







# SUSTAINABLE BLUE ECONOMY IN CONTEXT OF CLIMATE CHANGE AND BIODIVERSITY DEGRADATION POWERED BY MARINE TECHNOLOGIES

# **Business and science collaboration**

Idea of this conference is to engage quadruple-helix stakeholders in discussion on challenges and opportunities for more sustainable blue economy in EU and World taking into consideration climate change and biodiversity degradation.

How digital and green transformation with innovative marine technologies can be a tool for better monitoring and protection of marine ecosystem.

Conference will be opportunity to hear decision makers from Croatia and other countries on how they are supporting this process of digital and green transformation and on the other hand listen to representatives of private sector on challenges they are facing and needs for faster implementation.

Scientific-research sector should present their findings in challenges that we are facing in context of climate change and biodiversity.

Place: Ceremonial Hall University of Zadar, Mihovila Pavlinovića 1, 23000 Zadar

Date: 10th of April 2024

**Duration:** 6 h and 15 min, 10:00 – 16:15

# Programme

10.00-10.45 (45 min)	Ministry of regional development and EU
Introductory speech – 5' p.p.	Funds- Mr. Šime Erlić, minister (tbc)
	Ministry of Sea, Transport and Infrastructure
	<ul> <li>Mr. Josip Bilaver, state secretary (tbc)</li> </ul>
	University of Zadar – prof.dr.sc. Josip Faričić, rector
	City of Zadar – dr.med. Branko Dukić, mayor
	Zadar county - g. Božidar Longin, county prefect
	(tbc)
	Italian Embassy in Republic of Croatia – H.E., Mr.
	Paolo Trichilo
	Royal Norwegian Embassy in Republic of Croatia -
	Mr. Helge Klouman Marstrande, depudy
	Ambassador
	Maritime Research Center – Mr. Arnab Das, CEO













10.45-11.00 Promo video DIH Innovamare 5' Presentation of DIH Innovamare 10'	DIH Innovamare team
Panel discussion – How to respond to challenges coming from climate change and blue economy activities on biodiversity degradation for sustainable blue economy	Scientific-research sector: University of Zadar – Department for ecology, agronomy and aquaculture - izv. prof.dr.sc. Lav Bavčević Ruđer Bošković Institute – Center for Marine Research – dr.sc. Martin Pfannkuchen, head of division Public sector: Ministry of the Sea, Transport and Infrastructure – Maritime Safety Directorate - cap. Siniša Orlić, director (tbc) Ministry of Economy and Sustainable Development – Institute for Environmental and Nature protection – dr. sc. Aljoša Duplić, director Private sector: Croatian Chamber of Economy - Mr. Tomislav Radoš, vice-president WWF Adria – Mrs. Dunja Mazzocco Drvar, director of Protected Area Programme Public sector: Krka National Park – Mrs. Nella Slavica, director Moderator: DIH Innovamare, Mr. Mateo Ivanac, CEO
12.00-13.00 Networking break	<ul> <li>Signing framework collaboration         agreement with Ocean Autonomy Cluster,         Norway as a step of establishment of         maritime innovation network between         Croatia and Norway</li> <li>B2B meetings with Norwegian companies</li> </ul>













13.00-14.15	Scientific-research sector:
Round table 1 – Marine technologies for	University of Zadar – Maritime department -
digital and green transformation of blue	izv.prof.dr.sc. Marko Valčić
economy sectors	Faculty of Maritime studies Split - Institute for Marine Electrical Engineering and Informatics - izv.prof.dr.sc. Maja Krčum
	Private sector: AITAC d.o.o Mr. Marijan Lorencin, CEO Business supporting organisations: DIH Innovamare - Mr. Ljubomir Pozder, research and development engineer Public sector: Public Institution "Nature Park Telašćica" (tbc)
	Moderator: Faculty for electronic and computing Zagreb - Department of Control and Computer Engineering – dr.sc. Nadir Kapetanović, lead researcher
13.00-14.15 Round table 2 – How to expand and improve production in Aquaculture and fishery and lower impact on marine ecosystem	Scientific-research sector: University of Zadar – Department for ecology, agronomy and aquaculture - izv.prof.dr.sc. Tomislav Šarić Private sector: Bedalov d.o.o dr.sc. Ana Bedalov, CEO Cromaris d.d. – Mr. Ivan Leko, President of the Management Board WWF Adria – Mr. Fabijan Peronja, senior project leader for sustainable blue economy Business supporting organisations: DIH Agrifood, Mr. Matija Bumbak, CEO Public sector: Zadar county - Directory for Maritime Affairs, Sea and Transport – Mr. Krešimir Laštro, director Moderator: Platforma 22 - Mr. Krešimir Kovač, Project leader
14.15-14.45	
Networking break and B2B meetings	B2B meetings with Norwegian companies
14.45-16.00	Scientific-research sector:
Round table 3 – What is the future of	University of Zadar – Department for Maritime
Shipbuilding and maritime transportation	Studies – izv.prof.dr.sc. Josip Orović
with digital and green transformation	Business supporting organisations:
	<b>Lurssen-Marinn</b> - Mrs. Ana Odak, president of the organization













	Misli More d.o.o Ms. Ana Čalić, CEO
	Private sector: ISKRA shipyard 1 d.o.o Mr. Roko Vuletić, CEO Jadrolinija d.d. – Mr. Riano Bukša, board member
	Public sector:
	Ministry of Sea, Transport and Infrastructure - Sector of navigation safety and environmental protection at sea and inland waters - Mr. Toni Maričević, head of sector
	Croatian Ship Registry – construction sector - Mr. Marinko Popović, dipl.ing., head of sector
	<b>Moderator: DIH Innovamare,</b> Mr. Ljubomir Pozder, R&D engineer
14.45-16.00	Scientific-research sector:
Round table 4 – Challenges of coastal and	University of Zadar - Department for tourism and
marine tourism to lower impact on marine	communication science - izv.prof.dr.sc. Božena
ecosystem	Krce Miočić
	Private sector:
	<b>FALKENSTEINER Hotel Management d.o.o.</b> – Mrs. Jasna Čurković, board member
	<b>Amadria Park - Solaris</b> - Mrs. Katarina Lilić, board member
	Javni sektor:
	Public institution "Nature" Šibenik-knin county -
	mr.sc. Anita Babačić Ajduk, dipl.ing.biol., manager
	<b>Šibenik-knin county</b> - dr.sc. Marko Jelić, county
	prefect  Public institution "Natura JADERA" - mr.sc.
	Morana Bačić, professional manager
	Moderator: Agency for development of Zadar
	county - Zadra NOVA – Mrs Marina Dujmović
	•
	Vuković, manager
16.00-16.15	
16.00-16.15 Closing speech	University of Zadar - prof. dr.sc. Faričić, rector

14100 10100	
Workshops as a part of a SeaTecHub	
project	













# **KEY SECTORS OF BLUE ECONOMY**

- 1. Fisheries and Aquaculture: This sector involves the farming, harvesting, processing, and marketing of aquatic plants and animals, such as fish, shrimp, and shellfish.
- 2. Maritime Transportation: This sector includes shipping, ports, and related services, such as logistics, freight forwarding, and cargo handling.
- 3. Renewable Energy: This sector involves the generation of energy from sources such as wind, waves, tides, and currents.
- 4. Tourism and Recreation: This sector includes activities such as coastal tourism, recreation, and marine wildlife watching.
- 5. Coastal Infrastructure: This sector involves the construction and maintenance of infrastructure, such as coastal protection and erosion control, as well as the development of marine-based renewable energy infrastructure.
- 6. Biotechnology: This sector involves the development of new products and processes based on marine organisms, such as pharmaceuticals, cosmetics, and nutritional supplements.

# **MARINE TECHNOLOGIES**

- 1. Autonomous Surface Vehicles (ASVs) and Unmanned Surface Vehicles (USVs): These are robotic boats that can be used for a variety of tasks, such as surveying, monitoring, and mapping the ocean.
- 2. Underwater Gliders: These are autonomous underwater vehicles that use changes in buoyancy to move up and down through the water column, allowing them to cover large areas while collecting data on temperature, salinity, and other oceanographic parameters.
- Ocean Energy: Technologies that harness energy from ocean currents, tides, and waves are becoming more advanced and efficient, making it possible to generate electricity from these sources.
- 4. Marine Robotics: Advancement in the design and construction of robot for deep sea exploration, monitoring, and maintenance of marine facilities.
- 5. Blue carbon: methods to sequester carbon dioxide from the atmosphere in coastal ecosystems such as mangroves, salt marshes, and seagrasses.
- 6. Advanced imaging and sensing technologies: technologies such as LiDAR, imaging spectroscopy and synthetic aperture sonar are being used to create high-resolution maps of the seafloor and detect objects under the water with great accuracy.











# Project MATIN: Croatia – Norway Marine Technology Innovation network

Activity B2B meetings with Norwegian companies

Date: 10th of April 2024

Place: University of Zadar, Mihovila Pavlinovića 1, 23000 Zadar

Time:

12:00 – 13:0014:15 – 14:45

B2B meetings are organized on behalf of the MATIN project – Croatia-Norway Marine Technology Innovation network, project partner is: Ocean Autonomy Cluster (run by FI – Fremtidens Industri AS) from Norway, and the project promoter is Digital Innovation HUB Innovamare from Croatia.

Companies and organizations from Norway return visit with continuation of exchange of ideas and potential cooperation framework in Croatia.

Following companies from Norway will participate in B2B meetings:

- 1. Ocean Space Incubator
- 2. Ocean Autonomy Cluster
- 3. Ocean Acces
- 4. Hurum Plastindustri
- 5. NjordChallenge
- 6. BlueEye Robotics
- 7. EGGS
- 8. Clean Sea Soltuions

More informations on the companies you may find in application form.







# SeaTecHub project: National participatory workshop for the identification of gaps, needs and solutions for the advancement of research and innovation in the Blue Economy of Croatia

Date: 10th of April 2024

Place: University of Zadar, Mihovila Pavlinovića 1, 23000 Zadar

Duration: 2h, 14:00 - 16:00 h

Number of participants: <50 (5 working groups of 10 people)

Workshop is organized on behalf of the SeaTecHub project and its Croatian partners: Croatian Chamber of Economy, FER, Sibenik Knin County, IN2, Ministry of Science and Education, 20000 Leagues, DIH Agrifood.

The workshop will bring together selected stakeholders working in the sectors of (i) Aquaculture & Fishers, (ii) Smart Ports, (iii) Maritime Protection & Security, (iv) Maritime Technologies, and (v) Research & Education. The primary objective of this workshop is to solicit your valuable insights and perceptions regarding research and innovation gaps and needs within these sectors. Furthermore, we aim to collaboratively develop solutions and measures to address identified challenges.

Results will be compared with results of similar workshop held in Cyprus - the outcomes from both national workshops will contribute to the formulation of a joint Cyprus—Croatia strategy for research and innovation in the Blue Economy.

Moderators: Demetra Orthodoxou + Xenia I. Loizidou

# About the lecturers:

### **XENIA**

Xenia Loizidou (PhD) is a Civil and Coastal Engineer (National Technical University of Athens, Imperial College of Science, Technology and Medicine of London, Aristotle University of Thessaloniki).

She is an expert in participatory decision-making, sustainability, and green and blue growth.

#### **DEMETRA**

Demetra is a Biochemist (Worcester Polytechnic Institute, MA, USA) with an MSc in Environmental Engineering from Imperial College London. She coordinates the various different EU, local and bicommunal projects at AKTI.