

SUMMER EDITION (2022)

GRRIP NEWSLETTER

COLLABORATION REAPS REWARDS



THIS PROJECT HAS RECEIVED FUNDING FROM THE EUROPEAN UNION'S HORIZON 2020 RESEARCH AND INNOVATION PROGRAMME.



GRANT AGREEMENT ID: 820283

FOREWORD

Prof. Alexander Gerber

The final months of a four-year project such as GRRIP are not only a scientifically rewarding time of reaping the benefits of collaborative work by dozens of colleagues across Europe, it is also an important opportunity to reflect on the original ambitions and achieved impacts. As a sector-specific project, focusing on Marine and Maritime (M&M) research, we have operated within institutional settings of a discipline that is known to be comparatively exposed to the risk of being disconnected from its non-academic stakeholders.



Our project set out to address this systemically if the Blue Economy was to become as competitive and game-changing as policy-makers are envisaging. Implementing Responsible Research and Innovation (RRI) in the M&M sector was thus an ambitious undertaking from the start.

One of the challenges known from international comparisons of RRI implementation is that the conditions and success criteria for this to work are context-specific, and depend on the regional and cultural environment, as well as institutional structures and policies. Take the region of Swansea in Wales, for instance, one of Europe's most economically deprived areas. Its specific structural conditions made the RRI approach particularly relevant for our case study site Swansea University (SU), which already considered itself closely interconnected with local businesses, the regional government, and the voluntary sector, at the start of the GRRIP project. Creating jobs, upskilling workforces, and supporting civil society was and still is therefore essential to its role. In an insightful interview, our project colleague Dr. Ruth Callaway shares her team's experiences with GRRIP helping the university to deepen its stakeholder relations.

By browsing through our newsletter, you can join us on the project journey from how we initially empowered the five case study sites to audit each of the key areas of RRI, develop individual Action Plans, and finally evaluate the quality of this change process and the impact it had on both the demo-sites and their stakeholders.

One of the project's key success factors was to engage the sites in ways that encouraged mutual learning from each other's experiences and best practices, expectations, needs, and concerns. A series of 'Mutual Learning Exercises' and their evaluation comprise a 'capstone' for our project. Here, the different strands of four years of work are coming together. Our colleagues Dr. Xiaoyue Tan and Prof. Hub Zwart describe in detail in this newsletter how our project set out to redefine the role of expertise, so that existing hierarchies of knowledge between science and its stakeholders could be levelled out. In these mutual learning sessions, sharing of formats and resources facilitated a diverse range of stakeholders to voice their views, and exchange how their expertise can influence research.

Regarding our project's legacy, the various guidelines and reports are designed to be applicable to many other M&M research institutions. Specific institutional policies have been put in place, such as a "Civic Mission Strategy" at SU, which will guide the university's strategy far beyond the project lifetime. However, many of our project partners have also cautioned that it would be challenging to continue stakeholder engagement activities for RRI with dedicated staff unless further third-party funding can be acquired - certainly a signal toward research funding and science policy organisations to provide the structures for RRI to become a sustainable element of the research and innovation system.

Alexander Gerber is Full Professor and Programme Chair of Science Communication at Germany's international Rhine-Waal University, and Research Director at the extramural Institute for Science and Innovation Communication (inscico). Before returning to academia, the scientific entrepreneur was founder and editor-in-chief of InnoVisions Magazine, and Head of Marketing & Communications at Fraunhofer (ICT) for seven years.





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INTERVIEW

Ruth Callaway - Senior Research Scientist (Marine Biology) at Swansea University

What motivated Swansea University (SU) to be part of the GRRIP project?

Swansea University (SU) is a research-led organisation located in one of the most deprived regions within Northern Europe (West Wales and the Valleys). Regional economic and social development through collaborative projects with industry, voluntary sector organisations, and government is a major priority. SU aims to create jobs, upskill workforces, and support the establishment and growth of new organisations.

These aspirations require a responsible research culture that involves representatives from all walks of life. For over a decade SU has improved ethical standards of research projects, gender equality, and opened access to its research outputs.

Our research should serve the community in South Wales. This often means that we have to engage with different stakeholders. And for that reason GRRIP works very well as a concept. The most interesting part for us was the opportunity to examine every pre-existing facet of responsible research and innovation within the organisation.

The GRRIP project allowed SU to underpin existing processes with the expertise of RRI experts. They envisaged creating bespoke Responsible Research & Innovation (RRI) processes for marine research, which was particularly attractive since most SU RRI activities are designed for the entire university and not for sub-units. For marine research it is important to form sustainable connections with non-academic partners like governmental organisations, environmental regulators, nature conservation organisations, marine industries and coastal communities. SU was therefore interested in improving ways of working with stakeholders.

Importantly, GRRIP allowed SU to form deeper connections with marine research organisations throughout the EU and learn from and with them. It enabled SU to better understand their views, challenges, and approaches to responsible research.

Can you provide some details of specific actions related to RRI implementation within SU?

The GRRIP audit provided compelling evidence that SU is relatively advanced in terms of gender equality, ethics, science education, and open access. Therefore, the action plan focused on public engagement and connecting with the wider stakeholder community.

A number of different formats were trialed ranging from creativity meetings with stakeholders for individual marine projects, to a high-level discussion workshop with a wide range of different stakeholders. The feedback to the different events will assist us in fine-tuning best practices in terms of stakeholder engagement.



Ruth Callaway

SU Biosciences, which includes marine research, is currently producing two feasibility studies for possible future engagement networks. First, the 'Coastal Alliance Wales' would be a platform integrating Higher Education Institutions (HEIs), public and private sectors to work together to collectively advance and strengthen Wales' marine and coastal sectors. Its purpose is developing the Blue-Green Economy, promoting cross-institution collaboration, and engaging and empowering communities to participate in marine research.

Secondly, the BioHUB would provide access to cutting-edge natural product research and innovation facilities particularly in pharmaceuticals, agriculture, food, and cosmetics. It would support new businesses and training for local communities and combine expertise from academia, industry and business, exploring novel environmentally friendly products and solutions. Both networks could potentially be vehicles for stakeholder-engaged marine research.

SU also aspires to develop marine citizen science projects. A funding application was made to the UK Research and Innovation funding body for 12 citizen science projects, including two marine projects. External funding is necessary for this action to support staff dedicated to community activities, the development of field data collection, and dissemination of outcomes. The application was unfortunately unsuccessful, but SU remains committed to this aspiration and works closely with internal and external partners to integrate citizen science in our marine research.

What supporting factors exist in SU to engage with wider societal stakeholders?

At SU there is considerable support from the departmental leadership staff for engagement with wider societal stakeholders. For over a decade the department was involved in collaborative marine research with non-academic partners.

Research infrastructure, such as the sea-going research vessel or aquaculture facilities were made available to stakeholders, for example through the ERDF project WISE. Research supporting marine renewable energy enterprises was initiated through SEACAMS, and collaborative coastal eco-engineering projects were created through the Interreg Ireland-Wales project ECONSTRUCTURE.



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Fieldwork at Swansea University

At university level there is support for stakeholder engagement through 'Research, Engagement & Innovation Services' (REIS). The unit supports project management, the commercialisation of research, and the development of business ideas.

For GRRIP, REIS staff assisted with practical aspects of organising workshops. They also run LINC, the University's primary engagement network, providing a series of collaborative events and informative communications to a growing network of private, public and third sector organisations. Through the network SU staff can meet with a range of organisations.

What are the biggest barriers to wider stakeholder engagement for SU?

Societal stakeholder engagement requires a lot of manpower, a lot of effort. It requires effective communication channels. You need to generate buy-in from people, but that can't be a one-way conversation. It has to go both ways.

The external funding landscape drives the way SU carries out marine research. The topics prioritised by communities, government, and industry are not always aligned with funding opportunities. European funding is often very closely linked to building engagement. You have to have impact statements, but that part is usually dissemination at the end of the research.

In contrast, the GRRIP approach has stakeholders included at all stages of research. And as long as that isn't part of the funding culture then it remains very difficult to do well.

Further, internal academic values, professional recognition and KPIs still prioritise traditional views on research excellence, closely linked to scientific publication in specific journals, rather than the quality of stakeholder engagement. This can curtail the motivation of established, career-driven academic staff to develop meaningful, time-consuming stakeholder engagement. However, there are signs of gradual changes, manifesting in the development of a SU Civic Mission Strategy.

Of course the project duration matters also. The projects I've been involved in were always 3, 5, sometimes 10 years long, long enough to do meaningful stakeholder engagement. But what I found was that if you look at how the budget is split, the hard science receives 95% of the budget with only a very small slice reserved for stakeholder or community engagement.

The hierarchy within projects is very much still the alpha scientists who are doing the science, and you have the Delta scientists doing a small bit of stakeholder engagement. If we want to improve societal relevance of research, I think it has to become much more equitable.



A honeycomb worm reef (*Sabellaria alveolata*) in the intertidal area of Swansea Bay, overlaid with a quadrat used by ecologists to quantify the size of reef-cover

How did SU benefit from the societal engagement workshop?

SU initiated several engagement workshops, some linked to specific projects, others encouraged more high-level discussion about future research directions. The latter allowed SU staff to better understand the interests and needs of different societal sectors and incorporate those in their own research.

On the flip side stakeholders gained more knowledge about SU and were encouraged to continue the conversation on an individual basis. Project specific workshops resulted in ongoing communication between partners and close working relationships. Engaging with stakeholders on key areas of interest, for example wave energy or sea defences, seems particularly fruitful as it benefits everyone simultaneously within their own sector.

The best workshops were the ones where we came together to discuss very specific projects and goals. For me, it is always about coastal defences, and these workshops have really paved the way for what are now established working relationships. In general, the format provides the benefits of being a part of a good network. It helps to develop and come up with new ideas and there's definitely a legacy resulting from those workshops.

Did any future collaborations or research ideas or meetings emerge as a result of SU's involvement from the project?

Projects like GRRIP have snowball effects: participation in a workshop leads to new contacts, who introduce you to another research partner, and collectively you develop a new research proposal. Specifically, engaging with the local council on coastal infrastructure highlighted a similar project by an English council at the South Coast. Engagement with that council has now led to close collaboration and opportunities for new projects with a wider remit, involving several local authorities, environmental regulators, and communities.

GRRIP itself has also led to new collaborations with the South African Institute of Aquatic Biodiversity. The organisation has a track record in RRI and shared their views at the GRRIP AGM in May 2022. Common research interests with SU emerged during the Q&A session, leading to a follow-up meeting, which also included an industry stakeholder.

What are your personal highlights of GRRIP project?

My personal highlight was meeting with other marine organisations. RRI was a topic relatively unfamiliar to all of us. Discussions about the audit process triggered exchanges about how data and statistics are generated in each organisation. The development of action plans highlighted the different strengths and weaknesses of our organisations.

I particularly enjoyed the opportunity to discuss workshops and was grateful for advice. Generally, GRRIP radically changed my view on engaging with stakeholders. The project triggered a mental shift which allowed me to step away from a mostly academia-focused viewpoint to appreciating the value of a much more democratic approach to research. It really is only a small step to make, a small mental leap to consider on whatever project you happen to be working on next. What can we do to make this research more relevant and bring it to the forefront for wider society? It's actually very enjoyable to think about it.



Second year marine biology students at a field course centre in Pembrokeshire



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PARTNER PROFILE

Swansea University was founded over 100 years ago by industry for industry and has been ranked as one of the top 10 universities for UK spin outs. Given this background, Swansea University has always been eager to work with its community to develop new opportunities and partnerships. As such, it fulfils its role as the academic strand of the quadruple helix of innovation, which interacts with the other strands of this helix - policy, industry, and society.

Marine Research is a key discipline within the Department of Biosciences at Swansea University. The department offers courses in biology, zoology and marine biology at undergraduate and post-graduate levels, all accredited by the Royal Society of Biology. Marine research is conducted on diverse subjects combining fundamental and applied science.

The marine research community takes an interdisciplinary approach, building on a strong history of aquatic research at Swansea University. Swansea Marine Research covers behavioral and movement ecology, evolutionary and molecular ecology, fisheries and aquaculture, population and community ecology, whole organism biology and non-native species control.

Research also considers the interconnected nature of different freshwater, estuarine and marine environments, and humans as key components of these systems. Methods are a combination of observational, experimental and modelling approaches. The university has a purpose-built catamaran research vessel which carries 26 passengers.

In recent years marine research focused on applied topics in collaboration with industry partners. The ERDF funded SEACAMS project assisted the development of opportunities in low carbon economies and answered research questions posed by marine enterprises and marine renewable energy companies.

In 2003 the Centre for Sustainable Aquatic Research, CSAR, was founded. It is a centre of excellence with support from the European Union, Welsh Government and Swansea University. Equipped with modern, fully programmable recirculating aquaculture systems, CSAR carries out applied research on a diverse range of aquatic organisms, from temperate to tropical and marine to freshwater environments.

Currently, Marine Research is strengthening its links with government, industry and wider society around a number of specific topics. For example, the Natural Products BioHUB connects stakeholders interested in the wider use of Natural Products within the agricultural, pharmaceutical and manufacturing industries, with the aim to contribute to a healthier environment and community.

The Coastal Alliance Wales (CAW) aspires to work together with Higher Education Institutions and public and private enterprises to collectively advance and strengthen Wales' marine and coastal sectors by forming a unified voice. These new networks will ensure wider participation and engagement with stakeholders, and thereby deepen the impact and societal relevance of future marine research.



Fieldwork at Swansea University

About Swansea University

- **Location:** Singleton Park, Sketty, Swansea, United Kingdom
- **Website:** <https://www.swansea.ac.uk/>



GRRIP Project - collective reflection through Mutual Learning: a continuous process

Xiaoyue Tan & Hub Zwart, Erasmus School of Philosophy, Erasmus University
Rotterdam, the Netherlands

GRRIP aims to embed RRI (Responsible Research and Innovation) into the governance structure of four European Marine and Maritime (M&M) research performing organisations and one dual function research performing and funding organisation. This aim is fulfilled through an ongoing mutual learning process, in combination with periodic evaluations and reflections, both within the project consortium and Quadruple Helix (QH) representatives.

The Mutual Learning Exercises (MLEs) approach entails a specific understanding of the role of expertise. It moves away from the knowledge deficit model, where experts are expected to inform the public (as outsiders) of research results in a one-directional manner or where experts within the organisation inform and instruct colleagues on RRI.

Rather, the starting point in any engagement activity is that all participants are experts in the sense of representing important views and experiences concerning how research can be done and what its impacts could be. Multiple viewpoints and experiences are helpful as in many cases it is difficult to predict how research endeavours will evolve and how society may be affected because the future is open and indeterminate.

GRRIP's design included mutual learning meetings involving project consortium members, site representatives, and QH actors (from academia, industry, policy, civil society) at different stages of the project, i.e., Audit stage, Action Plan (AP) design stage, AP implementation stage and project completion stage, to promote shared reflection about the outcomes at each of these. In addition, periodic evaluation (which provided a context for further reflection) with all participants was integrated into the project conceptualisation.

In October 2020, after the audit stage was completed, three on-line mutual learning workshops were held for paired sites, based on the preliminary evaluation results concerning the "RRI maturity level" for each. The discussions helped clarify open data commitments in GRRIP and arrive at shared understandings and the required steps forward. One on-line mutual learning workshop was held for all five sites in January 2021 to discuss the draft Action Plans based on the audit results. This mutual learning event had 19 participants from the five case study sites, of which 40% of the participants reported that they had learnt a lot or a great deal.



In May 2022, a hybrid mutual learning session was conducted within the consortium during the GRRIP General Meeting at Lisbon, to understand the drivers and challenges of QH engagement and lessons learnt from project implementation. It was shared that QH engagement is seen to be beneficial as it can increase local communities' support for a particular project and improve quality of work and knowledge.

Language barriers (academics tend to use terms which are specific to their disciplines) were raised as challenges of QH engagement. Other barriers mentioned included: resource constraints for regular QH engagement, non-recognition of its potential value in career progression of researchers, and difficulties to engage QH (external members, who give voluntary time) specifically with regard to the actions being taken for implementation of the RRI keys within the five M&M organisations in the GRRIP project.

Proposed solutions to these challenges included engaging various representatives using language that can be understood by non-academics, developing shared understandings, influencing research funding organisations for changes in evaluation of research performance, developing a RRI accreditation system (similar to Athena Swan), and the incorporation of public engagement in research methodologies.



GRRIP Project - collective reflection through Mutual Learning: a continuous process

Xiaoyue Tan & Hub Zwart, Erasmus School of Philosophy, Erasmus University
Rotterdam, the Netherlands

The sites also meet regularly (once every month) to exchange experiences on RRI related organisational and cultural changes. In these discussion spaces, collaborative solutions on some sticky and difficult topics, such as various approaches to engage external QH actors in GRRIP's activities, were developed.

A community platform on RRI in the marine and maritime sector is being designed and it is expected that it will provide a "space" for regular interactions amongst stakeholders across all five GRRIP case study sites and the wider society. The final mutual learning workshop is to be held in Gran Canaria in December 2022, as the project approaches completion.

The GRRIP project, as an ongoing mutual learning process, has been an interesting and enriching experience. Moving away from top-down communication strategies, we wanted to give the floor to multiple forms of expertise and facilitate mutual learning activities throughout all GRRIP stages – reflected in the sessions being dialogue oriented, participatory, reflective, and responsive.

For example, based on the feedback from the participants of the first mutual learning workshops for the planning of the next mutual learning workshop, suggestions to reduce the number of presentations but increase the time for discussions was taken on board by the facilitators (i.e., by EUR).

Additionally, the mutual learning process allowed us to adjust evaluation methods (i.e., from reliance on surveys to qualitative interviews) and to integrate experiences from other RRI projects. It also allowed sharing of knowledge and good RRI practices, building collaborative relationships amongst all the experts (i.e., RRI and Marine) involved in, and with, the GRRIP project.

According to the feedback received, participants, in general, found the mutual learning activities of GRRIP useful and rewarding. One site representative commented that: "In terms of the most rewarding experience, for me, it was really to learn about the other case studies. We met very casually once a month, exchanged ideas, exchanged what didn't work, and tried to come up with solutions..."

The systematic combination of mutual learning processes with evaluations and reflections makes GRRIP a unique RRI-related organisational change implementation project, though it is acknowledged that successful implementation of RRI requires a supportive reward system and that operationalising and practicing RRI is a complex and time-consuming endeavor.

About the authors

Xiaoyue Tan obtained her doctorate degree in Social Psychology from Vrije Universiteit (VU) Amsterdam in 2019.

In 2020, she started work at the Erasmus School of Philosophy (Erasmus University Rotterdam) in the role of multidisciplinary postdoctoral researcher. Her research focus is on meaning maintenance and social influence.



Hub Zwart is Professor of Philosophy at the Faculty of Science (Radboud University Nijmegen) and scientific director of the Centre for Society and the Life Sciences.

The focus of his research is on philosophical and ethical issues in the emerging life sciences from a 'continental' perspective, notably genomics, synthetic biology and neuro-science.



PROJECT UPDATES & NEWS

GRRIP HOSTS AGM AND MUTUAL LEARNING SESSIONS IN LISBON

GRRIP consortium members recently travelled to Lisbon to participate in the project's Annual General Meeting (AGM). The event was hosted by WavEC.

The two-day event (24-25 May) was the first in-person meeting to take place in the project (after the kickoff meeting in January 2019 at Cork, Ireland).

The event took place at the Museu do Oriente, Lisbon, Portugal, and was designed to be a hybrid event. Two Mutual Learning sessions were held on Wednesday, May 25: one within the consortium to reflect on the Responsible Research & Innovation (RRI) implementation journey, and one session with three other EU funded RRI focused projects; Co-Change (Peter Biegelbauer, Lalic Branislava, and Mila Grahovac), NewHoRRizon (Erich Griessler), and NUCLEUS (Penny Haworth and Alexander Gerber). The session was designed to deliberate on the barriers and successes of RRI implementation and future positioning of RRI.

To read more about the details of both events go to grrip.eu.



GRRIP members outside the offices of WavEC, Lisbon



Gender Equality Plan training session at PLOCAN

PLOCAN HOSTS GENDER EQUALITY PLAN TRAINING SESSION

PLOCAN recently organised a training session to strengthen the knowledge and skills of its Gender Equality Unit in order to keep developing, implementing and monitoring PLOCANs Gender Equality Plan.

The training was conducted in a hybrid mode on June 17, 2022, by Maria del Mar Ropero, Managing Partner of Sagardoy Lawyers, a law firm with extensive experience in Equality Plans (EP).

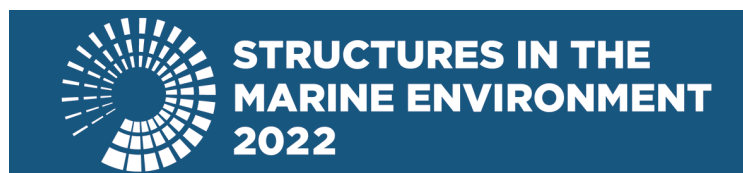
This session was intended to train the employees on the main developments with regards to Equality Plans in public institutions, the contents of EPs and the consequences of non-compliance with an EP for public bodies/agencies, all in relation to the implementation of the EPs as a requirement for accessing European Research, Development, and Innovation funds.

STRUCTURES IN THE MARINE ENVIRONMENT 2022 (SIME 2022)

Hosted by the Marine Alliance For Science and Technology For Scotland (MASTS), the SIME2022 conference took place on June 7, 2022.

Dr. Ruth Callaway of Swansea University presented a paper entitled 'Enriching coastal infrastructure: the multi-stakeholder project Mumbles Sea-Hive'. The paper examined how adding features which can support biodiversity to coastal infrastructure can mitigate the loss of shore wildlife caused by the hardening of coastlines and the destruction of natural habitat.

The SIME2022 conference focused on the impacts of presence or removal of man-made structures on marine ecosystems.



IUML WELCOMES STUDENTS FROM IVORY COAST



Visit of AlgoSolis, a R&D facility dedicated to the development of sustainable microalgae industry

Ten students and three teachers from the National Institute Polytechnique Houphouët Boigny, Ivory Coast, were recently invited by IUML, under the aegis of the TravauxMerCI project, to share challenges facing coastline development in both France and the Ivory Coast (May 10 - May 22).

A topic of further collaborations between these students was subsequently finalised and will focus on "resilience of buildings to climate change in France and Ivory Coast".

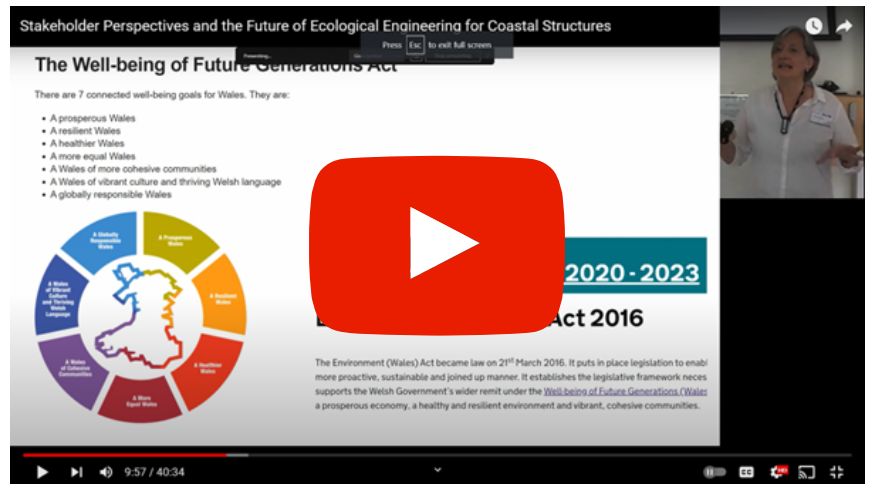
PROJECT UPDATES & NEWS

SWANSEA UNIVERSITY PRESENT AT ECOSTRUCTURE CONFERENCE

At the final Ecostructure conference, which took place on June 23, 2022, industry stakeholders, including Dr. Ruth Callaway of Swansea University, presented their views and results from the project.

This conference marked the completion of Ecostructure, a five-year interdisciplinary research project part-funded by the European Regional Development Fund through the Ireland-Wales Cooperation Programme 2014-2020.

Dr. Callaway's presentation was titled "Applying applied research: challenges and next steps".



SCIENTIFIC DAY AT NANTES UNIVERSITÉ

The various laboratories associated with IUML were brought together to identify research topics for potential future collaborations.

The scientific days at Nantes Université have previously supported exchanges on the topics of Public Engagement, underwater acoustics, and OneHealth.

As a result of the first such scientific day about Public Engagement at IUML, two laboratories formed partnerships for a European project. In the June 3 event, an introduction about Responsible Research & Innovation (RRI) was provided by GRRIP Project Manager, Dr. Indrani Mahapatra. Professor Franck Schoefs of IUML, gave an explanation of the RRI policies developed and being developed in IUML. Discussions were subsequently held on Public Engagement with a focus on citizen science.

Pauline Loubat, the national contact for the Collectif Vigie Mer (a network of more than 55 NGOs) shared the key objectives and key outputs from the workshops organised in 2021 during the Sea and Littoral Participatory Science Days. Two PhD students also shared their objectives and ideas for engaging citizens in their respective projects.

The attendees then discussed these two proposals and provided feedback to the PhD students. One of the key recommendations was to engage local NGOs (rather than citizens) in their project for ensuring a continuity as PhDs are of more than 3 years duration.

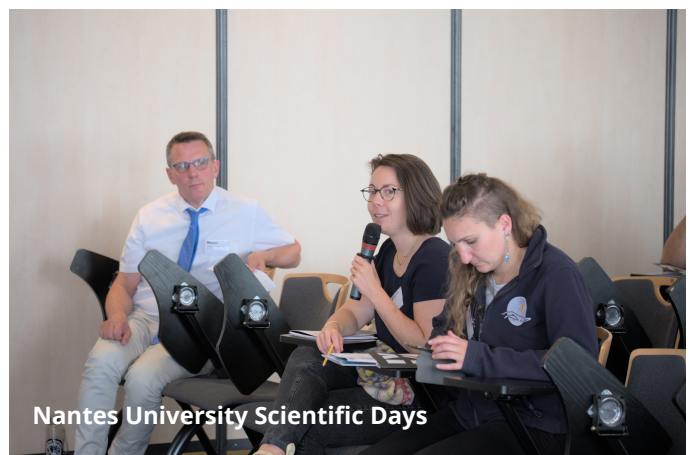
FRANCE QUEBEC ANNUAL CONFERENCE OF THE SEA

IUML recently hosted the France Quebec Annual Conference of the Sea from June 13 to June 14, 2022.

Stakeholders and scientists from both countries developed the research roadmap of the France Quebec Institute of the Sea ([Institut France Québec de la Mer](#)).

Canada previously hosted this workshop in 2017 and Nantes Université had the honor of hosting the second session of the IFQM. The Prime Minister of Quebec and the French Minister of the Sea delivered speeches which indicated the high-level of support available for the initiative.

The actions carried out over the last five years were reviewed. The activities included a session on participatory science, in which two museums (located in France and Quebec, Canada) decided to develop strategies on how scientists can share the developments in science with the public. One noteworthy suggestion was that scientists carry out their research for several weeks in the respective museums.



Nantes University Scientific Days