

D4.2.1. Underwater robotics and sensors interactive web platform Beta-test report

InnovaMare project

Blue technology - Developing innovative technologies for sustainability of Adriatic Sea

WP4 – Creation and establishment of innovation ecosystem model for underwater robotics and sensors



Project References

Call for proposal 2019 Strategic - InnovaMare

Project number: 10248782

Work package: WP4 Creation and establishment of innovation ecosystem model for underwater

robotics and sensors

Activity title: A2 Development of a cross-border interactive web network

Deliverable title: D4.2.1. Underwater robotics and sensors interactive web platform Beta-test

report

Expected date: M 19

Deliverable description: It is a collaboration tool, a digital environment where innovation players exchange knowledge & build competencies, SMEs meet SRIs and business support organizations together will all other relevant stakeholders

Partner responsible for the deliverable: Croatian Chamber of Economy

Dissemination level: CO - Confidential

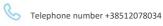
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Organisation name Croatian Chamber of Economy

Contact person

Mateo Ivanac



Interactive web platform introduction

This network will be established as a platform for innovation ecosystem in underwater robotics and sensors. Online platform facilitator will be assigned at the beginning of the project. Developed map of excellence in WP3 is part of this web platform that covers innovation players. Besides that, all inputs gathered from stakeholders thru design thinking workshops, training trainers and business models will be part of web platform as well as technology foresight. Idea is to have a virtual marketplace for project ideas, financing search, partner search, raising awareness and education trainings in area of underwater robotics and sensors. In this way we are fostering cooperation, flow of information and knowledge. It is a collaboration tool, a digital environment where innovation players exchange knowledge & build competencies, SMEs meet SRIs and business support organizations together will all other relevant stakeholders.

IWP is designed as an information infrastructure to support the creation, development and maintenance of innovation and entrepreneurial ecosystem. It is a central point for the implementation and organization of future services within the digital innovation hub (DIH) for underwater robotics and sensors within Innovamare.

Five basic functionalities are united by previously prepared documentation:

- A. Content Management
- B. Map of Excellence
- C. Marketplace
- D. Community Management
- E. Provision of DIH services

Description of functionality

All content of the platform is in English.

The platform distinguishes levels of authority without registration, with registration and with payment.

- PC- Public Content, no registration needed (public content)
- RF- Registered member, Freemium (registered user without payment)
- RP- Registered member, Premium (registered user with payment of membership fee)

All visitors have the right to log in to the system (for Freemium and Premium). The Administrator reserves the right to review or reject the reported data and any correction of the entered data. RF users have a wider range of platform rights and can switch to RP users. Payment is made by













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transaction account directly to the administrator (owner of the platform) on the account. The administrator has the authority to see the payment data, i.e. which user has paid for the membership and thus authorize him to the user's RP.

When registering, the user chooses which group he belongs to (legal entity, natural person, institute, NGO...). The form (which needs to be defined) is filled in in a dynamic way with all the necessary user data.

Rb	IWP Mairos Pages and Functionalities	PC	RF	RP
Α	CONTENT MANAGEMENT (HOMEPAGE)			
A01	About DIH Mairos	X	Χ	Χ
A02	News and blog (tagged, categorized, Medium blogging by members)	X	Χ	Χ
A03	Calendar of events	X	Χ	Χ
A04	Free resources (Useful links, downloads, publications, webinars)	X	Χ	X
A05	FAQ (including membership and payments)	X	Χ	X
A06	Terms of service	X	Χ	X
A07	Links to Mairos profiles to LinkedIn, FB, twitter, ytube	X	Х	X
A08	Sign in/Log in		Х	X
A09	Admin			
В	MAP OF EXCELLENCE			
B01	Info	X	Х	X
B02	Basic		Χ	
B03	Detailed			Χ
С	MARKET PLACE			
C01	Info	X	Χ	Χ
C02	Ideas section (projects or needs)	_X	X	X
C03	Demand section		X	X
C04	Offering section			X
C05	Investment and funding section			X
D	COMMUNITY MANAGEMENT			
C01	Info	X	X	X
C02	Community newsletter		X	X
C03	Forum		X	X
C04	Education programs free (documents and video material)		X	X
C05	Education programs paid (documents and video material)			X
C06	Profiles of companies and institutions		X	X
C07	Profiles of researchers and experts			X
C08	Promotions and sponsorships for the members			X
C09	Polls generation and analyse			X
C10	Consultation for public/private purposes			X
C11	Ideation & innovation			Х









The relationships and functionalities of items B, C, D and E are defined in the draft in the previous chapter and can be briefly described as follows.

Upon completion of user registration, the system administrator confirms / approves the user account, which, depending on the authority of Freemium or Premium, the user gets access to the content of the site.

After logging in, the system allows the user to view an additional menu with links to content that is inaccessible to anonymous (unregistered) users.

By accessing the map of excellence, the registered user gets the opportunity to search for content (projects, events, business entities, associations, institutions, organizations, suppliers and other entities defined by the initial requirement). The public user can only see general information about the excellence map.

Filtering is possible by multiple items with the results displayed on the map. Filtering options need to be defined.

Depending on the role (Freemium or Premium), the user will be able to see basic or expanded content. In the case of the Freemium authorization level, the user receives basic information about the requested project, event, business entity, etc. The Premium authorization level allows the user a detailed overview of the requested content within the folder.

The data that will be available for Freemium and Premium members must be defined by the administrator.

By accessing the Marketplace page, the public user receives general information related to the Marketplace and can view the ideas of stakeholders who have previously approved the display of ideas and public users. Public users are limited by the amount of information they can see (idea, short description, state, but do not see whose idea it is).

Freemium users can see whose idea it is, and the ability to view all the offers and demands of Premium level users. Premium level users can post their ideas, for which they can determine whether public users can view them or not, supply and demand.

If the demand and supply of two different stakeholders overlap, the administrator receives a matching notification, engages as an intermediary, and connects the users.

Freemium members get access to the forum, educational materials (free) and profiles of business entities and institutions. Premium members, in addition to the possibilities of Freemium members, additionally gain access to the profiles of researchers and experts and educational materials that

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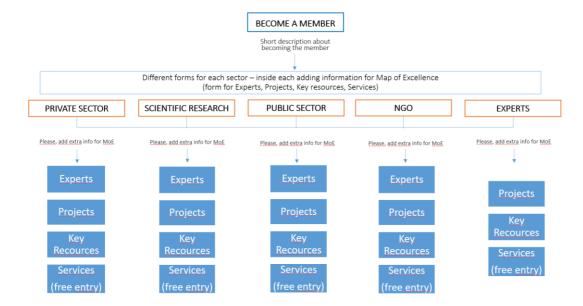
are available only to Premium members. The public user does not have access to or view the specified content.

Freemium and Premium members could write blogs and announce events. For content (blog or event) to be visible to all users or a specific group of users, prior approval from the platform administrator is required.

The administrator can assign ratings to each user for internal evaluation purposes. Ratings are not publicly available and will not be visible to users of any level.

The role of the system administrator is also counseling, pooling, providing innovation management audits and / or improvements, seeking sources of funding (e.g. EU projects, etc.). The administrator could create interactive forms that can be sent to users of the platform (and beyond as needed) and offer services that can be performed on the market.

A more detailed analysis of users / stakeholders is available to the administrator, e.g. Y companies from area Z.























Focus groups conclusions

FOCUS GROUP - THE POTENTIAL of WEB PLATFORM

One of the main milestones of INNOVAMARE consists of the development of a cross-border interactive web network platform, that will enable cooperation, collaboration, exchange of knowledge and information among different stakeholders for the development of innovative technological solutions.

Given the relevance of the platform, Regional Union of the Chambers of Commerce of Veneto Region (UCV) has developed a series of actions to support its design and development process in a participatory mode: two Focus group sessions of 2 hours each were organized, involving different stakeholders already taking part in project activities, in order to better address all potential needs.

THE FIRST FOCUS GROUP MEETING - 21/07/2021

The first meeting was held online on the 21st of July and 21 participants attended.

The meeting was divided in two parts, with presentations of the scope of the focus group, of the web platform and of the design & development process in the first hour, while the second was dedicated to questions, answers and feedbacks gathering.













THE SECOND FOCUS GROUP MEETING – 28/10/2021

The second meeting was held in Sibenik on the 28th of October during the 5- days Workshop "CREATIVE APPROACH TO DIGITAL INNOVATION HUB DEFINITION".

The first part of the meeting was dedicated to a presentation about the best practices concerning web platforms functionalities, with a importance given to the platform's governance processes and roles. The platform Innocentive was presented as a success case suggested by one of the participants during the first FG meeting and the main features and functions of Innocentive were discussed as a basis for the development of web platform.

The focus of the second part was on web platform features and on some key elements such as security permissions and access for specific roles and groups; relevant suggestions were given by the participants and should be taken into consideration in the upcoming design & development phase of the web platform. The last part of the meeting was dedicated to the illustration of the design of web platform made by Mateo Ivanac and of his presentation of some core sections of the platform, then again room was made for suggestions and comments from the partners that will be taken into account during the next phase. The participants agreed to take part into a beta test of web platform that should be organized by the LP within January 2022.

Description and content of the web platform

- a. About us
- b. Contact us
- c. Services
- **d.** Become a member
- e. Upgrade membership
- **f.** Pages with the registartion forms Private sector, Public sector, NGO, Experts, Scientific Research
- g. Marketplace
- h. Home page -> Education, Collaboration, Technology transfer, Idea tunnel -
- i. FAQ
- j. Submit idea
- k. Newsletter: Sign up for the Newsletter and find out all the news

About us

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Innovamare interactive web platform is the main place for transformation of the blue economy! It connects companies, institutions, researchers, experts and users from private, scientific, civil and public sector in order to tackle challenges related to the mission of sustainability of the Adriatic Sea by using solutions of underwater robotics and sensorics. It is a unique approach for collaboration and cooperation of key stakeholders in maritime technologies.

The main purpose of Innovamare platform is to support the creation, development and maintenance of innovation and entrepreneurship ecosystem and the central point for the realization and organization of services within the digital innovation hub (DIH) for underwater robotics and sensorics.

Services

- <u>Test before invest</u> Support in a form of services related to technical expertise and experimentation. Companies may demonstrate the functionality of their products in order to give users first impressions. Services provided by the platform are aimed at:
 - New concepts design and validation
 - Adaptation of existing technologies to novel applications
 - o TRL(S) validation
- <u>Skills and training</u> Services aimed for preparatory and upskilling employees in the field of underwater robotics by providing online modules, auditorium meetings, access to water, robots and related tech through:
 - Academy Innovamare
 - Info engagement
- <u>Support to find investment</u> Support related to funding services aimed at helping other organisations creating competitive research proposals, giving support in e.g. open calls and brokering funding by digital platform, events and education.
 - Providing funding opportunities
- <u>Innovation ecosystem and networking</u> Groups of services enabling different entities to build networks to support their specific needs such as structured relationships with other entities business or scientific, regional authorities, industrial clusters, SME associations, business development. Groups of services include:
 - Matchmaking/networking
 - o Innovamare community/Info engagement
 - Finding solution for your challenge













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- Additional services Services aimed at solving specific needs in the field of underwater robotics such as:
 - Project management
 - Citizens science / civil engagement
 - Tech foresight and market intelligence
 - Business model development for SME
 - Data service

Become a member

Innovamare platform users are experts from the innovation and business ecosystem which participate as innovators, researchers and solution providers in underwater robotics and sensors. Also, the users are stakeholders seeking or in need of solutions from the domain of underwater robotics and sensors in the function of sustainability of the sea:

- Companies looking for research and development institutions to develop new products and services
- Research and development institutions that would like to cooperate with companies
- Local and regional governments looking for solutions to prevent and address marine
- Research institutions, companies or other organizations looking for partners in EU projects or developing new EU projects in the field of sustainability and ecology of the sea
- Research institutions, companies or other organizations interested in cooperation in the innovation ecosystem
- External stakeholders, such as financing institutions, private equity funds, venture capital funds, bearers decision and other interested stakeholders

What's in it for you?

European Regional Development Fund

- empowering your knowledge with smart and innovative services
- we find the right challenge for you to solve by understanding your skills and expertise
- bringing you a market for your solutions
- funding opportunities for your ideas















Organisation name

Contact person Mateo Ivanac

Croatian Chamber of Economy



Market place

Innovamare marketplace is focused on a specific niche related to the innovation ecosystem - the field of underwater robotics and sensorics with a tendency to expand to the technologies that are closely related to the DIH mission - the sustainability of the Adriatic Sea.

It is a place where offers for projects/ideas/technology transfer/ products and services, search of funding schemes for innovative projects, products and service, meet request.

Submit idea

Economic growth and activation of the innovation potential can best be achieved through the cooperation of the business and scientific-research sectors by encouraging joint innovative projects. <u>Sumbit idea</u> is a place where one can look for a collaborative project or suggest a project idea to find a partner.

The database provides information on stakeholders of the innovation system in the field of private and scientific-research sector seeking business cooperation with the aim of implementing projects in the field of research, development and innovation.

Applicants can also, through the database, through clearly defined forms, REQUEST and OFFER business cooperation related to technology transfer.

To get an idea of the steps you need to find what you are looking for, we offer you an overview of a few published project ideas.

Free online service to entrepreneurs and the science sector provides the opportunity of:

- presenting innovative ideas of your company / scientific institution
- presenting technological solutions
- seeking partnerships
- search for technological solutions















Official web platform infographic

















MARKET PLACE and forms

- protected part: input and visibility (RP, RP)
- o Everything that is entered can be seen on the protected part. If "publish idea in public" is included, only part of the information is displayed.
- public part: input and visibility (PC)
- o Everything that is entered can be seen in the public part. Refers to unregistered users looking for a partner / reporting an idea.
- PC- Public Content, no registration needed
- RF- Registrated member, Freemium
- RP- Registrated member, Premium

Obligatory field (marked*)

X – indicate which level of data a particular type of user can see (RP, RF, PC)

Below are the examples of Submit Idea that are Request/Offer or search for project partners, and on interactive web platforme there will also other options available, as described previously in this document.

SUBMIT IDEA

Decription	RP	RF	PC
ser of the project			
 Private sector Micro Small Medium Large NACE Code Scientific Research 			
	 Private sector Micro Small Medium Large NACE Code 	Private sector Micro Small Medium Large NACE Code Scientific Research	Private sector Micro Small Medium Large NACE Code Scientific Research















Data	Decription	RP	RF	PC
	 Research Centre Scientific Park Incubator Accelerator Consultant 			
	 Public sector 			
	 Ministry Regional Authority Local Government BSO NGO Other: please specify 			
Location	CountryCounty/RegionCity			
Name and surname of the proposer/contact person	Enter or withdraw from the profile			
Organization where the applicant is employed	Enter or withdraw from the profile			
Address	Enter or withdraw from the profile			
Phone	optional			
e-mail	Enter or withdraw from the profile			
Request/Offer	Choose category			
Type of cooperation	 a partner for an existing project idea a project they could join assistance in the commercialization of research analysis, contract research, etc. research services / laboratory equipment assistance in product / prototype development 			





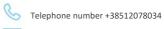
Comparison
Telephone number +38512078034

www.italy-croatia.eu/innovamare

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Data	Decription	RP	RF	PC
	 experts with specific knowledge / expertise (consulting) expertise 			
Idea title	It becomes the title under which it is published			
Work area	The area in which the project idea fits. Multiple areas can be selected (up to 3). These areas are the tags used in the search engine to market ideas. Possible areas are: Blue Economy Living resources LR1 Harvesting sector LR2 Aquaculture LR3 Processing and preserving of fish, crustaceans and molluscs LR4 Retail sale of fish, crustaceans and molluscs in specialised stores LR5 Wholesale of other food, including fish, crustaceans and molluscs Offshore oil and gas OG1 Extraction of crude petroleum OG2 Extraction of natural gas OG3 Support activities for petroleum and			















Data	Decription	RP	RF	PC
	natural gas			
	extraction			
	Port activities			
	 PA1 Cargo handling 			
	 PA2 Warehousing 			
	and storage			
	 PA3 Construction of 			
	water projects			
	PA4 Service			
	activities incidental			
	to water			
	transportation			
	Shipbuilding and repair			
	 SR1 Building of ships 			
	and floating			
	structures			
	 SR2 Building of 			
	pleasure and			
	sporting boats			
	 SR3 Repair and 			
	maintenance of			
	ships and boats			
	Maritime transport			
	MT1 Sea and coastal			
	passenger water			
	transport			
	MT2 Sea and coastal			
	freight water			
	transport			
	MT3 Inland			
	passenger water			
	transport			
	 MT4 Inland freight 			
	water transport			

Address Rooseveltov trg 2, Zagreb, Croatia



Data	Decription	RP	RF	PC
	 MT5 Renting and leasing of water transport equipment Coastal tourism CT1 Hotels and similar accommodation CT2 Holiday and other short-stay accommodation CT3 Camping grounds, recreational vehicle parks and trailer parks CT4 Other accommodation CT5 Transport CT6 Other expenditure ES1 Renewable Energy ES2 Deep-seabed mining ES3 Desalination ES4 Defence and Security ES5 Biotechnology ES6 Environmental protection ES7 Ecosystem services ES8 Natural capital ES9 Multiuse platforms ES10 Research and education Other (specify) 			









Data	Decription	RP	RF	PC
Data	 Scientific Domain Physical Sciences and Engineering PE1 Mathematics PE2 Fundamental Constituents of Matter PE3 Condensed Matter Physics PE4 Physical and Analytical Chemical Sciences PE5 Synthetic Chemistry Materials PE6 Computer Science and 	RP	RF	PC
	Informatics PE7 Systems and Communication Engineering PE8 Products and Processes Engineering PE9 Universe Sciences PE10 Earth System Science Life Sciences LS1 Molecular Biology, Biochemistry, Structural			
	Biology and Molecular Biophysics LS2 Genetics, 'Omics', Bioinformatics and Systems Biology LS3 Cellular and Developmental Biology LS4 Physiology, Pathophysiology and Endocrinology LS5 Neuroscience and Neural Disorders			













Data	Decription	RP	RF	PC
	 LS7 Applied Medical Technologies, Diagnostics, Therapies and Public Health LS8 Ecology, Evolution and Environmental Biology LS9 Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Social Sciences and Humanities SH1 Individuals, Markets and Organisations SH2 Institutions, Values, Environment and Space SH3 The Social World, Diversity, Population SH4 The Human Mind and Its Complexity SH5 Cultures and Cultural Production SH6 The Study of the Human Past Other (specify) 			
	 MSFD Descriptor (info kućica sa opisom) D1 Biodiversity D2 Non-indigenous species D3 Populations of commercially exploited fish and shellfish D4 Pelagic food webs D5 Eutrophication D6 Sea floor integrity D7 Hydrographic conditions D8 Contaminants D9 Contaminants in food D10 Marine litter 			











Data	Decription	RP	RF	PC
	 D11 Underwater noise 			
	Other (specify)			
	Value Chain Position			
	 Inputs and raw materials 			
	 VCI1 - Inputs and raw 			
	materials - General			
	VCI2 - Inputs and raw			
	materials - Special			
	 Components manufacturing 			
	■ VCC1 - Components			
	manufacturing - SW			
	Components			
	VCC2 - Components			
	manufacturing - HW			
	Components			
	VCC3 - Components			
	manufacturing - ROV/AUV			
	Components & Tooling			
	 Production 			
	VCP1 - Production -			
	ROV/AUV/Sensor			
	Manufacturing			
	VCP2 - Production -			
	Auxiliary and sub-system			
	products			
	VCP3 - Production -			
	Integrated systems			
	manufacturing			
	VCP4 - Production -			
	Peripheral services and			
	logistics			
	 Distribution 			
	VCD1 - Distribution -			
	Marketing & Distribution			















Data	Decription	RP	RF	PC
Data	■ VCD2 - Distribution - After Sales Customer Support & Technical Training Sales ■ VCS1 - Sales - ROV/AUV operators & Survey Firms Support bodies ■ VCB1 - Support bodies - Education & Research ■ VCB2 - Support bodies - Government ■ VCB3 - Support bodies - BSO, Clusters, Associations ■ VCB4 - Support bodies - Financial Networks Customers or Buyers ■ VCC1 - Customers or Buyers - Scientific Research ■ VCC2 - Customers or Buyers	RP	RF	PC
	- Defence/Port Security VCC3 - Customers or Buyers - Offshore Energy & Installations VCC4 - Customers or Buyers - Fisheries and Aquaculture VCC5 - Customers or Buyers - Maritime Governance VCC6 - Customers or Buyers - Marine Environment and Depollution Other (specify)			
Place of implementation of	One location is entered and up to 200 characters			
a possible future project	are descriptive			
Description of idea	The idea description is entered up to 2000 characters			













Data	Decription	RP	RF	PC
Main activities				
Goals				
Expected results				
Duration	Estimated duration of a possible future project.			
Attachments	Documents attached to the idea. Documents are visible only inside the protected part for RF/RP			
Public part	Publication of the idea in the public part of the web platform. (registered user chooses whether to publish the idea in public)			
Publication date	Day, month and year of publication of the idea. (automatic)			
Time of publication	Hours and minutes of publishing ideas. (automatic)			

Ш	Publish	idea	in	Market	place	for	public
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SEARCH FOR PROJECT PARTNER

SLANCH FOR PROJECT	FAITINEIL				
Data	Decription		RP	RF	PC
Information about the search	er				
Organization searching for partner					
Type of organization	Private secNAScientific F	MicroSmallMediumLargeCE Code			















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Data	Decription	RP	RF	PC
	 Accelerator Consultant Public sector Ministry Regional Authority Local Government BSO NGO Other (specify) 			
Location	CountryCounty/RegionCity			
Name and surname of the individual who is searching for partner	Enter or withdraw from the profile			
Organization where the individual is employed	Enter or withdraw from the profile			
Address	Enter or withdraw from the profile			
Phone	optional			
e-mail	Enter or withdraw from the profile			
Request/Offer	Choose category			
Type of cooperation	 a project that could join assistance in the commercialization of research analysis, contract research, etc. research services / laboratory equipment assistance in product / prototype development experts with specific knowledge / expertise (consulting) expertise 			







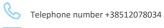








Data	Decription	RP	RF	PC
	Other (specify)			
Work area	Multiple areas can be selected (up to 3). These areas are the tags used in the search engine to market place. Possible areas are: Blue Economy Living resources LR1 Harvesting sector LR2 Aquaculture LR3 Processing and preserving of fish, crustaceans and molluscs LR4 Retail sale of fish, crustaceans and molluscs in specialised stores LR5 Wholesale of other food, including fish, crustaceans and molluscs Offshore oil and gas OG1 Extraction of crude petroleum OG2 Extraction of natural gas OG3 Support activities for petroleum and natural gas extraction Port activities			
	 PA1 Cargo handling 			















Data	Decription	RP	RF	PC
	 PA2 Warehousing 			
	and storage			
	 PA3 Construction of 			
	water projects			
	 PA4 Service 			
	activities incidental			
	to water			
	transportation			
	Shipbuilding and repair			
	 SR1 Building of ships 			
	and floating			
	structures			
	SR2 Building of			
	pleasure and			
	sporting boats			
	SR3 Repair and			
	maintenance of			
	ships and boats			
	 Maritime transport 			
	MT1 Sea and coastal			
	passenger water			
	transport			
	MT2 Sea and coastal			
	freight water			
	transport			
	MT3 Inland .			
	passenger water			
	transport			
	 MT4 Inland freight 			
	water transport			
	MT5 Renting and			
	leasing of water			
	transport equipment			
	Coastal tourism			















Data	Decription	RP	RF	PC
	 CT1 Hotels and similar accommodation CT2 Holiday and other short-stay accommodation CT3 Camping grounds, recreational vehicle parks and trailer parks CT4 Other accommodation CT5 Transport CT6 Other expenditure 			
	 ES1 Renewable Energy ES2 Deep-seabed mining ES3 Desalination ES4 Defence and Security ES5 Biotechnology ES6 Environmental protection ES7 Ecosystem services ES8 Natural capital ES9 Multiuse platforms ES10 Research and education 			
	 Scientific Domain Physical Sciences and Engineering PE1 Mathematics PE2 Fundamental Constituents of Matter 			

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Data	Decription	RP	RF	PC
	 PE3 Condensed Matter 			
	Physics			
	 PE4 Physical and Analytical 			
	Chemical Sciences			
	 PE5 Synthetic Chemistry 			
	and Materials			
	 PE6 Computer Science and 			
	Informatics			
	■ PE7 Systems and			
	Communication Engineering			
	 PE8 Products and Processes 			
	Engineering			
	PE9 Universe Sciences			
	 PE10 Earth System Science 			
	 Life Sciences 			
	LS1 Molecular Biology,			
	Biochemistry, Structural			
	Biology and Molecular			
	Biophysics			
	LS2 Genetics, 'Omics',			
	Bioinformatics and Systems			
	Biology			
	LS3 Cellular and			
	Developmental Biology			
	LS4 Physiology,			
	Pathophysiology and			
	Endocrinology			
	LS5 Neuroscience and			
	Neural Disorders			
	 LS6 Immunity and Infection 			
	 LS7 Applied Medical 			
	Technologies, Diagnostics,			
	Therapies and Public Health			
	 LS8 Ecology, Evolution and 			
	Environmental Biology			



	RP	RF	PC
■ LS9 Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering	KP .	KF	PC
 Inputs and raw materials 			
 VCI1 - Inputs and raw materials - General 			
materials - General ■ VCI2 - Inputs and raw			
materials - Special			















Data	Decription	RP	RF	PC
	 Components manufacturing VCC1 - Components manufacturing - SW Components VCC2 - Components manufacturing - HW Components VCC3 - Components manufacturing - ROV/AUV Components & Tooling Production VCP1 - Production - ROV/AUV/Sensor Manufacturing VCP2 - Production - Auxiliary and sub-system products VCP3 - Production - Integrated systems manufacturing VCP4 - Production - 			
	Peripheral services and logistics Distribution VCD1 - Distribution - Marketing & Distribution VCD2 - Distribution - After Sales Customer Support & Technical Training Sales VCS1 - Sales - ROV/AUV operators & Survey Firms			
	 Support bodies VCB1 - Support bodies - Education & Research 			













Data	Decription	RP	RF	PC
	 VCB2 - Support bodies - Government VCB3 - Support bodies - BSO, Clusters, Associations VCB4 - Support bodies - Financial Networks Customers or Buyers VCC1 - Customers or Buyers - Scientific Research VCC2 - Customers or Buyers - Defence/Port Security VCC3 - Customers or Buyers - Offshore Energy & Installations VCC4 - Customers or Buyers - Fisheries and Aquaculture VCC5 - Customers or Buyers - Maritime Governance VCC6 - Customers or Buyers - Maritime Governance VCC6 - Customers or Buyers - Marine Environment and Depollution 			
What do you search for (describe)	Number of characters			

 \square Publish search for partner in Market place for public















Map of Excellence (MoE) and forms

PRIVATE SECTOR (organization form):

Upload logo/photo					
Name of the organization					
	■ Micro				
Туре	■ Small				
1,76-2	■ Medium				
	■ Large				
Web address					
Location (address)					
Country					
Contact					
Email					
Phone					
Affiliation	Blue Economy (multiple choice up to 3)				
	 Living resources 				
	 LR1 Harvesting sector 				
	LR2 Aquaculture				
	 LR3 Processing and preserving of 				
	fish, crustaceans and molluscs				
	LR4 Retail sale of fish, crustaceans				
	and molluscs in specialised stores				
	 LR5 Wholesale of other food, 				
	including fish, crustaceans and				
	molluscs				
	 Offshore oil and gas 				
	OG1 Extraction of crude				
	petroleum				
	OG2 Extraction of natural gas				
	_				
	petroleum and natural gas				
	extraction				
	■ Port activities				
	PA1 Cargo handling				
	PA2 Warehousing and storage				











- PA3 Construction water projects
- PA4 Service activities incidental to water transportation
- Shipbuilding and repair
 - SR1 Building of ships and floating structures
 - SR2 Building of pleasure and sporting boats
 - SR3 Repair and maintenance of ships and boats
- Maritime transport
 - MT1 Sea and coastal passenger water transport
 - MT2 Sea and coastal freight water transport
 - MT3 Inland passenger water transport
 - MT4 Inland freight water transport
 - MT5 Renting and leasing of water transport equipment
- Coastal tourism
 - CT1 Hotels similar and accommodation
 - CT2 Holiday and other short-stay accommodation
 - CT3 Camping grounds, recreational vehicle parks and trailer parks
 - CT4 Other accommodation
 - **CT5 Transport**
 - CT6 Other expenditure
- ES1 Renewable Energy
- ES2 Deep-seabed mining
- **ES3** Desalination
- ES4 Defence and Security















- **ES5 Biotechnology**
- ES6 Environmental protection
- ES7 Ecosystem services
- ES8 Natural capital
- ES9 Multiuse platforms
- ES10 Research and education
- Other (specify)
- MSFD Descriptor (multiple choice up to 3)
 - o D1 Biodiversity
 - o D2 Non-indigenous species
 - o D3 Populations of commercially exploited fish and
 - o D4 Pelagic food webs
 - D5 Eutrophication
 - D6 Sea floor integrity
 - o D7 Hydrographic conditions
 - o D8 Contaminants
 - D9 Contaminants in food
 - o D10 Marine litter
 - o D11 Underwater noise
 - Other (specify)
- Value Chain Position (multiple choice up to 3)
 - Inputs and raw materials
 - VCI1 Inputs and raw materials General
 - VCI2 Inputs and raw materials Special
 - Components manufacturing
 - VCC1 Components manufacturing SW Components
 - VCC2 Components manufacturing HW Components
 - VCC3 Components manufacturing -**ROV/AUV Components & Tooling**
 - Production
 - VCP1 Production ROV/AUV/Sensor Manufacturing

Contact person Mateo Ivanac















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•	VCP2	- Production	-	Auxiliary	and	sub-
	system	products				

- VCP3 Production Integrated systems manufacturing
- VCP4 Production Peripheral services and logistics
- Distribution
 - VCD1 Distribution Marketing & Distribution
 - VCD2 Distribution After Sales Customer **Support & Technical Training**
- Sales
 - VCS1 Sales ROV/AUV operators & Survey Firms
- Support bodies
 - VCB1 Support bodies Education & Research
 - VCB2 Support bodies Government
 - VCB3 Support bodies BSO, Clusters, Associations
 - VCB4 Support bodies Financial **Networks**
- **Customers or Buyers**
 - VCC1 Customers or Buyers Scientific Research
 - VCC2 Customers or **Buyers Defence/Port Security**
 - VCC3 Customers or Buyers Offshore **Energy & Installations**
 - VCC4 Customers or Buyers Fisheries and Aquaculture
 - VCC5 Customers or Buyers Maritime Governance
 - VCC6 Customers or Buyers Marine **Environment and Depollution**
- Other (specify)

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SCIENTIFIC RESEARCH (organization form):

Upload logo/photo	
Name of the organization	
Туре	 Scientific Research University Research Centre Scientific Park Incubator Accelerator Consultant Other (specify)
Web address	
Location (address)	
Country	
Contact	
Email	
Phone	
Affiliation	 Scientific Domain (multiple choice up to 3) Physical Sciences and Engineering PE1 Mathematics PE2 Fundamental Constituents of Matter PE3 Condensed Matter Physics PE4 Physical and Analytical Chemical Sciences PE5 Synthetic Chemistry and Materials PE6 Computer Science and Informatics PE7 Systems and Communication Engineering PE8 Products and Processes Engineering PE9 Universe Sciences PE10 Earth System Science Life Sciences LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics LS2 Genetics, 'Omics', Bioinformatics and Systems Biology













- LS3 Cellular and Developmental Biology
- LS4 Physiology, Pathophysiology and Endocrinology
- LS5 Neuroscience and Neural Disorders
- LS6 Immunity and Infection
- LS7 Applied Medical Technologies, Diagnostics, Therapies and Public Health
- LS8 Ecology, Evolution and Environmental **Biology**
- LS9 Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering
- Social Sciences and Humanities
 - SH1 Individuals, Markets and Organisations
 - SH2 Institutions, Values, Environment and Space
 - SH3 The Social World, Diversity, **Population**
 - SH4 The Human Mind and Its Complexity
 - SH5 Cultures and Cultural Production
 - SH6 The Study of the Human Past
- Other (specify)
- MSFD Descriptor (multiple choice up to 3)
 - D1 Biodiversity
 - o D2 Non-indigenous species
 - o D3 Populations of commercially exploited fish and shellfish
 - D4 Pelagic food webs
 - o D5 Eutrophication
 - D6 Sea floor integrity
 - D7 Hydrographic conditions
 - **D8** Contaminants
 - D9 Contaminants in food \circ
 - D10 Marine litter
 - D11 Underwater noise
 - Other (specify)









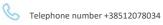




$\ \square$ Publish information in the Map of Excellence

PUBLIC SECTOR (organization form):

Upload logo/photo	
Name of the organization	
Туре	 Ministry Regional Authority Local Government BSO Other (specify)
Web address	
Location (address)	
Country	
Contact	
Email	
Phone	
Affiliation	 Blue Economy (multiple choice up to 3) Living resources LR1 Harvesting sector LR2 Aquaculture LR3 Processing and preserving of fish, crustaceans and molluscs LR4 Retail sale of fish, crustaceans and molluscs in specialised stores LR5 Wholesale of other food, including fish, crustaceans and molluscs Offshore oil and gas OG1 Extraction of crude petroleum OG2 Extraction of natural gas OG3 Support activities for petroleum and natural gas extraction













- PA1 Cargo handling
- PA2 Warehousing and storage
- PA3 Construction of water projects
- PA4 Service activities incidental to water transportation
- Shipbuilding and repair
 - SR1 Building of ships and floating structures
 - SR2 Building of pleasure and sporting boats
 - SR3 Repair and maintenance of ships and boats
- Maritime transport
 - MT1 Sea and coastal passenger water transport
 - MT2 Sea and coastal freight water transport
 - MT3 Inland passenger water transport
 - MT4 Inland freight water transport
 - MT5 Renting and leasing of water transport equipment
- Coastal tourism
 - CT1 Hotels and similar accommodation
 - CT2 Holiday and other short-stay accommodation
 - CT3 Camping grounds, recreational vehicle parks and trailer parks
 - CT4 Other accommodation
 - CT5 Transport
 - CT6 Other expenditure
- ES1 Renewable Energy
- ES2 Deep-seabed mining



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- **ES3** Desalination
- **ES4** Defence and Security
- **ES5 Biotechnology**
- ES6 Environmental protection
- ES7 Ecosystem services
- ES8 Natural capital
- ES9 Multiuse platforms
- ES10 Research and education
- Other (specify)
- **MSFD** Descriptor
 - D1 Biodiversity
 - o D2 Non-indigenous species
 - o D3 Populations of commercially exploited fish and shellfish
 - o D4 Pelagic food webs
 - o D5 Eutrophication
 - D6 Sea floor integrity
 - o D7 Hydrographic conditions
 - **D8 Contaminants**
 - D9 Contaminants in food
 - o D10 Marine litter
 - o D11 Underwater noise
 - Other (specify)
- Value Chain Position
 - Inputs and raw materials
 - VCI1 Inputs and raw materials General
 - VCI2 Inputs and raw materials Special
 - Components manufacturing
 - VCC1 Components manufacturing SW Components
 - VCC2 Components manufacturing HW Components
 - VCC3 Components manufacturing -**ROV/AUV Components & Tooling**
 - Production
 - VCP1 Production ROV/AUV/Sensor Manufacturing











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- VCP2 Production Auxiliary and subsystem products
- VCP3 Production Integrated systems manufacturing
- VCP4 Production Peripheral services and logistics
- Distribution
 - VCD1 Distribution Marketing & Distribution
 - VCD2 Distribution After Sales Customer **Support & Technical Training**
- Sales
 - VCS1 Sales ROV/AUV operators & Survey Firms
- Support bodies
 - VCB1 Support bodies Education & Research
 - VCB2 Support bodies Government
 - VCB3 Support bodies BSO, Clusters, Associations
 - VCB4 Support bodies Financial **Networks**
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 - VCC1 Customers or Buyers Scientific Research
 - VCC2 Customers **Buyers Defence/Port Security**
 - VCC3 Customers or Buyers Offshore **Energy & Installations**
 - VCC4 Customers or Buyers Fisheries and Aquaculture
 - VCC5 Customers or Buyers Maritime Governance
 - VCC6 Customers or Buyers Marine **Environment and Depollution**
- Other (specify)
- Publish information in the Map of Excellence













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NGO (organization form):

(organization form).	
Upload logo/photo	
Name of the organization	
Name of the responsible	
person	
Number of members	
Web address	
Location (address)	
Country	
Contact person	
Email	
Phone	
Affiliation	Blue Economy (multiple choice up to 3)
(multiple choice up to 3)	 Living resources
	 LR1 Harvesting sector
	LR2 Aquaculture
	LR3 Processing and preserving of
	fish, crustaceans and molluscs
	LR4 Retail sale of fish, crustaceans
	·
	and molluscs in specialised stores
	LR5 Wholesale of other food,
	including fish, crustaceans and
	molluscs
	Offshore oil and gas
	• OG1 Extraction of crude
	petroleum
	 OG2 Extraction of natural gas
	 OG3 Support activities for
	petroleum and natural gas
	extraction
	Port activities
	 PA1 Cargo handling
	PA2 Warehousing and storage
	PA3 Construction of water
	projects











- PA4 Service activities incidental to water transportation
- Shipbuilding and repair
 - SR1 Building of ships and floating structures
 - SR2 Building of pleasure and sporting boats
 - SR3 Repair and maintenance of ships and boats
- Maritime transport
 - MT1 Sea and coastal passenger water transport
 - MT2 Sea and coastal freight water transport
 - MT3 Inland passenger water transport
 - MT4 Inland freight water transport
 - MT5 Renting and leasing of water transport equipment
- Coastal tourism
 - CT1 Hotels and similar accommodation
 - CT2 Holiday and other short-stay accommodation
 - CT3 Camping grounds, recreational vehicle parks and trailer parks
 - CT4 Other accommodation
 - **CT5 Transport**
 - CT6 Other expenditure
- **ES1** Renewable Energy
- ES2 Deep-seabed mining
- **ES3** Desalination
- **ES4** Defence and Security
- **ES5 Biotechnology**
- ES6 Environmental protection

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- ES7 Ecosystem services
- ES8 Natural capital
- ES9 Multiuse platforms
- ES10 Research and education
- Other (specify)
- MSFD Descriptor (multiple choice up to 3)
 - D1 Biodiversity
 - o D2 Non-indigenous species
 - o D3 Populations of commercially exploited fish and shellfish
 - o D4 Pelagic food webs
 - o D5 Eutrophication
 - D6 Sea floor integrity
 - o D7 Hydrographic conditions
 - o D8 Contaminants
 - o D9 Contaminants in food
 - o D10 Marine litter
 - D11 Underwater noise
 - Other (specify)
- Value Chain Position (multiple choice up to 3)
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 - VCI1 Inputs and raw materials General
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 - VCC1 Components manufacturing SW Components
 - VCC2 Components manufacturing HW Components
 - VCC3 Components manufacturing -**ROV/AUV Components & Tooling**
 - Production
 - VCP1 Production ROV/AUV/Sensor Manufacturing
 - VCP2 Production Auxiliary and subsystem products

Telephone number +38512078034



- VCP3 Production Integrated systems manufacturing
- VCP4 Production Peripheral services and logistics
- Distribution
 - VCD1 Distribution Marketing & Distribution
 - VCD2 Distribution After Sales Customer **Support & Technical Training**
- Sales
 - VCS1 Sales ROV/AUV operators & Survey Firms
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 - VCB3 Support bodies BSO, Clusters, Associations
 - VCB4 Support bodies Financial **Networks**
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 - VCC1 Customers or Buyers Scientific Research
 - VCC2 Customers or **Buyers Defence/Port Security**
 - VCC3 Customers or Buyers Offshore **Energy & Installations**
 - VCC4 Customers or Buyers Fisheries and Aquaculture
 - VCC5 Customers or Buyers Maritime Governance
 - VCC6 Customers or Buyers Marine **Environment and Depollution**
- Other (specify)
- Publish information in the Map of Excellence

















EXPERTS (key individuals form)

Note: within each form by sector, the organization can enter a list of multiple experts - after filling out the form for one, allow you to enter the next – button Add expert

Name		
Affiliation to the organization	 Private sector name of organization (optional) Scientific Research name of organization (optional) Public sector name of organization (optional) NGO name of organization (optional) 	
Country		
Email		
Phone		
Describe your expertise (specialization) - (decide on number of characters)		
Affiliation	Blue Economy (multiple choice up to 3)	
	 Living resources 	
	 LR1 Harvesting sector 	
	LR2 Aquaculture	
	LR3 Processing and preserving of fish, crustaceans and molluscs	
	 LR4 Retail sale of fish, crustaceans and molluscs in specialised stores 	
	 LR5 Wholesale of other food, including fish, crustaceans and molluscs 	
	 Offshore oil and gas 	
	OG1 Extraction of crude	
	petroleum	
	OG2 Extraction of natural gas	
	OG3 Support activities for	
	petroleum and natural gas	
	extraction	
	Port activities	







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- PA1 Cargo handling
- PA2 Warehousing and storage
- Construction PA3 of water projects
- PA4 Service activities incidental to water transportation
- Shipbuilding and repair
 - SR1 Building of ships and floating structures
 - SR2 Building of pleasure and sporting boats
 - SR3 Repair and maintenance of ships and boats
- Maritime transport
 - MT1 Sea and coastal passenger water transport
 - MT2 Sea and coastal freight water transport
 - MT3 Inland passenger water transport
 - MT4 Inland freight water transport
 - MT5 Renting and leasing of water transport equipment
- Coastal tourism
 - CT1 similar Hotels and accommodation
 - CT2 Holiday and other short-stay accommodation
 - CT3 Camping grounds, recreational vehicle parks and trailer parks
 - CT4 Other accommodation
 - **CT5 Transport**
 - CT6 Other expenditure
- ES1 Renewable Energy
- ES2 Deep-seabed mining

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- **ES3** Desalination
- **ES4** Defence and Security
- **ES5 Biotechnology**
- ES6 Environmental protection
- ES7 Ecosystem services
- ES8 Natural capital
- ES9 Multiuse platforms
- ES10 Research and education
- Other (specify)
- Scientific Domain (multiple choice up to 3)
 - **Physical Sciences and Engineering**
 - **PE1 Mathematics**
 - PE2 Fundamental Constituents of Matter
 - **PE3 Condensed Matter Physics**
 - PE4 Physical and Analytical Chemical Sciences
 - PE5 Synthetic Chemistry and Materials
 - **PE6 Computer Science and Informatics**
 - PE7 Systems and Communication Engineering
 - PE8 Products and Processes Engineering
 - **PE9 Universe Sciences**
 - PE10 Earth System Science
 - Life Sciences
 - LS1 Molecular Biology, Biochemistry, Structural Biology Molecular and **Biophysics**
 - LS2 Genetics, 'Omics', Bioinformatics and **Systems Biology**
 - LS3 Cellular and Developmental Biology
 - LS4 Physiology, Pathophysiology and Endocrinology
 - LS5 Neuroscience and Neural Disorders
 - LS6 Immunity and Infection
 - Applied Medical Technologies, Diagnostics, Therapies and Public Health













 LS8 Ecology, Evolution and Environmental Biology LS9 Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering
Engineering
 Social Sciences and Humanities
■ SH1 Individuals, Markets and
Organisations
 SH2 Institutions, Values, Environment and
Space
■ SH3 The Social World, Diversity,
Population
 SH4 The Human Mind and Its Complexity
 SH5 Cultures and Cultural Production

Other (specify) *

SH6 The Study of the Human Past

- Button Add expert
- ☐ Publish information in the Map of Excellence

PROJECTS

Note: within each form by sector, the organization can enter a list of several projects - after filling in the form for one allow you to enter the next - at the end of the form - button Add project

Please indicate maximum up to 5 research projects + 5 society projects in the last 5 years (button Add Project)

Project name	
Project value	
Туре	 Research Society (i.e. public speeches; public events for citizens; educational events for students.
Status	OngoingFinished













^{*} if relevant: Specialization refers to the main competence; for example: "software development for underwater navigation" Please use this link for detecting ERC scientific domain: https://erc.europa.eu/sites/default/files/document/file/ERC Panel structure 2020.pdf



Organisation linked to	
project	
Website (if any)	
Funding program	EU funds
	o HORIZON 2020
	o Interreg
	 ERDF (European Regional Development Fund)
	 EMFF (European Maritime and Fisheries Fund)
	 LIFE (Environmental and climate action)
	 IPA II (Instrument for pre-accession assistance)
	 FP7 (Seventh Framework Programme)
	 National/Regional
	 Regional project
	 National Defence
	o HAMAG/BICRO
	 The Environmental Protection and Energy
	Efficiency Fund (EPEEF)
	 Croatian Bank for Reconstruction and
	Development (HBOR)
	 ISPRA (Italian National Institute for
	Environmental Protection and Research)
	 MIUR (Ministry of Education, Universities and
	Research-Italy)
	 POR (Programmi Operativi Regionali)
	Other
	Private Equity
	 Investment fund
	 Hedge fund
	 Venture capital
	 Angel Investors
	 ESA (European Space Agency)
Lead partner	•
Country of LP	•
Project scope	•
Status	Ongoing
	• Finished
Affiliation	Blue Economy (multiple choice up to 3)
	Living resources
	LR1 Harvesting sector













- LR2 Aquaculture
- LR3 Processing and preserving of fish, crustaceans and molluscs
- LR4 Retail sale of fish, crustaceans and molluscs in specialised stores
- LR5 Wholesale of other food, including fish, crustaceans and molluscs
- Offshore oil and gas
 - OG1 Extraction of crude petroleum
 - OG2 Extraction of natural gas
 - OG3 Support activities for petroleum and natural gas extraction
- Port activities
 - PA1 Cargo handling
 - PA2 Warehousing and storage
 - PA3 Construction of projects
 - PA4 Service activities incidental to water transportation
- Shipbuilding and repair
 - SR1 Building of ships and floating structures
 - SR2 Building of pleasure and sporting boats
 - SR3 Repair and maintenance of ships and boats
- Maritime transport
 - MT1 Sea and coastal passenger water transport
 - MT2 Sea and coastal freight water transport
 - MT3 Inland passenger water transport

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- MT4 Inland freight water transport
- MT5 Renting and leasing of water transport equipment
- Coastal tourism
 - CT1 Hotels similar and accommodation
 - CT2 Holiday and other short-stay accommodation
 - CT3 Camping grounds, recreational vehicle parks and trailer parks
 - CT4 Other accommodation
 - **CT5 Transport**
 - CT6 Other expenditure
- ES1 Renewable Energy
- ES2 Deep-seabed mining
- **ES3** Desalination
- ES4 Defence and Security
- **ES5 Biotechnology**
- ES6 Environmental protection
- ES7 Ecosystem services
- ES8 Natural capital
- ES9 Multiuse platforms
- ESO Research and education
- Other (specify)
- Scientific Domain (multiple choice up to 3)
 - Physical Sciences and Engineering
 - **PE1 Mathematics**
 - PE2 Fundamental Constituents of Matter
 - **PE3 Condensed Matter Physics**
 - PE4 Physical and Analytical Chemical **Sciences**
 - PE5 Synthetic Chemistry and Materials
 - **PE6 Computer Science and Informatics**
 - PE7 Systems and Communication Engineering











- PE8 Products and Processes Engineering
- **PE9 Universe Sciences**
- PE10 Earth System Science
- Life Sciences
 - LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular **Biophysics**
 - LS2 Genetics, 'Omics', Bioinformatics and **Systems Biology**
 - LS3 Cellular and Developmental Biology
 - LS4 Physiology, Pathophysiology and Endocrinology
 - LS5 Neuroscience and Neural Disorders
 - LS6 Immunity and Infection
 - Applied Medical Technologies, Diagnostics, Therapies and Public Health
 - LS8 Ecology, Evolution and Environmental **Biology**
 - LS9 Applied Life Sciences, Biotechnology, and Molecular and **Biosystems** Engineering
- Social Sciences and Humanities
 - SH1 Individuals, Markets and Organisations
 - SH2 Institutions, Values, Environment and Space
 - SH3 The Social World, Diversity, **Population**
 - SH4 The Human Mind and Its Complexity
 - SH5 Cultures and Cultural Production
 - SH6 The Study of the Human Past
- Other (specify)
- MSFD Descriptor (multiple choice up to 3)
 - o D1 Biodiversity
 - o D2 Non-indigenous species
 - D3 Populations of commercially exploited fish and shellfish









 D4 Pelagic food webs
 D5 Eutrophication
 D6 Sea floor integrity
 D7 Hydrographic conditions
 D8 Contaminants
 D9 Contaminants in food
o D10 Marine litter
 D11 Underwater noise
Other (specify)

Button Add project

☐ Publish information in the Map of Excellence

KEY RESOURCES

List of the key resources in the sector of underwater robotics and sensors that the company/institution would like to communicate to potential business and research partners. Examples:

- infrastructures (R&D labs; testing labs; Fablabs; etc.)
- technologies (laser cutter; 3D metal printer; lidar technologies; etc.)
- intellectual property rights (patents; trademarks, etc.)
- technologies in which the organization has patents/ applied for patents

Resource type	Technology
(multiple choice)	Infrastructure
	Know-how
	Equipment
	• IPR
	 Network
	 Description of the resource (free text)
Linked organization	Private sector
	 name of organization (optional)
	Scientific Research
	 name of organization (optional)

SERVICES

Describe services (free text) – specify the number of characters

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FILTERS FOR MAP OF EXCELLENCE DATABASE

This document is to be used as technical supplement for IT contractor responsible for developing and realization of interactive Map of Excellence web application based on collection of data gathered during WP3 Activity 1 - Mapping of relevant stakeholders in underwater robotics and sensors, their capabilities (human, technological, projects, equipment), in order to create an interactive version of map of excellence.

During the process, a structured database has been created based on desk research and interview activities. According to the Methodological guidelines' documents, data have been inserted within Monday platform and structured into several boards:

- Organisations
- Key projects
- Key individuals
- Key platforms
- Key resources
- Classifiers (supplemental board)

Purpose of the document is to define set of classification filters and relationships categories, which may be applied to the database in order to filter out results and produce relevant information.

Map of excellence goal is to establish network of information and expertise by gathering and collecting data from stakeholders within the ecosystem (4-helix). Such information and expert network have three pillars: Interactive map of information, Market place and Community.















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Croatian Chamber of Economy

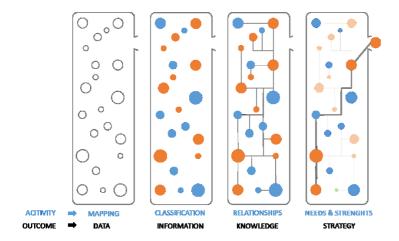
Organisation name

Contact person



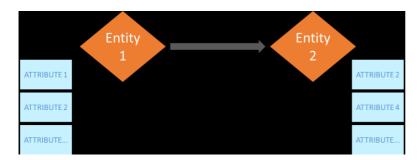
Mentioned board categories created within Monday platform (Organisations, Key projects, Key individuals, Key platforms and Key resources) correspondents to Pillar 1 – Interactive map of information categories (see above figure).

First step of data classification over applied filters would be expanded with creation of relationship links between various entities in order to create knowledge network, which may lead ultimately to defining of needs and strengths thus allowing creation of strategies (see figure below).



Possible solution for such approach to the strategy may be in a form of Knowledge graphs. The knowledge graph (KG) represents a collection of interlinked descriptions of entities – real-world objects, events, situations or abstract concepts – where:

- Descriptions have a **formal structure** that allows both people and computers to process them in an efficient and unambiguous manner;
- Entity descriptions contribute to one another through **relationships**, forming a **network**, where each entity represents part of the description of the entities, related to it.







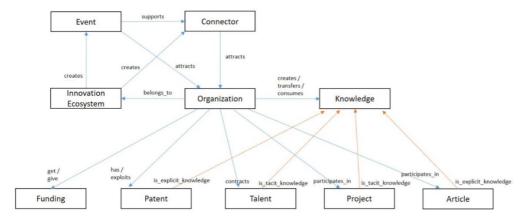








Example of relationship links.



Activities around stakeholder database would be based on several classification methods:

- Search (word or words) based on one or several words,
- Faceted search involves augmenting traditional search techniques with a faceted navigation system, allowing users to narrow down search results by applying multiple filters,
- Filter select only those records that match certain criteria,
- **Sort** arranging the data into some meaningful order,
- Query -requesting information from the database by select query retrieving data.

Filtering process needs to be able to provide results in a form of cluster or individual results about:

- Which areas of activities are most represented in relation of three organization types and key individuals?
- What are most represented areas of application of EU projects?
- What are most significant scientific domains related to key individuals (researchers)?
- What are most represented key resources and where can be found?
- Value chain position clustering
- Three organisation type geo-location clustering
- Linkages between organisations and individuals in form of business partnerships or join EU projects partnerships
- Which funding programs were used for participating projects?
- etc.

Hierarchical list of filters and attributes/relationship/entity lists are shown below.





























CATEGORY 1. - ORGANIZATIONS

TYPE OF ORGANIZATION

- Scientific Research (SCR)
 - Type of SCR
 - University
 - Research Centre
 - Scientific Park
 - Incubator
 - Accelerator
 - Consultant
- Private Sector (PRS)
 - Size
 - Micro
 - Small
 - Medium
 - Large
 - NACE Code
- Public Sector (PBS)
 - o Type of PBS
 - Ministry
 - **Regional Authority**
 - **Local Government**
 - BSO
 - NGO

LOCATION

- Country
- County/Region
- City

AFFILIATION

- Blue Economy
 - Established sectors
 - Living resources
 - LR1 Harvesting sector
 - LR2 Aquaculture
 - LR3 Processing and preserving of fish, crustaceans and molluscs
 - LR4 Retail sale of fish, crustaceans and molluscs in specialised stores















- LR5 Wholesale of other food, including fish, crustaceans and molluscs
- Offshore oil and gas
 - OG1 Extraction of crude petroleum
 - OG2 Extraction of natural gas
 - OG3 Support activities for petroleum and natural gas extraction
- Port activities
 - PA1 Cargo handling
 - PA2 Warehousing and storage
 - PA3 Construction of water projects
 - PA4 Service activities incidental to water transportation
- Shipbuilding and repair
 - SR1 Building of ships and floating structures
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 - MT5 Renting and leasing of water transport equipment
- Coastal tourism
 - CT1 Hotels and similar accommodation
 - CT2 Holiday and other short-stay accommodation
 - CT3 Camping grounds, recreational vehicle parks and trailer parks
 - CT4 Other accommodation
 - CT5 Transport
 - CT6 Other expenditure
- **Emerging sectors**
 - ES1 Renewable Energy
 - ES2 Deep-seabed mining
 - **ES3** Desalination
 - ES4 Defence and Security
 - **ES5 Biotechnology**
 - ES6 Environmental protection
 - **ES7** Ecosystem services

















- ES8 Natural capital
- ES9 Multiuse platforms
- ES10 Research and education
- Scientific Domain
 - o Physical Sciences and Engineering
 - PE1 Mathematics
 - PE2 Fundamental Constituents of Matter
 - PE3 Condensed Matter Physics
 - PE4 Physical and Analytical Chemical Sciences
 - PE5 Synthetic Chemistry and Materials
 - **PE6 Computer Science and Informatics**
 - PE7 Systems and Communication Engineering
 - PE8 Products and Processes Engineering
 - PE9 Universe Sciences
 - PE10 Earth System Science
 - Life Sciences
 - LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular **Biophysics**
 - LS2 Genetics, 'Omics', Bioinformatics and Systems Biology
 - LS3 Cellular and Developmental Biology
 - LS4 Physiology, Pathophysiology and Endocrinology
 - LS5 Neuroscience and Neural Disorders
 - LS6 Immunity and Infection
 - LS7 Applied Medical Technologies, Diagnostics, Therapies and Public Health
 - LS8 Ecology, Evolution and Environmental Biology
 - LS9 Applied Life Sciences, Biotechnology, and Molecular and Biosystems **Engineering**
 - Social Sciences and Humanities
 - SH1 Individuals, Markets and Organisations
 - SH2 Institutions, Values, Environment and Space
 - SH3 The Social World, Diversity, Population
 - SH4 The Human Mind and Its Complexity
 - SH5 Cultures and Cultural Production
 - SH6 The Study of the Human Past
- MSFD Descriptor
 - D1 Biodiversity
 - D2 Non-indigenous species

















- D3 Populations of commercially exploited fish and shellfish
- D4 Pelagic food webs
- D5 Eutrophication
- D6 Sea floor integrity
- D7 Hydrographic conditions
- D8 Contaminants
- D9 Contaminants in food
- D10 Marine litter
- o D11 Underwater noise

VALUE CHAIN POSITION

- Value Chain Position
 - Inputs and raw materials
 - VCI1 Inputs and raw materials General
 - VCI2 Inputs and raw materials Special
 - Components manufacturing
 - VCC1 Components manufacturing SW Components
 - VCC2 Components manufacturing HW Components
 - VCC3 Components manufacturing ROV/AUV Components & Tooling
 - Production
 - VCP1 Production ROV/AUV/Sensor Manufacturing
 - VCP2 Production Auxiliary and sub-system products
 - VCP3 Production Integrated systems manufacturing
 - VCP4 Production Peripheral services and logistics
 - Distribution
 - VCD1 Distribution Marketing & Distribution
 - VCD2 Distribution After Sales Customer Support & Technical Training
 - Sales
 - VCS1 Sales ROV/AUV operators & Survey Firms
 - Support bodies
 - VCB1 Support bodies Education & Research
 - VCB2 Support bodies Government
 - VCB3 Support bodies BSO, Clusters, Associations
 - VCB4 Support bodies Financial Networks
 - **Customers or Buyers**
 - VCC1 Customers or Buyers Scientific Research
 - VCC2 Customers or Buyers Defence/Port Security
 - VCC3 Customers or Buyers Offshore Energy & Installations













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- VCC4 Customers or Buyers Fisheries and Aquaculture
- VCC5 Customers or Buyers Maritime Governance
- VCC6 Customers or Buyers Marine Environment and Depollution

CATEGORY 2. - KEY PROJECTS

BY TYPE

- Research
- Society

BY STATUS

- Ongoing
- Finished

BY COUNTRY OF THE LEAD PARTNER

Country

BY FUNDING PROGRAM

- EU funds
 - o HORIZON 2020
 - Interreg
 - o ERDF (European Regional Development Fund)
 - o EMFF (European Maritime and Fisheries Fund)
 - LIFE (Environmental and climate action)
 - o IPA II (Instrument for pre-accession assistance)
 - FP7 (Seventh Framework Programme)
- National/Regional
 - Regional project
 - National Defence
 - HAMAG/BICRO
 - The Environmental Protection and Energy Efficiency Fund (EPEEF)
 - Croatian Bank for Reconstruction and Development (HBOR)
 - o ISPRA (Italian National Institute for Environmental Protection and Research)
 - o MIUR (Ministry of Education, Universities and Research-Italy)
 - o POR (Programmi Operativi Regionali)
- Other
 - Private Equity
 - Investment fund
 - Hedge fund
 - Venture capital













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- Angel Investors
- ESA (European Space Agency)

AFFILIATION

- Blue Economy
 - Established sectors
 - Living resources
 - LR1 Harvesting sector
 - LR2 Aquaculture
 - LR3 Processing and preserving of fish, crustaceans and molluscs
 - LR4 Retail sale of fish, crustaceans and molluscs in specialised stores
 - LR5 Wholesale of other food, including fish, crustaceans and molluscs
 - Offshore oil and gas
 - OG1 Extraction of crude petroleum
 - OG2 Extraction of natural gas
 - OG3 Support activities for petroleum and natural gas extraction
 - Port activities
 - PA1 Cargo handling
 - PA2 Warehousing and storage
 - PA3 Construction of water projects
 - PA4 Service activities incidental to water transportation
 - Shipbuilding and repair
 - SR1 Building of ships and floating structures
 - SR2 Building of pleasure and sporting boats
 - SR3 Repair and maintenance of ships and boats
 - Maritime transport
 - MT1 Sea and coastal passenger water transport
 - MT2 Sea and coastal freight water transport
 - MT3 Inland passenger water transport
 - MT4 Inland freight water transport
 - MT5 Renting and leasing of water transport equipment
 - Coastal tourism
 - CT1 Hotels and similar accommodation
 - CT2 Holiday and other short-stay accommodation
 - CT3 Camping grounds, recreational vehicle parks and trailer parks
 - CT4 Other accommodation

















- CT5 Transport
- CT6 Other expenditure
- **Emerging sectors**
 - ES1 Renewable Energy
 - ES2 Deep-seabed mining
 - ES3 Desalination
 - ES4 Defence and Security
 - **ES5 Biotechnology**
 - ES6 Environmental protection
 - **ES7** Ecosystem services
 - ES8 Natural capital
 - ES9 Multiuse platforms
 - ESO Research and education
- Scientific Domain
 - Physical Sciences and Engineering
 - PE1 Mathematics
 - PE2 Fundamental Constituents of Matter
 - **PE3 Condensed Matter Physics**
 - PE4 Physical and Analytical Chemical Sciences
 - PE5 Synthetic Chemistry and Materials
 - **PE6 Computer Science and Informatics**
 - PE7 Systems and Communication Engineering
 - PE8 Products and Processes Engineering
 - PE9 Universe Sciences
 - PE10 Earth System Science
 - Life Sciences
 - LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular **Biophysics**
 - LS2 Genetics, 'Omics', Bioinformatics and Systems Biology
 - LS3 Cellular and Developmental Biology
 - LS4 Physiology, Pathophysiology and Endocrinology
 - LS5 Neuroscience and Neural Disorders
 - LS6 Immunity and Infection
 - LS7 Applied Medical Technologies, Diagnostics, Therapies and Public Health
 - LS8 Ecology, Evolution and Environmental Biology
 - LS9 Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering

















- Social Sciences and Humanities
 - SH1 Individuals, Markets and Organisations
 - SH2 Institutions, Values, Environment and Space
 - SH3 The Social World, Diversity, Population
 - SH4 The Human Mind and Its Complexity
 - SH5 Cultures and Cultural Production
 - SH6 The Study of the Human Past
- MSFD Descriptor
 - o D1 Biodiversity
 - D2 Non-indigenous species
 - D3 Populations of commercially exploited fish and shellfish
 - D4 Pelagic food webs
 - D5 Eutrophication
 - D6 Sea floor integrity
 - o D7 Hydrographic conditions
 - D8 Contaminants
 - o D9 Contaminants in food
 - o D10 Marine litter
 - D11 Underwater noise

CATEGORY 3. - KEY INDIVIDUALS (KID)

AFFILIATION TO THE ORGANISATION

- Scientific Research
- **Private Sector**
- **Public Sector**

COUNTRY

Country name

SCIENTIFIC DOMAIN

- Scientific Domain
 - Physical Sciences and Engineering
 - **PE1 Mathematics**
 - PE2 Fundamental Constituents of Matter
 - **PE3 Condensed Matter Physics**
 - PE4 Physical and Analytical Chemical Sciences
 - PE5 Synthetic Chemistry and Materials
 - **PE6 Computer Science and Informatics**

Organisation name

Contact person

Croatian Chamber of Economy

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- PE7 Systems and Communication Engineering
- PE8 Products and Processes Engineering
- **PE9 Universe Sciences**
- PE10 Earth System Science
- Life Sciences
 - LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular **Biophysics**
 - LS2 Genetics, 'Omics', Bioinformatics and Systems Biology
 - LS3 Cellular and Developmental Biology
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 - LS8 Ecology, Evolution and Environmental Biology
 - LS9 Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering
- Social Sciences and Humanities
 - SH1 Individuals, Markets and Organisations
 - SH2 Institutions, Values, Environment and Space
 - SH3 The Social World, Diversity, Population
 - SH4 The Human Mind and Its Complexity
 - SH5 Cultures and Cultural Production
 - SH6 The Study of the Human Past

CATEGORY 4. - KEY PLATFORMS

LINKED ORGANISATION

- Scientific Research
- **Private Sector**
- **Public Sector**

PLATFORM TYPE

- Crowdsourcing
- Crowdfunding
- Open Innovation
- Community

AFFILIATION

















- Blue Economy
 - Established sectors
 - Living resources
 - LR1 Harvesting sector
 - LR2 Aquaculture
 - LR3 Processing and preserving of fish, crustaceans and molluscs
 - LR4 Retail sale of fish, crustaceans and molluscs in specialised stores
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 - CT3 Camping grounds, recreational vehicle parks and trailer parks
 - CT4 Other accommodation
 - CT5 Transport
 - CT6 Other expenditure
 - **Emerging sectors**

















- ES1 Renewable Energy
- ES2 Deep-seabed mining
- **ES3** Desalination
- **ES4** Defence and Security
- ES5 Biotechnology
- ES6 Environmental protection
- **ES7** Ecosystem services
- ES8 Natural capital
- ES9 Multiuse platforms
- ESO Research and education
- Scientific Domain
 - Physical Sciences and Engineering
 - PE1 Mathematics
 - PE2 Fundamental Constituents of Matter
 - **PE3 Condensed Matter Physics**
 - PE4 Physical and Analytical Chemical Sciences
 - PE5 Synthetic Chemistry and Materials
 - PE6 Computer Science and Informatics
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 - LS8 Ecology, Evolution and Environmental Biology
 - LS9 Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering
 - Social Sciences and Humanities
 - SH1 Individuals, Markets and Organisations
 - SH2 Institutions, Values, Environment and Space

















- SH3 The Social World, Diversity, Population
- SH4 The Human Mind and Its Complexity
- SH5 Cultures and Cultural Production
- SH6 The Study of the Human Past
- MSFD Descriptor (drop down menu)
 - o D1 Biodiversity
 - D2 Non-indigenous species
 - o D3 Populations of commercially exploited fish and shellfish
 - D4 Pelagic food webs
 - D5 Eutrophication
 - D6 Sea floor integrity
 - o D7 Hydrographic conditions
 - **D8 Contaminants**
 - D9 Contaminants in food
 - o D10 Marine litter
 - o D11 Underwater noise

CATEGORY 5. - KEY RESOURCES

RESOURCE TYPE

- Technology
- Infrastructure
- Know-how
- Equipment
- **IPR**
- Network

LINKED ORGANISATION

- Scientific Research
- **Private Sector**

Below is a series of fields in Relationships/entries for Private Sector added as an example. All those fields will be also available for Public Sector (same page) or Scientific Research Organization (previous page). Namely, expertise, project proposal, equipment, services, what he is interested in, funding opportunities, project partnership, solution provider. These will be available also for the other sectors as scientific research organizations/Public sector that are also interested in funding opportunities and can provide equipment, services, etc.















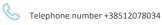
Knowledge graph elements

Overview table (common entries)

ATTRIBUTES	ENTITIES	RELATIONSHIPS
Organisation type	Scientific Research	Belongs_to (parent organisation)
Location (city)	Private Sector	Participates_in (project)
Country	Public Sector	Partnership_with (Project's Lead partner/Business partner)
Contact person	Key projects	
Blue economy sector	Key individuals	
Scientific Domain	Key platforms	
MSFD Descriptor	Key resources	
Value Chain position		
Project type		
Project status		
Funding program		
Lead partner		
Organisation connection		
Specialization		
Platform type		
Resource type		

Entity: Scientific Research Organisation (SCR)

ATTRIBUTES	RELATIONSHIPS
Organisation Type	Belongs_to (parent organisation)
Location (city)	Participates_in (project)
Country	Partnership_with (Project's Lead
	partner/Business partner)
Contact person	
Blue economy sector	
Scientific Domain	
MSFD Descriptor	
Value Chain position	













Entity: Private Sector (PRS)

Entity in invate sector (into)	
ATTRIBUTES	RELATIONSHIPS/entries
Name of company	Participates_in (project)
Location (city)	Partnership_with (Project's Lead
	partner/Business partner)
Country	Expertise
Contact person	Project proposal
(phone number, email, website)	
Blue economy sector	Equipment
Scientific Domain (optional)	Services
MSFD Descriptor (optional)	What he is interested in
Value Chain position	Funding opportunities
NACE code	Project partnerships
Size	Solution provider
Short company description	
(optional)	

Entity: Public Sector (PBS)

ATTRIBUTES	RELATIONSHIPS
Organisation Type	Participates_in (project)
Location (city)	Partnership_with (Project's Lead partner/Business partner)
Country	
Contact person	
Blue economy sector	
MSFD Descriptor	
Value Chain position	
NACE code	











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European Regional Development Fund

Organisation name Croatian Chamber of Economy

Contact person

Mateo Ivanac



Entity: Key projects (PRJ)

ATTRIBUTES	RELATIONSHIPS
Project Type	Belongs_to (organization)
Project status	Partnership_with (Contract/Agreement)
Funding program	
Blue economy sector	
Scientific Domain	
MSFD Descriptor	
Organisation connection	
Lead partner	

Entity: Key individuals (KID)

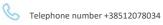
ATTRIBUTES	RELATIONSHIPS
Organisation connection	Belongs_to (organization)
Specialization	Participates_in (project)
Scientific Domain	Partnership_with (contract)

Entity: Key platforms (PLT)

ATTRIBUTES	RELATIONSHIPS
Organisation connection	Belongs_to (organization)
Platform type	
Blue economy sector	
Scientific Domain	
MSFD Descriptor	

Entity: Key resources

ATTRIBUTES	RELATIONSHIPS
Resource type	Belongs to (organization)







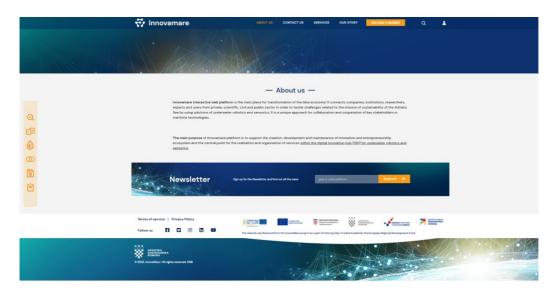


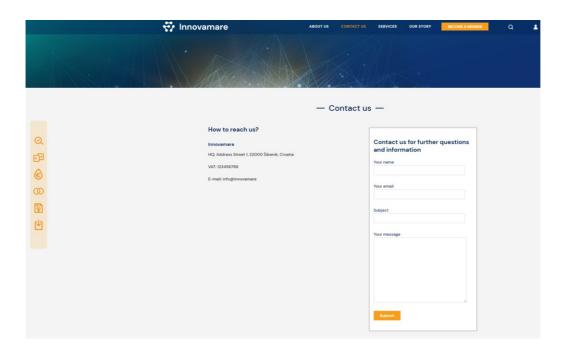






Graphic overview of the platform



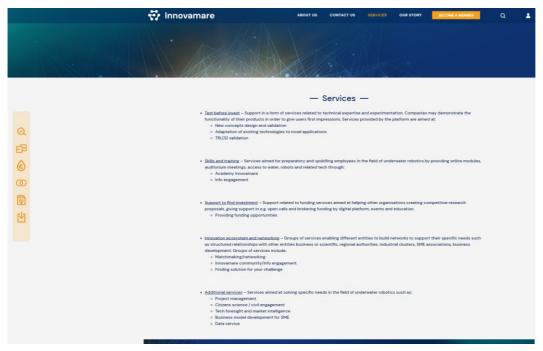


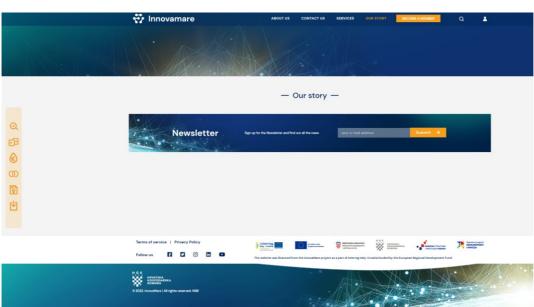


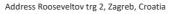


















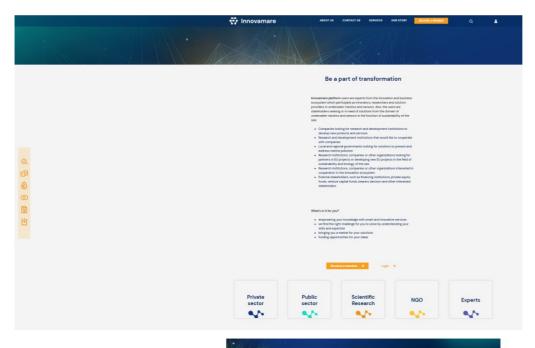


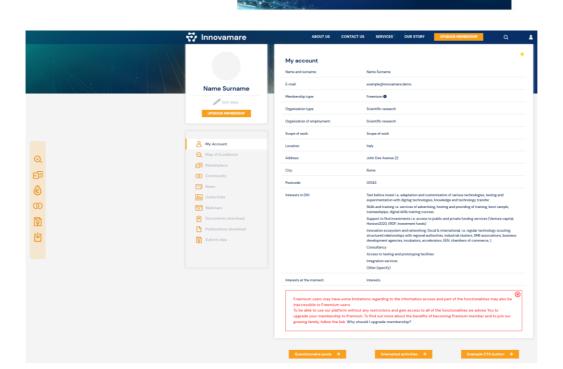






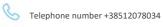






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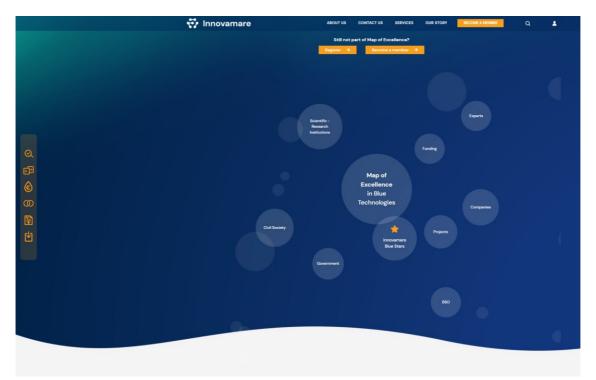


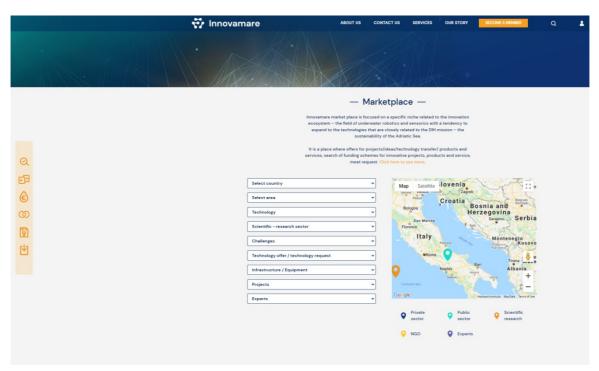














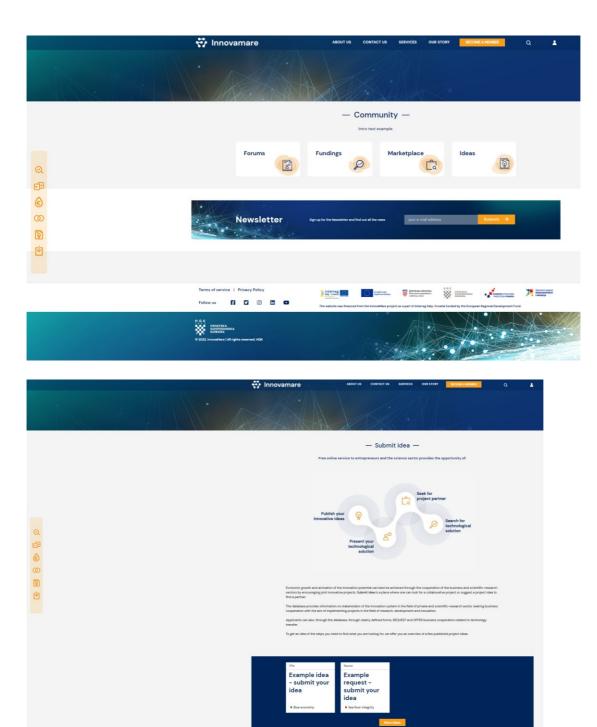














Find opportunities

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Conclusion

Within the Interreg Italy-Croatia project InnovaMare, one of the main activities and output is interactive web platform, devoted to connect companies, institutions, researches, experts and users from private, scientific, civil and public sector, representing innovation ecosystem and emphasizing its role in solving challenges and keeping sustainability of the Adriatic Sea by using underwater robotics and sensors.

The goal of Innovamare platform is to expand and to empower user's knowledge with smart and innovative services, to provide a market for their solutions as well as to find opportunities and partners for promising ideas.

The interactive web platform main functionalities are the map of excellence gathering blue economy innovation key players, the community collecting profiles of experts, companies, projects, on the base of interest, transfer of information and knowledge and the market place backed by digital brokerage that brings together projects, solutions and expertise. The services portfolio is completed by the ones of the Digital Innovation Hub, gathering experts for providing solutions to the user's challenges, funding opportunities area, for applying solutions for funding's and counseling to stakeholders regarding rulebook, laws, strategies.

Innovamare platform addresses to scientists, scientific institutions, companies, local and regional governments, innovators, public institutions, business supporting institutions, with the aim of supporting the creation, development and maintenance of innovation and entrepreneurship ecosystem and the central point for the realization and organization of future services within the digital innovation hub (DIH) for underwater robotics and sensorics as part of the InnovaMare project.



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