



## Newsletter #9

December 2014

Developing our territory through  
the dynamics of innovation



TECHNOPÔLE  
BREST-IROISE

In mid-October, over 1,500 marine science and technology specialists gathered in Brest for the **9<sup>th</sup> edition of the Sea Tech Week**. Technopôle Brest-Iroise was actively involved in organizing this exceptional event that brings together **economic, scientific and institutional players from around the world**.

We would like to thank all our partners who came to Brest for the event. With this new edition of our international newsletter, we wish to showcase what they do.

Our goal is to **inform and share ideas to increase the territories' vitality and further innovation**.

In this newsletter, we thus take a look at the **highlights of the Sea Tech Week**, the **European and international projects** and the actions carried out by Technopôle Brest-Iroise as regards **international cooperation**.

The entire Technopôle Brest-Iroise team hopes you will enjoy reading this newsletter and wishes you **happy holidays!**

See you in 2015!

Eric Vandenbroucke, Director

## Sea Tech Week, the International Marine Science and Technology Week

### The deep ocean takes center stage

*By Jean-Marc Le Droff*

Last October, as has been the case every two years since 1999, Brest hosted the Sea Tech Week, a can't-miss event for marine science and technology players worldwide. Over 1,500 people participated in this year's edition. Co-organized by Technopôle Brest-Iroise, the **Deep Blue Days conference** took center stage, focusing on the **responsible use of the deep ocean resources**. It brought together dozens of experts from around the world.

"Our goal is to analyze the benefits and the risks associated with maritime activities, to monitor human impact on oceans and to keep abreast of the needs of European researchers," says Professor **Alex Rogers**, researcher at the **University of Oxford** and member of the "Deep Sea" working group of the **European Marine Board**. Having been invited to share his expertise on the development and preservation of the deep ocean resources, he was delighted to have taken part in the Sea Tech Week. "Scientists, elected representatives, industrialists...: it's an excellent idea to invite to such an event all those involved in the field. It's the first time I've met people coming from such a wide range of backgrounds," he says.

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Opening session of the Sea Tech Week  
©D. Simon



## “Opening up new research avenues”

A little further away, Professor **Johannes Imhoff**, from **GEOMAR**, the German Centre for Ocean Research, had also been invited to talk about his field of expertise: the uses of **marine biotechnology**. According to him, “Generally speaking, the marine biotechnology research community needs to organize itself and form a network. Such an event provides an excellent platform to meet other scientists, open up new research avenues, and discuss the business applications of our research with industrialists.”

## “Brest, a world-class ocean campus”

From **Universidade Federal do Rio de Janeiro**, Professor **Segen Estefen** also took part in the Deep Blue Days. “We have just set up an institute in partnership with IFREMER. I came here to promote it and build bridges between France and Brazil,” says this renewable marine energy specialist. “Brest has earned international renown as a marine research cluster and there is a lot we can do together. We would like to learn from you and find out, in particular, how you manage to get scientists and engineers to work together. This is now a world-class can’t-miss event and we are proud to have been invited.”

The 10<sup>th</sup> edition of the Sea Tech Week will be held from **October 10 to 14, 2016**.

Applications are now open for all who would like to organize an event!

More info: [www.seatechweek-brest.org](http://www.seatechweek-brest.org)

Follow on twitter: @SeaTechWeek



Alex Rogers, Sierd Cloetingh and the moderator,  
Jean-Louis Le Corvoisier ©S. Durand



Segen Estefen ©S. Durand

## At the European level... topic by topic

### Marine bio-resources

Technopôle Brest-Iroise is in charge of the Atlantic Blue Tech project (INTERREG IVB Atlantic Area program) and works with 7 European partners: Brest Métropole Océane (France), [Oceano XXI](#) (Portugal), [Universidade do Algarve](#) (UALG, Portugal), [CEEI Bahía de Cádiz](#) (Spain), [Plymouth Marine Laboratory](#) (PML, UK), [WestBIC](#) (Ireland) and the [National University of Ireland Galway](#) (NUIG, Ireland).

By Jean-Marc Le Droff

**Atlantic Blue Tech** is an INTERREG project whose aim is to promote and develop the marine **bio-resources sector along the Atlantic seaboard**. Its specificity lies in the fact that it focuses on **innovation** through **small and medium sized enterprises**.

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The project members met during the Sea Tech Week. Below is an overview of the issues and obstacles relevant to the marine bio-resources sector.

“It is important to bring out the huge potential that we feel is present in various laboratories,” said **Pierre Karleskind**, President of **Technopôle Brest-Iroise**, during a press conference with major stakeholders of the Atlantic Blue Tech program.

**Carla Domingues**, from the Portuguese cluster “**Oceano XXI**”, agrees entirely. According to her, “The maritime industry represents 2.5% of our GDP, but aquaculture and research are not well-developed yet even though we have the resources, high-end R&D teams and several startups working in these fields. In short, we have the infrastructure, but businesses need more support from the government.”

### “Raising awareness about the tremendous potential of marine resources”

According to **Sohail T. Ali**, marine biotechnology researcher at the **Plymouth Marine Laboratory (PML)**, the situation is the same in England. “We are trying to develop marine technology in the south-western part of the country because we have a large number of companies from the health care industry that have not yet taken full measure of the huge potential of oceans in terms of resources.”

Things are not much easier in Spain. “Our companies are finding it difficult to market their products, not least because consumers do not know these products well enough, and may even be suspicious of them, and because it is difficult to obtain licenses for the exploitation of natural resources. However, it is to be noted that some local authorities are willing to transfer certain areas to SMEs for exploitation purposes: it’s a good start,” says **Ana Suárez Lena**, from the **Bay of Cádiz European Business and Innovation Center**. “As is the case for other project partners, funding is also an issue,” she says.

### Regulations and funding: two shared issues

According to **Ilaria Nardello**, coordinator for the **Irish “Sea Change” marine biotechnology program**, things look a little easier in Ireland. “In Ireland, the food and health care industries are industries where marine bio-resources could easily play a role, not least through our program, which has raised awareness about the opportunities that such resources offer. But, as is the case elsewhere, small businesses must deal with problems related to regulations and funding. A program such as Atlantic Blue Tech could help create a brand that would foster trust. This trust would ultimately help raise awareness amongst all stakeholders about the issues relevant to marine bio-resources.”

### “Innovation will occur at the crossroads of various industries”

And what about Brest? “We have the resources, training programs and R&D teams, including those of the **Pôle Mer Bretagne Atlantique** [competitiveness cluster],” says **Françoise Duprat**, from **Technopôle Brest-Iroise**. “About fifty companies work in the field of marine biotechnology, but they are relatively small and some were set up only fairly recently. Nevertheless, we do have a few major leaders, in particular in the agri-food industry, the cosmetics industry and, more recently, the health care industry. The wide range of activities covered by these companies speaks of a huge potential and it is probably at the crossroads of their fields of expertise that innovation will occur. In our country, the marine biotechnology industry is innovative and is hiring. But, as is the case elsewhere, there are hurdles related to regulations and funding. The startups will need to be boosted and possible common solutions are starting to appear, such as this brand strategy that will help promote products that use marine biotechnology.”



Atlantic Blue Tech partners during the workshop ©S. Durand



Sohail T. Ali, researcher in marine biotechnologies at Plymouth Marine Laboratory (PML)  
©S. Durand



Ilaria Nardello, coordinator for the Irish “Sea Change” marine biotechnology program  
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More info:

[Visit the web site of Atlantic Blue Tech](#)

# Renewable Marine Energy

Technopôle Brest-Iroise is a partner of the MERiFIC, Channel MOR and ENERGY mare projects. The MERiFIC project ended this year. These projects all share a desire to boost the production of renewable energy, further this industry's economic development and bring businesses into this industry.



## An expertise database

**Channel MOR** is targeted primarily at SMEs in the Channel area that wish to capture the RME market. The aim of the project is to capitalize on the actions carried out within the framework of previous projects such as MERiFIC. Technopôle Brest-Iroise is involved in coordinating the network of Breton players and in the creation of an expertise database in Brittany.

Also, for the **Pro&Mer fair** of November 20, 2014 that was held in Brest, Technopôle Brest-Iroise organized a workshop for SMEs wishing to enter the RME market. 21 companies attended the workshop.

[Visit the web site](#) and [see the video](#)

## Technical tools

**ENERGY mare** is a project whose aim is to set up a series of tools required for the development of RMEs (test site, numerical model of wind and currents, etc.) in the Atlantic Area. In particular, Technopôle Brest-Iroise is to conduct a socio-economic impact study.

[Visit the web site](#)

## RMEs in far peripheral and islands communities

The closing event for the **MERiFIC** project was held in Brussels in June 2014. This project has fostered collaboration between Finistère (France) and Cornwall (UK) for the development of RMEs in these regions.

Several scientific, legal and socio-economic studies have been published.

In particular, Technopôle Brest-Iroise conducted a study on contracting processes.

[Visit the web site](#)



Workshop during Pro&Mer fair, Brest, 20 November 2014 ©J. Bazin



MERiFIC Partners at Oceanopolis, Brest, April 2014



# Business partnerships and technology transfer

Technopôle Brest-Iroise is a partner in the Chain 2 project, which is dedicated to promoting cross-Channel business partnerships. Technopôle Brest-Iroise is also committed to the STAMAR project, which focuses on technology transfer.



## Linking innovative businesses across the channel

The **Chain 2** project brings together innovative companies located in the French and English regions along the Channel seaboard. The science parks and incubators of Brittany, Normandy and the south-western part of England are forming a network to develop cross-Channel business relationships.

[Visit the web site](#)



## Innovative technology transfer to help SMEs

The **STAMAR** project is intended to optimize technology transfer between research centers and SMEs in the Atlantic Area, at the crossroads of ICTs and marine applications. Substantial work has been undertaken by Technopôle Brest-Iroise, [Ouest Valorisation](#) and the [Pôle Mer Bretagne Atlantique](#) competitiveness cluster to identify and classify this technology and create a network of stakeholders.



Networking buffet at Oceanology International, London, 11 March 2014, organized by Technopôle Brest-Iroise and supported by Brest métropole océane, Bretagne Commerce International, Pôle mer Bretagne Atlantique, UBI France, Kent Science Park, National Maritime Development Group and Wessex Partnerships. ©J. Bazin

## European maritime strategy

In France, Technopôle Brest-Iroise is the “**focal point**” for implementing the **maritime strategy Action Plan for the Atlantic Area**. The aim is to provide **guidelines and proactive support to public and private organizations, research organizations and investors** so that they can find funding and partners in the **Atlantic Area** in order to implement the Action Plan. It is important to raise awareness amongst the initiators of innovative projects of European caliber that could contribute to the development of the maritime economy. The Action Plan for the Atlantic Area contains four overarching priorities: promoting innovation and entrepreneurship, protecting, securing and enhancing the marine and coastal environment, improving accessibility and connectivity and creating a socially inclusive and sustainable model of regional development.

Follow “Focal Point” on Twitter: [@FocalPointFR](#)



# At the international level

## 2<sup>nd</sup> symposium of the Maritime Innovative Territories International Network (MiTiN) - highlights

The Sea Tech Week hosted the 2<sup>nd</sup> MiTiN symposium. The MiTiN network was created in 2012 in Brest during the maritime festival. It brings together maritime territories from around the world that have chosen to further their economic development through innovation in the field of marine science and technology.

Organized by Brest Métropole Océane with the help of Technopôle Brest-Iroise, this second symposium followed on from the [one held in 2013 in Qingdao](#) (China). It brought together about 150 partners from 4 continents as well as the members of networks ([CPPC](#), [CAAC](#), [CPMR](#)) and the representatives of international organizations, such as the [World Bank](#) and the [IOC-UNESCO](#), to discuss a key theme, which is furthering blue growth through cooperation.

By Jean-Marc Le Droff

“Collectively moving forward.” It is with this message that **Michel Morvan** opened the 2<sup>nd</sup> MiTiN symposium at the Sea Tech Week. This sentence sums up the rationale of a network that has most certainly achieved its goal: to **put forth proposals, foster coordination and further economic development as regards blue economy**.

“We need partnerships and that is what we came here for: the MiTiN network is an excellent platform for promoting our projects,” says **Dessy Berlianty** from the **Indonesian Institute for Marine Research and Observation**.

### Exploring funding possibilities

As regards cooperation, **Randall Brummett**, from the **World Bank’s Agriculture and Environmental Services department**, could be a very important contact person. “We are here to learn from others and find new ideas,” says this aquaculture specialist. He adds, “We seek to lend responsibly and attending such events is a good way of finding projects we can fund.”

### Sharing expertise

Next to him, **Albert Fischer**, member of the **Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO)**, agrees. “This event has a rich blend of disciplines and fields of expertise. It is also important to highlight the fact that it is a real asset to have the opportunity to work with territorial authorities that are structured differently from country to country. The scientific community must be involved in the political decisions regarding ocean governance.”

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MiTiN in Brest during Sea Tech Week ©S. Durand

## “Pooling projects so as not to dilute the efforts undertaken”

According to **Fabienne Vallée**, who coordinates the **MiTIN network at Technopôle Brest-Iroise**, “The numerous partnerships we have established worldwide are proof of how important a network such as MiTiN is. It is a tool that helps to globally and collectively address all the major issues relevant to the exploitation and preservation of oceans.” It seems that top decision-makers are more and more willing to listen to this message, as evidenced by the comments of **Marie-Anne Mortelette**, from the environment and natural resources sub-directorate of the **French Ministry of Foreign Affairs**. “The purpose of such a network is to ensure that everybody can meet with everybody so as to pool projects and prevent the proliferation of programs from diluting the efforts undertaken,” she says. And indeed, for example, **M'Hammed Atmani**, police chief at **Morocco's national ports agency**, is highly interested in the network: “In addition to attending discussions to assess the state of the art, in particular in the field of oceanography, we have come to invite the MiTiN network to sign a partnership with the Ministry of Equipment and Transport because we share common interests.”

The success of the 2<sup>nd</sup> symposium is proof that the MiTiN network can use its expertise to implement **multinational collaborative actions**.



Randall Brumett ©S. Durand



Marie-Anne Mortelette  
©S. Durand



The new  
members of  
MiTiN  
©S. Durand



MiTIN Workshop ©S. Durand

Three new members have joined the network: East Java (Indonesia), the [Institut Supérieur d'Etudes Maritimes \(ISEM\)](#) in Morocco and the [Research Institute for Marine Fisheries \(RIMF\)](#) in Vietnam.

Network members will meet again in 2015, first for the 3<sup>rd</sup> MiTiN symposium, which should be held in Mexico, and then for the 4<sup>th</sup> edition of the Safer Seas international conference dedicated to maritime safety and security issues (October 27-30, 2015, Brest, France).

More info:

[Visit the web site](#)

[See presentations and read the conclusions](#)



The 2<sup>nd</sup> MiTiN symposium provided an opportunity to inform all the network partners about the status of the various bilateral projects (Quebec, Mexico, Argentina, Vietnam, China and Indonesia) as summarized in the following paragraphs.

## Mexico

### The blue development plan of the State of Veracruz

The **State of Veracruz** is looking to boost its **maritime economy**. The purpose of the collaboration is to share experiences relevant to the **protection of the coast** and the sustainable development of **port activities in Tuxpan**. The grant application submitted to the French Ministry of Foreign Affairs has just been approved.

[Visit the web site of State of Veracruz](#)



Porfirio Alvarez, IPN ©S. Durand

## Mexico

### MEXICOOS!

Technopôle Brest-Iroise, its partners and three Mexican national organizations ([CENDO\\*](#), the [IPN\\*\\*](#) and the Mexican Space Agency) have recently launched the **MEXICOOS** project. The project aims at implementing **coastal area management** in Mexico by drawing on the experience acquired through projects such as the [JERICO](#) project.

[More info about MEXICOOS!](#)



René Garelo, Stéphane Alain Riou, Javier Mendieta and Albert Fischer ©S. Durand

## Argentina

### Economic cooperation for the creation of a maritime cluster of excellence in the Chubut province

A project has recently been approved for supporting the **Chubut province's strategy for economic diversification**, which ensures that Brest and the Chubut province will continue to work together. Currently, the oil industry is the main component of the economy of the province, and of the **city of Comodoro Rivadavia** in particular. The project is intended to strengthen **academic** (partnership with [Universidad Nacional de la Patagonia San Juan Bosco](#)), **scientific** and **economic cooperation** relevant to **ocean monitoring**, **bio-resources** (including aquaculture) and **renewable marine energy**. The project is led at the national level by the Ministry of science, technology and innovation (blue development plan – Pampa azul).

[Visit the web site of Chubut Province](#)



Georgina Davies Sala  
©S. Durand

\*CENDO : Centro Nacional de Datos Oceanograficos

\*\*IPN : Instituto Politecnico Nacional



## Vietnam

### The integrated management of 3 exceptional bays

For several years now, Technopôle Brest-Iroise and its partners have been working on the management of the **Haiphong bay**. “The [Agence Française de Développement](#) [French Agency for Development - AFD] is particularly interested in this project and could support its extension to **Ha Long** and **Bai Tu Long Bays** (through the Fonds Français pour l'Environnement Mondial, [the French Global Environment Facility]). This implies the involvement of other partners and the need to launch requests for proposals,” says **Fabienne Vallée**, in charge of Technopôle Brest-Iroise’s international affairs. The [Veolia Foundation](#) has already financed pilot projects in the fields of **coastal erosion, fish stock recovery, aquaculture and sustainable tourism**.



Ha Long Bay

## China

Technopôle Brest-Iroise, a facilitator for businesses and researchers

Technopôle Brest-Iroise continues to cooperate with the cities of **Qingdao** and **Shanghai**. Technopôle Brest-Iroise is using its expertise to help economic and academic players as regards **marine bio-resources** in Qingdao and **maritime transportation** and **RMEs** in Shanghai.

In brief

**NCOSM**: a marine technology standardization platform in China and East Asia. A delegation came to Brest in early November to meet local players in the field of science and technology, including JCOMMOPS (UNESCO, IOC, WMM).



Prof. Liu Shuguang and Yi Yang  
©S. Durand

## Indonesia

Technopôle Brest-Iroise and the development of the Indonesian maritime economy

Technopôle Brest-Iroise supports **East Java** in the strengthening of its **coastal economy** (sustainable tourism, integrated aquaculture based on pilot farms, etc.) based on a better **understanding of the environment**.

In addition, a **center for satellite oceanography** dedicated to the sustainable management of **marine resources** has just been inaugurated in Indonesia. It is an outcome of the **INDES0 project** set up by the [company CLS](#) in partnership with the Indonesian Ministry of Marine Affairs and Fisheries (KKP). INDES0 has also made it possible for **7 Indonesian students** to come to Brest for their Master’s degrees or PhDs.

“Indonesian people are able to quickly form public (including the scientific sector)-private partnerships,” says **Fabienne Vallée**.



Vigisat-CLS in Brest

## Québec

With funding provided by the **France-Québec Fund for Decentralized Cooperation**, Technopôle Brest-Iroise and its counterpart, **Technopole Maritime du Québec**, are continuing their scientific and economic collaboration within the framework of the "Ocean" projects. "For Ocean and Ocean2, the aim was to launch promising projects involving players of both territories. With Ocean+, we would like to develop new partnerships and address a wider range of topics: maritime activities and transportation (northern routes), the environment and bio-resources, biotechnology, and above all health care and Information and Communication Science and Technology," says **Anne-Marie Cabon**, in charge of the European and International projects at Brest métropole océane.

[Visit the web site of TMQ](#)



Eric Tamigneaux, Noémie Gigère and Eric Delandes ©S. Durand



Meeting at UN during the Jeanne d'Arc mission, New York, June 2014

## The Jeanne d'Arc mission: New York

**Brest Métropole Océane** and the **French Navy** have long had a partnership aimed at promoting the international development of Brest and its region. Every year, within the framework of the **Jeanne-d'Arc mission**, Brest Métropole Océane organizes a **market research mission** in one of the ship's stopover countries. This year, **New York** was the city selected. As had been the case for the previous missions, Technopôle Brest-Iroise was in charge of the mission's **Higher Education and Research component**.

On this occasion, the delegation met with representatives of the [Woods Hole Oceanographic Institution](#) and of **some UN bodies** (namely [JCOMMOPS](#), which is concerned with global oceanography, the [Convention on Biological Diversity](#) and the United Nations University).

## Notice Board

### MAPPEM Geophysics

#### Learning about the deep sea using electromagnetism

**MAPPEM GEOPHYSICS** is a company that is supported by **Technopôle Brest-Iroise** and **Ouest Valorisation**. It was officially launched during the **Sea Tech Week**. The company provides new **sub-seabed imaging services** that are based on **electromagnetic technology** and improved data processing. Used in support of existing methods, MAPPEM technology has several fields of application: sub-seabed characterization, coastal planning, detection of buried objects...

[Visit the MAPPEM web site](#)

Jean-François  
D'Eu and  
Pascal Tarits  
at Sea Tech  
Week  
©F. Duprat



**MAPPEM**  
**GEOPHYSICS**  
Marine Electromagnetic Investigation

## JCOMMOPS now in Brest

Owing to Brest's high concentration of players in the field of marine science and technology, the **JCOMMOPS program** is being moved from Toulouse to Brest where it is meant to develop activities related to the **oceanographic fleet and buoy standardization**.

[More info](#)

## The PSO

The **Pôle de Spectrométrie Océan (PSO)** is a facility that provides analysis resources pooled by the [UBO](#), [IFREMER](#) and the [CNRS](#). For Brest-based researchers, it is an asset through which they can earn international renown for their laboratories. "For the [LabexMER](#) in Brest, the PSO is a tool for attracting interest at the international level," says **Anne-Marie Tréguier**, Head of the [IUEM](#). The PSO's state-of-the-art equipment is also made available to local companies such as [Sedisor](#), which provides services in the field of **isotopic geochemistry**. Though the PSO is dedicated to **chemistry, biology and marine geochemistry**, it can have a **broader scope of application**: wine quality control, site contamination...

[More info](#)



PSO ©Ifremer

## CO-SCIENCES

**Save the date!** 9-11 June 2015, in Brest, CO-SCIENCES, the **International conference on Company-Laboratory interactions**.

What comes out of such interactions? Transfer, Co-building of knowledge? Technological innovation? What are we up to today? What are the ways to enhance the relationships between the business and the science world? You want to take part of that opportunity to build up together the future of innovation ...Come and join us !

[Call for papers and more information](#)

**You would like to contribute to the Technopôle Brest-Iroise Newsletter or to comment it?**

Contact us at [contact@tech-brest-iroise.fr](mailto:contact@tech-brest-iroise.fr)

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## Agenda

[Atlantic Stakeholder Platform](#) (20 January 2015, Porto, Portugal) including Atlantic Blue Tech workshop

Closing conference of the Channel MOR project (29 January 2015, Norwich, UK)

[Euromaritime](#) (03-05 February 2015, Paris, France): come and meet Focal Point France at the Pôle Mer Bretagne Atlantique booth.

Closing conference of the Atlantic Blue Tech project (April 2015, Cadiz, Spain)

[European Maritime Day](#) (20 May 2015, Greek Islands)

[Thetis MRE](#) (20-21 May 2015, Nantes, France)

[Co-Sciences](#) (9-11 June 2015, Brest, France)

[Safer Seas](#) (27-30 October 2015, Brest, France)

United Nations Climate Change Conference (COP21) (30 November-11 December 2015, Paris, France)

