Innovation Catalogue

We believe that investing in knowledge and innovation is the gate to success for companies and organizations. Promoting innovation and creating economic, environmental, cultural, and social value in mountain regions is our core mission.

mountains
of research

EYES ON THE MOUNTAIN

MORE CoLAB's mission is to be the link between scientific knowledge and the corporate community. Our primary purposes are to promote territorial development through innovation and to create economic, environmental, cultural, and social value in mountain regions, based on the uniqueness, quality, and sustainability of their endogenous resources.

To achieve its **Vision**, MORE CoLAB aims to be a benchmark institution in innovation and transfer of green and digital technology, guaranteeing the sustainable development of mountain regions.

IMPACT

We have extensive infrastructure and technology capacities for effective intervention in four major areas involving mountain regions:

Bio-based Products and Processes

Mountain Environment and Ecosystem Management

Heritage, Tourism and Well-being

Intelligent Technologies

BIO-BASED PRODUCTS AND PROCESSES

Contributes to the development of strategies for the valorization and application of by-products/residues derived from agroforestry-industrial activities in the Mediterranean mountains. It focuses on obtaining natural ingredients with high added value and in implementing new technologies and processes for the extraction, purification and stabilization/compatibilization of these new natural ingredients, for posterior application in different industrial sectors (food, textiles, footwear, pharmaceuticals, bioenergy, etc.).

R&D ACTIVITIES

- Food valorization of mountain regions' biodiversity;

- Development of natural ingredients (preservatives, colorants...);

- Formulation of bio-based products for different industrial sectors (e.g. food, footwear, cosmetics, pharmaceuticals);

- Development of new processes and food technologies;

- Technical and scientific advisory services (e.g: management of R&D processes, advice and interpretation of laboratory analyses);

- Process scale-up and optimization;

- Dissemination of R&D&I information;

- Declassification of residues into by-products;

SERVICES DEVELOPED

Development of new food formulations and ingredients

Process optimization

Technical and scientific advisory services

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AREAS OF SPECIALIZATION

- Biology
- Nutritional Sciences
- Food Engineering
- Chemical Engineering
- Genetics
- Microbiology
- Food Safety and Quality

Mountain Environment and Ecosystem Management

Contributes directly to the implementation of the Common Agricultural Policy, the European Bioeconomy and Biodiversity Strategies, promoting a more sustainable agriculture and silviculture. ECO intervention also focuses on the valorization of endogenous resources together with the sustainable management of natural resources and restoration of degraded ecosystems, with a focus on biodiversity, water, and soil. By acting at different levels, we contribute to the availability and efficient use and production of commodities and raw-materials.

R&D ACTIVITIES

- Studies and projects for the valorization of mountain biological resources as high-quality commodities and raw-materials, including their by-products (aromatic and medicinal plants, mushrooms, perennial crops);

- Actions to improve the productivity and sustainability of agricultural practices;

- Farmers´support (best agro-ecological practices; monitoring and management of irrigation and soils; pest and disease monitoring and control);

- Preparation of guidelines for the monitoring and restoration of ecosystems;

- Providing technical consultancy in the agricultural and forestry sector;

- Designing decision support tools based on geographic information systems and remote sensing.

SERVICES DEVELOPED

- Field trials to assess the effectiveness of bioproducts for pest and disease control in agroforestry and agri-food sectors

CBC IBERIA S.A.U.

BIOGARD
biological First.

- Decision support studies based on geographic information systems

SAFARI CLUB INTERNATIONAL

- Technical and scientific consultancy services

- ...

AREAS OF SPECIALIZATION

- Agronomy
- Biodiversity
- Applied Biology
- Molecular Biology
- Plant Biotechnology
- Soil Science
- Remote Sensing
- Ecology and Environment
- Ecotoxicology
- Entomology
- Plant Physiology
- Geographic Information Systems
- Seed Technology

HERITAGE, TOURISM AND WELL-BEING

Promotes activities of safeguarding and transfer of knowledge inherent to cultural heritage into innovative projects and activities (through inventorying processes, storytelling, co-creation, and digital mediation for public access to and fruition of cultural heritage). R&D activities focused on developing innovative strategies for promoting tourism potential, collecting and processing data regarding visitors and tourist profiles, in order to develop new services that provide maximum visibility and better knowledge of the preferences of potential clients and visitors. Collaboration on projects dedicated to promoting active ageing and well-being.

R&D ACTIVITIES

- Promoting sustainable development by enhancing local resources.;

- Developing projects to promote active ageing and improved quality of life;

- Development of studies and projects to enhance the cultural heritage and tourist potential of the territories;

- Organization of scientific and cultural events, tourism promotion, information and recreation;

- Consulting and training in tourism destination development using participatory methodologies;

- Digitalization of cultural heritage.

HERITAGE, TOURISM
AND WELL–BEING

SERVICES DEVELOPED

● Valorization of Cultural Heritage (Inventory, Audiovisual and digital recording, Planning and Implementation)

● Development of tourist resources

● ...

AREAS OF SPECIALIZATION

- Sociology
- Anthropology
- Archaeology
- Multimedia
- Tourism Management
- Heritage Management
- Heritage Inventory
- Cultural and Tourism Management

INTELLIGENT TECHNOLOGIES

Promotes the use of intelligent technologies, such as the Internet of Things (IoT), Machine Learning (ML) and Artificial Intelligence (AI), to drive forward the digitalization agenda and to foster the adoption of cutting-edge solutions across public and private sectors. Advocates for a sustainable and eco-friendly transition by minimizing reliance on non-renewable energy sources. Has a holistic framework that mobilizes expertise from various realms of Research and Innovation (R&I), through the use of sensor technology, connectivity solutions, data analytics, decision support systems, monitoring/visualization and robotic systems.

R&D ACTIVITIES

- **Innovative Software Solutions:** (platforms for tourism promotion, well-being and digitalization of services);

- **Intelligent Communication Infrastructure:** deployment of intelligent communication networks in mountain regions;

- **Sustainable Energy Projects:** actively engage in the development and management of clean energy initiatives, optimizing the efficient utilization of natural resources and commodities;

- **Technological Advancements in Agriculture, Forestry, and Food Industry:** exploring and implementing cutting-edge technologies to enhance productivity, sustainability, and resilience in agriculture, forestry, and the food industry;

- **Facilitating Digital and Energy Transition in Industries:** support industries for the digital and energy transition of industries.

SERVICES DEVELOPED
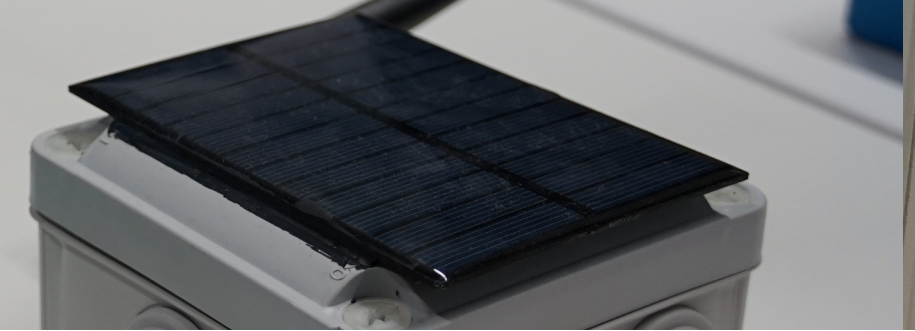
- **Digitalization of production processes**

- **Development of an animal traceability system through LoRa technology**

- **Development of a technological system for pedestrian safety**

- **...**

AREAS OF SPECIALIZATION

- Computer Science
- Computer Engineering
- Industrial Engineering
- Electrical Engineering
- Renewable Energies

geral@morecolab.pt

+351 300 081 998
(landline number in Portugal)

www.morecolab.pt