OUTPUT

5 MAIN PUBLICATIONS


FACTS AND FIGURES

8.6M€
FCT, I.P. National Funding
48k€
Other National Funding
2K€
International Funding

IFILNOVA OVER THE PAST 5 YEARS.

286 Articles
36 Book Chapters
145 SCOPUS Articles

JOÃO MÁRIO GRILO E MARIA IRENE APARICIO (ORG.)
NOVA SCHOOL OF SOCIAL SCIENCES AND HUMANITIES
CINEMA - FILOSOFIA - COMPÊNDIO

DE GRUYTER

NIETZSCHE AND THE PROBLEM OF SUBJECTIVITY

João Constâncio, Maria João Mayer Branco, Bartholomew Ryan (Eds.)

5 mAiN PublicA tioNs
BRIEF DESCRIPTION

IHA is hosted by FCSH NOVA and a full member of the international RIHA network. It is the sole Art History funded Unit in Portugal. IHA’s was scored “Very Good” in 2007 and 2003 evaluation processes. IHA has a flexible and democratic structure enhanced by its management framework and by the diverse backgrounds and affiliations of its research. It has grown into a cohesive community of researchers committed to the excellence of individual and group research, and knowledge transfer within a motivating scientific and educational environment.

IHA’s democratic footprint is boosted by the autonomy of its five research groups. All groups approach art history in its broadest sense, considering visual and material culture, museum, heritage, urban studies and art theory. Two Thematic Lines intersect and connect groups’ activities: “The Exhibition: theory and practices” and “Cultural transfers in a global perspective”. Multidisciplinary perspectives and encounters are encouraged in IHA’s overall activities, especially via Clusters’ activities (platforms to foster external collaborations).

IHA’s work is committed to Portuguese art history, but is by no means confined to it: not only interrogations prompted by Portuguese art history evolve with general art historical questions, but also Portuguese historical relations with other geographies is conspicuous.

IHA is a Unit of high-level education and peer dialogue, that promotes the integration of its members in international networks. It is also project-oriented. Groups trigger and run research projects. IHA’s Board and Core Scientific Committee discuss these projects and their articulations with IHA’s Strategic Programme and Thematic Lines.

R&D projects articulate basic and applied research (European Union (EU) and Portuguese Foundation for Science and Technology (FCT, IP) projects, and seed projects funded by the Unit). Their development involves close cooperation with the academia—IHA actively participates in 13 FCSH NOVA PhD programmes (Art History, Urban studies, Artistic Studies), while also collaborating in CORES programme from FCT-NOVA—, as well as international and national networking: partnerships with museums, foundations, city councils, heritage sites, urban regenerating agents, private institutions. These partnerships are designed to involve PhD, MA and/or BA students through internships and scholarships.

IHA’s networking is an essential aspect of its internationalization, grounding the mobility of its members and the growing dissemination of their research. IHA’s open-access and peer review editorial policy is also key in this process. IHA assures positions within the RIHA Journal board of editors, and publishes 2 peer-reviewed journals: Revista de História da Arte, and Revista de História da Arte — W series, devoted to the online edition of conference proceedings.

RESEARCH HIGHLIGHTS

IHA has successfully opened new areas of inquiry within its structure by expanding groups’ strategic programmes that strengthen NOVA’s undergraduate and graduate studies associated to art history, including 4 PhD programmes and 2 successful post-graduate courses run by IHA: Curatorial Studies and Art Markets and Collecting.

IHA’s researchers have been building solid international relationships through various networking contexts. These include: a) participation in representative/ funded networks, b) R&D projects’ international partnerships, c) postdoc projects and co-supervised PhDs, d) co-organization of congresses with international partners, and also e) peer-reviews, editorial and scientific boards of international publications such as RIHA Journal, and edition of books with extensive international participation and circulation.

Research funding has been a priority for IHA’s researchers. Over the last few years, the above mentioned R&D projects were able to raise just over a € 1.000.000 in highly competitive calls promoted by both public and private institutions (e.g. the EU, FCT, Gulbenkian Foundation, etc).

Fact and figures

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BRIEF DESCRIPTION

The Institute of Contemporary History (IHC) develops its activity with an interdisciplinary approach, covering a wide range of topics concerning the conceptualization, contextualization and interpretation of the historical reality of the period between the Napoleonic wars and the present time. We benefit from the inputs of a diversified group of 156 PhD researchers, both foreign and Portuguese, of which around 1/3 devote themselves exclusively to research, 1/3 are higher education professors, and the other 1/3 divide their time between research and other professional activities. The recognition that the IHC receives from the academic, scientific, educational, and cultural sectors in Portugal makes it an attraction Centre for a significant number of early-career researchers and professionals from several fields, namely archive, education, culture and tourism, and from state bodies. In the last five years, we welcomed over one hundred PhD students. The IHC is strongly committed to the field of Public History and the social impact of scientific results: Our vast number of outreach and public history activities are organized into two programmes: The History Lab (dedicated to the promotion of historical and heritage research and knowledge in non-academic contexts) and Memory for All (aiming to find, gather, and share new historical sources, in collaboration with non-academics and in accordance with the scientific expertise).

This diverse profile endows the IHC with a significant responsibility for the advanced training in Modern and Contemporary History in Portugal, with an actual impact on the sustainability and renewal of the field, and on the presence and qualification of history in the public sphere. In 2019, the IHC will launch the first Portuguese Digital Humanities Laboratory, supporting research as well as outreach activities. The IHC has research facilities both in Lisbon, at the NOVA School of Social Sciences and Humanities, and in Évora, at the University of Évora. The Institute of Contemporary History (IHC) develops its activity with an interdisciplinary approach, covering a wide range of topics concerning the conceptualization, contextualization and interpretation of the historical reality of the period between the Napoleonic wars and the present time. We benefit from the inputs of a diversified group of 156 PhD researchers, both foreign and Portuguese, of which around 1/3 devote themselves exclusively to research, 1/3 are higher education professors, and the other 1/3 divide their time between research and other professional activities. The recognition that the IHC receives from the academic, scientific, educational, and cultural sectors in Portugal makes it an attraction Centre for a significant number of early-career researchers and professionals from several fields, namely archive, education, culture and tourism, and from state bodies. In the last five years, we welcomed over one hundred PhD students. The IHC is strongly committed to the field of Public History and the social impact of scientific results: Our vast number of outreach and public history activities are organized into two programmes: The History Lab (dedicated to the promotion of historical and heritage research and knowledge in non-academic contexts) and Memory for All (aiming to find, gather, and share new historical sources, in collaboration with non-academics and in accordance with the scientific expertise).

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RESEARCH HIGHLIGHTS

Diccionário da História de Portugal
2016-2018, 8 Vols).
Portuguese Forced Labour in the III Reich
This international project, coordinated by Fernando Rosas and funded by the German Foundation EVZ - Erinnerung, Verantwortung, Zukunft (Memory, Responsibility, Future), the Sophie-Institut, and the IHC, achieved remarkable results both in Portugal and abroad.
Europeana Sounds | IHEUSounds.eu
This project (2014-2017) was co-funded by the European Commission (ECD and the Europeana Sounds consortium, with a total budget of 634K, 146K, 146K, 146K, 146K, 146K, 146K, 146K. It was coordinated by the British Library and involved the work of 24 European institutions. Along with two other NOVA FCSH research units (RIT and IEL), we were the Portuguese partner of the project.
Amílcar Cabral: From Political History to Politics of Memory
Coordinated by Rita Lopes, the FCT, IP funded project (PTDC/EPM-HIS/113036/2010: Studies the articulation between the ideas of Amílcar Cabral, leader of the African Party for the Independence of Guinea and Cape Verde during the liberation struggle and their reception, both in his lifetime and in subsequent memorialist works produced throughout the world.

FACTS AND FIGURES

> STAFF

| 155 PhD HOLDERS |
| 88 PhD STUDENTS |

> IHC OVER THE PAST 5 YEARS:

| 442 Articles |
| 441 Book Chapters |
| 184 Books |
| 120 SCOPUS Articles |

> SCIENTIFIC OUTPUT

5 MAIN PUBLICATIONS


> SCIENTIFIC AREAS

Modern and Contemporary History:
Connected Histories: State-Building, Social Movements and Political Economy
Colonialism, Anti-Colonialism, and Post-Colonialism: Rethinking Empires and their Alternatives
Precarious Worlds and Sustainability: Nature, Health, and Work
Modern Mediations: Arts, Technology, and Communication
Uses of the Past: Memory and Cultural Heritage
**BRIEF DESCRIPTION**

The Instituto de Etnomusicologia - Centro de Estudos em Música e Dança is an interdisciplinary research unit with headquarters at the FCSH UNL and three branches at the DMC-USP, FMH-UL and the ESE-IPP. Its mission is:

- To carry out transdisciplinary research on music and dance, using current perspectives from Ethnomusicology, Historical Musicology, Cultural Studies, Popular Music Studies, Ethnochoreology, Education, Music Theory, Analysis, Performance Studies, Music Acoustics and Sound Studies;
- To develop collaborative partnerships with local communities, scholars, artists, policy-makers, national and international institutions towards a democratic and decolonial construction of knowledge addressing the unprecedented mobility of individuals, environmental change, social inequity and conflict;
- To promote research on music and dance addressing issues related to colonial pasts and postcolonial contexts, especially in areas with deep historical connections to Portugal;
- To consolidate artistic research on music and dance performance and composition;
- To develop and consolidate research in sound production and perception based on physical and psycho-acoustic principles;
- To consolidate audiovisual archiving and make the sources and results of research available through open access online databases.

INET-md has several offices and a seminar room where doctoral seminars, talks and other post-graduate programs are held. The Institute also has three sound and audiovisual laboratories for the digitalization and restoration of early sound and moving image recordings, as well as sound and acoustics research. All three laboratories offer training on the undergraduate and Post-Graduate levels as well as external services in their areas of specialty.

**RESEARCH HIGHLIGHTS**

The 5 Major Projects of INET-md that received more funding in 2018:

- **Pi: Salwa Castelo-Branco | Co-Pi: Rui Cidra**

- **Pi: João Soeiro de Carvalho | Co-Pi: Vincent Debut**
  - Music research and new Technologies toward the restitution of the Timbila collection of the National Museum of Ethnology.

- **Pi: Hugo Sanchez | Co-Pi: Salwa Castelo-Branco**
  - Sounding Lisbon as Tourist City: Sound, tourism and the sustainability of urban Ambiances in the Post-industrial City.

- **Pi: Filippo Bonini Baraldi | Co-Pi: Salwa Castelo-Branco**

- **Pi: Rui Vieira Nery | Co-Pi: Francisco Exposito**
  - PROFUS - To be a musician in Portugal: the social and professional condition of musicians in Lisbon (1750-1985).

**FACTS AND FIGURES**

- **Staff**
  - 114 PhD holders
  - 104 PhD students

- **INET-md Over the Past 5 Years**
  - 175 articles
  - 164 book chapters
  - 33 books
  - 27 Scopus articles

- **Scientific Output**
  - 5 main publications:

- **Scientific areas**
  - Ethnomusicology and Popular Music Studies
  - Historical and Cultural Studies in Music
  - Musical Acoustics and Sound Studies
  - Creation, Performance and Artistic Research
  - Dance Studies
  - Education and Music in the Community
**BRIEF DESCRIPTION**

The IPRI is an Institute dedicated to advanced studies in Political Science and International Relations. As an Institute dedicated to advanced studies in Political Science and International Relations, IPRI-Nova defines itself as a structured and integrated project around three fundamental axes: scientific research; specialized training – doctoral and post-doctoral programmes; and knowledge transfer and social value creation.

IPRI works according to the paradigm of the research university integrating research and training; that is, an Institute where knowledge is produced, in its fields of expertise and where teaching is carried out in a research environment.

IPRI assumes its social responsibility and its public mission in the contemporary society, developing applied research, strengthening its relationship with the public policy making world and increasing its presence in the public sphere.

IPRI cultivates excellence and wishes to be acknowledged by the quality of its theoretical research, the relevance of its empirical studies and its commitment to the western values and epistemologies. Its theoretical work is defined by standards internationally recognized by the state of the art of its disciplines and wants to stand amongst the best in its disciplinary areas – Political Science and International Relations. The Institute also aims to promote dialogue and interdisciplinary and transdisciplinary projects involving other areas, as it is already doing in its research projects as well as in the Globalization Studies doctoral programme.

IPRI promotes a policy of advanced training that integrates teaching/research and incorporates the doctoral and postdoctoral students in the research projects. In this way, besides the advanced training present in the post-doctoral projects and the two Doctoral Programmes undergoing – Political Science and International Relations – the Institute is involved in an internationally competitive Doctoral Programme: open, transdisciplinary, issue oriented and offered in English, the Portuguese Foundation for Science and Technology (FCT, IF) – Funded Doctoral Programme on Global Studies. Regarding knowledge transfer and social value creation domain, the Institute assumes its social responsibility. Its scientific agenda is defined by fundamental research, but when the knowledge produced may be socially useful, the Institute has a policy of knowledge transfer, making it available to the society as a public good.

IPRI promotes oriented research and applied knowledge and has developed a relationship with the public policy-making and to the demands and challenges of society. This has been evinced by the support to decision-making, in public policies or in the entrepreneurial sector, as well as, in its presence in the media reinforcing its position in the public sphere. Besides that, develops its own tools of knowledge dissemination: the website, its publications, and the publishing of the quarterly academic journal R.I.

The Library of IPRI is specialised in the field of social sciences and humanities, with a focus on International Relations and Comparative Politics. Its main aim is to support IPRI’s researchers, but it is also open to the public. It currently holds 2678 volumes, of which 2569 are monographs and 83 journals.

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### RESEARCH HIGHLIGHTS


**Opposition parties in Europe under pressure. Far from power, close to citizens?** Ph. Elisabete de Gong (IF/00230/2015).

**REALPLOG** From Representation to Legitimacy? Political Parties and Interest Groups in Southern Europe. Coordinator: Marco Lisi. IFSTTAR/1V. IF/010/2014/2014.

**Varieties of Democracy in Contemporary Portugal** www.fcsh.unl.pt/a-dem

### FACTS AND FIGURES

#### STAFF

44 PhD HOLDERS

49 PhD STUDENTS

#### IPRI OVER THE PAST 5 YEARS:

- **229** Articles
- **199** Book Chapters
- **68** Books
- **69** SCOPUS Articles
- **175k€** FCT, IF National Funding
- **289k€** Other National Funding
- **50k€** International Funding

#### SCIENTIFIC OUTPUT 5 MAIN PUBLICATIONS

- **China–Brazil: A strategic partnership in an evolving world order**, Daniel Cardoso, 2013. East Asia
BRIEF DESCRIPTION

Nova SBE’s mission is to build a global school dedicated to the development of talent and knowledge that produces impact across society. It aims to achieve this mission via international recognition, the increasingly international composition of students and faculty, and the new campus. The Research Unit’s mission is closely aligned with the School’s mission.

Cross-disciplinary orientation reflects the identity of the Research Unit. Despite the research diversity, Nova SBE joins its researchers into a single unit, recognizing the variety of research that takes place in the School. The President of the Faculty Council has the responsibility for coordinating the research strategy of the School, assuming the role of the Unit’s coordinator. He is assisted by three professors representing the major disciplinary areas (Economics, Finance, and Management), acting as a steering committee for research. An External Advisory Committee, whose members are renowned scholars from prestigious universities, undertakes periodic evaluations of the Unit’s activities.

The new Carcavelos campus is a cornerstone for the dynamics of progress supporting the School’s ambition to become a global brand in higher education; attracting more high-quality students and faculty producing impactful research; promoting a sense of belonging in the network of alumni; enhancing corporate and institutional partnerships; fundraising for investing in academic quality; and improving international visibility which in turn will attract more talent, in a virtuous cycle.

Researchers benefit from excellent conditions, including the School’s participation in international networks. Weekly seminar series with invited speakers from top international departments are organized, giving the researchers the opportunity to gain exposure to state of the art research. They also get support to present their papers in conferences. Researchers also benefit from the strong support of the Research Office (RO), an operational area that helps them in the implementation of activities, including grants’ applications, project management, and research communication.

Nova SBE hosts the Social Sciences Data Lab (DataLab), an infrastructure integrated in the National Roadmap of Research Infrastructures, providing access to an essential set of databases for conducting advanced research in Social Sciences. It includes bibliographic and statistical databases in the fields of Economics, Finance, and Management. DataLab, in a partnership with University of Minho, also supports the SHARE-ERIC project, the first European Research Infrastructure Consortium, providing data on health, ageing and retirement in Europe. DataLab offers the research community access to these resources, online or onsite, and also provides training and support to users.

RESEARCH HIGHLIGHTS

Universal banking, corporate control and financial crises
PI: Miguel Ferreira ERC Starting Grant (2012-2018)

Improving Quality of Care in Europe

The economic valuation and governance of marine and coastal ecosystem services

On the mechanics of the natural resource curse: Information and local elite behavior in Mozambique

Nova SBE OVER THE PAST 5 YEARS:

- 82 PhD HOLDERS
- 93 PhD STUDENTS
- 229 Articles
- 199 Book Chapters
- 68 Books
- 69 SCOPUS Articles
- 5.2M€ FCT, I.U. National Funding
- 2.5M€ Other National Funding
- 1.2M€ International Funding

SCIENTIFIC AREAS

- Economics
- Finance
- Management

FACTS AND FIGURES

5 MAIN PUBLICATIONS


80
BRIEF DESCRIPTION

The aim of iNOV4Health is to achieve excellence in translational research so as to improve precision medicine clinical practices based on increasing the mechanisms of disease and its translation to the bedside. The majority of the iNOV4Health researchers are from NOVA and comprise: a) biomedical researchers searching biological mechanisms of disease, pre-discovery of leads and biopharmaceuticals; b) scientists developing technologies and engineering the production of biopharmaceuticals; c) clinicians applying mechanistic knowledge for improved diagnosis, treatment and first-in-man clinical trials.

Two of the key partners of the consortium are NOVA Organic Units: NOVA Medical School (NMS - www.nms.unl.pt) through its research arm CEDOC (Chronic Diseases Research Centre - www.cedoc.unl.pt)), brings in fundamental, pre-clinical and clinical research, including selected clinicians from 11 hospitals academically linked with NMS: NOVA Institute of Chemical and Biological Technology Antonio Xavier (ITQB NOVA - www.itqb.unl.pt), covers biophysics and biochemical molecular basis for drug design, advanced analytics and technology development. The other two partners are POLiT (Oncology - www.polidobra.min-saude.pt), the largest cancer Hospital in Portugal, carries out clinical work and translational research in Oncology, and iBET (Experimental Biology and Technology - www.ibet.unl.pt) a private not-for-profit institution dedicated to developing and transferring knowledge in biopharmaceuticals production, which manages the consortium.

The partners created this iNOV4Health Unit in 2015 when a 2-phase implementation was proposed. I) bottom-up projects launched initially to ensure that groups would break interfaces (40 projects funded), c) for the 2018-2022 phase, we now decided to focus on 3 Thematic Lines (TL) which emerged as more competitive during the first phase: Neurological and Vision Disorders, Cardio-Metabolic Disorders and Cancer, so as to coordinate projects into synergistic research programmes. Importantly, all teams are committed to these common goals, strengthening the internationalisation of the Unit by creating more diverse, broader and complementary teams.

iNOV4Health researchers have access to the partner’s state-of-the-art infrastructure and facilities. These include technologies such as NMR, Mass Spectrometry, X-Ray Crystallography, EPR, FT-IR, Raman and Mass spectrometer, Surface Plasma Resonance, Protein Sequencing, Next Generation Sequencing, Flow Cytometry, Confocal and Super Resolution Microscopy (SR-SIM and PALM). There are facilities for advanced animal cell culture, vitros for work with Drosophila, zebrafish and rodents, and a Clinical Research Unit to manage clinical trials in humans. SMP production is supported by a Bio-Pilot Plant, a Downstream Processing Unit, and certified Analytical Services. The iNOV4Health unit represents an ambitious and pioneering effort to achieve an internationally competitive translational research programme in Portugal. The key ingredients for success are the complementarity of expertise bridging fundamental, technological and clinical research, the perceived need to change current culture, the mix of top-down and bottom-up funding to allow both focus and creativity, an excellent and committed Scientific Advisory Board and the ability to engage private partners such as pharmaceutical companies.

RESEARCH HIGHLIGHTS

H2020 Training projects: The Discoveries Centre for Regenerative and Precision Medicine (ITQB) is benchmarking for TL1

ERC-3106: LIBMs. Zooming the link between diet and brain health: Phenolic metabolites impact brain inflammation? PI: Cláudia Santos

ERC-6415: StemCellNAb: Metabolic and Timed Control of Stem Cell Fate in the Developing Animal. PI: Catarina Fernandes Hospital

Development of a patient-derived cancer cell model platform
**BRIEF DESCRIPTION**

The Centre for Toxicogenomics and Human Health (Toxomics) was established in 2015 following the Centre for Research in Human Molecular Genetics created in 1992 and coordinated by Professor Luis Archer until 2000 followed by Jose Rueff. The Centre made contributions to nanotheranostics, environmental genotoxicity and molecular epidemiology and genetic determinants of disease, e.g. cancer. From 2013 to 2017, 103 international articles were published. The R&D goals of the Centre: using genomic and post-genomic methods are the study of molecular, biochemical and cellular aspects of human genetic disorders and environmental stress through the following approaches: (i) exposure assessment, responses to stressors and biological monitoring, (ii) variability in gene expression and regulation in the disease process and therapeutic response, (iii) evaluation and development of toxicogenomic and toxicoproteomic biomarkers. The Centre coordinates research teams from the NMS/FCM and INSA.

The Centre’s mission can be described in the interplay of prevention and susceptibility to disease and in advanced training in toxicogenomics as applied to human health.

Laboratory equipments and facilities at NMS/FCM are used jointly with other teams, namely of CEDOC, and include, among others: confocal microscopy, fluorescent microscopy, tissue culture facilities and microbiological facilities with fully equipped sterile pressure-controlled rooms; ultracentrifuge and refrigerated centrifuges; Real time PCR equipments; various PCR equipments, pressure-controlled rooms; ultracentrifuge and refrigerated centrifuges; Real time PCR equipments; various PCR equipments, pressure-controlled rooms; ultracentrifuge and refrigerated centrifuges; Real time PCR equipments; various PCR equipments, pressure-controlled rooms; ultracentrifuge and refrigerated centrifuges; Real time PCR equipments; various PCR equipments. NGS equipment is available at the laboratories at INSA. Together with fully equipped proteomics laboratory.

**RESEARCH HIGHLIGHTS**

A new strategy for risk assessment of nanomaterials was developed within the FP7 NANOFED project in which the aspects of three exposure kinetic risk assessment that are most likely to be influenced by the specific properties of nanomaterials were identified.

Acrylamide (AA) is a probable human carcinogenic, formed in many carbohydrate-rich foods prepared at high temperatures. The cytotoxicity and genotoxicity of the epoxide glycidamide (GA), the ultimate genotoxic metabolite of AA, were assessed. SA and specific GA-DNA adducts were assessed in human cells exposed to GA. Key polymorphic genes were correlated with biomarkers of DNA damage and correlation between DNA damage and genetic susceptibility was observed. These data enable the further correlation between dietary AA exposure and cancer risk in human populations.

The relationship between miR-203a expression and clinicopathological features of breast cancer was studied in a breast cancer cohort, and we showed that miR-203a could represent a potential biomarker for invasiveness, and also a potential biomarker to discriminate stages in invasive lobular carcinoma.

Cytochrome P450s (CYP) are one of the most important detoxifying enzyme families. Genetic polymorphisms of specific CYP isoforms and redox partners of these enzymes were studied, yielding clinically relevant information as well as valuable data for risk assessment. A fundamental study on protein dynamics of cytochrome P450 enzymes were studied, yielding clinically relevant information as well as valuable data for risk assessment.

**SCIENTIFIC OUTPUT**

5 MAIN PUBLICATIONS:


**FACTS AND FIGURES**

- **13 PhD HOLDERS**
- **8 PhD STUDENTS**
- **182 Articles**
- **16 Books and Book Chapters**
- **192 Communications in National and International Meetings**
- **1.75M€ FCT, I.P. National Funding**
- **116K€ Other National Funding**
- **233K€ International Funding**
CEDIS was created to be an innovative research centre on Law and Society, reflecting NOVA School of Law approach to legal studies. CEDIS mission, as stated in its by-laws, is to study Law and its relationships with society, by means of integrating legal and non-legal approaches to research; to study new or emergent legal realities; to bring to the foreground the study of practical applications of the Law; the implementation of a new pedagogic and didactic model; to support projects aiming to provide services to the community; and increasing the projection of Portuguese legal studies. Its strengths are: a plural vision of Law in contemporary society; an interdisciplinary and Innovative Approach to Legal Research; International Networking with European and Portuguese-Speaking Countries; different backgrounds of the researchers and an open access orientation.

In order for this to be achieved, CEDIS is managed by a Board, with scientific direction from the Scientific Council, also counting on the reports from an External Advisory Committee. Its researchers are organized in clusters and projects, and are divided into Integrated Researchers with PhD, Integrated Researchers without PhD and Collaborators, whose main research topics are now: private and Public Law on the aftermath of worldwide economic crisis; international legal phenomena, with special regard to European Law and the Law of Portuguese-Speaking Countries; security and criminal Law, exploring the dichotomy arising from security and civil liberties, as well as new criminal realities; new technologies and regulation needs; anti-discrimination laws; new mechanisms for the exercise of democracy and models of public intervention; contextualization of legal phenomena with the contribution of social sciences.

Regarding its facilities, CEDIS is located at the NOVA School of Law in Campus de Campolide (Lisboa). It provides: a room for meetings and both group and individual research; access to the Faculty’s legal library (more than 36500 books on Law and Other areas; 255 journals, national and internacionall); access to online legal databases such as LegisPalop, Kluwer Law Online, vLex.

RESEARCH HIGHLIGHTS

Legal pluralism in the Portuguese Empire (18th-20th century).
Pt. Cristina Nogueira da Silva (FCT, I.P.)
The law-making as a means of implementing public policies: quantitative and socioeconomic analysis.
Pt. Francisco Pires de Castro (FCT, I.P.)
Intra-Africa Pax Lusófona (NOVA Law School is the Technical Partner)
For the technical partner, Jorge Bacelar Sousa [European Commission] 2007
NOVA Saúde Project: Lisbon: a model city in the integration of the hearing-impaired community.
Pt. Helena Pereira de Mello [NOVA Health].

SCIENTIFIC AREAS

Law & Social Sciences
Economic Dimensions of Public and Economic Law
International and European Law
Security and Criminal Law
New themes on Public and Private Law
Interdisciplinary perspectives on Law

FACTS AND FIGURES

> STAFF
- 39 PhD HOLDERS
- 34 PhD STUDENTS

> CEDIS OVER THE PAST 5 YEARS:

- 320 Articles
- 250 Book Chapters
- 125 Books
- 18 SCOPUS Articles

> SCIENTIFIC OUTPUT

5 MAIN PUBLICATIONS
Martins, João Zenha (2016), Dos pactos de limitação à liberdade de trabalho, Coimbra, Almedina
Gouveia, Mariana Franco (2014), Curso de Resolução Alternativa de Litígios, 3rd edition, Coimbra, Almedina
Gouveia, Jorge Bacelar (2018), Direito e Segurança: Cidadania, Soberania e Cosmopolitismo, Coimbra, Almedina.

NOVA SCHOOL OF LAW
CEDIS

> NAME
RESEARCH CENTER ON LAW AND SOCIETY

ACRONYM
CEDIS

COORDINATOR
Armando Marques Guedes

CONTACTS, LOCATION
NOVA School of Law
NOVA University Lisbon,
Campus de Campolide,
1099-032 Lisboa, Portugal
+351 213 847 466

WEBSITE
cedis.fd.unl.pt
BRIEF DESCRIPTION

GHTM is a R&D Centre that brings together researchers from the Institute of Hygiene and Tropical Medicine of NOVA University Lisbon with a track record in Tropical Medicine and International Global Health. It aims at strengthening Portugal’s role as a leading partner in the development and implementation of a global health research agenda. GHTM’s evidence-based interventions contribute to the promotion of equity in health and to improve global health security goals.

Our mission is to produce knowledge on global health and tropical medicine, develop tools and strengthen health systems through excellence in research, training and systems implementation.

Our organizational framework consists of four research groups, each include researchers with expertise in different areas. These are the following:

- Vector borne Diseases (VBD),
- Tuberculosis, HIV and Opportunistic Diseases (THOP),
- Population Health, Policies and Services (PPS) and
- Individual Health Care (IHC).

In order to achieve cutting-edge outputs, the Centre operates in a transdisciplinary context in which relevant data and materials are exchanged between scientists in the different groups. The major research areas that are of shared interest - crosscutting issues, constitute the guiding principles of our working model and are the following:

- Global pathogen dispersion and population mobility,
- Drug discovery & resistance,
- Diagnostics,
- Fair research partnerships, and
- Public health information.

We host the WHO Collaborating Centre on Health Workforce Policy and Planning that supports the WHO’s strategic goal of optimizing the impact of the current and future health workforce on achieving healthy lives, universal health coverage and global health security through research, training and strategic advice.

Besides standard laboratory facilities, GHTM as specialized infrastructure such as: BSL-3 labs; accredited animal house; insectaries for breeding mosquitoes and sandflies; a Biobank – Biomedical Sciences; and an Arthropod Safety Level 3 facility - Vector Borne Diseases. These facilities aim at supporting research and strategic advice in order to achieve cutting-edge outputs.

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RESEARCH HIGHLIGHTS

- mosquitoLAB Citizen Science Project: mosquoliblab.ihmt.unl.pt
- LuSoArbo Beetles Project: luosolarboripeople.ihmt.unl.pt
- ZIKArance: ZIKArance.ihmt.unl.pt
- A Global Alliance for Zika Virus Control and Prevention. ZIKArance is a multinational and multidisciplinary research consortium comprised of 53 partners worldwide.
- hAItool: haitool.ihmt.unl.pt
- A Toolkit to Prevent, Manage and Control Healthcare Associated Infections (hAItool/Portugal).
- Drug Resistance - Technological basis for the development of new fast diagnostic nanotechnology and diagnosis in paper – nanotechnology & lab-on-paper Partnerships with FCT-UNIT. EFortunato and M.Plasencia.

FACTS AND FIGURES

- 84 PhD HOLDERS
- 126 PhD STUDENTS
- 866 Articles
- 109 Book Chapters
- 21 Books
- 4 Patents
- 5.5M€ FCT, IP National Funding
- 878K€ Other National Funding
- 1.0M€ International Funding

SCIENTIFIC AREAS

- Biomedical Sciences
- Global Public Health
- Tropical Medicine

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NOVA INSTITUTE OF HYGIENE AND TROPICAL MEDICINE

GHTM

> NAME
GLOBAL HEALTH AND TROPICAL MEDICINE

> ACRONYM
GHTM

> COORDINATOR
Henrique Silveira

> CONTACTS, LOCATION
NOVA IHMT
Rua da Junqueira Nº 100,
1349-008 Lisboa, Portugal
+351 213 652 678

> WEBSITE
ghtm.ihmt.unl.pt

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**BRIEF DESCRIPTION**

MagIC (Information Management Research Centre) is focused on using information to develop and improve organizations and society in general. The main objective is to contribute to the advance of the field of Information Management and Data Science. MagIC researchers are committed to improve information usage and reliability, while developing tools and methods to promote data-driven decision-making.

The contributions of the research centre are focussed essentially in finding ways to use information management and data science to improve productivity and sustainability through data-driven decision-making. It’s clear that the ability of technology to capture and store data has not yet been matched by its ability to transform data into actionable and relevant information. We live in a data rich environment, but the tools to make sense of all that data are still somewhat limited. Moreover, the dawn of big data will only make this problem/opportunity more apparent, while presenting new and harder challenges. Recent developments have produced significant enthusiasm about how the meeting between big datasets and very powerful computers will change the state of things. MagIC researchers share the enthusiasm for this new and exciting field and are committed to help shape information-rich environments, as a transformative force for positive change in science and business. The ability to find insights in our data-intensive society translates into new and clever solutions for pressing societal challenges.

**RESEARCH HIGHLIGHTS**

In 2015 MagIC secured a 2.7 million funding for the Joint Doctorate in Geoinformatics: Enabling Open Cities funded by the Marie Sklodowska-Curie Actions, International Training Networks (ITN). European Joint Doctorates (EJD). This Doctorate program is a partnership with University of Münster (DE) and University Jaume I (ES) and 9 industry and municipalities partners.


The 2016 “Grande Prémio Bial de Medicina” for high quality and outstanding results of “EpiReumaPt - the dream of a generation in a decade of work”, a joint venture between NOVAIMS and NOVA Medical School.

Citation of Excellence 2017 by Emerald: as one of the most highly cited and highly influential papers published in 2014 in the areas of Business Management, Finance, Accounting, Economics and Marketing; to the paper: Oliveira, T., Thomas M. & Espadanal, M. (2014) “Assessing the determinants of cloud computing adoption: An analysis of the manufacturing and services sectors.”

In 2015, MagIC secured a 3.7 million funding for the Joint Doctorate in Geoinformatics: Enabling Open Cities funded by the Marie Sklodowska-Curie Actions, International Training Networks (ITN), European Joint Doctorates (EJD). This Doctorate program is a partnership with University of Münster (DE) and University Jaume I (ES) and 9 industry and municipalities partners. The 2015 world’s most impactful marketing paper: Henseler J, Ringle CM, Sarstedt M (2015) “A new criterion for assessing discriminant validity in variance-based structural equation modeling”. J Acad Mark Sci, (the world’s most impactful marketing paper according to the University of Florida – http://bit.ly/3twhN7N).


**FACTS AND FIGURES**

**SCIENTIFIC AREAS**

- Data Science
- Geoinformatics
- Information Systems
- Data-Driven Marketing

**SCIENTIFIC OUTPUT**

5 MAIN PUBLICATIONS


MOSTMICRO

NOVA INSTITUTE OF CHEMICAL AND BIOLOGICAL TECHNOLOGY ANTÓNIO XAVIER

> NAME
Molecular, Structural and Cellular Microbiology Unit

> ACRONYM
MOSTMICRO-ITQB

> COORDINATOR
Cláudio M. Soares

> CONTACTS, LOCATION
NOVA Institute of Chemical and Biological Technology António Xavier
Av. da República
2780-157 Oeiras, Portugal
+351 214 469 100

> WEBSITE
www.itqb.unl.pt/mostmicro

BRIEF DESCRIPTION

MOSTMICRO-ITQB is a research unit coordinated by the ITQB NOVA, NOVA University Lisbon, and funded by Portuguese Foundation for Science and Technology (FCT, I.P.). It aims to understand biological processes at the Molecular, Structural, Cellular and Population levels, with a focus on microbes important for human health, biotechnology and the environment.

MOSTMICRO-ITQB carries out internationally competitive research along three thematic lines: 1) Understanding the molecular mechanisms of biological processes, 2) Anti-infective strategies against microbial pathogens and 3) Microbial factories for Health and Sustainability.

In 2018, MOSTMICRO-ITQB hosts 34 research Laboratories, organized in 10 Research Groups, plus the Science Communication, Funding & Innovation Group.

Researchers benefit from first-rate equipment, shared research facilities, and dedicated support services to carry out competitive research projects, including NMR, Mass Spec, Advanced microscopy and Biomaging, Microbial Cell Production, Protein Purification & Characterization, N-terminal Sequencing, Biophysical Resources, Small Molecule Analysis, Elemental Analysis and High performance Computer Cluster. Support services include: Technical and Administrative, Communication, Science Funding (pre-award), Planning & Management (post-award), Tech Transfer, IT and Library.

RESEARCH HIGHLIGHTS

SHIKHIFACTORY
We coordinate the research of a consortium on modular cell factories for the production of 100 compounds from the shikimate pathway.

TIMB3
We coordinate a project linking Universities in Berlin and Florence to study Metal in Biology and Biotechnology through Bioprospecting.

CHROMOS ANTIBIOTICS
ERC Consolidator Grant (PI: Mariana Pinho) Start 2018: 12M€
Pinho’s lab will explore the bacterial cell cycle to re-sensitize antibiotic-resistant bacteria.

ONEIDA
Portugal2020 (PI: R. Sai-Leao, M. Serrano) Start 2016: 5.2M€
We coordinate a consortium involving several hospitals to prevent and control infectious diseases and antibiotic resistance.

SCIENCTIFIC AREAS

Understanding the molecular mechanisms of biological processes
Anti-infective strategies against microbial pathogens
Microbial factories for Health and Sustainability

FACTS AND FIGURES

MOSTMICRO OVER THE PAST 5 YEARS:

- 23.1M€
  - FCT, UP: National Funding
  - 2.1M€
  - Other National Funding
  - 3.1M€
  - International Funding

207 PhD HOLDERS
61 PhD STUDENTS
35 COLLABORATORS

PUBLICATIONS
IN INTERNATIONAL JOURNALS (WoS)
574

5 MAIN PUBLICATIONS


BRIEF DESCRIPTION

The “GREEN-IT Bioresources for Sustainability” Unit addresses the challenge of ensuring food security and adequate resources for a growing human population, by deciphering the basic mechanisms of plant-environment interactions and translating knowledge into innovation for plant breeding, while guaranteeing environmental sustainability.

GREEN-IT gathers researchers from five world-class institutes, ITQB NOVA, ILET, IDC and INIIN (all at Oeiras Campus), and INSA (in Lisbon), pursuing excellence in research, international cooperation, and education in plant sciences and agro-biotechnology applications. Together, we bring complementary expertise in plant nutrition and development, C4 photosynthesis, plant biology and breeding, integrated pest management, and product/food quality. We focus on crops relevant to the Mediterranean region and on the growing challenges that climate change poses to agricultural production.

To reach our goals we have implemented and manage essential infrastructures and high-throughput technologies, making them available to all GREEN-IT members: We develop tools and standards to analyze, store and manage experimental data. We train world-class plant scientists through our PlantsLife international PhD program, provide technical education to technicians and farmers, and attract students to plant research. We create and develop frameworks to facilitate research, to transfer knowledge into innovation, to promote value creation and to improve public perception of plant sciences to a broad spectrum of stakeholders.

GREEN-IT gathers in its five institutions a unique set of conditions, creating a privileged environment for research career development: 1) Researchers benefit from outstanding shared facilities and equipment, including Analytical, Mass Spectrometry, Bioimaging, Crystallography, NMR services and Greenhouses; 2) Support structures facilitate researchers’ activities: Technical and Administrative Support, Communication Offices, Science Funding Offices (pre-award), Planning and Management Office (post-award), Tech Transfer Offices, IT helpdesk and development services, and Library; 3) Wireless and cable high speed internet access everywhere; 4) Conditions for networking and training are provided by regular workshops and seminar series, with in house and invited international speakers; 5) A community with different generations, from PhD students, Post-Docs to young and senior PIs, allows mentorship to be played at various levels; 6) Strong collaboration and diverse expertise contributing to a multidisciplinary atmosphere that makes GREEN-IT unique, further enlarged by the AGRO-TECH Campus.

For more information about the research areas, members and facts and figures, please visit our website:

www.itqb.unl.pt/green-it

RESEARCH HIGHLIGHTS

SuxRI AND NUTRIENT SIGNALING PATHWAYS - We are at the forefront of one of the most rapid growing fields in plant biology growth and developmental regulation by nutrient-signaling pathways.

PHOTOSYNTHESIS REGULATION & BIOMASS - A model improvement in plant photosynthesis can lead to major gains in biomass. We identified new regulatory processes of C4-photosynthesis at the transcript and post-translational levels.

CORK OAK GENOMICS - Cork is among the largest economic sectors in Portugal. We led a national consortium for sequencing the cork oak transcriptome, cork oAk genomics, and participate in whole genome sequencing.

QUANTITATIVE GENOMICS TOOLS FOR BREEDING - Society is increasingly concerned with food quality and environmental sustainability. We study the genetics of variation in complex nutritional and organoleptic quality traits in grapevines and their interaction with biotic/abiotic stress resistance.
The Center for Public Health Research (CISP) / Public Health Research Center (PHRC) is the first research center recognized by the Portuguese Foundation for Science and Technology (FCT, I.P.) exclusively dedicated to Public Health. Its mission is to carry out, develop and promote public health research, in order to create knowledge that can be used to improve the population health.

Research in Public Health aims to contribute to a higher level of understanding population health and analyze the central role of health systems as well as its organizations. It also means guiding this understanding effort to the most emerging, current and complex public health challenges: aging, chronic diseases, endemic diseases, epidemics and pandemics, economic crises and unsustainable growth in health expenditures, inequities and inequities in health, environmental threats, technological development and innovative therapies, patient safety and quality of health care.

The CISP mission is inspired and motivated by these challenges, to which it responds not only through research, but also through establishing bridges with the society, and through the involvement in the design of health policies, according to best practices in Public Health at national and international level.

The CISP is based in the National School of Public Health (ENSP) of the NOVA University Lisbon, which is at the origin of its creation. At the image of ENSP, the CISP carry out multi and transdisciplinary research, in collaboration with a group of specialist providing results from diverse areas such as occupational health, health promotion, health management, health economics, epidemiology and statistics, law, and ethics. The CISP collaborates with several national and international health research centers and is open to all researchers who wish to contribute to the common goal of a high quality public health research recognized in Portugal and in the world.

**RESEARCH HIGHLIGHTS**

**ELEVATE** is a project funded by EU through the H2020 programme. This project focuses on the early detections of cervical cancer in hard-to-reach populations of women through portable and point-of-care HPV testing, expected to start on January 1st, 2019. The PHRC/CISP/ENSP integrates the ELEVATE consortium.

**URBAN TB**

From symptoms to diagnosis of urban Tuberculosis, considering individual and contextual factors. What are the determinants and critical points of this delay’s pathway? FCT, I.P. 2018

**PHRC/CISP funded 2 PhD Studentships**

One of the Fellowships (SFRH/BPD/133638/2017, funded by FCT, I.P.) was attributed to Diogo André da Fonseca Pires, PhD student and member of PHRC/CISP.

**CHRC**

The path to a future PHRC is through integration with NOVA major Health Center, the COMPREHENSIVE HEALTH RESEARCH CENTER (CHRC), coordinated by NOVA Medical School.
InnovPlantProtect  INNOVATIVE BIO-BASED SOLUTIONS FOR CROP PROTECTION

PRODUCERS
Syngenta Portugal – Crop Protection
Bayer CropScience

CONSORTIUM
INIAV – National Institute for Agrarian and Veterinarian Research
ANPOC – National Association of Cereal, Protein Crop and Oil Seed/ Fruit Producers
ANPROMIS – National Association of Corn and Sorgum Producers

COORDINATOR
NOVA University Lisbon – Professor Maria Margarida Oliveira

ProChild CoLAB  AGAINST CHILD POVERTY AND SOCIAL EXCLUSION

PRODUCERS
ANPROMIS – National Association of Corn and Producers Organizations
FNOP – National Federation of Fruits and Vegetables

CONSORTIUM
NFOP – National Federation of Fruits and Vegetables
GEO2I, Engeneering Solutions, Lda

COORDINATOR
University of Minho – Professor Isabel Soares

CoLAB4Food  COLLABORATIVE LABORATORY FOR INNOVATION IN THE FOOD INDUSTRY

PRODUCERS
Bayer CropScience
Syngenta Portugal – Crop Protection
Veterinarian Research

CONSORTIUM
FRAUNHOFER
José de Mello Saúde

COORDINATOR
University of Minho – Professor José António Teixeira

eCoLAB  COLLABORATIVE LABORATORY FOR THE CIRCULAR ECONOMY

PRODUCERS
Bayer CropScience
Syngenta Portugal – Crop Protection
Veterinarian Research

CONSORTIUM
MOTA-ENGI
REQUIMTE – Rede de Química e Tecnologia - Associação

COORDINATOR
BLC3 Evolution – João Nunes

ALMSCIENCE  CELLULOSE FOR SUSTAINABLE SMART APPLICATIONS

PRODUCERS
BIOGOLD - Biogold Produtora de Gás Combustível, S.A.
PETRÓLEOS DE PORTUGAL - PETROGAL S.A.

CONSORTIUM
FRAUNHOFER
José de Mello Saúde

COORDINATOR
INCM – Dr Carlos Jorge Silva

ProBiorefinery  COLLABORATIVE LABORATORY FOR RESEARCH AND INNOVATION ON BIOREFINERIES

PRODUCERS
ANPOC – National Association of Cereal, Protein Crop and Oil Seed/ Fruit Producers

CONSORTIUM
IPB – Polytechnic Institute of Bragança
IPIL – Polytechnic Institute of Leiria

COORDINATOR
LNEG – Maria Teresa Leão

Value4Health.CoLAB  PORTUGUESE VALUE-BASED HEALTHCARE CoLAB

PRODUCERS
A4F – Algafuel, S.A.

CONSORTIUM
A4F – Algafuel, S.A.

COORDINATOR
NOVA University Lisbon – Professor José Fragata

SFCoLAB  SMART FARM CoLAB

PRODUCERS
A4F – Algafuel, S.A.

CONSORTIUM
INIMAT – Instituto de Investigação em Matérias Técnicas

COORDINATOR
NOVA University Lisbon – Professor Fernando Lidon

NET4CO2  NET4CO2 - NETwork FOR A SUSTAINABLE CO2 ECONOMY

PRODUCERS
ISCTE – University Institute of Lisbon
City Council of Torres Vedras

CONSORTIUM
FCUL – Faculty of Sciences, University of Lisbon

COORDINATOR
GALP Energia, SA

VORTEX CoLAB IN CYBER-PHYSICAL AND CYBER-SECURITY SYSTEMS

PRODUCERS
DEAL – Renato Maia (CEO)

CONSORTIUM
DEAL – Renato Maia (CEO)

COORDINATOR
ALTRAN – Rodrigo Maia (CTO)

Change Partners, SCR, AS

This year, NOVA University Lisbon awarded, in collaboration with Banco Santander, the Santander-NOVA Collaborative Research Award, currently in its 11th edition.

This award aims to distinguish research projects developed by young researchers at NOVA, involving at least two different academic units of NOVA. This distinction is awarded annually, in the areas of Life Sciences, Exact Sciences and Engineering and Social Sciences and Humanities.

“Stress-induced neuroinflammation: mechanisms and implications for decision-making and performance” was the winning project of the 11th edition of Collaborative Research Award Santander Totta/NOVA University Lisbon, in the area of Life Sciences. Researchers Raffaela Gozzelino (NOVA Medical School | Faculdade de Ciências Médicas), in collaboration with researchers Ana Margarida Gremho Ferreira (NOVA School of Sciences and Humanities) and Pedro Neves (NOVA School of Business and Economics), are the authors of the project.

The project seeks to determine how neurological processes explain decision making, mainly in stressful situations, with a special focus on the influence of iron. The project started with laboratory studies with mice, in which it was confirmed that the animals get an aggressive behaviour when stressed, having an accumulation of iron in the brain’s prefrontal cortex, the area that controls behaviour and decision making.

The purpose now is to study the phenomenon in the human being, integrating biological and psychological processes to determine the way how the social dimension influences those decision making processes, in order to get a complete picture of the way people deal with stress. According to researcher Raffaela Gozzelino, this is one of the first studies that manages to integrate all aspects. Santander Totta/NOVA Collaborative Award favours the continuation of this study to enhance the results we already have and to start working on the social aspect.

The award was granted by the Rector of NOVA, Professor João Sáágua, and the Executive President of Santander, Dr. António Vieira Monteiro, in a ceremony within the first edition of NOVA Science Day.
In September 2018, NOVA took a step further towards the growth of its research network by organizing the first NOVA Science Day. This event is a milestone for the University since it stood out as the first action to bring together not only the schools of NOVA and its research centres, but also to engage society and citizens with the institution’s work. As the Rector stressed out, this event naturally derives from NOVA’s goal to contribute with collaborative and interdisciplinary research to the production of cutting edge knowledge, essential to support initiatives that allow achieving some of the sustainable development goals set out in the United Nations Agenda 2030.

The full-day event, which gathered more than 350 participants among Professors, researchers, PhD students and members of society, consisted of a comprehensive program that provided a very complete outlook of NOVA’s research work. In the morning, the Minister of Science, Technology and Higher Education, Professor Manuel Heitor, and the European Commission’s Director General for Research and Innovation, Jean Eric Paquet, delivered the keynote speeches in which they stressed out the importance of such initiatives on a local, regional and global level. The afternoon on its turn, consisted of a session of flash presentations to promote NOVA schools, institutes and strategic platforms, as well as a presentation of posters by the 41 research units and Collaborative Laboratories (CoLABs).

The event was also the stage for the announcement and award ceremony of the Santander - NOVA Collaborative Research Award 2017/2018 in the area of Life Sciences to a project about the influence of stress on decision making.

NOVA Science Day was the first step of a journey NOVA is taking towards the development of a culture of science in which research groups join forces to face mutual challenges and produce knowledge that is beneficial to society.

Now is the time to come together. Any city divided against itself will not remain. This is the motto of NOVA. And it rings as true now as it did 45 years ago. Now is the time for us to unite and push for the future of science and innovation in Europe.

Jean-Eric Paquet  
EC Director General for Research and Innovation  
NOVA Science Day 2018
Investing in research and development means bringing the future closer. At The Navigator Company, R&D is entrusted to RAIZ, the Company institute devoted to developing know-how and have involved building cooperation between industry and academe.

A series of initiatives were approved in 2017 for research on a networking basis, rewarding the expectations of researchers and technical staff who will now benefit from closer ties between RAIZ and Portuguese universities and other organisations in the national and international scientific and technological systems.

The funding application for the Inpactus project was approved towards the end of the year and the news was greeted with excitement by RAIZ and its partners in current projects.

The new project is promoted by Navigator and RAIZ, and involves cooperation over four years with a long list of partners, including the Universities of Coimbra, Aveiro, Beira Interior and Minho, Universidade Nova de Lisboa, Instituto Superior Técnico, Fraunhofer Institute (Germany), RISE (Sweden) and the Iberian Internal Nanotechnology Laboratory (Braga). Research will be conducted on a range of fronts, all with a view to creating innovative and distinctive products from eucalyptus fibre, in pulp and printing and writing paper, as well as in tissue and new bioproducts obtained from biomass and wood.

The research process has already yielded a number of advances, in particular in production of pulp with superior mechanical strength and better environmental performance, production of tissue with a high eucalyptus fibre content, production of paper with improved printability and new functional coatings, promotion of bioactive and nutraceutical products, as well as biofuels and biocomposites from biomass.

The programme will also highlight the added value offered by biomass and wood, through biorefineries, the fourth main focus area, accounting for 50% of the funding. This will look into producing families of products based on wood and biomass, geared to environmental sustainability, a challenge for which Navigator’s pulp and paper mills are well positioned.

The Forest and Paper Research Institute engages in research aiming to ensure successful forestry operations, for instance by developing scientific knowledge applied to genetic improvement of eucalyptus and equipping the Company with the tools to combat forest pests. RAIZ also provides crucial support for industrial operations, as a technological consultant helping to improve production processes for pulp and paper. In keeping with its concern for effective use of resources, it also contributes to the excellent environmental performance achieved by the Company’s plants.

RAIZ is also engaged developing forest inventory tools. The Navigator Company’s forest holdings represent only a fraction of Portugal’s woodlands, and it is therefore crucial that resources be more widely applied to other forest landowners, enabling them to manage their holdings to their best advantage. Complementing this, the institute is concerned to share good forestry practices with others interested in these issues, seeking to expand its own knowledge in these areas.

Other important aspects of RAIZ work have been its ongoing support for the process of implementing the Company’s forestry project in Mozambique, which has faced specific challenges related to the geographical location, and the search for suitable land in Spain.

In response to the new dynamic created by the Inpactus project and the need to reequip the institute for the research work involved, the institute’s buildings, at Quinta de São Francisco, Eixo, in the municipality of Aveiro, have been renovated and refitted, for the first time in three decades. The estate is open to visitors, who come to see the collection of eucalyptus and other trees, many of them over a hundred years old, as well as the wealth of wildlife.