



CBBS Project Background note

R É G I O N
AQUITAINE
LIMOUSIN
POITOU-CHARENTES

This is an Aquitaine-Limousin-Poitou-Charentes
Region-wide project

It has 2 objectives that will be developed at the Atlantic Arc level

Name of the project: « Support to the structuring of education and research around the BLUE GROWTH, BIOTECHNOLOGIES, HEALTH areas.

Lead partner: University of la Rochelle – LIENSs Laboratory (UMR CNRS)

Topic: Extraction and Identification of marine resources (biomolecules) for applications in the field of **human health** with 3 components: **research, training and technology transfer.**

Description: the LIENSs (Littoral Environnement et Sociétés) Laboratory professors-researchers together with the AMES (Approches Moléculaires Environnement Santé) team are working on marine resources that are of interest, in order to **extract biomolecules** through green processes and to produce **innovative molecules** (“anticancer”, “anti-infectious”, acting as “cardiometabolic regulators”).

Therapeutic or nutritional innovations resulting from this research are of interest for many **enterprises** that are asking for new biotechnology core products and that will create new jobs over the 2020 horizon.

Objectives: 4 objectives including **2 European ones** and **2 ALPC Region-wide.**

Objectives ALPC Region-wide:

Objective 1: Identification and networking of ALPC Region BIOTECHNOLOGIES – HEALTH actors (this aim is to structure this new segment region-wide by fostering cooperation between biotechnologies – health research regional actors): budget €18 500.

Objective 2: Setting up of the « BIONOVPROD » applications laboratory dedicated to industrial transfer (LIENSS, LASIE), notably for industrials willing to innovate in the field of bio-sourced products. It will have scientific equipment dedicated to several processes: extraction, purification, characterisation and identification of terrestrial or marine molecules of interest.

Objectives at the European scale (Atlantic Area)

Objective 3: « Syllabus » European Masters in Biotechnology

Description: In order to give rise to new opportunities and have a properly skilled workforce, it is necessary to create a European Masters in Biotechnology (which could be hosted by University of la Rochelle).

The creation of this Masters addresses two issues:

- The lack of scientists trained for entrepreneurship ;
- The need for transnational cooperation as for applied research and technology transfer.

Create links between the academic and industrial sectors, regarding training, seems particularly relevant and efficient for both the trainees and the enterprises.

The European Masters in Biotechnology will aim at developing innovative teaching practices, notably training, in order to train researchers familiar with issues related to the Master's partner enterprises. This Masters will rely on skills that were already developed within the University of la Rochelle's Masters in Biotechnology.

The partner enterprises of the project will have to confront students with problems they will have to solve in order to learn. One of the keys of success will be the support provided by the teachers of the partner universities from France, Spain and Portugal.

This concrete research proposed by enterprises or laboratories will be carried out through experimenting within BIONOVPROD platform, which will be training and application lab.

Partners: Universities/ Atlantic Regions laboratories: France (Brittany, Pays de la Loire, Normandie), Spain (Pays Basque, Cantabria, Galicia, etc.), Portugal (Lisboa e Vale do Tejo, Norte); Ireland (Northern & Western Regional Assembly); United Kingdom (Wales), etc.

Financial and legal framework: EMMF "Blue careers" call for proposals

Duration: 24 months

Budget: €500 000 to €700 000

EU cofinancing rate: 80%

Timetable: deadline 31/05/2016

Information to applicants: October 2016

Starting date of the project: January 2017

Objective 4: Consolidate research actions on marine polysaccharides and their applications at the Atlantic Arc level

Topic: Finding of new « blue » molecules with a high industrial and biotechnological added value, from marine resources for health and human nutrition

« Towards new blue molecules with biotechnological and industrial added values ».

Description: in progress

Within the design of complex organic molecules, the extraction of bioactive natural compounds and the functionalisation of natural products enable to explore new biological phenomena. These research actions are structured at national level, notably with regard to bioactive polysaccharides.

Actions foreseen at the Atlantic Arc level: develop a new idea and to apply it in the maritime domain and/or marine environment.

It shall be resulting in a tangible deliverable, such as a marketable service or product; - Innovative: having a pilot and/or demonstrative dimension

Partners: Universities / research centres in the Atlantic Regions (member Regions of the Atlantic Arc Commission)

Financial and legal framework: EMMF "Blue labs" call for proposals

Duration: 24 months

Budget: €200 000 to €500 000

Timetable: deadline 31/05/2016

Information to applicants: October 2016

Starting date of the project: January 2017

Geographical scope: the Atlantic