



LEITAT
managing technologies

INTERNATIONAL PROJECTS OFFICE

ABOUT LEITAT

Leitat is the trademark of Acondicionamiento Tarrasense, a Spanish non-profit private Research Centre constituted in 1906 comprising of around 245 employees carrying out applied Research. We support sustainable growth through the promotion of R&D&I and technology transfer, in the context of creating lasting value for companies, satisfying the changing demands of global market.

Leitat is recognized by the Catalan Government (TECNIO) and by the Spanish Ministry of Science and Innovation, with the mission of collaborating with companies and other entities to create Social, Environmental, Economic and Industrial value by R&D projects and technology processes from innovation and creativity.

Leitat is one of the four international institutions selected by the government of Chile in 2013 to settle in the country with the goal of contributing to the positioning of the Chilean economy as a research and development core. Leitat Chile is nowadays a centre of excellence in nanotechnologies.

The centre has experience on technological transfer to several industrial sectors: Environment, Transport, Health, Maritime, Packing, Textile, Energy, Detergency, Cosmetics, Pharmacy, Building, Food, Security, Chemistry, Materials and Sports.



PROMOTING COLLABORATION

Energy Efficient
Buildings Association

Association of Automotive R&D
Organisations

European Association of Research
and Technology Association

European
Biotechnology Network

European Factories of the Future
Research Association

The Energy Materials Industrial
Research Initiative

European Technology Platform
on Smart Systems Integration

The European Technology
Platform of Nanomedicine

European Technology Platform on Advanced
Engineering Materials and Technologies

In Vitro Testing
Industrial Platform

European initiative for sustainable
development by Nanotechnologies

Sustainable Process Industry through
Resource and Energy Efficiency

European Technology Platform
for Sustainable Chemistry

European Technology Platform for the
future of textiles and clothing

The Horizon Network

Water Supply and Sanitation
Technology Platform

E2BA

EARPA

EARTO

EBN

EFFRA

EMIRI

EPOSS

ETP-Nanomedicine

EuMat

IVTIP

NANOutures

SPIRE

SUSCHEM

TEXTRANET

VISION2020

WSSTP

Leitat strongly believes and promotes the concept of Open Innovation, collaborating with over 27 countries and providing an effective response to the technology challenges posed by customers. The centre is connected to several knowledge networks and works as a technology partner through different organisations at a national and international level.

One remarkable example is the EIT Health Consortium. On December 2014, EIT Health was designated as an EIT Knowledge and Innovation Community (KIC) by the EIT Governing Board. Leitat takes part in this consortium, in which participate of more than 50 partners (and in addition 90 associate organisations) from leading businesses, research centres and universities from across 14 EU countries. The goal of EIT Health is to contribute to increasing the competitiveness of European industry, improve the quality of life of Europe's citizens and the sustainability of healthcare system.



Moreover, Leitat collaborates with 48 Spanish organisations and 29 international organisations. We are members of 28 Spanish Technology Platforms and 24 European Technology Platforms.

INTERNATIONAL PROJECTS

Leitat impacts on companies and other entities, with special attention to SMEs, through the management of R+D+2i proposals (research, development and industrial innovation) leading or participating in strategic projects activities. Leitat participates in several projects financed by the European Commission, develops private research projects, and takes part in international collaboration networks. Our organization has a wide track-record in assisting and managing the needs of the industry, and in particular of the SMEs – Leitat has developed a specific strategy for promoting the participation of SMEs in collaborative R&D projects, with special focus on the new EU framework programme Horizon 2020.

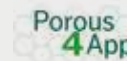
Leitat's Project Division has experience in several European funding schemes (H2020, FP7, INTERREG, LIFE+, COST, CIP, EUROSTARS, etc). The centre has taken part in more than **1000 European proposals** and has participated in over of **140 International projects (67 under the different Framework Programmes** of the EU) **31 as a coordinator**, since 2007.

The International Projects Division has eight years of experience in the management of collaborative projects at international level. We are specialized in different scientific areas and industrial sectors and carry out the whole process from the ideas to the exploitation of project results.

Examples of International Projects **COORDINATED** by Leitat:

POROUS4APP (H2020 - NMP)

Pilot Plant Production of Controlled Doped Nanoporous Carbonaceous Materials for Energy and Catalysis Applications



GLAM (H2020 - HEALTH)

Glass-Laser Multiplexed Biosensor.



ALISE (H2020 - NMP)

Advanced Lithium Sulphur battery for Electrical vehicle.



ALION (H2020 - NMP)

High specific energy Aluminium-ion rechargeable decentralized electricity generation sources.



COMMON SENSE (FP7 - OCEAN)

Cost-effective sensors, interoperable with international existing ocean observing systems, to meet EU policies requirements.



DEMEAUMED (FP7 - ENVIRONMENT)

Closing the water cycle in Mediterranean tourist facilities.



GUIDEnano (FP7 - NMP)

Development of new strategies and creation of a digital guidance tool for nanotech industries.



CERAMPOL (FP7 - NMP)

Ceramic and polymeric membrane for water purification of heavy metals and hazardous organic compounds.



Examples of International Projects where Leitao participate as a PARTNER:



BASMATI (H2020 - NMP)

Bring innovation in the Scaling up of nano-materials and Inks for printing.



MARISURF (H2020 - BLUEGROWTH)

Novel, sustainable marine bio-surfactant / bio-emulsifiers for commercial exploitation.



NANOFASE (H2020 - NMP)

Nanomaterial FAte and Speciation in the Environment.



EIROS (H2020 - NMP)

Erosion and Ice Resistant cOposite for Severe operating conditions



MIDES (H2020 - NMP)

Microbial Desalination for Low Energy Drinking Water



NANOREG (FP7 - NMP)

A common European Approach to the regulatory testing of nanomaterials.



BATCure (H2020 - HEALTH)

Developing new therapies for Batten disease



IbD (H2020 - MANUFACTURING)

Intensified by Design® for the intensification of processes involving solids handling



MatHero (FP7 - NMP)

New materials for highly efficient and reliable organic solar cells.



NAWADES (FP7 - Environment)

Nanotechnological Application in WATER DESalination.

ORGANIZATION



+ ADVANCED TECHNOLOGY SOLUTIONS:

Leitat constantly updates to provide the latest technology to perform characterization and behaviour of materials, targeted at a wide range of sectors.

- Materials behaviour
- Analytic chemistry
- Quality control
- Prototypes validation
- Ecolabel
- Application of new technology
- Three dimension metrology
- Fire behaviour
- Bio analysis and health

+ R+D+2i INITIATIVES:

BIP

Barcelona Institute of Packaging

www.barcelonapackaging.org

Accompaniment programme for companies to develop and industrialise packaging projects, searching the best synergies of the R+D equipment and the product engineering of Leitat.



CNBSS

Centre of NanoBioSecurity and Sustainability

www.cnbss.eu

Common initiative by Leitat and the Catalan Institute of Nanotechnology (ICN) created in 2009 with the goal of developing and promote new, safe and sustainable applications and tools of nanoscience and nanotechnology in a wide range of fields.



+ KNOWLEDGE DIVISIONS:

Leitat has 8 R&D divisions set up by multidisciplinary teams with know-how and experience in different knowledge areas and disciplines.

HUMAN & ENVIRONMENTAL HEALTH & SAFETY

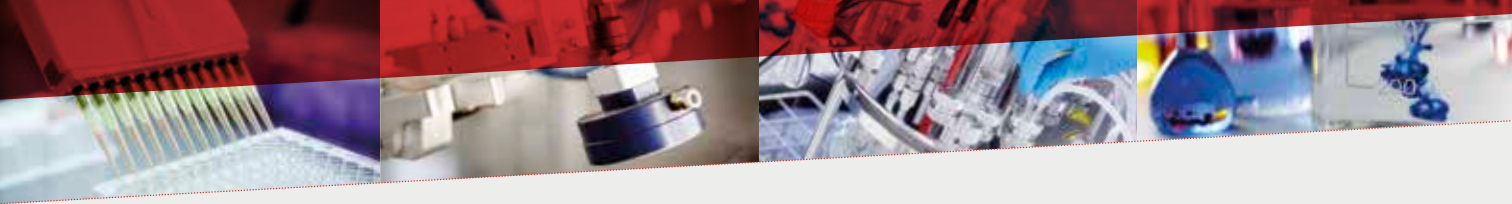
- Environmental Risk Assessment of emerging contaminants, metals and nanoparticles such as terrestrial and aquatic ecotoxicological studies
- Monitoring of nanomaterials release from nanoproducts along their life cycle and development of exposure scenarios
- Life cycle assessment analysis of products and processes, including nanotechnology-based products

SCIENTIFIC TECHNICAL SERVICES

- Analytical Assessment and experimental support in various industrial areas
- Development of new analytical methods and optimisation of existing ones
- Specialisation in the characterisation of new materials and in the environmental analysis

ADVANCED MATERIALS

- Processes of synthesis of (bio)polymers, nanoparticles, nanofibres and micro and nanocapsules
- Formulation of raw materials through pilot processes as composites, nanocomposites and biocomposites extrusion, electrospinning, preparation of inks, coatings and paints
- Application of new materials by new techniques such as injection, blow moulding, inkjet, screen printing, padding and plasma and sun-gel treatments



BIOMED

- Therapy of chronic diseases like cancer, inflammatory, autoimmune, and angiogenic diseases
- Diagnosis, prognosis and monitoring of diseases, treatments, food components, contaminants, infections, vaccines: biomarkers, reagents, diagnostic kits and tools
- Identification of new indications for marketed and clinical-phase drugs (reprofiling)

DEVICES, DESIGN & ENGINEERING

- Devices: design, manufacturing, characterization and new application development of sensors, biosensors and telecommunication antennas
- Electronics: design, assembly and characterisation, control and integration of energy systems (photovoltaic, energy storage, thermoelectricity and bio-electrochemical fuel cells)
- Advanced manufacturing: composite processing, robotics, additive manufacturing, printed electronics and ionic liquid technologies

ENVIRONMENTAL & BIO TECHNOLOGIES

- Water: treatment, sanitization, electrochemical processes and advanced oxidation processes, membrane technology and new selective materials
- Waste: mechanical, chemical and physical-chemical (hydrolysis, ozonisation, sonification), thermal treatment, material/energy assessment
- Bioproducts from renewable sources, enzymatic biocatalysis, bioprocesses, chemical synthesis, active ingredients in innovative consumer goods, applied microbiology

FAST MOVING CONSUMER GOODS

- Detergents for clothing care, surfaces, hand and automatic dishwashers for the consumer goods sector, development and assessment of new cosmetic products
- Stability, microbiological, enzymatic activity, toxicity and in vitro security tests complemented by our knowledge in textiles, materials and surfaces
- Tests on consumers, smelling assessment and custom-made tests helping marketing in its communication strategy

SUSTAINABILITY

- Sustainable Production: Energy audits of processes, facilities and buildings. Waste minimization and feasibility studies for the waste recovery integrating circular economy
- Ecodesign and Life Cycle Analysis: LCA of products, services or packaging. Eco-design of a product and production process and calculating the carbon footprint
- Labelling and communication: Corporate environmental communication strategy. EU Ecolabel for products and services. Environmental Quality Badge of the Generalitat de Catalonia. Environmental product declaration

TRIBOLOGY & METAL PROCESSING

- Stability studies of products in the field of tribochemistry for machinery tools. Studies on lubricity, corrosion, wear protection and foaming capacity to meet international standards, DIN and ASTM
- Studies on foam simulating real industrial conditions for processes, stability tests with salt spray and climate chamber to assess corrosive stability
- Screening and validation of alternative raw materials to conventional cutting fluids. Selective treatment of metal, washing, and cataphoresis, performance studies in multi metallic finish surfaces

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