

COLLABORATION AGREEMENT

Between the

University of Massachusetts (UMass - Dartmouth), USA

and the

Foundation for Science and Technology (FCT), Portugal

Handwritten signature and initials in blue ink, located in the top right corner of the page. The initials appear to be 'L' and 'J' followed by a stylized signature.

The Portuguese Foundation for Science and Technology (FCT), the University of Massachusetts – Dartmouth (UMass – Dartmouth) agree to launch a collaboration to explore mutual interests in education and research oriented towards strengthening the science and technology base in strategic areas in the Northwest Atlantic. The ultimate goal is to establish a long term collaboration, which requires a stepwise approach involving researchers, faculty and students, in a way to sustain strategic investments in people, knowledge and ideas.

The University of Azores and IMAR - Azores also express their agreement and commitment to the above mentioned objectives.

FCT has been developing a strategy to strengthen Portugal's knowledge base and, consequently, to foster economic growth and to enhance the quality of life in Portugal, by exploring international cooperation and industry-science relationships with leading institutions worldwide, notably with clear objectives to make Portugal an attractive setting to study and perform research, as well as to invest in technology-based ventures, so that we recruit and sustain bright students, scientists and engineers from throughout the world and help mobilizing higher education institutions and the scientific community towards emerging challenges. These include the support of leading research-based activities in Azores and throughout Portugal, among others, marine-related sciences with impact in the Northwest Atlantic and new energy systems research in Azores through the Green Island Project.

UMass – Dartmouth strives to serve the needs of the region and the Commonwealth of Massachusetts by creating and disseminating knowledge through research and teaching and preparing students to excel in their chosen profession and to be contributing citizens in a diverse, changing world. These include, among others, established activities in marine sciences, renewable energy and climate science. In particular the School for Marine Science and Technology is located in the historical city of New Bedford, America's premier fishing port, has been involved in interdisciplinary basic to applied marine sciences and the development of related innovative technologies. Specific expertise has been particularly developed in ocean modelling

and monitoring, fisheries science and management, coastal systems science, ocean acoustics, biogeochemistry, remote sensing, and ocean engineering. Research is supported by the School's docking facilities on Clark's Cove which provide access to Buzzards Bay. In addition, UMass Dartmouth has expertise in renewable energy development, with a focus on the creation of jobs in the emerging "green economy". Within its Advanced Technology and Manufacturing Center in Fall River, UMass Dartmouth hosts a Marine Renewable Energy Consortium (MREC) comprised of international academic and private sectors institutions, and is developing a national offshore testing facility for marine renewable energy.

IMAR – Azores and the University of Azores have been particularly active in promoting and developing new scientific and technological competencies to answer specific challenges and opportunities in the Azores science and technological development. This includes the development of collaborative research in strategic areas in the Northwest Atlantic. Specific expertise has been particularly developed in Marine Ecology and Biodiversity, Physical and Biological Oceanography and Biology, Ecology and Assessment of Oceanic and Deep-Sea Biotic Resources. Team activities and the experience acquired through them, have been largely benefited through the use of research vessels for fisheries biology, oceanography, ecology and biodiversity studies.

Considering the objective, shared by both parties, of contributing to the strengthening of academic, scientific and technological relations between institutions in Portugal and Massachusetts.

Considering the recent expansion of those relations between Universities and other institutions in Portugal and in Massachusetts.

Considering the opportunities offered by the growing initiative of the luso-american communities in Massachusetts and by the fast development of the Azores.

The following collaborative agreement is established between UMass-Dartmouth and FCT Portugal, who agree to launch a joint programme in three main directions:

- a) **Marine Sciences, by involving UMass and Portuguese R&D academic laboratories, namely the IMAR Centre of the University of Azores at Horta, in joint R&D and post-graduation activities;**
- b) **Renewable Energies, namely within the framework of the Green Islands Project that is being developed as part of the MIT - Portugal Programme;**
- c) **Climate Change, by preparing jointly a feasibility study for the setting up of an observatory located in the Azores region of the North Atlantic.**

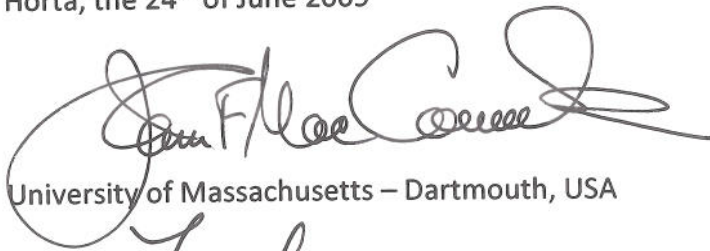
They also agree on the following immediate steps forward:

- a) **Prepare and proceed to the affiliation of UMass to the Green Islands Project that has been initiated within the MIT-Portugal agreement;**

- b) Start a fellowship programme for graduate students from UMass to spend 6 months' periods in Portuguese R&D institutions in the above designated areas. In this respect, the Portuguese National Science and Technology Foundation (FCT) will be providing 10 fellowships/year through competition and joint selection by FCT and UMass and UMass will provide a similar number of fellowships to graduate students from Portuguese institutions to participate in UMass activities.

The overall collaboration program, as well as specific tasks, is to be monitored and evaluated making use of an external peer-review committee. An overall biannual review will be planned to guide the development of the program, as well as its restructuring whenever necessary.

Horta, the 24th of June 2009



University of Massachusetts – Dartmouth, USA



Foundation for Science and Technology (FCT), Portugal

The University of Azores and the IMAR-Azores express their agreement and commitment to the above mentioned objectives



University of Azores, Portugal



Institute of Marine Research (IMAR), Portugal