



Appel à Projet-SEA-EU-search

Présentation succincte des projets retenus, sur les 6 appels 2020-22

	Nom du Porteur principal	Labo- ratoire	Titre du projet	Université partenaire	Thème 2	Sélection
1	Nicolas LE POUL	CEMCA	Dinitrogen activation by mononuclear molybdenum pentapod electrocatalysts for ammonia synthesis (NITMO)	CAU	DD	Oct 2020
2	Sophie GUERMES	CECJI	Thinking European Identity and Interculturality in pandemic times	UG; UCA	IE	Oct 2020
3	Isabelle LE CORFF	НСТІ	Photography and film production of the European port towns	UNIST	IE	Oct 2020
4	Camille MANFREDI	НСТІ	Re-viewing and Re-imagining European Coastal - Identities in word and image (RECI)	UG; UM	IE	Oct 2020
5	Christele DONDEYNE	AMURE	Transdisciplinary observation of the environmental cause in Sea & land territories – step 1 (Transealand-1)	UCA	DD	Oct 2020
6	Franck SINGHOF	LABSTIC	IA-AUV : Intelligent Autonomous Underwater Vehicle	UNIST	DD	Oct 2020
7	Iván LOPEZ CABELLO	НСТІ	History, remembrance and disremembrance in maritime Europe (I). Exile and forced labour: the "Red Spaniards" and the Atlantic Wall	UCA	IE	Oct 2020
8	Yvan PAILLER	LETG	Live along the coast, live with the sea in the past	UCA; CAU	IE	Oct 2020
9	Karim RIGALMA	LUBEM	Effect of clImate Change on growth and mycotoxin production in Aspergillus caRbonariUS (ICARUS)	UM	DD	Oct 2020
10	Liana ERMAKOVA	НСТІ	JOKER: Interculturality and Localization of Humor and Puns	UM ; UG	IE	Avril 2021
11	Johann LAVAUD	LEMAR	Flat-EU_European mudflats network: latitudinal comparison of primary production capacity.	UG; UCA	DD	Avril 2021
12	Pascal LEROY	LGO	Large-scale sand bodies dynamics and sediment transfer on low-supply continental shelves : the examples of	UCA	DD	Octobre 2021





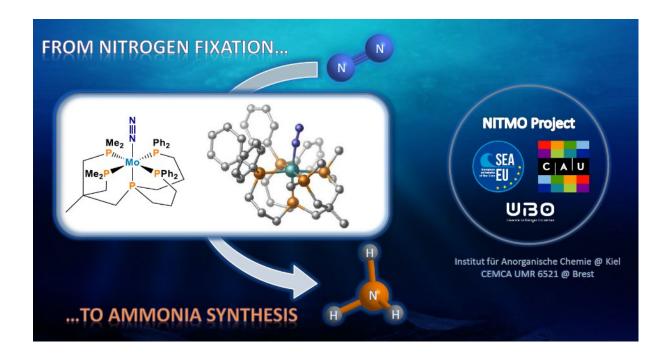
		<u> </u>	10.10.00.11			
			Western Brittany and Gulf of Cadiz			
13	Sofian BERROUIGUET	Latim	EPSEE (Enhanced Post covid Suicide Epidemiology Electronic databases)	UCA	DD	Octobre 2021
14	Serge SUANEZ	LETG	Observations and modeling of complex hydrodynamics and morphodynamics at Vougot beach (Guissény, Finistère, France)	CAU	DD	Octobre 2021
15	Jerome SAWTSCHUCK	LABERS	Cycle – EU : Bicycle as a vector of ecological transition in european universities.	UM ; UCA	DD	Octobre 2021
16	Franck SINGHOF	LABSTIC	TARO: Energy and conTrol mAnagement of a Sea Rover	UNIST	DD	Février 2022
17	Claire HELLIO	LEMAR	Marine natural compounds: an untapped source of biomass for biotechnological applications in the Human health sector (MarHealth).	CAU; UNIST	DD	Février 2022
18	Edna HERNANDEZ GONZALEZ	GéoArchi	Blue Nights – The environmental impact of "Blue Tourism" in terms of light pollution	UCA ; UM	DD	Février 2022
19	Matthieu WAELES	LEMAR	The role of Sea-EU ports in shaping air and seawater microlayer quality in the coastal zone of Europe	UG	DD	Avril 2022
20	Yves COATIVY	CRBC	Studying and teaching regional history	CAU ; UG	IE	Avril 2022
21	Jean-Marc SERME	НСТІ	The SEA-EU European Network in American Studies (SEENAS)	UG ; UCA	IE	Avril 2022
22	Anne CHOQUET- SAUVIN	AMURE	Maritime safety and protection of the marine environment in polar areas	NORD ; CAU	DD	Juin 2022
23	Edna Hernández González	GEOARCHI	Blue Nights – The environmental impact of "Blue Tourism" in terms of light pollution	UCA ; UM	DD	Juin 2022
24	Lucie Taieb	НСТІ	Vizualising the Invisible: pollution, climate change and other uncanny presences	UNIST	DD	Juin 2022
25	Liana ERMAKOVA	НСТІ	JOKER II: Towards automatisation of analysis of perception and localization of humour	UM ; UCA	IE	Juin 2022

¹CAU – Kiel ; UG –Gdansk ; UCA – Cadix ; UNIST – Split ; UM- Malte ; NORD - Bodo ²DD= Développement durable ou IE= Identité européenne

Nicolas LE POUL (CEMCA)

Dinitrogen activation by mononuclear molybdenum pentapod electrocatalysts for ammonia synthesis (NITMO)

The NITMO project aims at designing novel energy-cheap and environment-respective catalytic processes in order to transform two sustainable resources, water and dinitrogen, in a single and industrially-valuable product, ammonia. The project will focus on a new class of promising mononuclear molybdenum complexes. The first objective is to understand the mode of operation of these molecular catalysts for dinitrogen reduction into ammonia. Such issue requires the characterization of the transient species generated along the catalytic reaction. The second objective is to develop and optimize efficient catalysts which could be envisaged as improved eco-friendly alternatives to the industrial Haber-Bosch process. For that purpose, NITMO will combine the expertise of F. Tuczek at Kiel University, with those of N. Le Poul and A. Memboeuf at UBO.



Sophie GUERMES (CECJI)

Thinking European Identity and Interculturality in pandemic times

(UBO, with University of Gdańsk and University of Cádiz)

The pandemic affecting our world in 2020 leads us to question a centuries-old socio-cultural practice, previously reserved, however, in Europe for specific uses, namely the wearing of masks, in light of the current context. How do researchers and people from Maritime Universities of Brest, Gdańsk and Cádiz live these epidemic « waves » which force them to uniformize their faces for a long time? The project also leads us to rethink Intimacy, through the notions of subjectivity and intersubjectivity: what remains of self-affirmation behind a mask, and how relationships within a group change? Masks become a real object of study, at the crossroads of several disciplines in the humanities, including philosophy, history, literature, the visual arts, sociology, and linguistics.



Aim of the project: to rethink te use of a centuries-old socio-cultural practice, the wearing of masks, in light of the current context.

Epidemic « Waves » that leads a long-lasting standardization.

Does it risk causing a smoothing out of cultural specificities? Or, on the contrary, will it enrich them through changes of an aesthetic nature?

To rethink Intimacy, Subjectivity and Intersubjectivity Being and Appearing .

Masks, object of study, at the crossroads of several disciplines in the humanities, including philosophy, history, literature, the visual arts, sociology, and linguistics.

University of Western Brittany: Sophie Guermès, Valérie Huet, Anne-Hélène Le Cornec-Ubertini, Yue Yue, Virginie Podvin, Anne-Aël Ropars



University of Gdańsk: Tomasz Swoboda, Ewa Wierzbowska, Jagoda Bodzińska, Katarzyna Kotowska, Malgorzata Jarmulowicz, Stanislaw Rosiek

> Universidad de Cádiz: Dolores Bermúdez Medina

Thinking European Identity and Interculturality in pandemic times

Isabelle LE CORFF (HCTI)

Photography and film production of the European port towns

Europe is currently suffering from an unprecedented economic, social, migratory and environmental crisis, which poses the question of how it defines itself locally and globally, and with what perspectives.

This research program seeks to produce a steady and long living relationship between the departments of arts of the universities of Brest (UBO) and Split in the Sea-Eu context by questioning the patrimonial aspects as well as the dynamics of creation of both territories. Part of the collaboration will be initiated with an exchange on the artistic heritage of the two port towns and regions. The creation of an online database on films of the SEA-EU port-towns will be initiated in this context. The program includes exhibitions, film screenings, seminars and conferences on cross-border cooperation.

- An art and science common program the two arts departments
- Teaching mobilities
- Conferences
- Film screenings
- MA students mobilities
- Creation of a database.



Photography and film production in the European port towns and territories

Bodies, Images, Territories

Getting to know each other's environments through art



Europe is currently suffering from an unprecedented economic, social, migratory and environmental crisis, which poses the question of how it defines itself locally and globally, and with what perspectives.

This research program seeks to produce a steady and long living relationship between the departments of arts of the universities of Brest (UBO) and Split in the Sea-Eu context by questioning the patrimonial aspects as well as the dynamics of creation of both territories. Part of the collaboration will be initiated with an exchange on the artistic heritage of the two port towns and regions. The creation of an online database on films of the SEA_EU port-towns will be initiated in this context. The program includes exhibitions, film screenings, seminars and conferences on cross-border cooperation.

- · An art and science common program the two arts departments
- Teaching mobilities
- Conferences
- Film screenings
- MA students mobilities
- Creation of a database

Camille MANFREDI (HCTI)

Re-viewing and Re-imagining European Coastal - Identities in word and image (RECI)

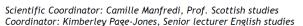
Partner Universities: University of Gdańsk, University of Malta (+ University of the Highlands and Islands)

In a context marked by the revival of European regionalisms, the RECI project will examine the emergence of local sea imaginaries and discourses and the part these play in (re)constructing European regional maritime/coastal identities.

The project will tackle different forms of resilience (social, cultural, economic), with particular interest in the representations/aestheticisation of sustainable development and blue ecology in the coastal regions of Europe. It will examine the interactions between the Europeanisation, globalisation and regionalisation of sea imaginaries and discourses on the sea as both resource and cultural practice. It will promote active engagement of UBO researchers and students by developing collaborations with

our partners in Gdańsk, Malta and Skye. Special attention will be paid to student mobility.

RECI Re-viewing and Re-imagining European Coastal Identities in Word and Image







Main scientific objectives:

To analyse the relationships between 'maritimity' (F. Péron, 1996) and the emergence of coastal regionalisms in the 21st century.

- To understand the role played by EU policies in the forging of regional maritime identities (politics & society)
- To constitute a corpus of literary texts and images that illustrate the construction or reconstruction of specific 'maritimities' (visual culture & literature)
- To examine how these discourses and imaginaries de-aestheticize the representation of the sea or coastal areas (discourse & image analysis)
- To analyse territorialisation and the configuration of space in sea and coastal discourses and imaginaries (discourse & image analysis)

Partner universities:

University of Gdansk (UG)
University of Malta (UM)

University of the Highlands and Islands (UHI)

"Ce projet a bénéficié d'une aide de l'état gérée par l'Agence Nationale de la Recherche au titre du programme « Investissements d'avenir » portant la Référence ANR-19-GURE-

Programme of events:

- * 13 November: kick-off meeting with partners of RECI project (UG, UM, UHI)
- * From January to May 2021: 2 student mobilities (Masters ALC TILE, HCTI) and virtual seminars with partners and students.
- * May or June 2021: worshop & call for thesis project * July 2021: meeting of the consortium at the IAWIS congress (Water and Sea in Word & Image) at the University of Luxembourg; working session (call for papers collective volume 2022).

Research project post 2021:

Doctoral contract or submission of a Horizon Europe project.

<u>Possible topics</u>: (1) Sea and coastal areas in word & image: creating new imagined communities? / (2) Sea and European regionalisms: developing a new sense of belonging and coastal identities / (3) Rethinking 'Blue Humanities' in the light of regionalisms

Christele DONDEYNE (AMURE)

Transdisciplinary observation of the environmental cause in Sea & land territories - step 1 (Transealand-1)

Our research project involves teams from the University of Western Brittany and the University of Cadiz specialised in sociology and linguistics to contribute to the understanding of the transformation of the environmental cause.

- It proposes to produce a sample of audiovisual survey material, specific to the construction of the environmental cause in Finistère (UBO), and to submit it for analysis from the perspective of linguistics and Spanish sociology.
- It will lead to the development of course materials in sociology, linguistics and translation in France and Spain.

TRANSEALAND-1

TRANSDISCIPLINARY OBSERVATION OF ENVIRONMENTAL CAUSE IN SEA & LAND TERRITORIES - STEP 1

- Our research project involves teams from the University of Western Brittany and the University of Cadiz specialised in sociology and linguistics to contribute to the understanding of the transformation of the environmental cause.
- It proposes to produce a sample of audiovisual survey material, specific to the construction of the environmental cause in Finistère (UBO), and to submit it for analysis from the perspective of linguistics and spanish sociology.
- It will lead to the development of course materials in sociology, linguistics and translation in France and Spain.



Franck SINGHOF (LABSTIC)

IA-AUV: Intelligent Autonomous Underwater Vehicle

The objective of this project is to improve autonomy of a ROV (Remotely Operated underwater Vehicle) for marine infrastructure inspection. The ROV was designed by the University of Split and is currently tele-operated. It is wired connected to a control ground station for the energy and communication facilities. Finally, it has also a limited computation capability. A new ROV is currently designed by University of Split to provide a higher computing capability available for intensive computing applications such as image recognition algorithms and more generally, artificial intelligence algorithms. The IA-AUV project proposes to investigate various methods to make this new ROV more autonomous, such as a new communication services or a new computing resources management to minimize energy consumption.

IA-AUV : Intelligent Autonomous Underwater Vehicle

Team and skills

- Department of professional studies, University of Split.
 - Underwater ROV design expert.
- Lab-STICC, UMR CNRS 6285, University of Brest.
 - Embedded real-time critical software design and verification.

Problem statement

 How to improve autonomy of ROV designed by Univ. Of Split



Expected contributions

- Designing 360 degrees rendering services (operator life like vision)
- Investigating visible light data communication
- Management of the computing resource to embed AI algorithms, or to optimize energy consumption

Iván LOPEZ CABELLO (HCTI)

History, remembrance and disremembrance in maritime Europe (I). Exile and forced labour: the "Red Spaniards" and the Atlantic Wall

In harmony with the SEA-EU theme « European Identity and Interculturality », this project lead by the University of Western Brittany (UBO-Brest) and the University of Cadiz (Spain), intends to provide new elements of thought, in accordance with an approach that aims to shed light on certain shadowy areas of European memory in the peripheral maritime regions of Europe. This educational and research project is centred around the presentation of the "Red Spaniards". Spanish forced labourers during the Second World War. Forgotten victims of Nazism exhibition (a project designed by Peter Gaida and Antonio Muñoz) and the co-organisation of the international conference History, remembrance and disremembrance in Europe. Exile and forced labour: "Rotspanier" and the Atlantic Wall (Brest, Spring 2021).

History, remembrance and disremembrance in maritime Europe

«Red Spaniards». Spanish forced labourers during the Second World War. Forgotten victims of Nazism

A project designed by Peter Gaida and Antonio Muñoz about a little-known part of Europe's contemporary history, which was presented for the first time.



http://rotspanier.net/













Yvan PAILLER (LETG)

Live along the coast, live with the sea in the past

Universities involved in the project: UBO/Cadiz/Kiel

The universities involved in this project are developing an interdisciplinary archaeological approach to understanding past coastal societies. It is therefore a question of sharing our respective experiences and knowledge of these societies. Through the study of a few selected test areas along the Atlantic Ocean, the Mediterranean Sea or the Baltic Sea, we will address questions related to the adaptability and resilience of coastal societies over time, from the Mesolithic to the Middle Ages in the face of environmental changes to which will be added for more recent periods political or economic modifications. Finally, the interactions between man and the environment in a maritime context will be analysed on points such as the exploitation of resources, the mobility of human groups or the notion of insularity...

LIVE ALONG THE COAST, LIVE WITH THE SEA IN THE PAST

Project leader: Yvan Pailler, ArMeRIE Chair (UBO/Inrap) Universities involved in the project: UBO/Cadiz/Kiel Theme: interdisciplinary archaeological approach focused on the understanding of past coastal societies.



- -Presentation of our respective research,
- -Field trip with visits to sites and museums
- -Choice of research themes to be developed together
- -Synthesis document for the attention of other colleagues
- 2. Start a master's degree in interdisciplinary research (as soon as possible) :

What links between Man and the Patella (Patella sp.) from the Mesolithic to the present day on the European Atlantic coast and in the western Mediterranean?

- 3. Organization of a videoconference with all members (late spring) :
- -Setting up of a common research program
- -Define an agenda for the coming years.





Karim RIGALMA Effect of climate Change on growth and mycotoxin LUBEM production in Aspergillus caRbonariUS (ICARUS)

Team: Jérôme Mounier1, Karim Rigalma1, Valérie Vasseur1, Sholeem Griffin2, Vasilis Valdramidis2

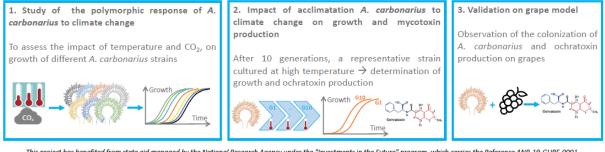
- 1 Laboratoire de Biodiversité et Ecologie Microbienne, LUBEM, Université de Bretagne Occidentale
- 2 Department of Food Sciences and Nutrition, Faculty of Health Sciences, University of Malta

Climate change scenarios are expected to have significant effects on food security and safety. A key component of this impact is an increased spoilage of food products by plantpathogen moulds and their possible mycotoxin contamination. Among moulds, Aspergillus carbonarius is a major contaminant of grape and known to produce ochratoxin (OTA). ICARUS project proposes to assess, by mean of 3 tasks, the impact of temperature and CO2, on growth in A. carbonarius strains, the mycotoxin production and the pathogenesis on grapes. i) High-throughput techniques of fungal development monitoring will be used to assess A. carbonarius strains growth at high temperature and CO2 levels. ii) After 10 generations cultured at stressful climatic conditions, growth rate and OTA production will be determined for a representative strain. iii) The representative strain will be inoculated on grapes and its pathogenicity will be observed and the production of OTA quantified.



Climate change scenarios are expected to have significant effects on food security and safety. A key component of this impact is an increased spoilage of food products by plant-pathogen moulds and their possible mycotoxin contamination. Among moulds, Aspergillus carbonarius is a major contaminant of grape and known to produce ochratoxin (OTA), a nephrotoxic, neurotoxic and immunotoxic mycotoxin.

We proposed to assess the impact of temperature and CO₂, on growth of different A. carbonarius strains, on their mycotoxin production and on their pathogenesis on grapes. These aspects will be implemented with the following 3 tasks.



This project has benefited from state aid managed by the National Research Agency under the "Investments in the Future" program, which carries the Reference ANR-19-GURE-0001.

Liana Ermakova (HCTI)

JOKER: Interculturality and Localization of Humor and Puns

Intercultural communication relies heavily on translation. Humor remains by far one of its most difficult aspects; to understand humor, one often has to grasp implicit cultural references and/or capture double meanings, which of course raises the question of the (in)translatability of humor. Puns are a common source of humor and are used by novelists and poets, as well as in headlines and advertising for their attention-getting or mnemonic, playful, subversive, etc. values. The translation of humor and puns is therefore in high demand. Modern translation is heavily aided by technological tools, yet few works have studied the automation of humor and puns translation and the creation of humor corpora. To the best of our knowledge, there does not exist any parallel corpus. The JokeR project addresses the issue of European identity through the study of humor in a cross-cultural perspective. The main objective of the JokeR project is to study the strategies of localization of humor and puns and to create a multilingual parallel corpus, annotated according to these strategies, open and freely available.



Johann Lavaud (LEMAR)

Flat-EU_European mudflats network: latitudinal comparison of primary production capacity.

Flat-EU_European mudflats network: latitudinal comparison of primary production capacity.

University of Bretagne Occidentale (France), University of Gdansk (Poland), University of Cadiz (Spain).

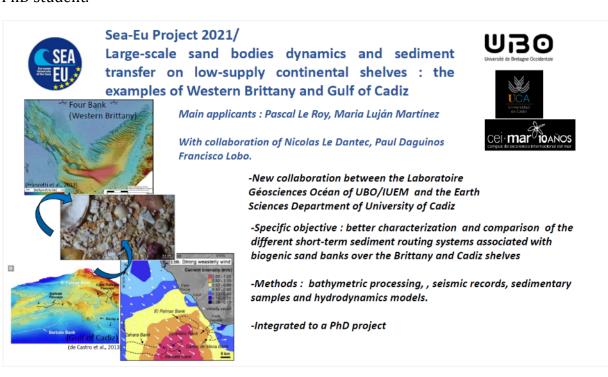
Coastal mudflats are among the most productive ecosystems, they are especially abundant on European coasts where they provide essential eco-services and buffer functions between land and sea. Their high productivity is based on the photobiology of microalgae communities ('microphytobenthos'). Mudflat primary production is a crucial parameter helping the sustainable management of their eco-services. We do not fully understand yet the whole complexity of mudflat functioning, and neither the microphytobenthos biology, allowing to achieve more reliable quantification of mudflat primary production and beyond, of European coastal waters. The aim of the Flat-EU project is double: 1) to initiate a European network for studying the ecology of mudflats; 2) to join scientific efforts for reaching a better assessment of mudflat primary productivity on European coasts. Our project ideally covers the European latitudinal gradient offered by SEA-EU from the Baltic Sea to the South Atlantic coast.



Pascal LEROY (LGO)

Large-scale sand bodies dynamics and sediment transfer on low-supply continental shelves: the examples of Western Brittany and Gulf of Cadiz

Large-scale sand bodies (as sand banks, submarine dunes) of low-supplied continental shelves have a strong societal resonance for mineral resources, coastal erosion, risk for navigation. The characterization of their origin, evolution and short-term dynamics is a first-order question to understand sedimentary transfer processes at the scale of continental margins and more particularly sediment exchanges between the coastal zone and the shelf. The present project aims to better characterize and compare the different short-term sediment routing systems associated with sand banks over the Brittany and Cadiz shelves where previous studies were conducted separately. This project allows a new collaboration between the Laboratoire Géosciences Océans of University of Brest and the Earth Sciences Department of University of Cadiz. The database is already available from French and Spanish research teams and ready for complementary analyses including bathymetric datasets, seismic records, sedimentary samples (datations, taphonic associations) and hydrodynamics models. This project Involves the work of a PhD student.



Sofian BERROUIGUET (Latim)

EPSEE (Enhanced Post covid Suicide Epidemiology Electronic databases)

Suicide prevention research faces specific challenges related to characteristics of suicide attempts and attempters. Firstly, suicide is a rare event, which makes the design of powerful studies especially challenging. Furthermore, suicide attempters have been described as poorly adhering to intensive treatment over time, and delivery of interventions in the emergency department can be difficult, where psychiatric staff availability is often limited or absent. The emergence of the novel coronavirus causing the coronavirus disease 2019 (Covid-19) pandemic has created an unprecedented health and economic crisis that will inevitably have an impact on the european population health. On the one hand, the threat of the virus itself causes anxiety and worry in the community; on the other hand, the public health measures implemented by the government may have a detrimental effect on behavior and wellbeing, Our project will answer four questions:

- 1-Is there periods that may represent a starting point to support the identification of suicide behaviours determinants?
- 2- Which are the environmental (societal, macroeconomic, national prevention plans...) determinants that explain variations in suicide rates?
- 3- Which are the most suitable methods (i.e. analytical techniques, data sources, etc.) to answers the previous questions?
- 4-Is there determinants from either UCA or UBO regions that can be shared to to improve suicide prevention in both areas.

Enhanced Post covid Suicide Epidemiology Electronic databases : EPSEE

Sofian Berrouiguet UBO, Javier Alvarez Galvez (UCA)

- Suicide prevention research faces specific challenges related to characteristics of suicide attempts and attempters.
- Impact on the european population health mental health of the Covid-19
- Our project will pool data from UCA and UBO regions to answer the following questions:
- 1-Is there periods that may represent a starting point to support the identification of suicide behaviours determinants?
- 2- Which are the environmental (societal, macroeconomic, national prevention plans...) determinants that explain variations in suicide rates?
- 3- Which are the most suitable methods (i.e. analytical techniques, data sources, etc.) to answers the previous questions?
- 4-Is there determinants from either UCA or UBO regions that can be shared to to improve suicide prevention in both areas.

Serge Suanez (LETG)

Observations and modeling of complex hydrodynamics and morphodynamics at Vougot beach (Guissény, Finistère, France)

This project was led by Serge Suanez (UMR LETG 6554 CNRS), and Pushpa Dissanayake of the University of Kiel (Geosciences Institute). The participants were France Floc'h and Nicolas Le Dantec (UMR Geo-Ocean 6538 CNRS), and Marissa Yates, from the Laboratoire d'Hydraulique de Saint-Venant (LHSV - Cerema, ENPC, EDF R&D, Chatou). The objective of this project was to acquire in situ measurements of the height and direction of nearshore waves, as well as currents (cross-shore and longitudinal currents), in order to better constrain (i) coupled models of the evolution of the cross-shore and longshore shoreline, and (ii) models of nearshore wave propagation. This experiment was carried out on the beach of Vougot in Guissény (Finistère), on which a topo-morphological monitoring (monthly beach profiles including the intertidal zone and the dune) carried out for more than 17 years provides the "ground truth" necessary for the calibration of morphodynamic models. This measurement campaign took place from February 21 to March 4, 2022 (with a launching of the offshore equipment by divers at the beginning of February). It mobilized engineers divers of the IUEM, students in master, thesis and postdoc. We also benefited from the help of the SNSM (Société Nationale de Sauvetage en mer) of Guissény and Plouguerneau for the provision of their nautical means.



Observations and modeling of complex hydrodynamics and morphodynamics at Vougot beach (Guissény, Finistère, France)

Research questions:

- acquire *in situ* measurements of nearshore wave heights and directions, and cross-shore and alongshore currents, in order to better constrain:
- (i) coupled cross-shore and alongshore shoreline evolution model developed by the partners LGO UMR 6538 and LHSV-Cerema
- (ii) Delft3D-SWAN model of nearshore wave propagation providing boundary forcing conditions for the XBeach profile model developed by Kiel Universty



Vougot beach (AEL, 2012)

Methods:

- pressure transducers and pressure sensors, ADCP, current meters, will be deployed during 2-week field campaign (February/March 2022).
- hydrological measurements will be coupled with high frequency topomorphological survey using DGPS and drone

UBO team. Serge Suanez (coord.) – LETG UMR 6554; France Floc'h; Nicolas Le Dantec; Jérôme Ammann – LGO UMR 6538

European partner. Dissayanake Pushpa; Christian Winter – Institute of Geosciences of Kiel University **Associated partners.** Marissa Yates – Laboratoire d'Hydraulique Saint-Venant – Cerema; Lucia Pineau-Guillou, Pascal Lazure – LOPS UMR 6523

Jerome Sawtschuck (LABERS)

Cycle - EU: Bicycle as a vector of ecological transition in European universities.

This project aims to study the mobility habits of students and staff from different European Universities. Acting on short distance mobilities appears as a feasible short-term ecological transition that can be operated in few years on campus with an increase of bicyle use. To engage this shift, it is necessary to describe the factors that influence the mobility choices of members of the University community, and to guide mobility policies towards a model favoring the practice of active mobility. A quantitative study about cycling practices has already been performed in UBO will be extended to Malta University during this project and completed by qualitative data (interviews) about mobility choices in Brest and Malta. This project will imply the Universities in the SEA-EU alliance that will be invited to the final workshop.

Cycle – EU: Bicycle as a vector of ecological transition in european universities.



Research questions:

- Actions on short distance mobilities for ecological transition on campus at short-term?
- Which factors influence the mobility choices of students and staff?
- Could services for bicycle on campuses (bicycling park, bicycle-sharing system, bike repair stations, ...) reduce car use?

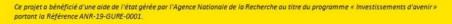
Methods:

- 50 interviews (30 students, 20 staff) in Malta / Brest, online survey Malta
- 2 Workshops in 2022: Sharing good practices (Brest, spring); Sharing results and / new partnerships (Malta, automn)

UBO team: Jérôme Sawtschuk (coord.), Thierry Michot, Antony Memboeuf **European partners**: Malta university, Maria Attarde, Institute for Climate Change and Sustainable Development









Franck SINGHOF (LABSTIC)

TARO: Energy and conTrol mAnagement of a Sea Rover

The objective of this project is to reinforce the collaboration between the Univ. of Split/University Department of Professional Studies and the Univ. of Brest/Lab-STICC. This collaboration has been initiated in 2020 with the first SEA-UE funding call of the UBO. University of Split has designed a ROV (or Remotely Operated underwater Vehicle) for marine infrastructure inspection. This ROV is not autonomous: it is operated by hand and is wired and connected to a control ground station for the energy and communication facilities. The current ROV has a limited computation capability and a new version is currently designed to provide enough computing resources for intensive computing applications such as image recognition or artificial intelligence algorithms. Embedding artificial intelligence software may contribute to making the ROV autonomous but raises challenges to manage computing resources. Indeed, a ROV, autonomous or not, has safety and real-time constraints to meet. Computing resources have to be managed in order to both enforce safety and real-time constraints, but also to run computing-intensive applications enough to deliver useful results in the context of a limited amount of energy. In the SEA-UAV project, the Lab-STICC/University of Brest brings its skills and tools to assess compliance of the computing resource management with the University of Split's ROV constraints.

TARO: Energy and con**T**rol m**A**nagement of a Sea **RO**ver

Team and skills

- Department of professional studies, University of Split.
 - Underwater ROV design expert.
- Lab-STICC, UMR CNRS 6285, University of Brest.
 - Embedded real-time critical software design and verification.

Problem statement

 How to improve autonomy of ROV designed by Univ. Of Split



Expected contributions

- Methods to optimize the energy consumption of the ROV in order to increase its mission duration or the number of embedded payloads.
- By optimizing, we mean either reducing its energy footprint or computing trade-off between the available system functions and their energy consumption.
- A second goal of the TARO project will be to design or use technologies to remotely control the ROV.

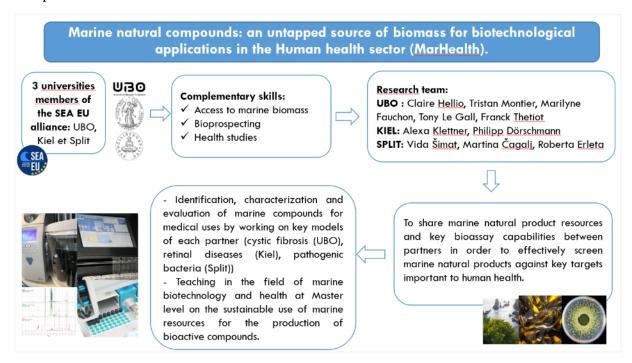
Claire HELLIO (LEMAR)

Marine natural compounds: an untapped source of biomass for biotechnological applications in the Human health sector (MarHealth).

Research Team from 3 universities (UBO, Kiel and Split) with complimentary expertise in marine biomass, bioprospection and health studies: Claire Hellio (UBO), Tristan Montier (UBO), Marilyne Fauchon (UBO), Tony Le Gall (UBO), Franck Thetiot (UBO), Alexa Klettner (Kiel U), Philipp Dörschmann (Kiel U), Vida Šimat (Split U), Martina Čagalj (Split U), Roberta Erleta (Split U).

The aim of the project is to set up a new European pipeline for the discovery of bioactive marine compounds for applications in health sciences by combining key expertise from Brest, Kiel and Split Universities. The specific objective is to share, between partners, resources in marine natural products and key capabilities for bioassays, in order to efficiently and rationally screen marine natural products against key targets important in human health. This will be achieved through:

- identification, characterisation and testing of marine compounds (from UBO, Kiel and Split collections) along the workflow for medical uses working on key models of each partner (cystic fibrosis (UBO), retinal diseases (Kiel University), pathogens bacteria (Split University)
- combining the expertise of the partner universities in marine and medical research; establishing an efficient interdisciplinary research in bioprospection and European collaboration with state-of-the-art methodology provided by each research partner
- the investigation of a highly relevant research topic, combining both basic research with translational aspects
- teaching a new generation of interdisciplinary marine and health researchers at Master level on sustainable use of marine resources for the production of bioactive compounds.

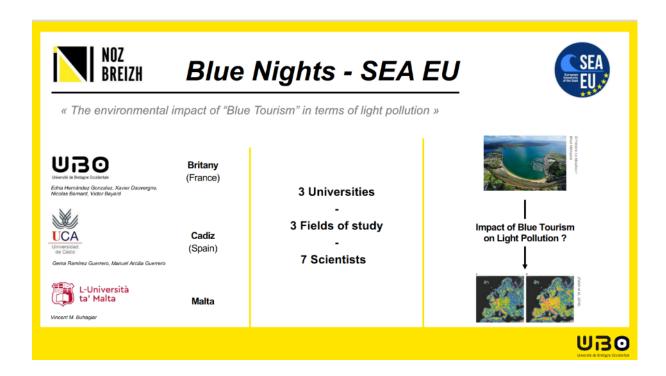


Edna Hernández González (GéoArchi)

Blue Nights - The environmental impact of "Blue Tourism" in terms of light pollution

Blue Nights is a scientific project integrated in the Noz Breizh consortium. It focuses on the impact of artificial lighting in terms of pollution, specifically in touristic areas. Analyses and comparison will be produced between Britany (France), Cadiz (Spain) and Malta.

The aim is to create a reproducible method that can apply to our three territories, yet respect each of their individual problematics. This method will also consider the seasonality of the touristic activities. Finally, this will also allow us to integrate these results to the Chaire Noz Breizh. The goal is to give this consortium its first European dynamic by providing fields of research outside of France.



Yves Coativy (CRBC)

Studying and teaching regional history

Main collaborators: Yves Coativy and Delphine Merrien, Université de Bretagne Occidentale, Brest (France). With collaboration of Sebastian Barsch, Christian-Albrechts-Universität, Kiel (Germany) and Beata Możejko, University of Gdańsk (Poland).

New collaboration between the Laboratoire Centre de Recherche Bretonne et Celtique (Brest), the Historisches Seminar (Kiel) and the Zakład Historii Średniowiecza Polski i Nauk Pomocniczych Historii, Instytut Historii/Wydział Historyczny (Gdańsk).

Specific objective: The project consists in comparing the experiences of colleagues from European universities who are called upon to study and teach regional history.

Method: It is a question of specifying the volume of hours, the time devoted to research, the insertion of this research in the university logic, the reception by students, the public and the associations of this research and these teachings. It will also be possible to study the memorial stakes and the possible instrumentalization of regional history.

Integrated to the Master « Cultures, Civilisation, sociétés » project (Brest)

Key words: regional history; maritime history; didactic; teaching; memory.













Abraham Ortelius (1527-1598), Theatrum orbis terrarum. Europam, sive Celticam veterem sic describere conabar Abrah. Ortelius, BnF.

- SEA-EU Project 2022 "Studying and teaching regional history"
- Main applicants: Yves Coativy and Delphine Merrien, Université de Bretagne Occidentale, Brest (France).
- With collaboration of Sebastian Barsch, Christian-Albrechts-Universität, Kiel (Germany) and Beata Możejko, University of Gdańsk (Poland).
- New collaboration between the Laboratoire Centre de Recherche Bretonne et Celtique (Brest), the Historisches Seminar (Kiel) and the Zakład Historii Średniowiecza Polski i Nauk Pomocniczych Historii, Instytut Historii/Wydział Historyczny (Gdańsk).
- Specific objective: The project consists in comparing the experiences of colleagues from European universities who are called upon to study and teach regional history.
- Method: It is a question of specifying the volume of hours, the time devoted to research, the insertion of this research in the university logic, the reception by students, the public and the associations of this research and these teachings. It will also be possible to study the memorial stakes and the possible instrumentalization of regional history.
- Integrated to the Master « Cultures, Civilisation, sociétés » project (Brest)
- $\bullet \quad \text{Key words: regional history ; maritime history ; didactic ; teaching ; memory.} \\$