

Final Conference - Follow up report

Activity 2.4 - Sushi Drop Events and EUSAIR
Conference
WP2 - Communication activities
SUSHI DROP project (ID 10046731)

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Project Acronym SUSHIDROP Project ID Number 10046731

Project Title SUstainable fisHeries with DROnes data Processing

Priority Axis 3 Specific objective 3.2 Work Package Number 2

Work Package Title Communication Activities

Activity Number 2.4

Activity Title Sushidrop Events and Eusair Conference

Partner in Charge PP2 – Marche Region

Partners involved LP – University of Bologna, PP1 - Institute of

Oceanography and Fisheries (IoF), PP3 — Fisheries Local Action Group Costa dei Trabocchi, PP4 — Association for nature, environment and sustainable development

(SUNCE), PP5 – County of Split and Dalmatia.

StatusFinalDistributionPublic



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Abstract

SUSHI DROP SUstainable fisheries with DROnes data Processing is a project financed by European Union through the Interreg Italy-Croatia Programme. The project aims at enhancing knowledge on accurate and non-invasive methods for mapping the marine ecosystems of Adriatic Sea, in order to assess environmental status of habitats and fish stocks population as reliable and up-to-date information about the state of marine resources are essential to support sound management decisions.

The most important goal of SUSHI DROP is to better understand the sensitivity of the habitats to fishing pressures and to design and implement more effective marine management plans. SUSHI DROP evaluates the adoption of drones (UUVs - unmanned underwater vehicles) equipped with sensors to monitor physical, chemical and biological features. In particular, acoustical and optical technologies will be employed as a non-invasive mean to assess fish stocks population.

The findings of the opto-acoustic surveys will be compared with classical procedures based on fish sampling and to assess the accuracy in deriving single-species abundance indices (in numbers or weight) for direct input into stock assessments. The data gathered during the project will be collected in a Geographical Information System known as GIS.

It will serve as an open database for collecting, maintaining and sharing the scientific data acquired by the UUVs and as a useful resource in further research and preservation of the biodiversity of the Adriatic.

The partnership of the project has been able to pool all skills and competences of relevant institutions in order to achieve the set of project results, having the capacity to create strong links to target groups addressed by the project.

This document is the deliverable **D.2.4.1. Final Conference report** and shows the contents and the presentations of high level seminar held to present the project results, follow up and capitalization possibilities.



The Final Conference of the SUSHIDROP Project

PP2 - Marche Region, Fisheries Economy Department was in charge for the organization of the SUSHIDROP project final conference, which was held on the 1st of October 2021 from 10.00 to 13:00.

The SUSHIDROP Final Conference was aimed to present, share, and discuss the results of the project that developed and tested "Blucy", an innovative underwater drone capable of monitoring the environmental status of the Adriatic Sea.

The project Partners presented the results of the SUSHIDROP project, which has tested an innovative underwater drone equipped with specific sensors to improve our knowledge of environmental status of the Adriatic Sea, answering to the need to have accurate and non-invasive methods for mapping the marine ecosystem.

The scientific staff of the project carried out Field missions in Italy and in Croatia and collected data for the estimation of biophysical parameters, videos and high-resolution images of the underwater environment of the Adriatic Sea. All data collected are published in open data format and available in GIS platform with the final aim to use them to design and implement more effective marine management plans.

The conference was conceived in two sessions:

The first session was focused on innovative technologies and approaches to support fisheries sustainable development and to improve management and protection measures. Further to the main achievements of the SUSHDROP project, the results of ITACA https://www.italy-croatia.eu/web/itaca and FAIRSEA https://www.italy-croatia.eu/web/fairsea/site projects were shared with the conference audience.

The second session was focused on the opportunities offered by the new programming period to capitalize the work already done and to contribute to the Blue Economy/Growth development, sharing information about the new 2021-2027 Cooperation programmes, the macro-areas related to the Blue Growth and the possibilities offered by the Cluster 6 of the New HORIZON Program.

The conference was included within the programme of "Tipicità in Blu", an initiative https://www.tipicitainblu.it/ that the City of Ancona organizes yearly to promote blue growth and blue economy.



The conference was aimed disseminate and foster the transferability of project achievements and results towards several stakeholders: Fisheries' sector representatives, Universities and Research Centres, Marine Protected Area Managers, Policy makers acting at different level, Institutions involved in the Blue Growth Policy. The final conference intended to present and share project results in front of the relevant major actors in the EUSAIR Regions: EUSAIR, ESI funds managing authorities, Interreg programmes (Adrion, MED, Italy-Croatia, Interact), Bluemed initiative of the EU Commission.

Further, an info-point has been organized during the whole event to provide for information and details about the project and the data collected with the drone developed.







PP2 - Marche Region prepared and shared with the stakeholders list a **"Save the date" in the three Programme languages** and the link for the registration in presence or via zoom.

The event was available on-line (Zoom platform) and in presence with limited seating capacity due to Covid19 restriction for the room seating capacity.

Translation services was provided in English, Italian and Croatian languages, working both in presence and on the Zoom platform



Conferenza finale del Progetto SUSHIDROP Innovazioni e soluzioni per lo sviluppo sostenibile della Pesca

Final Conference of the SUSHIDROP Project
Innovation and Solutions for Fisheries Sustainable
Development



Završna konferencija SUSHIDROP projekta Inovacije i rješenja za razvoj održivog ribarstva

> 1st OCTOBER 2021 h. 10:00 - 13:00

IL PROGRAMMA DETTAGLIATO SARA' PRESTO DISPONIBILE! THE DETAILED PROGRAM WILL BE AVAILABLE SOON!

ZOOM CONFERENCE

L'evento sarà fruibile in italiano, inglese e croato in modalità online via ZOOM ed in presenza.

The event will be available on-line (Zoom platform) and in presence with limited seating capacity. Translation services will be provided in english, italian and croatian languages

Događaj će biti dostupan on-line (Zoom platforma) i uživo, ali s ograničenim brojem sjedenja. Sva predavanja bit će dostupna na engleskom, talijanskom i hrvatskom jeziku.

REGISTRATION ON LINE CONFERENCE

I posti in presenza sono limitati su invito a causa delle restrizioni Covid-19

Places to attend in presence are limited upon invitation due to Covid-19 restrictions

Zbog pandemije Covid-19 ograničen je broj sudionika

PROJECT PARTNERS















Informazioni e iscrizioni ADVANCED Meeting Solutions

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The Agenda of the Conference



Final Conference of the **SUSHI DROP Project**

Innovation and Solutions for Fisheries Sustainable Development

> Mole Vanvitelliana, Ancona Tipicità in Blu

PROGRAMME

10.00 - 10.15 Greetings and introduction

nico Letizia - **journalist**

Mirco Carloni - Vice-president of Marche Region, Regional Councillor for fisheries

Raffaele Pasquali - Fisheries Economy Department, Marche Region Martin Bućan - Split and Dalmatia County

10.15 - 11.45

I Session

Innovation supporting Fisheries Sustainable **Development**

Underwater robotics and biodiversity monitoring. Results and future developments of the project SUSHI DROP Luca De Marchi – Alma Mater Studiorum – University of Bologna,

Department of Electrical, Electronic and Information Engineering "Guglielmo Marconi"

lo Piccinetti - Alma Mater Studiorum - University of Bologna, Laboratory of Marine Biology
Nedo Vrgoc - IOF, Institute of Oceanography and Fisheries (Croatia)

First Results of ITACA project: Innovative tools for the competitiveness and sustainability of small pelagic fisheries Silvia Angelini - CNR - IRBIM, Institute for Biological Resources and Marine Biotechnologies

Fairsea project-Fisheries in the Adriatic region - a shared ecosystem approach: project results

ato - OGS National Institute of Oceanography and **Experimental Geophysics**

Management innovative approaches for the Mediterranean sea osa Caggiano - MEDAC, Mediterranean Advisory Council aolo Carpentieri - GFCM, General Fisheries Commission for the Mediterranean (FAO)

New European Maritime, Fisheries and Aquaculture Fund (EMFAF) for the period from 2021 to 2027: opportunities for innovation and sustainability of fisheries activities Jelena Jerbić - Head of Service for Programming and Coordination of

EU Funds and Data Collection in Fisheries at Ministry of Agriculture

1st of October 2021 10:00 - 13.00



11.45 - 12.45

II Session

Opportunities for project capitalization. Blue growth and sustainable fisheries in the new programming

The future of the ADRION Programme 2021 - 2027 in synergies with the EUS AIR strategy

Gherardi - Coordinator of the Managing Authority ADRION Programme

The Blue Med Initiative: Strategic Agenda, Implementation plan and new opportunities

Fabio Fava - National Delegate for the Blue Med Initiative

The Opportunities of the Horizon Programme, Cluster 6 (Blue

-Coordinator Cluster 6, APRE (Italian Agency for the promotion of EU research)

Results reached by the Italy-Croatia Interreg Programme and new opportunities for the 2021-2027 period Anca Daniela Simion - JS Interreg Italy-Croatia Programme

12.45 - 13.00

Debates and conclusion

The event will be available on-line (Zoom platform) and in presence with limited seating capacity.

Translation services will be provided in english, italian and croatian



REGISTRATION TO RECEIVE THE ZOOM LINK - click here

Places to attend in presence are limited upon invitation due to Covid-19 restriction:



Some of the speakers participated in presence, while other join the Conference via Zoom. The agenda of the Conference was also shared by means of a dedicated newsletter and the programme was available in the three languages (Italian, Croatian and English).

1° OTTOBRE 2021



La Regione Marche, P.F. Economia Ittica vi invita alla Conferenza finale del Progetto SUSHIDROP.

La Conferenza Finale di SUSHIDROP ha come obiettivo la presentazione, condivisione e discussione dei risultati del progetto che ha sviluppato e testato "Blucy", un innovativo drone sottomarino in grado di monitorare lo stato di salute dei fondali dell'Adriatico. Grazie ai test già effettuati sia in Croazia che in Italia sono stati raccolti dati per la stima di parametri biofisici, video e immagini ad alta risoluzione dell'ambiente sottomarino dell'Adriatico.

Tutti i dati raccolti saranno inoltre condivisi in una piattaforma open con l'obiettivo di migliorare la conoscenza dei fondali e degli indici di abbondanza della popolazione delle diverse specie ittiche, contribuendo anche al miglioramento delle misure di gestione e protezione basate su dati accurati, verso una pesca sempre più sostenibile.

La prima sessione della conferenza è focalizzata su diverse tecnologie innovative che possono supportare lo sviluppo sostenibile della Pesca ed il miglioramento delle misure di gestione e protezione delle risorse e saranno condivisi anche i risultati dei progetti ITACA https://www.italy-croatia.eu/web/fairsea/site

Nella seconda sessione, invece, saranno approfondite le opportunità offerte dalla nuova Programmazione per proseguire il lavoro e per contribuire allo sviluppo dell'Economia Blu condividendo gli orientamenti dei nuovi programmi di Cooperazione 2021-2027, le macro aree che supporteranno progetti legati alla Blue Growth e le possibilità offerte dal Cluster 6 del Nuovo Programma HORIZON.

La conferenza è organizzata nell'ambito dell'Iniziativa Tipicità in Blu https://www.tipicitainblu.it/

Un info-point del progetto sarà presente nell'ambito della manifestazione. Clicca sulle immagini per scaricare le agende dell'incontro in Italiano, Inglese e Croato:

Program

Programma

Programme







L'evento sarà fruibile in italiano,inglese e croato sia nella modalità on-line (via Zoom) che in presenza.

REGISTRATI QUI PER RICEVERE IL LINK DI ZOOM.- clicca qui

A causa delle restrizioni imposte dalla pandemia Covid 19, saranno disponibili in sala solo posti limitati (e su

invito)

https://www.italy-croatia.eu/web/sushidrop



1st OCTOBER 2021 h. 10:00 - 13:00



Marche Region, Fisheries Economy Department is pleased to invite you to the final conference of th SUSHIDROP project.

The SUSHIDROP Final Conference aims to present, share, and discuss the results of the project that developed and tested "Blucy", an innovative underwater drone capable of monitoring the environmental status of the

We would like to present the results of the SUSHIDROP project, which has developed and tested an innovative underwater drone equipped with specific sensors to improve our knowledge of environmental status of the Adriatic Sea, answering to the need to have accurate and non-invasive methods for mapping the marine ecosystem.

We have already implemented two filed missions in Italy and in Croatia and collected data for the estimation of biophysical parameters, videos and high-resolution images of the underwater environment of the Adriatic Sea. A data collected are going to be published in open data format and available in GIS platform with the final aim to use them to design and implement more effective marine management plans.

The first session of the conference is focused on innovative technologies and approaches to support fisheries sustainable development and to improve management and protection measures. We will also share the results of ITACA https://www.italy-croatia.eu/web/fairsea/site FAIRSEA projects.

In the second session we will focus on the opportunities offered by the new programming period to capitalize the work already done and to continue to work and to contribute to the Blue Economy/Growth development sharing information about the new 2021-2027 Cooperation programmes, the macro-areas related to the Blue Growth ar the possibilities offered by the Cluster 6 of the New HORIZON Program.

The conference has been organized inside the "Tipicità in Blu" initiative https://www.tipicitainblu.it/

An info-point of the project will be set up during the event.

You can find the agenda in Italian, English and Croatian - click the image

Program

Programma

Programme







The official languages of this event both in presence and on-line (Via zoom) will be Italian, English and Croatian

REGISTER HERE TO RECEIVE THE ZOOM LINK - click here

Due to the Covid 19 restrictions, there will be only a limited number of seats (upon invitation) on site.. https://www.italy-croatia.eu/web/sushidrop



The presentations

The journalist Domenico Letizia, experienced on the themes linked to the Blue Growth moderated the Final Conference. The director of the Marche Region - Fisheries Economy Department, Mr. Raffaele Pasquali jointly with Bućan Martin from the Split and Dalmatia County introduced the project and underlined the role of Public Institutions in the project supporting the innovation generated by the project.



First session - Innovation supporting Fisheries Sustainable Development

Luca De Marchi, Massimiliano Menghini from the University of Bologna - Department of Electrical, Electronic and Information Engineering "Guglielmo Marconi" **and Corrado Piccinetti (Laboratory of Marine Biology)** showed the potentialities, the results reached so far with the underwater drone "Blucy" and the future possible developments for the biodiversity monitoring.

They gave details on the conducted surveys and the Blucy data acquisition capabilities (data analysis and post processing). Corrado Piccinetti underlined the potentiality of the UVV technology to significantly increase common knowledge, potentially mapping the whole Adriatic Sea without any impact on living organisms.

















Nedo Vrgoc – from the IOF, Institute of Oceanography and Fisheries (Croatia) focused on the survey conducted in Croatia in cooperation with SUNCE. In the study areas, researchers collected samples by means of the traditional equipment usually used by the oceanographic research vessel (bottom trawl, scuba divers) and with the innovative drone "Blucy" to analyse and compare the results, in terms of acquisition time, costs and productivity





In order to provide a complete framework of the Blue innovation developed within the Italy-Croatia 2014-2020 Programme and to foster cross-fertilization among initiatives dealing with sustainable fisheries two projects were invited to present their results: ITACA and FAIRSEA.

Silvia Angelini, CNR – IRBIM, Institute for Biological Resources and Marine Biotechnologies, introduced the first results of ITACA project dealing with Innovative tools for the competitiveness and sustainability of small pelagic fisheries.



Rosa Caggiano, from MEDAC, the Mediterranean Advisory Council, partner of the FAIRSEA project, gave some inputs on Innovative management approaches in the Mediterranean and focused on the stakeholders' participation process set up in the FAIRSEA project, allowing to better understand how stakeholders ranked the importance of the economic, social and biological impact affecting the fishery sector.









Key message

The **innovative management approaches**, such as interactive platforms, can be very important in providing a comprehensive overview in a management perspective in the Mediterranean

Special attention should be paid to layers reporting data and indicators about the 3 pillars of CFP

Ecological Social Economic

In order to provide to stakeholders the relevant information at the basis of the participatory approach in order to build and implement effective fisheries management plans.

Elisabetta Betulla Morello from the GFC, the General Fisheries Commission for the

Mediterranean (FAO) gave a presentation of the actual management measures of key commercial fisheries and on the GFCM 2030 strategy for sustainable fisheries and acquaculture in the Mediterranean and Black sea.





GFCM 2030 STRATEGY: A STRATEGIC VISION FOR FISHERIES AND AQUACULTUR

ONE VISION, FIVE TARGETS

To fulfil its overarching vision for the sustainability of fisheries and aquaculture in the Mediterranean and the Black Sea, the GFCM 2030 Strategy is articulated around five targets. Each target is composed of expected outputs and strategic actions.

Empowering stakeholders and engaging them in decision-making processes







Compliance and enforcement: a level playing field to eradicate illegal, unreported and unregulated fishing



TARGET 3.
Aquaculture:
a sustainable
and resilient
sector growing
to its full
potential



TARGET 4. Livelihoods: decent employment and engaged fishers towards profitable fisheries



Capacity development: Technical cooperation, knowledge sharing and efficient partnerships in a subregional perspective



At the end of the first session, Mr Josip Bartulović on behalf of the Croatian Ministry of Agriculture, Directorate of Fisheries gave a short overview on the priorities of the new European Maritime, Fisheries and Aquaculture Fund (EMFAF) running from 2021 to 2027 with particular reference to the partnership between fishermen and scientists.







Second Session: Opportunities for project capitalization. Blue growth period 2021 – 2027

During the second session we analysed some opportunities for project capitalization offered for by the new programming period 2021-2027. We discussed about it with representatives from the Managing Authority of the Adrion Programme, the Blue Med Initiative, the Agency APRE (Agency for the Promotion of European Research) with reference to the Cluster 6 of the New Horizon Programme.

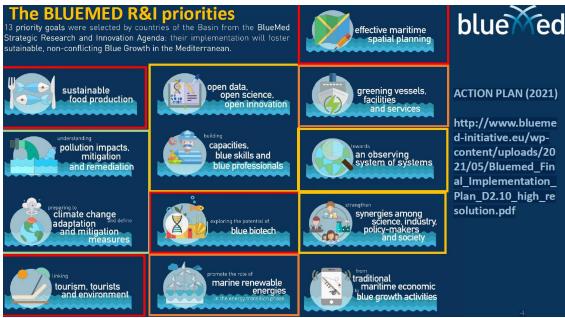
Lodovico Gherardi, coordinator of the Managing Authority of the Adrion Programme underlined the value of the project results and the potentialities of underwater robotics and the need to capitalize and further exploit the possibilities offered by this innovative technologies to give sustainability to these achievements and sustain relevant sectors as fisheries and aquaculture. He further gave an updated on the status of the new ETC Programmes that should be ready by the next summer 2022. The Adrion Programme has identified as most relevant topics: innovation, environment (focus on circular economy and green deal) and transport. Certainly, the themes linked to fisheries, aquaculture, coastal management and Blue Growth more in general will maintain a relevant role in the HR-IT and Adrion Programme since they are also considered as strategic in the EUSAIR strategy and BlueMed Initiative. Thus is very relevant to capitalize the results in other programmes or with other financial instruments like the PNRR (National Recovery and Resilience Plan).





Fabio Fava, national delegate for the **Blue Med Initiative** shared details on the aim of the Initiative that is to foster integration of knowledge and efforts of Countries of the Mediterranean for a more sustainable blue growth in the area. He showed also the 13 selected priorities of the Action plan and the national hubs for mapped projects.







Sabrina Borgna, coordinator for Cluster 6 at APRE, showed in details the structure of the Horizon Europe Programme with a focus on the Cluster 6 (Food, Bioeconomy, Natural Resources, Agriculture and Environment) which also includes action related to the Sea, Oceans and Inland Waters. She gave details on the work programme 2021-2022 and budget distribution.

CL6 - Destinations

Destination #1 "Biodiversity and Ecosystem Services" Sostiene la ripresa e il ripristino degli ecosistemi attraverso <u>una gestione sostenibile del suolo, delle acque interne e del mare</u>, che ne protegga l'integrità e favorisca l'integrazione tra settori.

Destination #2 "Fair, healthy and environmentally-friendly food systems from primary production to consumption" Contribuisce a guidare e accelerare la transizione verso sistemi alimentari sostenibili, sicuri, sani e inclusivi, dal produttore al consumatore, e a garantire la sicurezza alimentare.

Destination #3 "Circular economy and bioeconomy sectors" Sostiene soluzioni circolari, guidate dalla neutralità climatica e dalla bioeconomia per generare soluzioni, integrate, sicure a livello territoriale e in settori diversi.

Destination #4 "Clean environment and zero pollution" Arresta e previene l'inquinamento, sostenendo <u>azioni di R&I su acque interne e marine</u>, suolo, aria, comprese le emissioni di azoto e fosforo, sulle prestazioni ambientali e sulla sostenibilità dei processi nei sistemi a base biologica



CL6 - Destinations

Destination #5 "Land, oceans and water for climate action" Studia <u>l'impatto del</u>
<u>cambiamento climatico sugli ambienti terresti e marini,</u> sulle risorse naturali, l'agricoltura e i
sistemi agroalimentari, identificando azioni di mitigazioni e percorsi di adattabilità.

Destination #6 "Resilient, inclusive, healthy and green rural, coastal and urban communities" Mette al centro i luoghi, dalle aree rurali e a quelle costiere, e le persone per raggiungere un'Europa più sostenibile e resiliente, anche nella reazione alla recente pandemia, nell'utilizzo, protezione e gestione delle risorse naturali.

Destination #7 "Innovative governance, environmental observations and digital solutions in support of the Green Deal" Assicura che il processo di transizione verde passi per un'innovazione nei modelli di governance, un'informazione e conoscenza disponibile e accessibile, un utilizzo diffuso delle osservazioni ambientali e delle soluzioni digitali.

APRE



Finally, **Anca Daniela Simion**, project manager of the **Italy-Croatia Programme 2014-2020** share with the participants the results and the funded actions of the actual Programme, the contributions to the MacroRegional Strategies tackled by the Programme and the roadmap for the new programming period. She presented the results of Italian and Croatian stakeholders consultation and the progress of the programming process.





FROM SHARED RESOURCES
TO JOINT SOLUTIONS

INTERREG ITALY-CROATIA 2021-2027



A greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe mandatory for CBC Programmes





Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution

- This includes, for instance:
 - ➤ Protection and preservation of nature and biodiversity, ecosystem restoration
 - ➤ Green infrastructure
 - > Capacity-building for development and implementation of nature-based solutions
 - > Measures to improve air quality, incl. monitoring
 - ➤ Soil decontamination and remediation, rehabilitation of industrial sites and contaminated land
 - ➤ Noise reduction



Conclusions

The first part of the discussion was focused on the deepening of the potential of the "Blucy" drone and the ambitious challenge to navigate in autonomous way potentially mapping the whole Adriatic Sea while at present even in the most accurate surveys of the benthonic communities, sampling are collected every 10-15 km and the knowledge is necessarily limited and partial. This challenge is of a paramount importance since it will allow to considerably improve the data collection, a crucial point for the management plan and for the implementation of policies based on the most recent and accurate data. The direction is to work towards a compromise among the realization cost and the technological capacities of the drone, also taking into account the continuous advancement of ICT possibilities. Another crucial aspect is that all the data will be available to the scientific communities in an open platform to share the knowledge generated and keep on working on it in future capitalization initiative.

The registration of the conference in is available on the SUSHIDROP Youtube channel at the following link: https://www.youtube.com/watch?v=7llPod5yYWw

25 participants attended the conference in presence due to the limited capacity (Covid2019 restrictions) and 45 attended on-line. Categories of the attendees are the following: Public Institution at National, Regional and Local level, FLAGs (Fisheries Local Action Groups), Research Centres and Universities, Fishery sector representatives, Regional Agencies for environmental protection.