

LEITAT
managing technologies



**Marine,
Maritime and
Coastal Affairs**

Expertise in Marine, Maritime and Coastal Affairs

ENVIRONMENTAL & BIO TECHNOLOGIES

- Detection and quantification of emerging pollutants in marine environments (microplastics)
- Reduction of marine pollution
- Treatment and reuse of bilge and ballast water treatment
- Bioprospection/bioproduction of marine natural products
- Aquaculture
- Management of fishing wastes
- Control and monitoring of port/ship air pollution based on regulated compounds
- Modeling on pollutants dispersion.
- Development of energy harvesting systems

ADVANCED MATERIALS

- Synthesis of polymers and biopolymers, nanoparticles, nanofibres and micro/nanocapsules.
- Formulation of raw materials
- Surface technology (corrosion, biofouling)
- Application of new materials by new techniques
- Smart materials for on-board
- Studies on recyclability and useful life of new materials

SAFETY & SUSTAINABILITY

- Design set-ups for monitorization of nanomaterials release during use-phase and end of life processes
- Physical-chemical characterization of released materials
- Quantification of released materials
- In-vitro and in-vivo toxicity
- Ecotoxicity:
- Tailor-made cell-based in vitro models for the pharmaceutical, chemical and food industries.
- Human & Environmental Risk Assessment.
- Sustainable Production and Consumption :
- Environmental Communication and labeling (Ecolabel, awareness campaigns...).
- Marine biosensors (design and development of nanobiosensors).

DEVICES, DESIGN & ENGINEERING

- Design, manufacture, characterization and development of marine sensors, biosensors and telecommunication antennas.
- Energy management
- Advanced manufacture processes
- Hull / water interaction
- Underwater noise and vibrations.
- Study of the useful life of devices (climatic chambers).
- Personal protective equipment for safety of life at sea.
- Mobile applications.

BIOMEDICAL ENGINEERING

- By product-waste valorization
- Marine organisms and microorganisms
- Biosensors based on antibody-antigen or DNA detection
- Analysis and Biosensors for the detection of common marine food infections

Relevant EU projects awarded

MERMAIDS (LIFE13 ENV/IT/001069): Mitigation of microplastics impact caused by textile washing processes
<http://life-mermaids.eu/>



COMMON SENSE (FP7 Ocean 2013.2, GA 614155): Cost-effective sensors, interoperable with international existing ocean observing systems.
<http://www.commonsenseproject.eu/>

MARISURF (H2020 BG-2014-2, GA 635340): Novel, sustainable marine bio-surfactant / bio-emulsifiers for commercial exploitation.



VECTORS (FP7 Ocean 2010-2, GA 266445): Vectors of change in Oceans and Seas in Marine life, impact on economic sectors
<http://www.marine-vectors.eu/>

BOATDIGEST (2013-1-ES1-LEO05-67616): Boat Dismantling Insight by Generating Environmental and Safety Training
<http://www.boatdigest.eu/>



3R-FISH (LIFE07ENV/E/000814): Integral management model of recovery and recycling of the proper solid wastes from fishing and port activities
<http://www.3rfish.org/>

BOATCYCLE (LIFE+08ENV/E/000158): Management, recycling and recovery of wastes of recreational boat scrapping
<http://life-boatcycle.com/>



Horizon 2020 topics of interest - 2016

Blue Growth – Demonstrating an Ocean of opportunities

More resilient and resource efficient value chains

SFS-22-2017: Smart fisheries technologies for an efficient, compliant and environmentally friendly fishing sector

SFS-23-2016: Improving the technical performance of the Mediterranean aquaculture

Boosting Innovation for emerging Blue Growth activities

BG-01-2016: Large-scale algae biomass integrated biorefineries

BG-03-2016: Multi-use of the oceans' marine space, offshore and near-shore: compatibility, regulations, environmental and legal issues

BG-05-2016: ERA-NET Cofund on marine technologies

The Arctic dimension

BG-09-2016: An integrated Arctic observation system

Valorising the Mediterranean Sea Basin

BG-12-2016: Towards an integrated Mediterranean Sea Observing System

Bio-based innovation for sustainable goods and services

BB-01-2016: Sustainability schemes for the bio-based economy

Mobility for Growth

MG-2.2-2016 Development, production and use of high performance and lightweight materials for vessels and equipment

MG-2.3-2016 New and improved transport concepts in waterborne transport

MG-7.3-2016 Port of the future

Competitive Low-Carbon Energy

LCE-07-2016-2017: Developing the next generation technologies of renewable electricity and heating/cooling.

LCE-13-2016: Solutions for reduced maintenance, increased reliability and extended life-time of off-shore wind turbines/farms.

LCE-15-2016: Scaling up in the ocean energy sector to arrays.

Contact

Lola Rodriguez
International Project Manager

lrodriguez@leit.at.org
<http://ipo.leit.at.org>

C/ Pallars, 179-185
08005 Barcelona, SPAIN
Tel. +34 93 788 23 00 Ext. 4111
Fax +34 93 789 19 06
<http://www.leit.at.org>