

WINTER EDITION (2021- 2022)

GRRIP NEWSLETTER

ENGAGEMENT CONTINUES ASPACE

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

PROJECT ID:820283



FOREWORD

Gordon Dalton, GRRIP Project Coordinator (PLOCAN)



The GRRIP project is seeking to embed the responsible research and innovation (RRI) principles of gender equality, open access, ethics, science education, and public engagement into the governance structure of four marine and maritime (M&M) research performing organisations and one dual function M&M research performing and funding organisation across Europe.

GRRIP is the first EU project that will make details publicly available of both the process of change management and progress in the implementation of a series of RRI interventions aimed at initiating institutional change in the five M&M case study sites. Institutional change requires both external and internal input and support from senior management, supporting departments, and the research community, in collaboration with the respective society, industry, political and academic partners across these sites. To date, the sites have had significant success in identifying and engaging the relevant external and internal stakeholders required to implement the proposed changes.

GRRIP hopes to create a "RRI community of practice" across the five sites (and the wider marine research community) which will continue to engage after the project ends in December 2022. The GRRIP project will deliver a suite of tools in the form of action plans and survey outlines, and action plan development and evaluation templates that other marine and maritime research organisations can use to initiate and implement their own RRI change management plans.

GRRIP's commitment to democratic research and innovation processes can be evidenced from the workshops which the sites are conducting with representatives from society, academia, business, and government (Quadruple Helix) to inform RRI-related institutional change. For example, IUML (Sea and Littoral Research Institute) an interdisciplinary institute, with 22 laboratories across seven Universities and Engineering Schools, led by Université de Nantes has been conducting regular QH meetings with 11 stakeholders to deliberate on the way forward for institutionalisation of the various RRI key themes. The most recent one took place on 25th November 2021 and was dedicated to the RRI key of public engagement. A PE engagement roadmap which included plans on citizen science activities, exhibitions for pupils, etc. was presented and agreed upon.

I'm confident that the GRRIP project will be highly successful in the implementation and completion of its own RRI action plans, and that ultimately GRRIP will prove to be sustainable post-project and recognised in the future as a reference project. Dissemination and communication is a vital part of this ongoing process and this newsletter is just one element of an overarching strategy designed to increase the project's visibility and reach, whilst keeping participants and stakeholders actively engaged and informed on progress within GRRIP.

This newsletter includes an:

- Interview with Dr. Ayoze Castro Alonso, Head of the Innovation Unit at PLOCAN (The Oceanic Platform of the Canary Islands), one of the five M&M case study sites in the GRRIP project.
- Article on 'Democratising research and innovation', by Dr. Indrani Mahapatra, GRRIP's Project Manager.
- Update on various project related events and collaborations that have happened during 2021.

Gordon Dalton, coordinator of the GRRIP and MUSICA projects, is a Renewable Energy Economics Engineer and leads the 'Economics and Business Development' Research Group at PLOCAN. The Group's research covers the broad economic and socio-economic analysis of the emerging ocean energy industry, as well as creating business models for emerging technologies.



PLOCAN

INTERVIEW

Ayoze Castro Alonso (Head of Innovation Unit, PLOCAN)

What motivated PLOCAN to be part of the GRRIP project?

Traditionally there has been a disconnection between society and what the researchers are doing, both from the academic sector and those who are conducting research and development (R&D) in the industry in Spain and the Canary Islands. We feel it is our responsibility to engage with the wider society as most of our activities are funded by public sources. Moreover, there is a perception in our society (of which we are part) that they are paying for our work, but they are not receiving any feedback. At PLOCAN, we want to change this perception. We have found that adopting the RRI philosophy is essential and that we need to continue to collaborate, engage, and improvise with wider stakeholders. The GRRIP project is central for us in implementing these changes, not only in our organization, but also to create impactful changes in our society.

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

The GRRIP project fits very well with PLOCAN's overall strategic goal of creating a world class marine and maritime research infrastructure. PLOCAN is a research and development infrastructure and by our nature we provide support to the scientific community to perform R&D activities. Therefore, we are very well integrated in the R&D community, not just at the regional or national level, but at the international level with our wide network of more than 700 institutions. We collaborate with them to respond to the EU's priority research areas and global challenges, which includes the United Nations Sustainable Development Goals as well as maritime policies. We realised that locally there is a lack of knowledge regarding our activities and GRRIP provides us with the opportunity to address this gap, acting as a driver to engage with PLOCAN's stakeholders and the wider society.

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

The RRI philosophy has five pillars: public engagement, gender balance and gender equity, the training and education with and of society, open-access, and ethics. In the GRRIP project, we have conducted an internal audit to understand our strengths and weaknesses in terms of how we need to improve our governance to reinforce these five pillars and bring about changes. We are ambitious, however, at the same time we do recognise the need to be realistic in order to truly implement RRI related changes. We have created pragmatic action plans and have initiated some of these changes. For example, we have developed policies on open access and on gender equality and we have also assessed the landscape of RRI trainings, identified specific training programmes and have planned their subsequent roll-outs.

How do the Quadruple Helix engagement workshops benefit PLOCAN?

One of the key challenges of PLOCAN is to push for decarbonisation in Europe and Spain, particularly in the Canary Islands, which suffers from high energy costs. There are technological barriers to marine renewable energy implementation, in addition to non-technological barriers, such as authorisations and permits. We decided to use the insights gained from the work conducted by a law firm contracted by PLOCAN to engage with industry, academia, civil society, and government (Quadruple Helix) to demonstrate that wider engagement can help solve these challenges. We organised a workshop and included the presentation of a success story from Portugal by WavEC (a partner in the GRRIP project) and then used the workshop environment to define the best pathways, routes, and opportunities to overcome the challenge of authorizations and permits. We subsequently brought this into the conversations with local and regional governments.



Ayoze Castro Alonso

Can you outline some future collaboration, research ideas, or changes to emerge from the project?

We are going beyond the commitments of the GRRIP project. We have made social sciences a cross-cutting area of research and it is at the same level with the other three research themes of PLOCAN ([1] ocean observing and monitoring, [2] decarbonisation technologies, and [3] marine and maritime technologies). We hired an expert to integrate social sciences with the marine and maritime research areas of PLOCAN. Based on our participation in the GRRIP project we are also expecting to be able to bring about more sustainable changes in our governance with regard to RRI and also increase and improve how we are relating to society, especially our local stakeholders. We want to make societal engagement the foundation of PLOCAN's activities. Something worth mentioning here which was the result of following RRI principles - basically engaging with stakeholders and looking at how best to sustain activities beyond project duration - was PLOCAN joining the pan-European Research Infrastructure Project ([MARINERG-i](#)) in order to promote and foster marine renewable energies to speed up decarbonisation in Europe and address the global challenge of climate change. [MARINERG-i is led by MaREI in UCC and was accepted onto the European Strategy Forum on Research Infrastructures (ESFRI) [Roadmap](#) published on the December 7th, 2021]

What has been your personal highlight to date of the GRRIP project?

We need be sure that what we are doing will benefit the society and that we are not just working for our own purpose, i.e., producing publications for our career growth in academia. We need to take the responsibility to co-design and co-develop solutions to the challenges that as a society we all are facing. In that sense, the GRRIP project has provided a great opportunity to reflect on this internally, but also externally. GRRIP is focused on the M&M sector, which is a crucial and key sector in Europe. Therefore, GRRIP is not just RRI, but RRI in the marine and maritime sector.

PLOCAN

PARTNER PROFILE

The Oceanic Platform of the Canary Islands (PLOCAN) is a research infrastructure categorised as an ICTS (Unique Scientific and Technological Infrastructure) in the ICTS Spanish National Roadmap and is co-funded by the Ministry of Science, Innovation and Universities of the Spanish government, the Canary Islands government and by the European Regional Development Fund (ERDF) under the Operational Programme of the Canary Islands.

PLOCAN is a multipurpose technical-scientific infrastructure that provides support for research, technological development and innovation in the marine and maritime sectors, available for use by public and private.

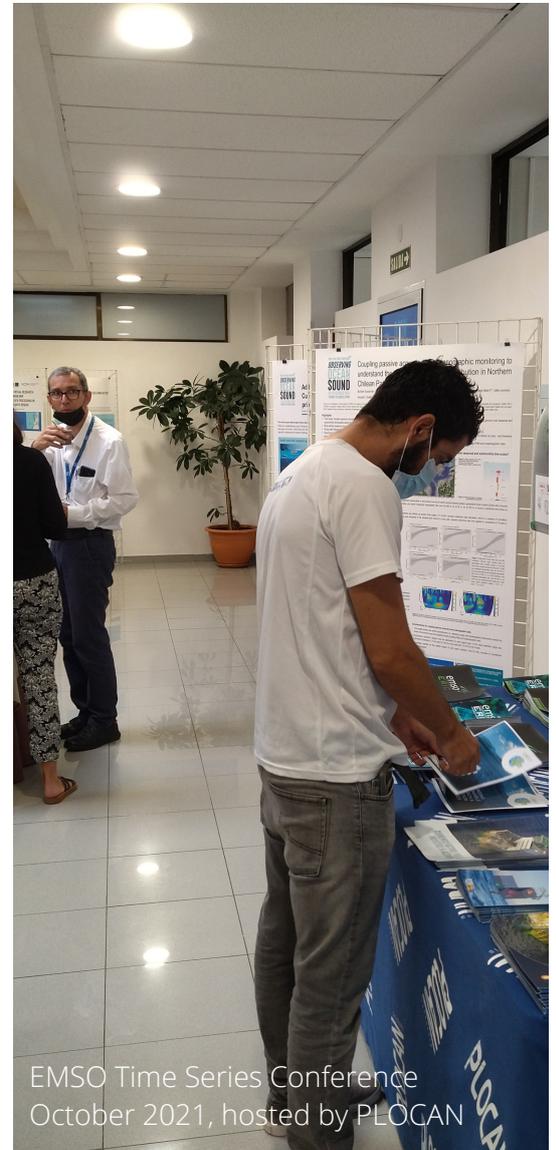
PLOCAN offers both onshore and offshore experimental facilities and laboratories operational throughout the year. PLOCAN is also leading or involved in large national, EU and international marine and maritime projects.



Staff Training on RRI, PLOCAN, November 2021

PLOCAN provides:

- An ocean observatory for the continuous and real-time monitoring in fields such as the study of global change and ocean acidification, water-column and deep-sea ecosystems, ocean biogeochemistry and geophysics. It consists of several permanent and mobile systems that interoperate to offer environmental impact monitoring, instrument testing, calibration and validation from shallow waters to the deep seabed.
- A test bed for the research, demonstration and operation of marine technologies, especially those related to marine renewable energy. PLOCAN has a robust and secure underwater infrastructure to transfer the generated energy to the power grid and to the control centre for data analysis.
- A series of state-of-the-art equipment, such as unmanned underwater vehicles (UUVs), remotely operated vehicles, gliders and also provides support to unmanned vehicle deployment missions of clients and research partners. PLOCAN has a dedicated control room to track the UUVs on real-time.
- A training platform for various institutions and enterprises.
- High-quality research and innovation project management services, as well as other technological (testing marine devices, data collection and analysis, environmental studies, etc.) and non-technological (fundraising, regulatory permits, logistics, health and safety, etc.) user-oriented services.



EMSO Time Series Conference
October 2021, hosted by PLOCAN

About PLOCAN

- **Location:** Telde, Gran Canaria, Canary Islands, Spain
- **Staff Numbers** (January 2022): Total = 55 (Male: 53% and Females: 47%)
- **Website:** <https://www.plocan.eu>
- **Mission, vision and core values available at:** <https://www.plocan.eu/en/mission-vision-and-core-values/>



DEMOCRATISING RESEARCH AND INNOVATION

Indrani Mahapatra (MaREI)

Science and technology, society, and policymaking are closely linked (e.g., genetically modified food and the public resistance to it). The current hesitancy in vaccination uptake indicates a broader issue of trust in the research and innovation enterprise (including the motives of pharmaceutical companies and governments) and a wide gap between the scientists' and the publics' attitudes to the safety of biomedical innovation. Another recent example is the objection by the Dutch public to the roll out of smart meters for energy efficiency, where the main issue of concern was data privacy.

Science's (and scientists') rationality and the notion that policies based on scientific evidence are robust and objective have been debated and challenged. In other words, we now understand that scientists are influenced by their values and views, overall political context, and economic imperatives and these influence the production of scientific knowledge. Moreover, scientific processes and outputs have many uncertainties, unknowns, and complexities, which are often suppressed/not detailed in science-related communications or policies.

Since innovations have unintended consequences (e.g., Dichlorodiphenyltrichloroethane [DDT] which resulted in the widespread decline in population of birds of prey) it is important to move beyond end-of-pipe governance, i.e., risk governance of innovations after they have been introduced into the society, and towards involving the often excluded, wider society at the stage before research begins. In doing so, the motivations, goals, priority areas of research funding and potential environmental, societal, and ethical implications of new and emerging technologies can be discussed and debated with the involvement of scientists, science funders, companies with focus on research and development, government, and society. Engaging with a plurality of publics is considered to be a pragmatic step as it can give rise to more ideas and possibly better decision-making and collective learning. It can also help infuse the democratic mindset in science and innovation governance.

This can be further supported by open science (i.e., the research outputs, including raw data, and publications are available freely to all) as a significant volume of research is paid, either directly or indirectly, by the public. This will enable society to understand the underlying assumptions and motivations of investments in research and explore questions on who controls a technology, who benefits from it and what potential (current and future) issues may arise.

Moreover, the entrenched technocentric framings of science (for example, addressing Vitamin A deficiency via genetically modified rice rather than encouraging change in diet to include Vitamin A rich foods) can be scrutinised in such a democratic scientific research and innovation policy context. The principles behind the democratisation of research and innovation would not be agreeable to those who believe that science and politics should not intertwine, that experts give nonpartisan views, and that the public have a deficit in scientific understanding and are driven by emotions. The recent COVID-19 experience, however, where experts provided divergent views, points to a very different reality.

The GRRIP project is committed to the idea of democratic research and innovation (promoting it within their institutions and beyond) and to this effect, the five marine and maritime case study sites have been conducting Quadruple Helix (QH) engagements (discussions with representatives of society, government, higher education, and business) to understand the challenges communities face and to identify potential collaborative research ideas to solve these challenges. Initiatives by MaREI (at University College Cork), Swansea University (SU), and PLOCAN in 2021 to foster responsible innovation detailed below.

- In March 2021, PLOCAN facilitated discussions on "Authorisations and permits for offshore renewable energies deployment" to co-identify ways forward with representatives of the QH for Spain and the Canary Islands and for the sector as a whole in Europe, so that sustainable energy innovations can proceed at a faster rate. A position paper from the workshop was prepared (in Spanish) and circulated to participants and competent authorities.

"Engaging with a plurality of publics is considered to be a pragmatic step as it can give rise to more ideas and possibly better decision making and collective learning..."





Workshop involving the Quadruple Helix, PLOCAN, March 2021



- MaREI, with UCC Civic and Community Engagement, conducted a multi-stakeholder virtual workshop in June 2021 – “Shaping the Future of Marine and Maritime Communities” - to deliberate on the challenges, and innovation opportunities for marine and maritime communities and research in the south-western region of Ireland. This workshop was jointly organised with the UNIC City Labs Project with the ambition to contribute to resilience in post-industrial port cities and regions. Forty-five QH representatives participated and considered the challenges and opportunities identified in the areas of climate change, marine energy, marine environment, food security, blue economy jobs, and skills. Participants’ interest in attending future events was sought and based on the response they were asked to provide suggestions for further engagement activities and potential topics for future workshops. MaREI circulated the draft workshop report to the participants and included participant’s feedback in the final version. A further event is currently in planning for 2022 to build on the engagement process initiated during the 2021 workshop.



- A multi-stakeholder workshop was also organised in September 2021 by Swansea University entitled “The Future of Coastal Communities in Swansea and South Wales”. The purpose of the workshop was to better understand what stakeholders from industry, government, and the wider society perceive to be the main challenges in the coming years for Swansea and South Wales, elicit what research would be beneficial to them, and find out how stakeholders would like to interact with Biosciences. Thirty-one attendees from industry, wider society, governmental organisations, and academia attended the workshop. Breakout groups discussed the perceived main challenges to the coastal and marine environment, suggested research ideas involving multiple stakeholders, and highlighted hurdles for collaborative approaches. "Inreach" rather than "outreach" was seen as a weakness of the institution. It was suggested that SU should make it easier for people to interact with university staff, start discussions, and have a clear pathway into the organisation. Further, it was realised that people were more open when SU went out to the communities and not when community members were invited to SU. The Officer of Industry Engagement of SU, who was present at the workshop, was enthused by the discussions and concluded that the need to engage with communities should be a priority in addition to the efforts to engage with industry.

Shaping the future of Marine & Maritime communities - Summary Report

GRRIP's commitment to democratic research and innovation processes is yielding results by providing us with a broad view of the issues faced by marine and maritime communities which in turn impacts our approach.

About the author

Indrani is a senior-post doctoral researcher at MaREI, UCC. She completed her interdisciplinary PhD in 2016, where she estimated the potential environmental risks of nanomedicine. She explored the adequacy of existing guidelines on environmental risk assessment of medicinal products for human use and suggested a framework for operationalising Responsible Innovation in the nanomedicine sector informed by the 66 expert interviews she did as part of her PhD.

She has advised large corporations on corporate sustainability reporting and sustainable supply chain, and worked in projects related to health risk assessments, cleaner production in small- and medium-scale enterprises, developing eco-labels, renewable energy, environmental life cycle assessment, and nanotoxicology.



PROJECT UPDATES & NEWS

76TH SESSION OF THE UN GENERAL ASSEMBLY (UNGA 76) SUMMIT

GRRIP was a key contributor to this year's Science Summit, held as part of the 76th session of the UN General Assembly (UNGA76). As part of the summit, a session held on Tuesday, September 28th, 2021, and convened by UNESCO, explored '[Responsible Research and Innovation \(RRI\) for Sustainable Development](#)'.

Dr Ruth Callaway's (Senior Research Scientist, Swansea University, UK) presentation 'Implementing RRI in a Public Research Organisation - Swansea University Experience' detailed the integration of research with societal needs within the GRRIP Project. Dr Malcom Fisk (Professor, De Montfort University, UK) presented 'Co-designing structural changes for a more Responsible Research and Innovation within GRRIP project'.

The concept of RRI has been promoted by the EU in recent years as a more inclusive, ethical and open approach with the potential for producing increasingly diverse science and innovation with stronger governance. In discussing GRRIP's contribution, Professor Fisk said, "The special importance of GRRIP lies in its understanding of the realities of commerce and the way that the wider stakeholder agenda (us and our communities) can help influence moves towards greater responsibility...for all our futures."

CROSS-SWAFS (SCIENCE WITH AND FOR SOCIETY) STAKEHOLDER FORUM

GRRIP was an active participant in the first two Cross SwafS Stakeholder Forums for Open Science, organised by [ROSiE](#) (Responsible Open Science in Europe), the most recent of which took place on Thursday, December 2nd, 2021.

The first forum provided GRRIP with an opportunity to introduce the project to other EU funded RRI-themed projects, including GRACE, ETHNA System, Co-Change, Time4CS, and Super MoRRI (amongst numerous others).

In the second forum, Graham Lynch (Dissemination and Communications Officer, MaREI, UCC) provided a short summary on recent GRRIP activities. GRRIP also contributed to a breakout session focused on identifying RRI opportunities with other research projects.

GRRIP are following up directly on potential collaborative opportunities with TIME4CS (see below) and the GRRIP Partners are looking forward to participating in the next scheduled forum on February 3rd, 2022 and identifying additional opportunities for strategic partnerships with other like-minded projects.

LINKING WITH TIME4CS PROJECT

[TIME4CS](#) is a Horizon 2020 research and innovation programme, coordinated by Agency for the Promotion of European Research in which Tyndall National Institute (Cork, Ireland) is implementing institutional changes to promote citizen science in science and technology.

Tyndall organised an online workshop "Embedding Citizen Science in Learning, Teaching and Research" on October 28th, 2021 to discuss curriculum development in citizen science. Indrani Mahapatra, Senior Post-Doc at MaREI (UCC) presented the GRRIP project and the various schools of thoughts on open science, detailing how the RRI principles of open access, public engagement, ethics, and science education can guide the process of citizen science curriculum development as well as be part of the Citizen Science Course/ Module.

WavEC HOSTS ANNUAL SEMINAR

[WavEC Offshore Renewables](#) organised its [Annual Seminar](#) in collaboration with the Embassy of Japan in Portugal. The event took place online, on November 30th, 2021 and provided its participants with a unique opportunity to explore new collaboration opportunities in business and research in marine renewable energies and other blue economy sectors.

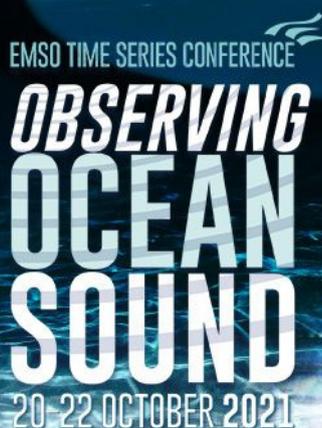
The event attracted over 20 speakers from Europe and Japan and the event had some 239 attendees from 34 different countries - 50% of attendees were from the business community, 20% from the higher education sector with the remaining participants drawn from government (9%) and wider society. The GRRIP project was presented at the event to raise awareness on Responsible Research and Innovation and was well received from all involved.



PLOCAN HOSTS EMSO TIME SERIES CONFERENCE 2021

PLOCAN hosted the first edition of the EMSO Time Series Conference 2021 "Observing Ocean Sound", which was held in hybrid mode from October 20 - 22, 2021.

The conference's main aim was to inform and train the ocean science community on the latest advancements in detecting and monitoring underwater sound for environmental and industrial purposes. The GRRIP project was presented, and project information was distributed to attendees.



EMSO TIME SERIES CONFERENCE
**OBSERVING
OCEAN
SOUND**
20-22 OCTOBER 2021