

<p>Public Engagement - A Step Towards Responsible Research and Innovation</p> <p><i>(Anca-Maria Gheorghe, Angelica Paiu, Mihaela Mirea Căndea, Romulus Marian Paiu)</i></p>	<p>“Cercetări Marine” Issue no. 47</p> <p>Pages 267-272</p>	<p>2017</p>
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PUBLIC ENGAGEMENT - A STEP TOWARDS RESPONSIBLE RESEARCH AND INNOVATION

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ABSTRACT

Responsible Research and Innovation (RRI) is implemented as an action that includes multi-actor and public engagement in research and innovation, enabling easier access to scientific results that take up of gender and ethics in the research and innovation content and process, and formal and informal science education. As research and innovation must respond to the needs and motivations of the modern society for a sustainable future, the EU initiative of Responsible Research and Innovation (RRI) aims to enable multi-stakeholder involvement in research and innovation processes. In the MARINA project all actors will be engaged for sharing knowledge, including citizens' vision and societal needs, in order to create synergies among research and innovation and environmental safeguarding measures. The MARINA project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under GA No. 710566. Public engagement in RRI is about co-creating the future with citizens and civil society organisations and also bringing on board the widest possible diversity of actors that would not normally interact with each other.

Key-Words: Public engagement, RRI, environmental, civil society, education

AIMS AND BACKGROUND

Within the new paradigm of Responsible Research and Innovation (RRI), PE is becoming more ambitious; it is embracing an idea of publicly engaged science and innovation in which PE is integrated in open and inclusive R&I processes that allow input from relevant participants. In this process, experts' opinions will still be crucial in decision making, but citizens input will become more and more relevant.¹

EXPERIMENTAL

The practice and politics of multi-stakeholder engagement, or public engagement (PE), with science has been evolving over the last two decades. It started with a willingness to promote public understanding of science through one-way communication of scientific findings. This followed a deficit model that assumed an ignorant public had to be educated about science.¹

In the Public Engagement 2020 report Innovative Public Engagement are presented five main categories of public engagement.²

- Public communication - One-way communication to inform and educate citizens. No mechanisms for handling public feedback. Using methods such as public meetings and hearings, awareness raising activities.
- Public consultation - One-way communication to inform decision makers of public opinions on certain topics. Decision makers may or may not act upon the information. Are used methods such as focus group, planning for real, citizens advisory panels.
- Public deliberation - Two-way communication to facilitate group deliberation on policy issues. Outcomes may have an impact on decision making. Dialogue is facilitated. Using methods like deliberative opinion polling.
- Public participation - Two-way communication to assign part or full decision-making power to citizens. Dialogue is facilitated. Methods used here are co-governance, direct democracy mechanisms – youth parliaments, citizens assembly.

Public activism - One-way communication to inform decision makers and create awareness in order to influence decision-making processes. Demonstrations, protest, awareness raising activities, public meetings are the methods used in this case.

RESULTS AND DISCUSSION

Mare Nostrum NGO has over 20 years of experience in engaging the public in its activities, as the public is the main actor in changing behaviors. Involvement of various actors (researchers, policy-makers, teachers, students, non-governmental organisations, civil society, citizens) in local and national awareness activities like campaigns and public events and workshops on various topics dedicated to all stakeholder categories that creates a bridge between research area and the needs and expectations of the civil society in the Black Sea coastal area. Also, beach litter monitoring and activities to protect the marine environment and coastal areas in particular dolphins and promoting issues facing cetaceans among the local population, fishermen and tourists at the Romanian seaside of Black Sea, represent a participatory process of exchanges and dialogues between all stakeholders, contributing to sustainable development in the coastal area.

Awareness activities represent one of the most effective way to engage public participation and to involve them in various activities. Over the years, Mare Nostrum, involved over 50.000 persons in public activities like public events,

educational activities, workshops, involving in this way various actors (researchers, policy-makers, teachers, students, non-governmental organisations, civil society, citizens).

A very important factor of public engagement is the involvement of the young generation in diverse and educative activities that will increase their interest and involvement in research and sustainable development activities. Over the years Mare Nostrum organized activities for students and teachers, in order to present them the need of the society, with focus on environment issues, and to encourage them to take action in order to protect the environment.

Public events and campaigns represent the channel to inform and educate citizens. Through them, we present to them the problems and they can contribute with solutions and proposals to improve the quality of life. In this way, the citizens participate at the development of the actions which must be taken, in order to meet the needs of population development and involvement in joint actions.

Mare Nostrum organize annually several public and educational events with the occasion of the days with relevance for the environment, like Earth Hour, Green Week, Black Sea Action Day. Through them there are alarm signals about various aspects of the environment and how we can protect the environment.



Fig. 1. Campaigns and public events.

Workshops represent the best way to attract and involve different stakeholders in making decisions and shaping actions to implement them. In the last years, Mare Nostrum organized several workshops which generated concrete actions for the reduction of marine waste and protection of the Black Sea coastal area.

One of the workshops was MARLISCO (Marine Litter in European Seas - Social Awareness and Co-Responsibility) national forum, held on 28th of October 2014, in Constanta. The Forum provided an opportunity for everyone to “have a say” about how we could address some environmental, economical and health issue, with focus on marine litter (Fig2). The scientific, technological and social current issues on marine litter were discussed and the event brought together relevant actors in order to address the current problems caused by the marine litter. Representatives of NGOs, public institutions, authorities, environmental agencies, “Romanian Waters” National Administration, representatives from various universities, local and national press, teachers and students gathered together to discuss the problem of marine litter from Romanian seaside.(Fig3)

The participants identified the most effective solutions to stop marine litter, the marine litter’s sources and the way how marine litter affect the environment and the problems caused by them. Thus, the participants identified 12 causes of marine

waste occurrence and 6 very important aspects of the problems they cause. The report of the forum, together with the results from the others forums held by partners, was submitted on the MARLISCO website and were sent to the European Commission. (www.marlisco.eu)



Fig. 2. MARLISCO national forum.



Fig. 3. MARLISCO forum – discussions.

Another important workshop organized, was the Mobilisation and Mutual Learning (MML) workshop organized within the project MARINA (MARINE KNOWLEDGE SHARING PLATFORM FOR FEDERATING RESPONSIBLE RESEARCH AND INNOVATION COMMUNITIES) (Fig4). In order to present the RRI concept in Constanta, Romania, in January 2017 a Mobilisation and Mutual Learning (MML) workshop was organized, with participants, representing researchers and scientists, citizens, local policy makers, journalists, NGOs and CSOs. The MML workshop was focused on the hot topic of “Pollution by human pressure with a special focus on marine litter” (Fig5), because marine litter is an actual problem present in all seas and coasts around the world and is a problem with no borders. The discussions started with the triggering question “What actions should be taken by the community in order to reduce marine litter. Each participant identified 5 most important ideas in his/her opinion. The most voted ideas were divided in three groups and each participant had to categorize, prioritize and summarize the types of Responsible Research and Innovation action to be implemented having in mind three lines of thought about marine litter: Priority, Feasibility challenges and Economic challenges. The actions identified by the participants designed the roadmap of efficiently dealing with marine litter. The resulted roadmap was uploaded on the MARINA platform together with the report of the workshop, photos and videos. (www.marinaproject.eu)



Fig. 4. MML Workshop.



Fig. 5. MML Workshop - discussions.

Another activities which involve public engagement are represented by beach litter monitoring. From 1992 to the present, Mare Nostrum developed several activities regarding the marine litter. Started with the Coastwatch activity, ONG Mare Nostrum, with the help of volunteers and learning institutions, identified and catalogue the types of wastes present on the beach. Mainly, human impact is analyzed, emphasizing the numerical inventory of waste present on the beach (Fig6). Coastwatch is not the only method used to monitoring the beach litter. In the last years, Mare Nostrum organize 2 times per year, in April and October, the methodology proposed in the „Guidance on Monitoring of Marine Litter in Europe Seas”. The proposed methodology implies the identification of 100 m long fixed section of beach covering the whole area between the water edges (where possible and safe) or from the strandline to the back of the beach.



Fig. 6. Coastwatch activity.



Fig. 7. Beach litter monitoring.

Activities to protect in particular dolphins and promoting issues facing cetaceans among the local population, fishermen and tourists, are organized every year as information and awareness campaign, to inform the local community and tourists, about the problems faced by dolphins. Also, during the entire year are conducted systematic observations activities on the Romanian seaside, through the monitoring network "Volunteers save the dolphins". This program provides annually the collection of data on the occurrence of dolphins in the Romanian coastal waters, catches and strandings in the Romanian seaside area.(Fig. 8)



Fig. 8. Activities to protect dolphins.

Activities to protect the marine environment and coastal areas at the Romanian seaside of Black Sea, represent a participatory process of exchanges and dialogues between all stakeholders, contributing to sustainable development in the coastal area, with the public involvement and engagement.

CONCLUSIONS

Public engagement in RRI can help in bringing decisions closer to society, making them more focused on the needs of society, guaranteeing a transparent and trans-disciplinary approach. Mare Nostrum public engagement activities proved that the citizens involvement have an increase ownership of actions leading to a better implementation of environmental measures.

The effects of public engagement in research and decision-making are not necessarily with immediate results. They are seen over time and contribute to the development of the quality of life of the current generation, but most important of future generations.

REFERENCES

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