

D1.5.1 Kick off meeting Report

Organized by University of Udine

In collaboration with

All partnership

Udine, 19th of June 2024

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PP N	Speaker/Institution	Presentation/short description/highlight particularly in which activity and deliverable the unit is involved (link to the final version of the project https://drive.google.com/drive/folders/1OeWfkhwwNRvyDOFHxvIVbQaILZ8Sbb1k)
PO	Paolo Rtoni Managing Authority and Joint Secretariat	The meeting held in Udine on June 19th began with a welcome from the PM, Sabina Susmel and the confirmation of the Agenda ((https://drive.google.com/drive/folders/1OELIEjLgZt7uumoHNSWYgOnXuk3SdCf). The first speaker, Project Officer Paolo Rtoni, opened the presentations and introduced the program structure, aims, and expected results and outcomes. He specifically highlighted the four pillars of project management and implementation: A. Project team and environment B. Contracting updates and JEMS C. Procurement and staffing plan D. Communication and capitalisation In short, procedures for accessing JEMS, fulfilling each reporting period, accessing reimbursements, budgeting aspects and all formalities were briefly outlined. The Project Officer reminded attendees that the Joint Secretariat will organize training courses to support Lead Partners (LP) and all Project Partners (PP) in various aspects of project management and progress, such as using the JEMS platform and understanding Communication Rules. The PO highlighted the opportunities and risks of the BRIGANTINE project from the perspective of the Managing Authority/Joint Secretariat to raise awareness and prevent potential weaknesses that could impair the successful completion of the project (pertinent slide here provided) The presentation is here available https://docs.google.com/presentation/d/1DBuoATXAY2EHC7FmXyWHIZrDn7k9nXrh/edit?usp=drive_link&oid=104057631267647099205&rtpof=true&sd=true
PM	Sabina Susmel	The project scheme, including the organization and hierarchical

	University of Udine	connections among work package (WP) activities, deliverables, outputs, and results, was reviewed by PM, Sabina Susmel. The project successfully passed the condition-clearing step, and the final version, post-negotiation, was presented to the audience. It is confirmed the start of the project @1st of April 2024. The project remains organized into four Work Packages (WPs), comprising a total of 16 technical deliverables and 24 deliverables related to communication activities. The PM reminds everyone that the full project or Application Form (AF) (file name:  BRIGANTINE ITHRO200237_BRIGANTINE_en_en_20230322_120404_signed.pdf ), including the list of deliverables and more are shared with the partnership through the "BRIGANTINEallPPs" repository on Drive. https://drive.google.com/drive/folders/1OeWfkhvNRvyDOFHxvIVbQaILZ8Sbb1k This repository is accessible to both partners and external experts, and its use throughout the project is emphasized. The expected outputs and results are presented to the partnership, with the importance of achieving them highlighted as crucial for the project's success. Additionally, the need to adhere to deadlines and the project schedule is stressed to avoid risks of deviation and underspending. Finally, during the Steering Committee and General Assembly (SC&GA) and the wrapup of the day, the assembly agreed on the Project Management Unit (PMU) structure proposed by the PM, scheduled the next meetings and their location, after profitable discussions, organized a roadmap to operationalize the project and achieve the deliverables expected by the end of the first reporting period (by September 30, 2024). The presentation is available at this link https://drive.google.com/drive/folders/1X2VFDhCLQI3T1OMO2pFtSaBHEoNLwz5W
FM	Marinella D'Antoni	The FM, administrative employee at UniUd with significant experience in managing European and Structural Funds, gave at the KoM a quick presentation about the guidelines of the Programme, focusing on the reporting schedules and rules, the cash flow, the budget changes and the differences with the previous period Programme The presentation is available here https://docs.google.com/presentation/d/1Zf9Ew0BEpkMhIr5OFwkj3JnUcmBe2x0H/edit#slide=id.p1
CM	Anna Annibaldi	The CM, associate professor in Analytical Chemistry at Polytechnic University of Marche, had a previous and significant experience in project communication, gave at the KoM a brief presentation (https://drive.google.com/file/d/1aLtFfMxhS-

		BtOUUq_q_YtrkC5hKFKF3J/view?usp=drive_link) about the guidelines provided by the JS for the communication (project brand manual https://drive.google.com/file/d/1AuOR8xLyRloTCgX072OJue9QRSnBxeCb/view?usp=sharing), focusing on the deliverables concerning communication activities and on the plan of all the relative actions.
PP1	Ivan Scagnetto	The Engineering and Computer Science Unit of this project is composed of staff members of the DPIA and DMIF departments of the University of Udine. The unit skills range from electrical measurements (A. Affanni) to fluid dynamics (L. Casarsa), computer vision (A. Fusiello), electrical engineering (F. Trevisan), telecommunications (M. De Piante) and computer science (I. Scagnetto). As far as this project is concerned, unit members have previous experience in developing telemetry systems and sensors in the field of sailing vessels, in implementing long range communication systems and in the design and implementation of small remotely controlled surface vehicles. As a consequence, the expected major effort and contributions will take place in WP2.
	Francesco Boscutti	The lagoon system is a main topic in the research of the plant ecology unit of the Di4A, devoted to the understanding of the processes driving changes in both saltmarshes and seagrass ecosystems using an upscaling approach linking field data and remote sensing tools. The group is constituted by: Francesco Boscutti does research in Plant Science, focusing on Plant Ecology and Applied Botany. His main research projects focus on the ecological processes that drive plant responses to global changes. Studies and experiments investigate both terrestrial, with particular regard to Alpine tundra, and coastal ecosystems using a functional and multiple-scale approach from individual to ecosystem and landscape scales. Marco Vuerich: Porst doc researcher in Botany Paolo Cingano: PhD Student in Plant Ecology Cingano, P., Vuerich, M., Petruzzellis, F., Orzan, L., Trotta, G., Casolo, V., Asquini, E., Bacaro, G., & Boscutti, F. (2024). Seagrasses on the move: Tracing the multi-decadal species distribution trends in lagoon meadows using Landsat imagery. <i>Ecological Informatics</i>, 82, 102685. https://doi.org/10.1016/j.ecoinf.2024.102685 Vuerich, M., Cingano, P., Trotta, G., Petruzza, E., Braidot, E., Scarpin, D., Bezzi, A., Mestroni, M., Pellegrini, E., & Boscutti, F. (2024). New perspective for the upscaling of plant functional response to flooding stress in salt marshes using remote sensing. <i>Scientific Reports</i>, 14(1), 5472.

		https://doi.org/10.1038/s41598-024-56165-4
	Gloriana Cardinaletti	The Economic, Wildlife and Aquaculture division (EFA) of the Di4A department of the University of Udine has a research team devoted to various aspects of Aquaculture and the research activities on this topic are supported by dedicated aquaculture facilities and laboratories. The aquaculture research team has long experience in studying the nutritional requirements of Mediterranean fish species and the nutritive value of alternative and/or innovative protein and lipids sources for aquafeed in order to guarantee sustainability for intensive fish production. Nutritional studies also cover other aspects such as implementation of innovative feed management in intensive fish farming (e.g. cyclic feed dealing out), low environmental impact aquafeed, fish welfare and fillet quality. The Aquaculture Unit is fully equipped with a pilot-scale feed mill and experimental Aquaculture facility is registered at the national Ministry of Health and is allowed to maintain aquatic organisms. The facilities include an indoor quarantine section (for freshwater and marine fish species), an indoor thermoregulated RAS sea-water system and an outdoor flow-through system particularly suited for fish feeding trials. The station is also equipped with 18 special metabolic vessels designed for digestibility measurement of fish feeds (Guelph model). The facility also has been implemented with a novel RAS system for freshwater fish species and recently with two closed pilot Integrated aquaculture Trophic Systems (ITS) designed to rear fish and algae at the same time. At least three members of the Aquaculture team will be involved in the Brigantine project: a senior researcher Gloriana Cardinaletti, a technician dr. Diego Capraro and one newly employed young researcher. In Brigantine the Aquaculture team will participate in work package 3 (WP3) mainly in the Activity 3.3 and in reporting the deliverable D.3.3.1 together with other UniUD Units.
	Monica Mosquera	Dr Mosquera is Postdoc researcher in the Laboratory of Bioanalytical Chemistr (UBAC)y, headed by Dr. Sabina Susmel, in the Department of Agri-food, Environment and Animal Sciences at the University of Udine (Di4A), Italy. The main research activity of the UBAC laboratory is related to the application of electrochemical analytical systems for the detection of nutrients and/or environmental pollutants, mainly present in freshwater and seawater sources, including sediments and biological samples. Among the research activities, the design and production of electrodes based on the synthesis and modification of new materials stands out. The new electrodes have versatile properties that allow the selective

		detection of various compounds. In addition, UBAC will start the production of screen-printed electrodes using inks with conductive properties, some of which are prepared by the same research group. The group is mainly involved in the activities of Wp3 and will contribute to the other WPs as well. The group is leading the project.
PP2	Fabio Rindi	Prof. Fabio Rindi is associate professor of Botany at the Polytechnic University of Marche. Polytechnic University of Marche (UNIVPM) is a public teaching and research university, with a strong focus on technical science. UNIVPM has about 17000 students and includes five faculties (Engineering, Science, Economic Sciences, Medicine and Agricultural Sciences), which permanently employ about 550 academic and 570 technical/administration staff members. UNIVPM is particularly active within the framework of European Territorial Cooperation policy – Interreg programs that aim to implement joint actions and policy exchanges between national, regional and local actors from the Adriatic area and to promote a harmonious economic, social and territorial development of the Adriatic Area as a whole. UNIVPM participates in the Brigantine project with two Units based in the Department of Life and Environmental Sciences: a Botanic Unit and an Analytic Chemistry Unit. The Botanic Unit is currently composed by two professors, a senior researcher, a postdoctoral researcher and two Ph.D. students. The expertise of the Unit covers many aspects of the biology of marine algae and plants, with main focus on biodiversity of marine algae (both macro- and microalgae), ecology of Adriatic algae and their relationships with environmental variables, long-term monitoring of algal communities, and conservation and restoration of macroalgal forests. In consideration of the expertise of the UNIPM Botanic Unit, the Unit will contribute mainly to the WP1 and WP2.
	Anna Annibaldi	Prof. Anna Annibaldi is associate professor in Analytical Chemistry at Polytechnic University of Marche. Polytechnic University of Marche UNIVPM is a public teaching and research university, as described above. UNIVPM (Department of Life and Environmental Sciences) participates in the Brigantine project, with two Units, a Botanic and an Analytic Unit. The Analytical Unit is composed by professors and senior researchers with different skills: prof. Anna Annibaldi (PM) (with expertise in pollutants determination in marine environment), Prof. Cristina Truzzi (with expertise in data management and statistical evaluation), prof.

		Illuminati Silvia (with expertise in bioaccumulation of pollutants in marine organisms), Dr. Federico Girolametti (with expertise in determination of nutrients in seawater and freshwater). Furthermore, Dr. Sara Propeti will hold the role of Financial Manager. As far as this project is concerned, unit members have previous experience in extraction and determination of legacy and emerging pollutants in marine environments (water, sediments, organisms) and in the set up of new analytical methods. UNIVPM (Analytical Unit) is well equipped with vessels, laboratories and instruments, for sampling activities and sample analysis, especially for pollutants and nutrients determination. As a consequence, the expected major effort and contributions will take place in WP1, WP3 and WP4.
PP3	Mirta Smodlaka Tankovic	The IRB is Croatian largest research center for natural sciences and holds two departments for marine research. Its legal seat is in Zagreb, however, its Centre for marine research is located in Rovinj, directly at the coast of the northern Adriatic Sea and has a 131-year history of marine research in the Northern Adriatic Sea and holds a more than 40 year long term oceanographic data set for the northern Adriatic Sea. The IRB with its Center for marine research is also part of Croatia's national Reference Center for the Sea and as such mandated to perform, improve on and report on Croatia's obligatory monitoring activities in the framework of the EU Marine Strategy Framework Directive. The same holds true for monitoring activities of transitional waters in the framework of the EU Habitat directive. As such the IRB is directly involved in Croatia's national politics and management efforts, where the Adriatic Sea is concerned. Center for Marine Research (CMR), part of national Ruđer Bošković Institute, specializes in marine research, ecological analyses and long term monitoring of the northern Adriatic. The CMR hosts a database with monitoring data including historical data from 1921 and a long experience in in situ and remote data collection. In the BRIGANTINE project, CMR will mainly contribute in the harmonization of the monitoring plan and methodology, with an expansion of our autonomous monitoring and data collection. As a consequence, the expected major effort and contributions will take place in all WPs and leading the WP3 activities.
	Blaženka Gašparović	Blaženka Gašparović is a tenured senior scientist at the Division for Marine and Environmental Research. She is the head of the Laboratory for marine and atmospheric research. The laboratory is equipped with numerous analytical instruments for analysing organic substances in

		water and the atmosphere, including electrochemical instrumentation for the detection of surface-active organic substances, particulate organic matter analyser, thin-layer chromatograph, photo-electrochemical reactor consisting of a solar simulator, thermostated electrochemical cell, three-electrode electrochemical system connected to an electrochemical instrument (Autolab type III, Metrohm) and UV-VIS spectrophotometer, Aethalometer, Scanning Mobility Particle Sizer, MOUDI cascade impactor, Automatic precipitation sampler. She will coordinate the thematic group:Analyses and will be involved in activities A1.1 and A1.4.
	Liljana Iveša	Liljana Iveša is a senior scientist at the Center for Marine Research in Rovinj, Ruđer Bošković Institute, Croatia. Her field of research includes taxonomy and ecology of macrophytobenthos (seaweeds and seagrasses), ecology of coastal habitats of the natural rocky shore and artificial hard surfaces and assessment of the ecological status of coastal waters using macroalgal assemblages. Her current research is focused on ecology of canopy-forming species of the order Fucales and distribution patterns of non-indigenous species. As a consequence, the expected major effort and contributions will take place in all WPs.
PP4	Pierpaolo Campostrini	CORILA is the Consortium for the coordination of research activities concerning the Venice lagoon system. CORILA is supervised by the Italian Ministry of Research and is composed of public research institutions involved in studies on the lagoon: Ca' Foscari University of Venice (IUAV), National Research Council (CNR), National Institute of Oceanography and Experimental Geophysics (OGS) and IUAV University (IUAV). CORILA is an independent institution supervised by the Ministry of University and Research, founded in 1998, which aims to promote and coordinate valuable scientific research to safeguard Venice and its lagoon. Over the years it has managed multi-million state-funded research programs, advanced environmental monitoring and the production of science-based planning and policy documents for use by public authorities. CORILA collaborates with European research centers and international organizations, in particular UNESCO and UNISDR and is currently involved in more than 10 EU projects.

		This project will use what has already been done to collect, organize and visualize all the resources produced in Brigantine. The next step will be to visualize real time data. In Brigantine CORILA also participates through the Institute of Marine engineering (INM) of the Italian National Research Council (CNR). The marine robotics group in Genoa has decades of experience in the design and construction of autonomous surface and underwater vehicles; in the development of guidance, navigation and control algorithms and in the integration of different types of sensors and instruments on board robotic platforms, based on different operational scenarios. The group has a solid experience of field activities in the use of these vehicles, in particular in extreme environments, such as operations in polar areas, transitional waters and critical situations. The experience of the CNR-INM in the sectors of marine technologies and robotics is recognized internationally and demonstrated by participation in numerous national and international projects. Of particular interest for the project are the experiences gained by CNR-INM in environmental monitoring in the Venice lagoon with the Interreg IT -HR Innovamare project; in the development of sensor networks as in the Horizon Europe Monusen project; in the applications of robotic platforms for adaptive monitoring in port areas (Interreg IT FR MATRAC ACP) and in tourist marinas (EMFF Blue Roses project); the LED project, dedicated to lake environments, which has already seen the collaboration between CNR INM and UniUd for the development of a robotic platform with multiple on-board sensors for the characterization of lake water and air, which could communicate with a Multipurpose Data-Acquisition System to form the basis for an Internet of Things (IoT) infrastructure, enabling data acquisition, storage, and long-range communication. Furthermore, CORILA will participate with OGS that will provide researchers with expertise in innovative technological infrastructures for the acquisition, integration and access to real-time data, thus generating
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		knowledge on marine water quality and the marine ecosystem. In the Brigantine project, CORILA is elected to coordinate WP4. CORILA, INM - CNR and OGS will collaborate in WP1 Cross border Research activity for baselines definition, WP2 Develop jointly solutions: the autonomous monitoring (droneboat), WP4 Autonomous Boat Monitoring and Policy Development and Stakeholder Engagement.
PP5	Smiljko Rudan	University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture (UNIZG FSB) is the largest and oldest institution in Croatia that conducts naval architecture study programmes, at bachelor, master and postgraduate level, organized by the Department of Naval Architecture and Offshore Engineering (DNAOE). UNIZG FSB participates in a variety of research projects, both at national and international level, and has strong professional cooperation with the industry. Six members of DNAOE represents the UNIZG FSB team that participates in the Brigantine project, beginning with professors and senior researchers: Smiljko Rudan (team leader), Pero Prebeg, Vedran Slapničar and Ivan Čatipović. The team is furthermore supported by the two newly employed young researchers, Emil Weigand and Ivan Oreč. UNIZG FSB is well equipped with laboratories and different measurement equipment and instruments. One of the distinguished research capacities is the new and fully equipped 32.8 meter long towing tank, with a wave maker, wave absorption beach and all the required sensors for performing model towing and many other experiments, both on calm water and on regular or irregular waves. At UNIZG FSB a couple of ASV's were developed and tested, one used mainly for the autonomous navigation purpose and another being a concept for development of a unique active (intelligent) self-anchoring ASV system for small boats. At the brigantine project UNIZG FSB participate in all four work packages (WP) and is elected to coordinate WP1. UNIZG FSB participates in the following Brigantine activities: A1.2, A1.3,

		all activities of WP2 (A2.1-A2.5), activity A3.2 and activities A.4.1, A4.2, A4.3. These activities are related with the development, construction, equipping, testing and use of two ASV's, simply denominated as small (1 meter) and big vessel (2.5 meters in length). UNIZG FSB is involved in making of deliverables: D.1.2.1, D.1.3.1, D.2.1.1, D.2.2.1, D2.3.1, D2.4.1, D2.5.1, D2.5.2, D3.2.1, D3.4.2 (together with other units), D.4.1.1, D.4.2.1 and D.4.2.2, D.4.3.1 and in part in deliverables D.4.5.1-D.4.5.2. There are different reports related to the activities of UNIZG FSB, but also of other partners, and are meant to present, summarize and disseminate the activities of UNIZG FSB at Brigantine, along with contribution of all regional partners.