Science and governance of the ocean and coasts
The Université de Bretagne Occidentale is implementing the Ocean University Initiative with the support of the French government, the Brittany Region, Brest Metropolis – through the Campus Mondial de la Mer – and the French Agency for Biodiversity.

**What is the Ocean University Initiative?**

The Ocean University Initiative was initiated by communities in Brittany (Region, Metropolis). It is implemented by the Université de Bretagne Occidentale (UBO). Its aim is to create the conditions for the creation of an institute of the United Nations University devoted to the ocean and coasts. Its actions cover 3 fields: research, training and communication.

**RESEARCH**

The research actions are developed by the Ocean University Initiative researchers in collaboration with key experts in the fields of interest for the proposed United Nations University (UNU) institute devoted to the ocean and coasts. The expected outputs are:

- A series of policy briefs for decision-makers;
- A prospective analysis of the scientific and political priorities in the southern Atlantic ocean, building on existing international cooperation;
- Guidelines for the inclusion of carbon storage in ocean coastal ecosystems (blue carbon) in the Nationally Determined Contributions (NDCs) of the Paris Agreement;
- A large scale international research project based in collaboration with the network of UNU institutes and other international agencies.

**TRAINING**

- **“Marine policy and governance in the context of climate change”**
  This two-week training session is leaded by the Ocean University Initiative and the training division of UBO.
  - Duration: two weeks
  - Target: Anglophone audience
  - Capacity: 15 participants
  - Dates and venue: spring 2019, Brest (France)

- **“Marine biodiversity and blue growth”**
  This one-week session is leaded by the Campus Mondial de la Mer and the training division of UBO. The Ocean University Initiative contributes to its design, organisation and implementation.
  - Duration: one week (including field trips)
  - Target: Francophone audience
  - Capacity: 15 participants
  - Dates and venue: spring 2019, Brest (France)

- **“DEB - Dynamic Energy Budget - Theory: 40 years of research for metabolic organization”**
  This two-week training session is the 6th of a series of online courses, trainings and symposiums organised every two years. The training will be organised at the Université de Bretagne Occidentale (UBO-IUEM), with the support of the Ocean University Initiative.
  - Duration: two weeks
  - Target: Anglophone audience
  - Dates and venue: 1st to 12th April 2019, Brest (France)

**COMMUNICATION**

The communication actions aim at informing the science community and the policy-makers concerned by the ocean and coasts. These actions are developed through the production of original contents and by relaying the actions of interest on the science and governance of the ocean and coasts. Communication is done via the web (website, blog, Twitter ...) and through brochures. This includes conducting interviews with key actors on the four pre-identified themes for the proposed UNU-OCEAN institute:

- Ocean governance and integrated coastal zone management;
- Sustainable development and blue growth;
- Ocean-climate-society interactions;
- Marine biodiversity and conservation.

The expert opinions views gathered through this means will be published on the Ocean University Initiative’s blog in order to stimulate collective action on these four areas.

Events are organized to bring together the research and policy communities on the science and governance of the ocean and coasts. Some key events are already scheduled:

- June 25 and 26, 2018, IUEM-Brest: workshop on small-scale fisheries in Southern countries
- September 10 and 11, 2018, UNESCO-Paris: “science and policy” seminar co-organised with the Ocean Climate Platform within the framework of the Alliance of Ocean Climate Initiatives
- 2019: Ocean University Initiative International Conference
What is the United Nations University?

The United Nations University (UNU) is an autonomous and decentralized academic organization supported by the United Nations General Assembly and UNESCO. The UNU’s mission is to develop research and education actions in areas that concern the United Nations, its agencies and Member States. Officially established in 1972, on the initiative of Japan, the United States and France, the UNU is comprised of 13 institutes and programs located in 12 countries each with its own Director, advisory board and staff. The headquarters are based in Tokyo, Japan (UNU Centre), the Vice-Rectorate is located in Bonn, Germany and administrative services are in Malaysia.

The UNU institutes are thematic centers which develop and implement research and training programs in their thematic area. Also, these institutes act as think tanks operating as a bridge between academia and public policy. They are dedicated to promoting international collaborative research projects and mobilizing the expertise of renowned academics. In terms of education, the UNU primarily focuses on capacity building of executives in developing countries. The UNU institutes pertain to the internationalization of Masters and PhD programs by delivering degrees or joint degrees in partnership with national universities. They represent a unique international cooperation network combining research and education.

Why does the Université de Bretagne Occidentale support the idea of a UNU institute devoted to the ocean and coasts in Brest?

Established in a maritime region by nature, at the heart of a research and academic environment which gathers over 7000 scientists and academics, the Université de Bretagne Occidentale has developed excellence in marine science. Founded in 1997, the European Institute for Marine Studies is a department of the Université de Bretagne Occidentale (UBO), an Earth and Space science observatory, which federates over 400 UBO, National Center for Scientific Research (CNRS), French National Research Institute for Sustainable Development (IRD), and Ifremer staff members and together with 200 Masters students and as many PhD candidates. Because of its scope and foundation, this research ecosystem meets the conditions to allow the UBO to support a United Nations University Institute dedicated to the science and governance of the ocean and coasts. I am utterly convinced that this institute will be a fundamental tool to unify French skills and interests’ global influence regarding the ocean, based on the United Nations University goals.

Matthieu GALLOU
President of the Université de Bretagne Occidentale
A UNU-OCEAN INSTITUTE: FILLING A GAP IN THE UNU NETWORK

UNU is committed to the United Nations Sustainable Development Goals (SDG): UNU aims to cover all its 17 objectives. The issue of water management is generally addressed by an institute (UNU-INWEH), which concentrates its action mainly on continental waters. Fishery resources are also being addressed by the Icelandic UNU-FTP through training programmes. This programme addresses the relationship between people and the ocean through fisheries exploitation. The UNU-FTP programme also develops two research projects:

- “Blue growth in Small Island Developing States Initiative”,
- FarFish on the development of sustainable fishing by European vessels in waters outside European jurisdiction.

The ocean and coasts as such are not a specific theme of an existing institute. The importance of the ocean on land is, however, underscored by the UNU in its communication, both given that it covers three-quarters of the planet, and that there are strong interconnections with land. The ocean and coastlines are also a central theme of the work of several UN agencies and conventions.

France does not host any UNU institute on its territory, while the headquarters of UNESCO and, in particular, the Intergovernmental Oceanographic Commission are in Paris. Moreover, France is one of the leading nations in oceanographic research (mainly located at the tip of Brittany). This excellence is recognized both nationally and internationally.

France is a major maritime player. With the world’s second largest Exclusive Economic Zone (EEZ), it has responsibilities over the entire ocean at all latitudes. France must make sure that the voice of the ocean and coasts is heard within the UN, in particular, as a Member State of international conventions: conventions dedicated to maritime issues such as the United Nations Convention on the Law of the Sea (UNCLOS), Regional Seas Conventions or more general conventions such as the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC).

France is also a key player in oceanographic research, which includes all subjects in earth, life, environment, human and social sciences. Whether it is basic (fundamental) research, applied research or education, the national marine and coastal science community is very active in terms of international cooperation, in developing countries in particular. The establishment of a UNU-OCEAN institute in France would aim at reinforcing cooperation in support to the international maritime agenda in the context of SDG, the Future Earth dynamic and the decade of Ocean Science for Sustainable Development (2021-2030) lead by the Intergovernmental Oceanographic Commission (IOC).
The central theme for a potential UNU-OCEAN institute is "science and governance of the ocean and coasts". The institute's research and academic curriculum is built collaboratively with higher education and research stakeholders, by taking into consideration the international agenda on public policies and the funding opportunities.

Based on the current research context on the capacity of the marine science community to work at an international level, over forty researchers from a dozen academic disciplines have identified the following issues as focus areas to develop at a potential UNU institute devoted to the ocean and coasts. Existing international programmes prove the community's ability to develop projects and collaborations at this level. The global impact of these issues fully justifies broadening their work from the current regional or national scope to an international level.

**OCEAN GOVERNANCE AND INTEGRATED COASTAL AREA MANAGEMENT**
- Support initiatives in the context of the Regional Seas Conventions regarding ecosystem management.
- Support research in the context of the United Nations Convention on the Law of the Sea, in particular, in connection with the underground mining concession awarding system and the implementation of marine protected areas in international waters.
- Coastal area management capacity reinforcement.

**SUSTAINABLE DEVELOPMENT AND BLUE GROWTH**
- East/West and North/South cooperation supported by international joint laboratories, including those initiated by the French Research Institute for Development (DISCOH, ECLAIRS and ICEMASA) which involve local stakeholders.
- Sustainable development of inter tropical coastal areas and, in particular, coral islands in connection with the French Initiative for Coral Reef (IFRECOR).

**OCEAN-CLIMAT-SOCIETY INTERACTIONS**
- Ocean-climate modelling.
- International cooperation in ocean observation in connection with J-COMMOPS, UNESCO Intergovernmental Oceanographic Commission (IOC) action coordinator based in Brest.
- Ecosystem and coastal communities’ vulnerability to climate change (warming, sea level rise, ocean acidification, extreme weather events).
- Operational coastal oceanography.

**MARINE BIODIVERSITY**
- Establishment of a marine biodiversity training center in collaboration with Brest Metropolis, French Agency for Biodiversity (AFB), the International Union for Conservation of Nature (IUCN), and the Convention on Biological Diversity (CBD).
- Support the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES).
A steering committee was set up in order to bring about a unifying, coherent and ambitious project. This steering committee brings together scientists across all horizons in marine and coastal sciences.

The European Institute for Marine Studies (IUEM), in charge of the implementation of the project, has been labelled as "Graduate School", under the name ISblue (Interdisciplinary School for the Blue Planet), with the support of the French Programme "Investments for the Future". It reinforces the European Institute for Marine Studies specialization in the ocean and coasts.

The project has strong national institutional support. Moreover, the expectations of United Nations agencies concerning such a structure dedicated to the sea is strong. From the point of view of research, the agenda of international negotiations in the busy ocean topic (law of the sea, climate change, biodiversity, coastal risks, blue growth ...) generates a strong demand for international cooperation.

From the point of view of education, the opportunities are:
1. high demand for initial and lifelong training in the areas of coastal management, natural resources and the marine environment, as well as research;
2. the possibility of co-graduation with a "UNU" label on Masters and PhD;
3. the possibility of developing training programmes with and to the South for francophone and anglophone audiences.

**Requirements for the establishment of a UNU Institute**

The establishment of a UNU Institute requires the signature of an international bilateral agreement between the host country and the UNU, as well as a non-expendable initial contribution to the UNU endowment fund.

The international agreement provides the UNU institute and its staff members the benefits granted to international organizations.

The interests generated by the contribution to the endowment fund constitute the basic funds for the institutes which develop their research and academic program according to their ability to raise additional funds. Depending on the case, these may be additional contributions to the endowment fund, contractual contributions to the functioning of the institute (state, local authorities or research institutes) or projects. Related United Nations programmes and funding (Global Environment Facility, World Bank) are examples of project development opportunities for UNU institutes.

**Project strengths and opportunities**

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