

# D3.2.2. FINAL REPORT (POSITION PAPER)

InnovaMare project

Blue technology - Developing innovative technologies for sustainability of Adriatic Sea

WP3 - Enhancement of framework conditions by development of innovation ecosystem

## Project References

**Call for proposal 2019 Strategic – InnovaMare**

**Project number:** 10248782

**Work package:** WP3 - Enhancement of framework conditions by development of innovation ecosystem

**Activity title:** A2 Designing and implementing questionnaire for policy stakeholders

**Deliverable title:** D3.2.2. Final report (position paper)

**Expected date:** M7

**Deliverable description:** Final report is containing the analysis of conducted interviews and identifying a summary of policy experience, feedbacks, priorities, and requests related to the development of a cross-national ecosystem of innovation.

**Partner responsible:** Union Camere del Veneto

**Partner responsible for the deliverable:** Union Camere del Veneto

**Dissemination level:** CO - Confidential

**Status:** Final

**Version:** V1

**Date:** 29<sup>th</sup> January 2021

## Contents

|   |    |
|---|----|
| Introduction .....  | 3  |
| Strategic priorities.....   | 4  |
| Benefits and critical factors related to the development of an innovation ecosystem ..... | 6  |
| Relevant drivers to develop an innovation ecosystem.....                                  | 8  |
| Conclusions .....   | 10 |



## Introduction

The aim of this report is to provide a comprehensive overview of the interviews carried out in WP3 – A2 targeting policy stakeholders and carried out in Croatia and Italy. The questionnaires addressed the public sector and specifically decision makers potentially involved in the establishment of innovation ecosystem related to marine and maritime technologies. Seven policy stakeholders have been interviewed as listed in Table 1. Two additional interviews have been carried out to include also private company and research institution to further provide knowledge related to the topic investigate.

Table 1 – List of interviewed stakeholders

|         |                        |   |
|---------|------------------------|---|
| Italy   | Public decision makers | ARTI – Puglia Region Agency for Technology and Innovation               |
|         |                        | Friuli Venezia-Giulia Region  |
|         |                        | Veneto Region   |
| Croatia | Public decision makers | City of Rijeka  |
|         |                        | Dubrovnik-Neretva County  |
|         |                        | DUNEA - The Regional Development Agency of the Dubrovnik-Neretva County |
|         |                        | Šibenik-Knin County (Šibensko-kninska županija)                         |
|         | Private company        | Statim d.o.o.   |
|         | Research institution   | University of Zagreb, Faculty of Geodesy                                |

## Strategic priorities

The sustainable management of the marine environment is fundamental to preserve the good ecological status, the biodiversity of the marine environment, but also human health. Therefore, the theme of the sea is a focal point in the policy of almost all of the interviewed actors; the sea therefore as a relevant resource for the strategic development of the territory.

As a matter of fact, in both countries, policy programs are developed that address and cover the marine and maritime sector.

As far as the Italian context is concerned, examples of how the sea and everything that revolves around it is explicitly dealt with and managed are:

- the funds provided to the maritime production chain allocated to companies in the sector;
- the inclusion of maritime technologies and therefore of the blue economy in the area of intelligent specialization "S3 Intelligent Specialization Strategy".

As far as the Croatian context is concerned, examples of how the sea and everything that revolves around it is explicitly treated and managed are:

- the Marine Waste Management plan adopted in May 2020 by the Republic of Croatia (four objectives: Establish a marine waste management system; To improve the waste management information system; Continuously carry out education and information activities; To strengthen international cooperation in solving the problem of marine litter);

- measures to improve the marine waste management system (infact Dubrovnik-Neretva County in its Environmental Protection Program 2018-2021 proposes measures to improve the waste management system, wastewater treatment system, the establishment of a database on marine litter in the area of DNŽ, the development of coastal management plans);
- the wastewater treatment system (for exemple DNŽ is implementing a project with the objective of improving the quality of marine bathing waters by reducing microbiological pollution entering the sea through rivers and streams, using innovative tools in the management and treatment of fecal wastewater);
- encouragement of technological development that makes the naval business fabric more competitive;
- the development of sustainable coastal management plans and strengthening the resilience of the coastal area (the coasts of the Mediterranean Sea have always been the object of desire for leisure living. So coastal construction is increasingly exposed to the effects of the sea, which is worrying, especially when considering the sea level rise due to climate change. For example, in order to alleviate these problems and strengthen coastal resilience, the Coastal Plan for Sibenik-Knin County has been drafted; which represents a systemic approach for many regions to follow. It mainly refers to spatial planning, water management and coastal protection, but also to regional development and biodiversity management);
- strengthening and development of local infrastructure (for example, in Rijeka the construction of a terminal designed as a straight pier that will allow the reception of container ships of all sizes. In addition, in parallel with the construction of the pier, the railway interface of the terminal will be reconstructed and the connecting road will be built. The final result will be the



development of the port of Rijeka as one of the leading ports in the Mediterranean through the guarantee of efficiency, sustainability and multimodality of cargo transport).

## Benefits and critical factors related to the development of an innovation ecosystem

There are many benefits, on a local/regional/international scale, that organizations can expect to derive from building an innovation ecosystem related to marine and maritime technology:

- the reduction of marine pollution;
- the strengthening of the competitiveness of the entrepreneurial fabric and production systems;
- the increase of employment (infact, a key success factor in Puglia is the link established with ITS Schools - higher technical education and training - in order to provide young people with the necessary training to start working in the fishing, aquaculture, sea and nautical sectors. The most relevant action in this sense is the planning of training courses combined with passionate staff working in ITS Schools: 90% of ITS students find a job within a few months);
- increased cooperation and strengthening of partnership networks.

While the development of a marine and maritime-related innovation ecosystem will certainly provide benefits, its success in the coming years may be diminished by a number of factors, such as:

- adequate knowledge/training;

- political commitment;
- threats (especially economic/financial) related to the pandemic crisis due to the spread of COVID19;
- the regulatory system;
- climate change.

Furthermore, on the Italian side, it is believed that banks and financial institutions are not currently involved as stakeholders in the process of creating the marine and maritime innovation ecosystem (in Puglia Region there are some micro-credit initiatives, but they are not enough to support the development and innovation of the marine and maritime sectors); while the third sector is considered difficult to involve (infact, The Friuli Venezia Giulia Region has involved the nonprofit sector in its S3 strategy).

On the Croatian side, however, it is believed that there should be in the ecosystem of innovation of the marine and maritime sector a proper connection (mix) of policies; people and resources and that local decision makers should be involved in initiatives; in cooperation with the scientific community and in public-private partnerships.





## Relevant drivers to develop an innovation ecosystem

It emerged that at the local/regional level what could contribute to the development of the innovation ecosystem related to the marine and maritime sector are:

- research (for example The Initiative Future Research, implemented by ARTI, finance the generational change in Universities and Research Centres via the creation each year of 170 research grants to hire young researchers);
- innovation/technology (for example Start Cup Puglia, which is an initiative to financially support innovative startups, is active since 2007);
- creation of innovative enterprises (for example PIN - Innovative people from Puglia Region - is the joint Initiative of ARTI and Puglia Region implemented within the regional ERDF OP 2014-2020 to finance and support young people in the creation of innovative enterprises);
- training/education (for example: 1) Friuli Venezia Giulia Region activate every year 3 or 4 technical high schools level training courses in the fields of marine and maritime sectors, including maritime transport and logistics; 2) In Šibenik-Knin County one of the planned investments is the establishment of the University of Šibenik, and in this regard, courses related to robotics and sensors would be of great interest. One of the key factors to initiate this is the establishment of DIH MAiROS in Šibenik for innovative underwater robotics and sensors and living laboratory in the Adriatic Sea);
- investment policies;
- development plans;
- environmental protection programs;
- waste management plans;
- marine spatial plans.



Policy makers are well aware of the importance of an innovation ecosystem linked to the marine and maritime sector and of the countless efforts necessary to sustain its development over time, and their involvement in various projects on themes linked to the blue economy and blue growth demonstrates this. Therefore, it is possible to affirm for both Italy and Croatia, the policy makers interviewed have the perception of the existence in their country of an innovation ecosystem related to the blue economy and blue growth.

On institutional collaborations (regional - national or international) linked to the blue growth strategy, it emerges that all the actors interviewed are active in building collaborative networks. Great efforts are made to enable a network of relationships between the political, scientific and business worlds.



## Conclusions

The results from the interviews provide important inputs and feedbacks for the InnovaMare project.

First, the policy strategic priorities outlined by the policy makers in their policy programs and initiatives of interventions suggest specific directions for the technological applications that could be developed within the InnovaMare DIH and the needs that have to be satisfied in relations to the management of the maritime resources.

Second, this aspect of needs outlined is also connected to the suggested benefits perceived by policy makers in the development of an innovation ecosystem focused on the related to marine and maritime technology: networking among public and private partners; competitiveness of the production systems and firms involved (as well as broader impacts through spillover effects at the local levels) and positive impacts on employments. Such benefits are consistent with the goals of the InnovaMare projects and could further emphasized in terms of analysis of the results achieved and in the development of activities (in particular as far as the involvement of firms in the DIH online platform are concerned).

Third, policy makers identified key challenges in the development of an innovation ecosystems. The InnovaMare project is designed and activities planned to overcome specifically direct challenges focused on adequate knowledge to be developed and spread at the territorial level and specifically connected with the training activities foreseen in the project.

Specific attention should be devoted in the InnovaMare project in enhancing political commitment as far as the focus on the blue growth is concerned. Activities included in the project are oriented in this direction (i.e. Round Table with Policy Makers), but it will relevant to provide also results of the benefits that can be/and will be achieved through the project by investing in technologies and creating an international innovation ecosystem in this domain. An intense international

networking activity is in place and involve multiple partners. Such networking could be exploited to support the InnovaMare projects results.

Fourth, the list of the drivers outlined in the interviews for an effective development of an innovation ecosystem focused on the related to marine and maritime technology can be grouped into three areas from the more general to the more specific ones: a) policy interventions (through plans and financial support); b) research activities (specialized, key knowledge) and technological development; c) presence of specific public plans connected to the management of the sea under multiple perspectives. In addition to the first group of drivers – already mentioned in terms of strategic priorities above as well as in terms of research and innovation (all relevant for WP4) - within the InnovaMare project specific attention should be given to the c) drivers. A review and analysis of the presence, structures and characteristics of such plans could be particularly relevant to inform project activities related to the DIH platform (content, actors involved, services to be delivered).