

## WMU-GOI BUGWRIGHT2 Forum 2024 – Athens, Greece 15 to 16 February

Contribution to the IHO Work Programme 2024	
Task 1.1.8.5	Maintain relationship with the International Maritime Organization (IMO), including: WMU (World Maritime University).

The WMU-GOI BUGWRIGHT2 Forum 2024 was held at the Danaos Research Center in Athens, Greece on 16 February 2024 and was organized by the WMU-Sasakawa Global Ocean Institute (WMU-GOI) at the World Maritime University (WMU), on behalf of the WMU-GOI BUGWRIGHT2 team. The IHO Secretariat was represented by Director Luigi Sinapi.



WMU-GOI BUGWRIGHT2 Forum 2024

The event holds significant importance as it serves as a culminating gathering of national and international high-level experts for the European Union's Horizon 2020 (H2020) funded project, BUGWRIGHT2: Autonomous Robotic Inspection and Maintenance on Ship Hulls (<https://www.bugwright2.eu/>).

Since the inception of the project, the primary objective has been to bridge the existing gaps between the present and aspired functionalities concerning service robotics utilized in vessel survey, inspection, and maintenance. The WMU-GOI's defined role within this initiative, is titled "Overcoming Regulatory Barriers for Service Robotics in an Ocean Industry Context" and encompasses the crafting of a cutting-edge regulatory framework concerning Robotics and Autonomous Systems (RAS) in the domain of vessel survey and inspection (further information is available on the website: <https://bugwright2.wmu.se/>). Further the aim was to deliberate upon the strengths, weaknesses, obstacles and prospects stemming from implementing technology and or techniques within the maritime and oceanic realm.



*Participants at the WMU-GOI BUGWRIGHT2 Forum 2024*

The Forum was opened by Prof. Mejia, President WMU, Mr Dimitriadis-Evgenidis, IMO Godwill Maritime Ambassador, Prof. Long, Director WMU-Sasakawa Global Ocean Institute and Prof. Johansson from WMU-Sasakawa Global Ocean Institute, who addressed the relevance of the robotic revolution in the maritime domain, the importance of human factor in complex scenarios, the importance of technology in the future of maritime activities and the role of the WMU-GOI in the BUGWRIGHT2. The Forum was an interactive session with moderator-led Panel discussions with experts around the topic area. The panels addressed the following topics:

1. Rise of Maritime Robotics: Because Humans Were not Sufficient?
2. Confronting Global Environmental Challenges with Innovation
3. Technology & Industry Perception: Are We Ready?
4. Global North v. Global South: Bridging the Digital Divide
5. Innovation & Regulation: How Best to Break Silos?
6. Recommendations for Digital Reform: Ways Forward Capacity Building & Technology Transfer.



*IHO Director Sinapi at the session "Confronting Global Environmental Challenges with Innovation"*

IHO Director Luigi Sinapi participated as speaker in Session 2 of the Forum, dedicated to “*Confronting Global Environmental Challenges with Innovation*” and moderated by Mr. Triantafyllou, Head of Strategy, Hellenic Marine Environmental Protection Association. To the questions on “*The state of play with regards to innovation in hydrographic data collection and the enhancement of safety, efficiency and sustainability in marine and maritime activities*”, and “*The concept of Digital Twins of the Oceans (DITTO) as example of holistic approach to knowledge of the oceans, combining technology with respect for the environment*”, Director Sinapi highlighted on the innovative standardized approach to represent the marine environment through the new *Universal Hydrographic Data Model S-100*, and how DITTO aims to develop a consistent, high-resolution, multidimensional and near real-time virtual representation of the ocean that could make ocean knowledge open-access, available to citizens, scientists and policymakers around the world, providing a platform for global cooperation.

The WMU-GOI BUGWRIGHT2 Forum 2024 is framed within the Letter of Intent signed in 2023 by IHO and WMU, aiming at providing a framework for active liaison and cooperation between the two parties, with the common objective to contribute to the United Nations Decade of Ocean Science for Sustainable Development.