

D3.2.2. FINAL REPORT (POSITION PAPER)

Annex

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)_Annex

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

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Institution	Veneto Region	Friuli Venezia-Giulia Region	ARTI – Puglia Region Agency for Technology and Innovation	City of Rijeka	Dubrovnik-Neretva County	Šibenik-Knin County (Šibensko-kninska županija)	DUNEA - The Regional Development Agency of the Dubrovnik-Neretva County
Location (City, Province, Region)	Venice (Veneto)	Trieste (Friuli Venezia-Giulia)	Bari (Puglia)	Rijeka, Primorje-Gorski Kotar County	Dubrovnik-Neretva County	Šibenik, Šibenik-Knin County	Dubrovnik-Neretva County
Country	Italy	Italy	Italy	Croatia	Croatia	Croatia (Hrvatska)	Croatia
Name of the policy / decision maker	<i>Flavia Zuccon</i> <i>Federico Rosset</i>	<i>Ketty Segatti</i>	<i>Stefano Marastoni</i>	<i>Marko Filipović,</i> <i>mag. ing. aedif.</i>	<i>Nikola Dobroslavić</i>	<i>Goran Pauk</i>	<i>Nikola Dobroslavić</i>
Role of the interviewee in the institution	Flavia Zuccon Director Unit Programming Direction Organizational Unit Territorial Cooperation and European Macro-strategies Federico Rosset Unit Programming Direction Organizational Unit Territorial Cooperation and European Macro-strategies	Deputy Director of the Directorate for Labour, training, education and family issues; Managing Authority of European Social Fund; In charge as co-coordinator of S3 Strategy	Director of the Area “Policies for technology transfer and development of innovative entrepreneurship”	Deputy Major	County prefect	County prefect	County prefect

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Please describe the policy / strategic priorities perceived by your institution linked to topics of technological innovations and sustainability, related to marine and maritime sectors, and how it is included in the programs developed by your institution?						
Veneto Region	Friuli Venezia-Giulia Region	Agenzia Strategica regionale per la Tecnologia e l'Innovazione – Regione Puglia (ARTI Puglia)	City of Rijeka	Dubrovnik-Neretva County	Šibenik-Knin County (Šibensko-kninska županija)	DUNEA - The Regional Development Agency of the Dubrovnik-Neretva County
The Veneto Region has not properly developed policy programs tackling the marine and maritime sectors as other regions in Italy have done. The main priorities of the Veneto Regions – also described in the Smart Specialization Strategies – refer to the manufacturing sectors and the support to innovation (also technological one i.e. robotics and sensors, industry 4.0 technologies) in this broad area, not explicitly connected to the domain related to the sea / blue growth.	The Friuli Venezia Giulia Region overlooks the sea, therefore these themes are relevant for its strategic development. Speaking about the programming period 2014-2020, considering that we have many companies working in the maritime sector (as Fincantieri for example), we provided	In the Region Puglia the political interest and investment on all the sectors of the blue growth is high: we prepared a SWOT analysis on the theme and we work to be aligned with the national and European priorities. Food security, climate changes, new energy resources, natural resources, better medical care are the top priorities of the Puglia Region. We defined a list of 12 priority sectors divided in 56 sub-sectors, the interest in both traditional and innovative activities.	Strategy of the City of Rijeka for the period 2014-2020: Projects 1 st strategic goal <ul style="list-style-type: none"> ○ The construction of the Zagreb Deep Sea Container Terminal will enable the berthing of the largest (18 m draft) container vessels, which will make the port of Rijeka more competitive and significantly increase the cargo capacity. ○ The construction of a double-track railway from Delnice to Šapjane, which will pass through Rijeka, will open the possibility for the introduction of a high-speed city railway. 	Sustainable management of the marine environment is crucial to preserve good ecological status, biodiversity of the marine environment, but also human health. There are different sources of load on the marine environment. Whether it is marine pollution due to insufficient treatment or non-existence of wastewater treatment systems or littering as a result of activities in fisheries and aquaculture, agriculture, maritime transport, coastal urbanization, the ultimate consequence is great economic losses to the county economy. There is	Over the last few decades in the Šibenik-Knin County, coastal urbanization has largely resulted in pressure on space, water resources, and sustainable development in general. The growing urbanization of the coast is typical of Mediterranean countries where the attractiveness of the coast leads to increased construction for settlement, and especially for tourism. Strengthening the resilience of the coastal area has become an important goal for the Mediterranean, where coasts have always been desirable for living and spending free time. Coastal construction is increasingly exposed to the effects of the sea,	In the Republic of Croatia, the issue of marine litter is covered by the umbrella Act on Sustainable Waste Management (Official Gazette 94/13, 73/17, 14/19 and 98/19). The Marine Strategy Framework Directive of the European Parliament and of the Council of 17 June 2008 (2008/56 / EC) establishes a framework for Community action in the field of marine environmental policy, within which Member States must take measures to achieve or maintain good marine environment by 2020, including those related to marine litter which is defined as one of

	<p>funds to the maritime productive chain through ERDF and ESF Operational Programme. In addition, maritime technologies were inserted in the specialisation areas of the S3 Strategy. Now, in the Working group Blue Growth and Sustainable Mobility, we are revising the priorities taking into account the relations among blue growth and the European green deal and digitalisation. With reference to education, it</p>	<p>High importance is given to the integration of the blue economy with the European green deal and sustainability has a primary relevance. The core sectors of investment at regional level are:</p> <ul style="list-style-type: none"> ✓ Aquaculture ✓ Construction and repair of ships ✓ Off-shore extraction of natural gas ✓ Fishing ✓ Coastal protection ✓ Maritime transport <p>The no-core sectors are:</p> <ul style="list-style-type: none"> ✓ Biotechnology research and development ✓ Renewable energy resources and production ✓ Mineral resources ✓ Tourism ✓ Utilities (Water, electricity, gas supply) 	<p>Projects 2nd strategic goal</p> <ul style="list-style-type: none"> ○ With the participation of the City in the arrangement of the marina in the port of Baroš with accompanying facilities, this part of the city will be transformed into an attractive zone. ○ The arrangement of the Rijeka breakwater (Molo longo) will offer new facilities. ○ Encouraging technological development aimed at increasing the competitiveness of Shipyard "May 3rd" will ensure the survival and development of the shipbuilding industry in Rijeka. ○ Encouraging the development of 	<p>also an important impact of climate change, which is manifested through rising sea levels, flooding of the coast (sea tsunamis), invasive species of male organisms, etc. For the Spatial Plan of the Dubrovnik-Neretva County, a strategic environmental assessment was conducted and environmental protection measures were recommended, which were incorporated into the implementation provisions of the Plan. Dubrovnik-Neretva County in its Environmental Protection Program 2018-2021. recognizes the issues and 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.</p>	<p>which is worrying, especially when sea-level rise due to climate change is considered. In order to alleviate such problems and strengthen coastal resilience, the Coastal Plan for Šibenik-Knin County was drafted. The plan was drawn up in accordance with Article 18 of the Protocol on Integrated Coastal Zone Management (ICZM) of the Mediterranean, which calls for such plans to be drawn up. The coastal plan aims at sustainable coastal development, but also focuses strongly on adapting to climate variability and change. The plan primarily refers to spatial planning, water management, and coastal protection, but also regional development and biodiversity management. During the development of the Plan, workshops were held where local stakeholders discussed and agreed on a future vision of the Šibenik-Knin County coast. The impact</p>	<p>the important pressures on the marine environment. In May 2020, the Republic of Croatia adopted the Marine Waste Management Plan. The problem of waste in the sea is increasingly visible and obvious in the Republic of Croatia, and knowledge of its problems mainly corresponds to the situation in the Mediterranean. Considering the distribution of the population along the coast, strong tourist activity, cage fish farming activities, hydrocarbon exploitation as well as intensive ship, nautical (sailing, yachts) and tourist (cruisers, tourist ships) traffic and the regime of sea currents, a significant load of marine litter was recorded. In addition to waste that reaches the sea in different ways and through various activities, a special problem is the introduction of transboundary waste that enters the Adriatic Sea by</p>
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	<p>is important to note the relevance for sustainable mobility issues of ITS Schools for training young people in the nautical, logistics and maritime sectors.</p>	<p>✓ Cultivation of algae (to be developed as a product to be used in phitopharmacy, cosmetic and energy sector)</p> <p>Furtermore, the S3 Strategy of the Region, in the priority man health and environment, deals also with blue economy, with reference to two sectors, sustainable manufacturing and creative and digital communities.</p>	<p>maritime industry based on new technologies will ensure the criterion of sustainability in the development of the city.</p>	<p>According to the current Law on Sustainable Waste Management, counties do not adopt waste management plans, this obligation lies with cities and municipalities, which include activities in the management of marine litter. The need to establish marine waste management system is determined by the Waste Management Plan of the Republic of Croatia for the period 2017-2022. The Waste Management Plan of the Republic of Croatia plans the development of a protocol for marine waste management, which is crucial for an effective response to sudden pollution of marine pollution because previous experiences in pollution remediation on the example of Dubrovnik-Neretva County have shown that, local self-government units</p>	<p>of the Plan on public awareness is also reflected in the interest shown throughout the Mediterranean during the presentation of the Plan at many national and international conferences and workshops. Many coastal regions have realized the need for a systematic approach to increasing coastal resilience and this Plan is a prime example to follow. The plan was completed in September 2015 and will be included in local spatial plans, regional development strategy, and other documents. The plan offers several recommendations, but also raises several questions, especially given climate change, which creates additional uncertainty. Thanks to numerous investments in infrastructure, the Šibenik-Knin County has progressed. The important role in the context of development has the accessibility of EU</p>	<p>sea and wind currents, especially during extremely unfavorable meteorological and hydrological conditions. Due to the influence of sea currents and wind, waste accumulates significantly in certain locations. Due to its geographical position as the southernmost county in the Republic of Croatia, Dubrovnik-Neretva County is extremely affected by this problem, especially the southern coast of the exposed islands (Mljet, Korčula, Lastovo and the Pelješac peninsula) and represents the so-called focal points. he share of such waste in the southern Adriatic can make up almost 70% of the total amount (data from the HR Marine Waste Management Plan). Extreme cases of marine pollution occurred in late 2010 and 2017 in Dubrovnik-Neretva County</p>
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				<p>do not even have sufficient financial resources for rehabilitation. As a reduction in the reduction of marine pollution of transboundary origin in the DNC is achieved, it is extremely important to establish international cooperation with neighboring countries that enables the Barcelona Convention platform.</p> <p>The Law on Sustainable Waste Management defined marine waste as a special category of waste and prescribed the drafting of the Ordinance on the treatment of marine litter, which has not yet been adopted. The Action Program of the Strategy for the Management of the Marine Environment and Coastal Area - Monitoring and Observation System for the continuous assessment of the state of the Adriatic Sea determines the indicators, areas and</p>	<p>funds because by withdrawing funds from the EU, counties can more easily invest in large projects with a comprehensive impact on the well-being of local people and thus in the protection of the Adriatic Sea and the environment.</p>	<p>when the coastal and island areas were polluted with large amounts of marine litter from the confluence of Albanian rivers and the Otranto and Neretva rivers. The problem of plastic waste pollution is particularly affected in the southern Dalmatian islands due to the existing circulation regime and due to the long period of strong southern winds. Regardless of the source and method of maturation, marine litter is a growing environmental problem in the Adriatic Sea and a lasting environmental and sociological challenge to the surrounding states that share it. In addition to the problem of waste accumulation on beaches, the seabed is also endangered, where large amounts of waste have been recorded. The Marine Waste Management Plan for the</p>
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				<p>frequency of research monitoring of marine litter. In May 2020, the Marine Waste Management Plan of the Republic of Croatia was drafted, which does not have the force of a normative document, but its purpose is to serve as a technical document as an expert basis for drafting the Regulations on Marine Waste Management.</p> <p>Measures to achieve a good state of the marine environment can find a solution in innovative technologies, whether it is wastewater treatment, prevention and remediation of marine pollution or various economic activities at sea and in the coastal area.</p>		<p>Republic of Croatia predicts 4 strategic goals:</p> <ul style="list-style-type: none"> - Objective 1. Establish a marine waste management system - Objective 2. To improve the waste management information system - Objective 3. Continuously carry out education and information activities - Objective 4. To strengthen international cooperation in solving the problem of marine litter.
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Please describe any programs/initiatives implemented or planned by your institution related to marine and maritime sectors and indicate on which topics of "Annexes 1 and 2 (link)" it impacts						
a. Aim/scope b. Period/time frame c. Financial scheme d. Target (stakeholders) e. Results/outcomes achieved f. Most effective initiatives (in terms of results and interests from main targets)						
Veneto Region	Friuli Venezia-Giulia Region	Agenzia Strategica regionale per la Tecnologia e l'Innovazione – Regione Puglia (ARTI Puglia)	City of Rijeka	Dubrovnik-Neretva County	Šibenik-Knin County (Šibensko-kninska županija)	DUNEA - The Regional Development Agency of the Dubrovnik-Neretva County
<p>The Veneto Region - Organizational Unit Territorial Cooperation and European Macro-strategies has just created a monitoring software aiming at mapping all the projects (and actors) submitted to the territorial cooperation programs in which the Veneto Region participates. The catalogue is not only for the approved projects but on all the projects (even the projects proposed by virtue of the</p>	<p>The Region is active in three main funding areas: ESF, ERDF and territorial Cooperation. The projects we are involved with respect to Territorial Cooperation are mentioned in the last response, so that</p>	<p>The regional law 17 of 2015 deals with the coast protection and management and regulated the use of the state coast and maritime areas. The law was aimed at a coordination of regional and municipal planning in order to manage in a sustainable way the blue economy. Unfortunately this initiative did not have the impact expected,</p>	<p>The most important component of the Rijeka Gateway Project, a terminal designed as a straight pier with a final length of 680 m and an average width of 300 m. The planned depth of the sea at the pier is at least 20 m and allows for the reception of container ships of all sizes. The terminal is built in two phases, with the first phase involving the construction of a 400 m long pier and the second phase the construction of an additional 280 m. At the end of both phases, the Port of Rijeka will boast a pier</p>	<p>DNŽ is implementing the WATERCARE project a. Aim to improve the quality of bathing sea water by reducing microbiological pollution that enters the sea through rivers and watercourses, by using innovative tools in the management and treatment of fecal wastewater. Also, the goal is to develop a forecasting and alarm system in case of bathing sea pollution that would help in deciding on the use of bathing sea. In the pilot area at the estuary of the Neretva, special equipment will be installed to inform in time about the pollution of the bathing sea water.</p>	<p>Šibenik-Knin County is participating in numerous projects and two are oriented on safe and stable development in the Adriatic with an emphasis on improving and preserving the environment. The first one is the Adriadap project funded through the Standard Call for Proposals under the INTERREG Italy-Croatia Cross-Border Cooperation Program 2014-2020. Implementation of the project started at 01.01. 2019. It is worth a</p>	

<p>consulting activity we do to the territory).</p> <p>In the database:</p> <ul style="list-style-type: none"> - catalogued the projects for transnational and cross-border, for axes, funded and unfunded; - subjects catalogued: business, academy/research, PA and institutions and companies. They were catalogued according to the theme on which they presented the projects. <p>During the 2014-2020 programming period, the participation of Veneto subjects in three maritime programs, two transnational (ADRION and MED) and one cross-border (Italy-Croatia), and in a cross-border program that includes activities related to the blue economy, Italy-Slovenia, was monitored.</p> <p>To reply to the request of the current Innovamare activity, a selection of projects has been carried out. Specifically, projects</p>	<p>here we can concentrate on ESF and ERDF. Concerning ESF, we activate every year 3 or 4 technical high schools level training courses in the fields of marine and maritime sectors, including the maritime transport and logistics, 4 in the year 2020. With reference to ERDF, in priority axis 1, funding scheme 1.3.b, we financed partnerships among companies and research centres in the sector of maritime</p>	<p>probably due to the fact that Municipalities only rarely have the resources to deal with the enormous amount of issues that they manage, therefore only a few of them managed to adapt their plans according to the mentioned law.</p> <p>The regional law 43 of 2017 on fishing and aquaculture has designed the regional strategy concerning the creation of a system aiming to sustainable development and provided support to the innovation of the sector, involving also the research stakeholders. The impact is good but to get precise data it would be necessary to make a request to the office involved in the regional administration.</p> <p>Other regulatory schemes have been set up by:</p> <ul style="list-style-type: none"> ✓ The regional law 48 of 2018 on 	<p>with a total length of 680 m. The construction of the first phase of the pier is in its final stage, and parallel to the construction of the pier the railway interface of the terminal will be reconstructed and the connecting road D-403 will be built. The continuation of construction of the remaining terminal phases is the obligation of the future concessionaire. The concessionaire, selected in an international tender, will receive a concession for the management, construction and use of the new container terminal.</p> <p>The container terminal will be connected to the new state road D-403 linking the Port of Rijeka, namely the Zagreb Deep Sea Container Terminal, to the Škurinje junction, currently under construction. This way, the Zagreb Deep Sea Container Terminal will be connected to the network of Croatian motorways i.e. the main TEN-T corridor network. The length of the road D403 from the Port of Rijeka (ZDSCI) to the Škurinje junction on the Rijeka</p>	<p>b. 01.01.2019. - 30.06.2021.</p> <p>c. The total value of the WATERCARE project is EUR 2,833,019.40, of which the share of the Dubrovnik-Neretva County is EUR 278,000.00,</p> <p>d. Local self-government units, utility companies, Public Institution for Management of Protected Areas of Nature DNŽ</p> <p>e. Installed anticipation and alarm system in case of bathing sea pollution DNŽ also implements projects:</p> <ul style="list-style-type: none"> • ADRIACLIM (described by DUNEAE); • CASCADE (described by DUNEAE). 	<p>total of 2,223,870.00 euros and will last for 24 months. The goal of the Adriadapt project is to contribute to a safe and stable development in the Adriatic with an emphasis on improving and preserving the environment, which is a key element of joint strategies. Investing in knowledge and strengthening capacity for timely planning will increase resilience to climate change, reduce its negative impact, and enable sustainable development.</p> <p>The second one is the PEPSEA project, co-financed through the Standard Call for Proposals under the INTERREG V-A Italy-Croatia Cross-Border Cooperation Program 2014-2020. The project implementation started on January 1, 2019, and will last for 30 months. The total value of the PEPSEA project is 2.9 million euros. The aim of the project is to develop an appropriate system that will increase the level of protection of the sea and coast from pollution</p>
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<p>submitted and funded and projects approved but not funded were taken into consideration. These projects have been aggregated according to the coherence/synergy with the Pillars of the European Union Strategy for the Adriatic Ionian Region - EUSAIR (with the exception of Pillar 1 for which an in-depth analysis has been made on topic 1 Blue Technologies).</p> <p>Moreover, the number of subjects that have participated in these projects has been extracted listing them by typology. The following four types have been used: Policy, Industry, Science and Society. In case a subject had participated in more than one project will appear only once.</p> <p><u>Pillar 1 Blue Growth</u> Approved and funded 21 projects: ADRION 6, MED 3, ITASLO 2, ITAHR 10. 21 subjects: Policy 8, Industry 9,</p>	<p>technologies (shipbuilding, maritime transport): the total amount of funds allocated was 20 million euros.</p>	<p>state areas dedicated to the access to the sea for people with disabilities.</p> <p>✓ The regional law 44 of 2018 on preservation of historical and cultural sites.</p> <p>The Region has a specific strategy dedicated to fishing and aquaculture, as it is aware of the relevance of the sea for the future of the region and its people, therefore one of its main objectives is to create a sustainable fishing and aquaculture sector. This strategy has been implemented with the EMFF funds, consisting of 89,8 million € allocated on 5 priorities:</p> <p>Sustainable fishing Sustainable aquaculture Development of new fishing and aquaculture zones</p>	<p>bypass is approximately 3 km with a branch for connection to the network of city roads.</p> <p>European Project "Upgrade of the Rijeka Port infrastructure – Zagreb Deep Sea Container Terminal (POR2CORE-ZCT)" was applied to the second call of the Connecting Europe Facility (CEF) Traffic 2015, Cohesion envelope. Grant Agreement was signed in 2016 ensuring 85% of co-financing from the European funds. The total value of the project is 31,6 million EUR</p> <p>Period/time frame 2014-2020</p> <p>Financial scheme Rijeka Port Authority, City of Rijeka-Budget, EU-funds</p> <p>Target (stakeholders) Rijeka Port Authority, City of Rijeka, seaport stakeholders</p> <p>Results/outcomes achieved: the development of the Port of Rijeka as one of the core ports in the</p>		<p>from ships, platforms, and land sources, which will affect the preservation of biodiversity and lifestyle of the population in the program area.</p> <p>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 triggers to initiate this is the establishment of DIH MAiROS in Šibenik for innovative underwater robotics and sensors and living lab in the Adriatic sea - The role of DIH would be the role of innovation facilitator or the knowledge and technology intermediary that would improve cooperation along supply and value chains, including organizations that fund innovation and end-users of new technologies, ensuring that innovation responds to demand. Developing links with foreign firms, funders, and research centers is a key step to raise underdeveloped local knowledge</p>
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<p>Science 4.</p> <p>Approved but not funded 37 projects; ADRION 10, MED 8, ITAHR 19. 39 actors: Policy 12, Industry 17, Science 10.</p> <p>In particular for Pillar 1/topic 1.1 Blue Technologies, 8 projects were submitted and funded (ADRION 3, MED 2, ITASLO 1, ITAHR 2), while 20 projects were submitted but not funded (ADRION 5, MED 4, ITAHR 11).</p> <p><u>Pillar 2 Connecting the Region</u> Approved and funded 16 projects: ADRION 5, MED 1, ITASLO 1, ITAHR 9. 20 actors: Policy 9, Industry 6, Science 5.</p> <p>Approved but not funded 7 projects; ADRION 3, MED 2, ITAHR 2. 10 actors: Policy 3, Industry 6, Science 1.</p> <p><u>Pillar 3 Environmental quality</u></p>		<p>Fishing products transformation and trade Local and participative development</p> <p>In addition, within EMFF funds, in December 2019, the Regional Council approved the project "Puglia aquaculture 4.0".</p> <p>In March 2020 the EMFF Operational Programme has been modified in order to provide support to fishing and aquaculture enterprises to face the problems related to the COVID19 emergency, to promote additional investments in research and innovation and synergies among companies.</p> <p>A key success factor of these funding schemes in Puglia is the connection that we 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,</p>	<p>Mediterranean through ensuring the efficiency, sustainability and multimodality of freight transport</p> <p>Most effective initiatives (in terms of results and interests from main targets)</p> <p>With the construction of the new pier in full length, a 680 m long and 20 m deep wharf will be obtained, with the possibility of mooring container vessels of more than 165,000 DWT and of lengths over 366 m (last generation ships with a capacity of more than 14 000 TEU). Additionally, the pier length of 680 m allows simultaneous mooring of a smaller ship up to 50,000 DWT and up to 250 m in length (vessels with a capacity up to 4 000 TEU).</p>		<p>base and limited access to market intelligence.</p> <p>The Šibenik-Knin County has participated and is actively working on the implementation of numerous projects aimed at providing institutional support to the development of individual economic sectors while promoting sustainable environmental management and preservation of our natural and cultural-historical resources.</p> <p>In the tourism sector, the county implements a few projects of tourist valorization and preservation of cultural and historical sites and assets, which greatly contributes to the development of tourism and attracting visitors. Along with the project of tourist valorization of the channel Sv. Ante, the project of arranging the fortress of St.Nicholas' Fortress, HERA project which valorized archaeological sites, HEREDITAS project, county prefect Goran Pauk pointed out the project of arranging the port of Vrnaža,</p>
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<p>Approved and funded 28 projects: ADRION 4, MED 6, ITASLO 2, ITAHR 16. 33 actors: Policy 13, Industry 7, Science 8, Society 5.</p> <p>Approved but not funded 27 projects; ADRION 7, MED 2, ITAHR 18. 30 actors: Policy 12, Industry 11, Science 7.</p> <p><u>Pillar 4 Sustainable tourism</u> Approved and funded 29 projects: ADRION 5, MED 6, ITAHR 18. 35 actors: Policy 9, Industry 12, Science 11, Society 3.</p> <p>Approved but not funded 59 projects; ADRION 14, MED 8, ITAHR 37. 64 actors: Policy 26, Industry 15, Science 10, Society 13</p> <p>The database of maritime projects registers to date (November 26, 2020) 365 records with 201 unique subjects of the regional territory catalogued according to some</p>		<p>aquaculture, marine and maritime sectors. The most relevant action in this respect is planning of training courses combined with passionate personnel that work in ITS Schools: the 90% of students of ITS find a job within months.</p>			<p>which gave Šibenik quality and modern communal infrastructure, the project of building a ferry port in the port of Kaprije, the project of rehabilitation of Dolac in Šibenik (center of the city) in cooperation with the City of Šibenik. By providing institutional support, the county actively stimulates the growth and development of its blue sectors.</p>	
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consolidated criteria including the type (Policy, Industry, Science and Society) and the area of belonging (at NUTS 3 level).						
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On a scale from 1 (not at all) to 7 (extremely), the policy makers perceive that an innovation ecosystem linked to blue economy and blue growth, already exists in their county/city?						
Veneto Region	Friuli Venezia-Giulia Region	Agenzia Strategica regionale per la Tecnologia e l'Innovazione – Regione Puglia (ARTI Puglia)	City of Rijeka	Dubrovnik-Neretva County	Šibenik-Knin County (Šibensko-kninska županija)	DUNEA - The Regional Development Agency of the Dubrovnik-Neretva County
3	I would say 7, there is a strong awareness on these matters. Already in 2015 a regional law was approved. In addition, MARE FVG cluster is the coordinator of stakeholders that deal with maritime technologies specialisation.	6 – The innovation ecosystem is supported at Regional level as the sea is perceived as a fundamental resource from a natural, economic, social and cultural point of view.	Linked to blue economy and blue growth, we rank the City of Rijeka 5 on the scale of innovation ecosystem. In global promotion, Rijeka is also prominent globally in terms of encouraging the development of entrepreneurship. StartupBlink, the world's leading platform for mapping and analyzing startup ecosystems (environments that support the growth and development of startups), has announced a ranking for 2020 that includes 1,000 cities from 100 countries. Rijeka rose by as many as 73 places on that global scale compared to 2019, which is the biggest improvement among Croatian cities (Zagreb, Split, Zadar, Pula, Karlovac and Osijek), which are included in the top 1,000 on the scale. Data on the number of existing innovation startups, coworking spaces, accelerators, leaders and	In our opinion 4. Given the county's great involvement in international projects dealing with marine environmental management, we are largely aware of the value of the innovative blue economy, but also the efforts that still need to be made to achieve adequate "blue growth" in the county.	County prefect Pauk is very aware of the importance of the innovation ecosystem and in this regard, he pointed out, that the Šibenik-Knin County has recognized the importance of the establishment of the AluTech Development and Innovation Centre within the Public Institution of the Šibenik-Knin County Development Agency. Space consists of a laboratory for testing the quality of aluminum products and other metal products, a design bureau and workshop for designing and modeling final products, 3D product construction, and preparation for CNC production, a center for renewable energy sources, a center for clusters and more. In the former military facility that the city of Šibenik received for use from the state, and which houses the Maritime Innovation Center iNAVIS, arranged	Blue Growth is a long-term strategy to support the sustainable growth of the maritime and maritime sectors. The EU Blue Economy encompasses all sectoral and cross-sectoral economic activities related to the oceans, seas and coasts, including those in the EU's outermost regions and landlocked countries. For DNŽ we can say that it is a "blue county" since more than 80% of the County's area falls under the sea part. All economic activities are directly related to the sea and the coast, and the marine environment is the focus for sustainable development of the County. Thus, in 2020, the Dubrovnik-Neretva County and the Regional Agency DUNEA contracted eight strategic projects worth HRK 34,891,184.60 through the Italy-

			<p>support organizations are used to form the scale. According to StartupBlink, Rijeka has a positive trend in the development of startup ecosystems, which is 3rd in Croatia and 461st in the world. Based on the methodology used by StartupBlink in forming the scale, the list of organizations of the Rijeka startup ecosystem includes the Rijeka Development Agency Porin and the Startup Incubator Rijeka, along with the University Science and Technology Park Step RI. Croatia, as a country, is ranked 39th out of 100, after advancing by as many as 11 places since last year.</p>		<p>and equipped space for activities related to regional development and encouraging entrepreneurship in the development of new technologies and final products.</p>	<p>Croatia Cross-Border Cooperation Program 2014-2020. Croatian and Italian regions have jointly defined projects of strategic importance for both countries.</p> <p>The AdriaClim, ARGOS, CASCADE, MARLESS, STREAM, SUSPORT and FIRESPELL projects have been approved, in which the Dubrovnik-Neretva County has the role of partner, while in the TAKE IT SLOW project it is the holder of the entire project with partners from Croatia and Italy. The value of these projects for the Dubrovnik-Neretva County is almost 35 million kuna, and the application and elaboration of project activities of all projects was prepared by the Regional Agency DUNEA.</p> <p>All approved projects are aimed at the blue growth of the Dubrovnik-Neretva County. Environmental problems, fire and flood problems, pollution at sea, waste at sea do not know the administrative borders of countries. Through the implementation of these projects, we will achieve a long-term vision of development whose focus is the</p>
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						sustainable use and creation of added value of cultural and natural resources, both our and the Italian side.
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What benefits do you expect at the local / regional level by building an Innovation ecosystem related to the marine and maritime technology?						
Veneto Region	Friuli Venezia-Giulia Region	Agenzia Strategica regionale per la Tecnologia e l'Innovazione – Regione Puglia (ARTI Puglia)	City of Rijeka	Dubrovnik-Neretva County	Šibenik-Knin County (Šibensko-kninska županija)	DUNEA - The Regional Development Agency of the Dubrovnik-Neretva County
To strengthen the competitive opportunities of the SMEs and manufacturing systems already operating in the Veneto Region but not necessarily connected to this technological domain of application.	We can expect benefits in terms of increase of employment rates in those sectors, if we are capable of producing impacts on our Region, increasing the capacity of our companies to face national and international competition.	The benefits that we expect are many, this is one of the reasons why we are working to build such an ecosystem in Puglia, as the sea is a fundamental resource and blue growth sectors are relevant for its future. Sustainability of innovation is a key factor, this is why we are cooperating with the many research and innovation	Regarding the Innovation ecosystem related to the marine and maritime technology, the City of Rijeka expect a lot of benefits. First of all, we expect available EU funds that will strengthen partnerships between the public, entrepreneurial and research sectors aimed at developing the blue economy.	We expect contributions in terms of reducing marine pollution by wastewater and marine litter, the adoption of marine environmental management plans.	The creation of ecosystems will encourage all stakeholders to joint initiatives and cooperation to improve the marine sector. It will certainly encourage the creation of new products, which will lead to the strengthening of companies in our area, their greater recognizability. Generating new jobs is also one of the expected results in creating an ecosystem. The Adriatic Sea is facing a major impact from overfishing and pollution, as a result of discarded plastic items and oil pollution. All this can lead to significant poisoning and death of fish, as well as the disappearance of the plant world on which human health also depends. It is important to emphasize that only through joint action and cooperation we can help protect the Adriatic Sea. That is exactly what the project seeks to do - the cooperation of all stakeholders in the marine conservation sector and investing in innovation to preserve the Adriatic Sea - and for that reason, we are proud to be partners in the project.	

		centres of the Region in order to promote synergies among them, industry, service companies, social society and public administrations (the quadruple helix actors).				
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What are the critical factors that you think may diminish the success of innovation ecosystem related to marine and maritime sectors in the next few years?						
Veneto Region	Friuli Venezia-Giulia Region	Agenzia Strategica regionale per la Tecnologia e l'Innovazione – Regione Puglia (ARTI Puglia)	City of Rijeka	Dubrovnik-Neretva County	Šibenik-Knin County (Šibensko-kninska županija)	DUNEA - The Regional Development Agency of the Dubrovnik-Neretva County
	The dimension of the ecosystem is critical: it is extremely important to reach a macro regional dimension, to do so we are working to create networks in the Adriatic Ionian area. The regional policy and politics in this respect must have the capacity to create integration among different stakeholders, to propose the correct	Some critical factors emerged as weaknesses in our SWOT analysis: <ul style="list-style-type: none"> ✓ The over use of the sea as natural resource ✓ The delays in the adoption of municipal plans for the management of coasts ✓ The regulatory system and the standards adopted are not adequate for innovative sectors ✓ The central position of the Mediterranean Sea is not anymore a competitive advantage for Ports Some threats have been identified as well:	Regarding the development of innovation ecosystem related to the marine and maritime sectors in the next few years, the critical factor is own financial resources due to the crisis caused by the pandemic.	We see the biggest threat in climate change, which could have irreversibly negatively affect the ecology of the sea. There is also a threat in non-implementation of adopted measures and management plans, ie ignoring of problems by various stakeholders in coastal zone management.	The progress made by local and regional authorities to support the development of the innovation ecosystem depends on many factors. The main obstacles to local self-government in the process of adjustment and transition from the planning phase to the implementation phase of the creation of innovation ecosystem are insufficient resources (financial, human, and technical), unavailability of relevant knowledge, weak political commitment, and an unsupportive regulatory environment. Investing in knowledge and strengthening capacity is one of the key factors needed for the successful establishment and functioning of the innovation ecosystem.	

	<p>tools to maintain the networks created. Finally, training is fundamental to create the profiles needed by the industry, the dialogue between these two areas must be maintained by the regional policy.</p>	<ul style="list-style-type: none"> ✓ Covid19 ✓ Further reductions of fishing stocks ✓ Coastal erosion ✓ Climate change potential effects ✓ International competition from operators that do not apply the same sustainability standards (in fishing, tourism, nautical sectors) 				
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Which Innovation ecosystem stakeholders related to marine and maritime sectors are currently missing or should be encouraged/attracted to the Innovation ecosystem? (firms, research institutions, industry association, accelerator, consultants, scientific parks).						
Veneto Region	Friuli Venezia-Giulia Region	Agenzia Strategica regionale per la Tecnologia e l'Innovazione – Regione Puglia (ARTI Puglia)	City of Rijeka	Dubrovnik-Neretva County	Šibenik-Knin County (Šibensko-kninska županija)	DUNEA - The Regional Development Agency of the Dubrovnik-Neretva County
The Veneto Region is now involved in the analysis of the projects submitted and the actors involved in the projects related – among others – to the blue growth based on the mapping tool just developed. Further analyses could allow Veneto Region to identify missing actors or areas of competences that could be further supported through appropriate strategies and programs.	We involved all stakeholders in the process. Probably the most difficult to involve is the civil society /third sector, it is important to understand social needs in order to better communicate themes such innovation, that can affect everyday life but appear very far from it or just for the elite. In S3 Strategy we involved the no-profit sector.	In my opinion the missing stakeholder is finance : banks and financial institutions are not currently involved in the process of creation of the Innovation ecosystem and they should participate to make it effective. In Puglia there are some micro-credit initiatives, but they are not enough to support the development and innovation of the	The development of marine and maritime sectors can empower all stakeholders: entrepreneurs, business infrastructure and the scientific research industry.	Local decision makers should be involved in initiatives, education, engagement in public-private partnerships, cooperation with universities, LAGs and the like.	County prefect Pauk considers that higher education is lacking in a sense of higher education which in turn could generate new knowledge, especially in the robotics and underwater sector. The policy mix, resources, and people are missing as a whole. All of this is sprayed and unconnected. Companies, accelerators, scientific parks - try to connect them all, which is not easy. As a county, we go step by step and slowly create the future as I mentioned, in which the EU funds certainly help us.	

		marine and maritime sectors.				
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What are policies on local/regional level that could help in development of Innovation ecosystem related to marine and maritime sectors?						
Veneto Region	Friuli Venezia-Giulia Region	Agenzia Strategica regionale per la Tecnologia e l'Innovazione – Regione Puglia (ARTI Puglia)	City of Rijeka	Dubrovnik-Neretva County	Šibenik-Knin County (Šibensko-kninska županija)	DUNEA - The Regional Development Agency of the Dubrovnik-Neretva County
The Veneto Region is now engaged in the development of the policy program within the new programming period (2021-2027). According to the inputs already collected through the opening consultation carried out in 2020 among the Veneto stakeholders lots of attention has been given to the Research and innovation priorities within the EU policy objective 1 – Smarter Europe.	The connection with the European green deal for the programming period 2021-2027. Research, training, education at all levels.	ARTI is active in some important fields related to this activity: The Initiative Future Research , implemented by ARTI and the University of Bari, finance the generational change in Universities and Research Centres via the creation each year of 170 research grants to hire young researchers. One of the main focus is on innovative technologies to enhance the	First of all, the investment policy at the local level is significant, along with the concept of sustainable development.	Development plans, environmental protection programs, waste management plans, spatial plans of the sea at both local and regional level can help the development of an innovative ecosystem.	At this moment, as a county, we use various tools available to us: spatial planning - county spatial plans - tailored to needs, but also the sustainability of the seabed.	

		<p>productivity of aquaculture in Puglia. Start Cup Puglia, which is an initiative to financially support innovative startups, is active since 2007.</p> <p>PIN - Pugliesi Innovativi (Innovative people from Puglia) 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.</p>				
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Please mention any institutional collaboration developed at the regional – national or international level related to the blue growth strategy.						
Veneto Region	Friuli Venezia-Giulia Region	Agenzia Strategica regionale per la Tecnologia e l'Innovazione – Regione Puglia (ARTI Puglia)	City of Rijeka	Dubrovnik-Neretva County	Šibenik-Knin County (Šibensko-kninska županija)	DUNEA - The Regional Development Agency of the Dubrovnik-Neretva County
Since the establishment of the EUSAIR/Italy Group, the Veneto Region has coordinated Pillar 1, now renamed "Blue Growth - Blue Growth". By virtue of this commitment, the Veneto Region participates as a member in the work of TSG 1 "Blue Growth", coordinated by Greece and Montenegro, representing, together with the Molise Region, the instances of the Italian regional system.	Since the establishment of the EUSAIR/Italy Group, the Friuli Venezia Giulia Region has participated to Pillar 1 and it has proposed a project named WakeUp "Waterborne Adriatic Ionian technological platform", supported within the	ARTI participates in many Interreg projects, the most relevant with reference to the blue growth are: Blueboost, Triton, SmartAdria. In addition, ARTI participates to the national Blue growth technological cluster and to the national Policy coordination meetings dedicated to the	Regarding the development of the blue economy, the City of Rijeka is an example of good cooperation with the Port of Rijeka Authority, industry, namely the shipyard 3.Maj and Jadran Galenic Laboratory (pharmaceutical industry) and the University of Rijeka.	Cooperation between the regional, national and international level is realized through the implementation of international projects already mentioned, through participation in the development of strategic documents at the national, regional and local level (spatial plans, environmental plans and programs, development plans, etc ...), but also through participation in forums, departmental seminars and meetings.	Bringing together different stakeholders in our County has always been one of the priorities. In Šibenik-Knin County you can see great effort to connect companies, scientific institutions, accelerators. A great example is Alutech, the Development and Innovation Centre, an institution for encouraging entrepreneurship, research and development, that was founded by the Šibenik-Knin County. The Central Financing and Contracting Agency has approved funds for its arrangement and equipment under the IPA program. In addition to EU funds, the project is co-financed by the Šibenik-Knin County. One of those initiatives is the establishment of the Entrepreneurial	In 2020, the Dubrovnik-Neretva County and the DUNEA Regional Agency contracted eight strategic projects worth HRK 34,891,184.60 through the Italy-Croatia Cross-Border Cooperation Program 2014-2020. Dubrovnik-Neretva County is the lead partner on the TAKE IT SLOW project in the natural and cultural heritage sector, which will, in addition to developing, managing and promoting the Adriatic as a sustainable and year-round green destination, establish a modern multimedia interpretation center of Mediterranean heritage at the Rector's Palace in Ston (Croatian: Knežev dvor). The value of the project for the Dubrovnik-Neretva County is HRK 6,597,455.70.

	<p>Facility point plus Strategic project. The scope of the project is to map the stakeholders and to create a 4 governance model for a macro-regional cluster on blue growth sectors, to be implemented in the area. We are associated partner of OISAIR Project – financed within Adrion Programme, dedicated to S3 Strategies concerning blue growth; the final conference was held</p>	<p>Pillar 1 of the Eusair Strategy.</p>			<p>zone Podi – Šibenik. It is in Šibenik-Knin County near the city of Šibenik. In all development documents, it has been identified as a zone of county importance. According to all spatial indicators, the zone represents an exceptional potential in the development of the region. The fact that the city of Šibenik is the business and administrative center of the county conditioned the location of the zone near the city. Although Šibenik is attractive to many entrepreneurs as a location for the implementation of various projects, given the space constraints, it has not been able to meet many requirements and the importance of the Podi zone in this regard is very high. The geographical and traffic position of the Podi zone in the area of the City of Šibenik indicates certain locational advantages of this area for the development of the economy. The city and county center of Šibenik represents the center of development and the intersection of all development directions of its wider environment. The Podi zone is in the coastal area of the County, which is the most developed and most densely populated area. The</p>	<p>In the sector of climate change adaptation, the AdriaClim project has been approved, in which the County is a partner and has at its disposal HRK 2,121,405.00 for planning the strategy of climate change adaptation in the urban coastal and marine area. The focus of the project is the issue of raising the sea level, so in order to sensitize the public, the beach in Slano Bay will be arranged as a sustainable, modern and energy efficient beach. Through the ARGOS project, approved through the strategic priority of fisheries and aquaculture, in cooperation with the University of Dubrovnik, will provide support to shellfish through the procurement of specialized equipment for the establishment of the Education Center in Bistrina as a scientific research center and the first hatchery in this area. the purpose of joint and sustainable management of the protection of marine resources and biological diversity in the Adriatic Sea. The amount for the implementation of the activities of the Dubrovnik-Neretva County is HRK 3,107,535.72.</p>
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	<p>online today 26/11.</p> <p>In addition, we participated as associate partner to the IPA project “Blue skills”, as partner to the Bluekep (Italy-Croatia), Mistral (MED Programme) projects.</p>				<p>planned and expected development of the Podi zone is expected in several directions. Primarily, this is related to the proximity of the Port of Šibenik, which enables the activation and use of the Port’s capacity for the needs of various facilities and activities.</p> <p>It is also important to mention the Public Institution for Management of Protected Areas and Other Protected Parts of Nature of Šibenik-Knin County - PRIRODA, which performs the activity of protection, maintenance, and promotion of protected areas in order to protect and preserve the originality of nature, ensure uninterrupted natural processes and sustainable use of natural goods, supervises the implementation of conditions and measures for nature protection in the area it manages and participates in data collection for the purpose of monitoring the state of nature conservation (monitoring).</p>	<p>Improving environmental conditions and biodiversity of coastal and marine ecosystems will be achieved by the CASCADE project, which will coordinate actions to assess the vulnerability of terrestrial, coastal and marine environment with the ultimate goal of restoring endangered species in the estuary of the Neretva. In addition, in order to prevent the risk of sea pollution and action in extreme conditions, equipment for professional services, divers and firefighters will be procured, and the existing county ship will be renovated and equipped. The total available funds of the County amount to HRK 1,821,600.00.</p> <p>In the flood risk prevention sector, the Dubrovnik-Neretva County was approved HRK 5,869,476.20 for the STREAM project, which will establish a Monitoring Center in Opuzen to strengthen preparedness, prevent hazards and reduce damage after a disaster. Also, rescue services will be modernized with new equipment for action and mitigation of this natural disaster, for which the Neretva Valley area has been identified as one of the</p>
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						<p>most sensitive areas of the Republic of Croatia.</p> <p>To improve the quality, safety and environmental sustainability of maritime and coastal transport services to the port authorities in Dubrovnik and Ploče, the Dubrovnik-Neretva County has at its disposal HRK 1,973,400.00 approved through the SUSPORT project. The project contributes to coordination and cooperation between stakeholders in maritime transport and creates the preconditions for improving the concept of sustainability in ports, development of alternative fuels and energy efficiency.</p> <p>The Regional Agency DUNEA is a partner in the MARLESS project from the environmental protection sector with the strategic goal of reducing the problem of waste at sea. Among the many activities of integrated cross-border management of coastal and marine waste, it is planned to develop a robot in cooperation with the University of Dubrovnik with the aim of collecting floating waste from the sea surface in the Dubrovnik waters. The total available funds for the</p>
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						<p>Regional Agency DUNEA amount to HRK 1,541,172.27, while the budget of the University of Dubrovnik is HRK 3,029,017.20.</p> <p>The planned duration of the project is three years, and the amount of HRK 34,891,184.60 that will be invested in the Dubrovnik-Neretva County is co-financed by 85% from the European Regional Development Fund.</p> <p>In addition to these strategic projects, DNŽ, coordinated by the Regional Agency DUNEA, is implementing the project MoST - Monitoring the penetration of salt water into coastal aquifers and testing pilot projects to prevent salt penetration, also funded through the INTERREG Italy - Croatia program (budget: 19,489,564.50 HRK, 85% of the European Regional Development Fund; DUNEA budget 900,000.00 HRK) and the BLUEfasma project - Strengthening the innovation capacity of SMEs, maritime clusters and networks in the Mediterranean islands and coastal areas to support the growth of the blue circular economy in fisheries and aquaculture, financed through the INTERREG MED program (budget: HRK 20,946,308.00, 85% of the</p>
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						<p>European Regional Development Fund; DUNEA budget: HRK 1,561,333.70).</p> <p>The expected results of the MoST project include two monitoring systems, one in Croatia and one in Italy. The systems will measure the characteristics of groundwater circulation that are specifically designed to monitor the penetration of salt water into fresh water. Also, two plans of adapted measures will be developed and will be implemented in the area of the lower reaches of the rivers Neretva and Po.</p> <p>The BLUEfasma project is designed to integrate and implement the principles of the circular economy in the key sectors of blue growth, fisheries and aquaculture in order to benefit in a new way the isolated island and coastal areas of the Mediterranean. This will be achieved through strengthening the innovation capacity of small and medium enterprises and maritime clusters. The circular economy prevents the depletion of resources by closing the circle to energy and materials, leading to smart and</p>
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						<p>sustainable growth as a key common goal of the Mediterranean.</p> <p>It is certainly very important to point out the SeaClear project (project budget: HRK 37,099,342.50; DUNEA budget: HRK 1,540,410.00), where the Regional Agency DUNEA is the partner coordinator for the pilot area of Dubrovnik-Neretva County, all under expertise. led by the University of Dubrovnik. The SeaClear project plans to develop the first system of unmanned underwater and surface vessels to find and collect waste from the seabed and water column.</p> <p>The project is 100% financed by the European Union from the HORIZON 2020 program, through which more than six million kuna has been provided for the Dubrovnik-Neretva County. The only Croatian partners are the DUNEA Regional Agency and the University of Dubrovnik. It was applied for at the invitation of Information and Communication Technologies 2018-2020, the Science and Innovation Funding Scheme (RIA), and out of a total of fifty-six applications, it is one of four projects approved for funding.</p>
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WP3 A2 Designing and implementing questionnaire for policy stakeholders

D.3.2.2.Final report – Annex (DEEPENING)



Institution	University of Zagreb, Faculty of Geodesy	Statim d.o.o.
Location (City, Province, Region)	Zagreb	Splitsko-Dalmatinska County
Country	Croatia	Croatia
Name of the policy / decision maker	<i>Assoc. Prof. Almin Đapo, Ph.D.</i>	<i>Marija Šverko</i>
Role of the interviewee in the institution	Dean	Company director



<p>Please describe the policy / strategic priorities perceived by your institution linked to topics of technological innovations and sustainability, related to marine and maritime sectors, and how it is included in the programs developed by your institution?</p>	
<p>University of Zagreb, Faculty of Geodesy</p>	<p>Statim d.o.o.</p>
<p>As part of its program, the Faculty of Geodesy of the University of Zagreb teaches the courses Hydrographic Surveying and Maritime Geodesy, which are closely related to topics of technological innovations and sustainability related to marine and maritime sectors.</p>	<p>Unfortunately, in the last twenty years we have witnessed a greater negative impact on the marine ecosystem such as overfishing, degradation of coastal and marine habitats, anthropogenic noise input, climate change, waste disposal in the sea (especially plastics), mass tourism etc. In order to protect the marine ecosystem, it is necessary to monitor the state of its conservation, threats, and to define and implement certain conservation measures.</p> <p>Our company is trying to combine technological knowledge with passion for marine protection with unique electric products, such as surf boards with 100% electric power and as low impact on marine ecosystem as possible. In near future our plan is to start building e-boats for commercial and other uses.</p>



<p>Please describe any programs/initiatives implemented or planned by your institution related to marine and maritime sectors and indicate on which topics of “Annexes 1 and 2 (link)” it impacts</p> <ol style="list-style-type: none"> Aim/scope Period/time frame Financial scheme Target (stakeholders) Results/outcomes achieved Most effective initiatives (in terms of results and interests from main targets) 	
<p>University of Zagreb, Faculty of Geodesy</p>	<p>Statim d.o.o.</p>
<p>The Faculty of Geodesy is implementing the HIDROLAB Project. This is the Operational Program "Competitiveness and Cohesion 2014-2020", where the open procedure for the award of grants of temporary modality: KK.01.1.1.04 "Investment in science and innovation - the first call", Faculty of Geodesy, University of Zagreb together with a partner, the Institute of Oceanography and Fisheries from Split, won a project called "HIDROLAB - Integrated hydrographic system for sustainable development of the marine</p>	<p>Our aim is to provide pollution-free sea transportation, by using innovative tools and knowledges collected over time. Our goal is to build electric boats but also self-navigated boards for border protection, sea pollution control etc. Period/time frame: 2020.-2021. Own investment, EU-funds Statim d.o.o. and other companies and government units included</p>

ecosystem" - the total eligible costs of the project are 7,467,678.57 HRK.

HIDROLAB is aimed at increasing the ability of applicants and partners to conduct top research in the field of technical sciences and meet the needs of the economy in the priority areas of the Smart Specialization Strategy.

Researchers will be provided with conditions for achieving market oriented IRI activities in the business sector (energy, fisheries, tourism and transport) and raising the level of high quality IRI activities in the field of hydrography or marine geodesy, while students will be able to acquire knowledge and skills needed in the labor market.

The Faculty of Geodesy is also implementing the project Climate challenges on coastal and transitional changing areas: weaving a Cross-Project Adriatic Response - CHANGE WE CARE. CHANGE WE CARE encourages coordinated and coordinated actions to adapt to climate change at cross-border level. The project explores the climate risks faced by coastal and transitional areas that contribute to a better understanding of the impacts of climate variability on change in water regimes, salt penetration, tourism, biodiversity and agro-ecosystems affecting the area of cooperation.

100% electric boats for transportation and other usage

The main objective is to provide an integrated approach, based on the ecosystem and the possibility of joint planning for various climate change-related issues, together with adaptation measures for sensitive areas with shares, which could best benefit them. Adaptation measures are under way to cooperate with local authorities and will be discussed with other stakeholders. The project also aims to define a paradigm for transferring successful methods of analysis, development and implementation of adaptation measures from pilot sites to other systems facing similar cross-border problems, level, harmonizing data procedures and standards, and bridging knowledge gaps for end-users. To this end, a set of five coastal systems will be considered to cover the wide variability of possible geomorphological and ecological settings and the threats that determine coastal vulnerability in the area of cooperation. Each pilot site will be firmly framed within the physical characterization of the modified CC, the Adriatic Sea basin, considering the interconnections determined by large-scale procedures, such as sea level rise, current circulation and cyclogenesis.



<p>On a scale from 1 (not at all) to 7 (extremely), the policy makers perceive that an innovation ecosystem linked to blue economy and blue growth, already exists in their county/city?</p>	
<p>University of Zagreb, Faculty of Geodesy</p>	<p>Statim d.o.o.</p>
<p>In our opinion 4 to 5.</p>	<p>When talking about blue growth and blue economy we rank our county 5 on the scale of innovation system. Even though there are a lot of effort from both private and government institutions, our opinion is that we are still not using full potential of knowledge and resources at disposal. According to StartupBlink, Split has a positive trend in the development of startup ecosystem, which is 2nd in Croatia. Many projects are planned and in process.</p> <p>Split also have amazing network of student business incubators, providing free space, paid fixed expenses and support with new products and research development.</p>



What benefits do you expect at the local / regional level by building an Innovation ecosystem related to the marine and maritime technology?	
University of Zagreb, Faculty of Geodesy	Statim d.o.o.
We expect that available EU funds will strengthen partnerships between public, academic/research and entrepreneurial sectors aimed at developing the blue economy.	Main benefit would be cleaner marine environment. We are hoping to build base knowledge that will encourage other interested companies to create even more eco-acceptable products using previous experiences. For example, company Include from Split is producing smart benches, and now they went step further and are focusing on smart trash cans and containers. Our company, Statim d.o.o. focuses on electric eco-surf boards, we are planning to achieve our ambition by building self-navigated electric boats for all kind of usage. EU fund are critical for strengthening partnerships between the public, research and entrepreneurial sectors who are set to achieve growth of blue economy.

What are the critical factors that you think may diminish the success of innovation ecosystem related to marine and maritime sectors in the next few years?	
University of Zagreb, Faculty of Geodesy	Statim d.o.o.
We think that the biggest threats are climate changes which could have an irreversibly negative effect on the ecology of the sea and consequently to the ecology of the whole planet, and the lack of awareness of the public/political stakeholders which cause damage by itself! A great threat in non-implementation of adopted measures and management plans by various stakeholders in coastal zone management.	Critical factors in our opinion, is cooperation with government organizations and better use of European funds. Projects like this are of crucial importance for the success of innovation ecosystem related to marine and maritime sectors. Current pandemic as well will have huge impact in continued development of blue technology.

<p>Which Innovation ecosystem stakeholders related to marine and maritime sectors are currently missing or should be encouraged/attracted to the Innovation ecosystem? (firms, research institutions, industry association, accelerator, consultants, scientific parks).</p>	
<p>University of Zagreb, Faculty of Geodesy</p>	<p>Statim d.o.o.</p>
<p>Local decision-makers should be involved in initiatives, education, engagement in public-private partnerships, cooperation with universities.</p>	<p>Even though Split and Splitsko-Dalmatinska county have a lot of firms and research institutions like Div -group, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture in Split (FESB) university, Faculty of Maritime studys etc. We are still missing partnership and organization of all parties included to push towards same goal. Our target should be set by Norwegian examples of Maritime research pushing towards blue economy perfection.</p>

What are policies on local/regional level that could help in development of Innovation ecosystem related to marine and maritime sectors?	
University of Zagreb, Faculty of Geodesy	Statim d.o.o.
Development plans, environmental protection programs, waste management plans, spatial plans of the sea at both local and regional level can help the development of an innovative ecosystem.	Introduction of eco recognized products would improve development and reduced taxes and surtaxes for companies that produce such products. Also, reduction in VAT for such product would have great impact on further research and development. Example of such products can be our own eco-surf board https://sailfin.plurato.com/ or smart bench, eco-sauna etc. all listed are produced here in Split.



<p>Please mention any institutional collaboration developed at the regional – national or international level related to the blue growth strategy.</p>	
<p>University of Zagreb, Faculty of Geodesy</p>	<p>Statim d.o.o.</p>
<p>Cooperation between the regional, national and international level is realized through the implementation of international projects already mentioned, through participation in the development of strategic documents at the national, regional and local level (spatial plans, environmental plans and programs, development plans, etc ...), but also participation in forums, departmental seminars and meetings.</p>	<p>Collaboration between companies (both private and government) who are set to reach common goals, shearing resurse and using know-how partnerships is the only way to accomplish positive blue economy.</p> <p>Div-group, FESB and Naval university in Split have such project, they are trying to develop VR navigation system in order to control ship in more effective way and stop possible pollutions from happening.</p> <p>Our own company is also partnering up with the company Plovput in development of an autonomous vessel for data reading from buoys. There are many more examples of project and interested parties, but we need to strive for better organization from both private and government sectors.</p>