

NET4mPLASTIC PROJECT

WP2 – Act. 2.3 Preparation/update of website, e-forum, public events organization and scientific papers publishing

D 2.3.3 Newsletters

August, 2022 - Version Final

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1 Introduction

Main activities related to WP2 during the entire Project have been: 1. Start-up activities, 2. Communication, dissemination and promotion campaign, 3. Website, e-forum, public events organization and scientific papers publishing.

The NET4mPLASTIC Project Application Form provided for the Activity 2.3 the following activities.

This activity consists in creating an informal dialogue environment within partnership as well as with ecofriendly consumers to stimulate the general public, interested in sustainability related issues. This activity consists also in creating an Eforum to stimulate all the public interested in sustainability related issues and to discuss the evolution of project vision. Therefore the project will largely take advantage of INTERREG web platforms. The website will contain the questionnaire for evaluating the communication activities and all the documents realized within NET4mPlastic. This activity also aims at the organization of events and demonstration sessions at different levels concerning plastic and MP issues. A final public event transmitted on streaming will be held in Trieste with the participation of all partners during which final results and future improvements of project's activities will be discussed. At least two scientific papers will be submitted in open access journals.

At the end of the Project, regarding the preparation of website, e-forum, public events organization and scientific papers publishing, the official website has been updated few times, but UniTS encountered several problems with the publication of news and updates, so it was preferable using the social pages of the Project. On the official website is also available the NET4mPLASTIC public questionnaire. Many PPs disseminated the Project news and updates on their official websites, like Marche Region, IZSAM, UNIFE, RERA. Regarding events and demonstration sessions, UniTS organized three webinars in December 2020, and then collected all the presentations abstract for creating videos posted on YouTube Project Channel. An important demonstration event was performed in autumn 2021, within the marine drone campaign at Po Delta and Rijeka and Split. Three newsletters have been prepared during the Project, in collaboration with several PPs. Regarding Scientific papers, UniTS published two papers in 2021 (Marine Pollution Bulletin, Environmental Pollution and Sustainable Materials and Technologies), UNIFE published two papers in 2021 (Environmental Pollution and Drones). LP performed a Special Issue of Microplastics (Microplastics in the Marine Environment), that is currently open, with already 3 accepted papers (one from IZSAM group).

All the 4 target groups programmed to be reached during the Project have been reached and exceeded. Several educational activities have been carried out during the 4-year Project, by UNIFE, UniTS, IZSAM, TIPH. NET4mPLASTIC was presented at several national and international conferences by some PPs, as well as at many online meeting and workshops with other Projects institutions and stakeholders, also collaborating with other Interreg, LIFE, MED Project. After the conferences several abstract and short papers were published by some PPs. As an ultimate communication activity, an in presence and online workshop was organized by UniTS in collaboration with UNIFE during the European Maritime Day in Ravenna in May 2022.

2 NEWSLETTER n.1

All PPs implemented the Stakeholder's list, collecting about 300 e-mail addresses. Such stakeholders are among the beneficiaries of the communication activities carried out in 2019 and to be carried out in 2020 with the purpose to disseminate the ongoing project results and maximize the project impact in the INTERREG territory. A newsletter was sent to all the stakeholders by Lead Partner on *20/12/2019*.

The list of the e-mail addresses is reported in the II communication report.

In the following pages the text of the newsletter (English, Italian and Croatian versions – ANNEX 1).

Object: NET4mPLASTIC Interreg Italy-Croatia Project

Marine litter affects the quality and biodiversity of the marine environment with impacts on fishing, tourism, navigation and health. It is everywhere and the Adriatic Sea is not an exception. But, how does it disperse, where does it accumulate and what is its composition? NET4mPLASTIC Project, which lasts 30 months and is co-financed with 2,106,844 euros by the European Interreg Italy-Croatia Fund, aims to answer some of these questions.

NET4mPLASTIC, coordinated by the University of Ferrara, brings together important transversal and international competences that belong to Italian (University of Ferrara and Trieste, Marche Region, Institute of Veterinary Public Health of Abruzzo and Molise) and Croatian (University of Split, Faculty of civil engineering, architecture and geodesy, Educational Institute for Public Health, and Public Institution for the Coordination and Development of the District of Split Dalmatia) bodies and institutions as well as two private companies (Hydra Solutions and Prosoft).

In particular, data on the distribution, origin and characterization of macro and microplastics present in the sea, sediments and molluscs will be collected in 4 macro Italian and Croatian coastal areas. This will improve the knowledge of the impact on the environment and human health. The aim is to develop a warning systems and introduce sea drones, as well as to provide indications for the removal and recycling of plastics.

Since one of the objectives of the project is to share information and to improve the dialogue with stakeholders, we have decided to include Your Institution in a list of contacts including Administrations, Research Bodies, Associations, etc. We will keep you informed about the phases of the project and possibly invite you to participate in dissemination events.

Please, follow our Facebook Page www.facebook.com/NET4mPLASTIC

You may also find further information at the project website: www.italy-croatia.eu/netformplastic

If you are not interested in receiving the above information, please let us know by replying to this e-mail. However, trusting in your availability and interest, we take this opportunity to extend our warmest greetings and we wish you merry holidays and a Happy New Year.

The NET4mPLASTIC team

Oggetto: Progetto NET4mPLASTIC Interreg Italia-Croazia

I rifiuti pregiudicano qualità e biodiversità dell'ambiente marino con impatti sulla pesca, turismo, navigazione e salute. Sono ovunque e l'Adriatico non fa eccezione. Ma come si disperdono, dove si accumulano e qual è la loro composizione? Sono alcune delle domande a cui vuole rispondere il progetto NET4mPLASTIC che ha durata di 30 mesi ed è co-finanziato per 2.106.844 euro dal Fondo Europeo Interreg Italia-Croazia.

NET4mPLASTIC, coordinato dall'Università di Ferrara, aggrega importanti competenze trasversali ed internazionali che fanno capo ad enti ed istituzioni italiane (Università di Ferrara e Trieste, Regione Marche, Istituto di Sanità Pubblica Veterinaria di Abruzzo e Molise) e croate (Università di Spalato, Facoltà di ingegneria civile, architettura e geodesia, Istituto Didattico per la Sanità Pubblica e Istituzione Pubblica per il Coordinamento e Sviluppo del Distretto di Spalato Dalmazia) oltre a due aziende private (Hydra Solutions e Prosoft).

In particolare, verranno raccolti dati sulla distribuzione, provenienza e caratterizzazione delle macro e microplastiche presenti nel mare, nei sedimenti e nei molluschi in 4 macro aree costiere italiane e croate. Ciò consentirà di migliorare le conoscenze dell'impatto sull'ambiente e sulla salute umana. Si mira sviluppare sistemi di allerta, droni marini ed a fornire indicazioni per la rimozione e riciclaggio delle plastiche.

Poichè uno degli obiettivi del progetto è quello di condividere le informazioni e migliorare il dialogo con i portatori di interesse, abbiamo deciso di includere l'Istituzione che rappresenta in una lista di contatti di cui fanno parte Amministrazioni, Enti di ricerca, Associazioni, ecc.

Sarà nostra cura tenervi informati sulle fasi di progetto ed eventualmente invitarvi a partecipare ad eventi divulgativi.

La inviamo a seguirci sulla nostra pagina facebook www.facebook.com/NET4mPLASTIC

Potete, inoltre, trovare ulteriori informazioni alla sito web del progetto: www.italy-croatia.eu/netformplastic

Nel caso in cui non fosse interessato a ricevere le informazioni sopra citate, si prega di comunicarlo rispondendo alla presente mail.

Confidando tuttavia nella sua disponibilità ed interesse, si coglie l'occasione per porgere i più cordiali saluti e i migliori auguri di buone feste.

Il team NET4mPLASTIC

Predmet: NET4mPLASTIC Interreg Italy-Croatia projekt

Otpad u moru utječe na kvalitetu i bioraznolikost morskog okoliša te u konačnici ima utjecaj i na ribarstvo, turizam, navigaciju i zdravlje. Nalazi se svugdje u Jadranskom moru bez iznimki. Kako se raspršuje, gdje se akumulira i od čega se sastoji? NET4mPLASTIC projekt traje ukupno 30 mjeseci i sufinanciran je sredstvima Europske Unije iz Italy-Croatia Interreg programa sa 2,106,844 eura, a za cilj ima odgovoriti na postavljena pitanja.

NET4mPLASTIC projektom koordinira Sveučilište u Ferrari. Projekt povezuje važne transverzalne vještine i međunarodne kompetencije koje proizlaze iz partnerstva talijanskih (University of Ferrara and Trieste, Marche Region, Institute of Veterinary Public Health of Abruzzo and Molise) i hrvatskih (Fakultet građevinarstva, arhitekture i geodezije u Splitu, Nastavni zavod za javno zdravstvo Primorsko-goranske županije i Javna ustanova RERA S.D. za koordinaciju i razvoj Splitsko-dalmatinske županije) javnih tijela i institucija te dva gospodarska privatna subjekta (Hydra Solutions i Prosoft).

Konkretno, podatci o distribuciji, izvorima i karakteristikama makro i mikroplastike u moru, sedimentu i bioti će se prikupljati na 2 obalna makro područja u Italiji i 2 u Hrvatskoj čime će se proširiti znanje o utjecaju makro i mikro plastike na okoliš i ljudsko zdravlje. Cilj projekta je razvoj sustava ranog upozorenja i pomorskih dronova za detekciju i monitoring otpada u moru te uputiti na otklanjanje i recikliranje plastike iz mora.

S obzirom da je jedan od ciljeva projekta informiranje i razvoj dijaloga s različitim dionicima, odlučili smo uključiti Vašu organizaciju u listu kontakata administrativnih i istraživačkih tijela, obrazovnih institucija, građanskih udruženja i drugih važnih aktera. Želja nam je kontinuirano informirati zainteresirane dionike o projektnim fazama te možebitno uputiti određene pozive za sudjelovanje u različitim diseminacijskim događajima.

Ovim bismo Vas putem htjeli pozvati da nas podržite praćenjem naše Facebook stranice www.facebook.com/NET4mPLASTIC. Također, dodatne informacije o projektu možete naći na Internet stranici www.italy-croatia.eu/netformplastic.

Ako ipak niste zainteresirani za primanje ovih informacija, molimo Vas pošaljite Vašu namjeru isključivanja s ove liste povratnim odgovorom na ovaj mail. S povjerenjem u Vaš interes i dostupnost, ovim bismo Vam putem, uz srdačne pozdrave, htjeli zaželjeti sretne blagdane i novu godinu.

NET4mPLASTIC projektni tim

3 NEWSLETTER n.2

UNIFE provided partners with a proposed text (Italian and English) to be sent as a newsletter in order to promote the webinars and the project. The text was translated in Croatian by TIPH. UNIFE and Ps sent it to their contacts.

RERA sent a newsletter to invite stakeholders to join the social media of the Project and to fill the questionnaire for the communication strategy evaluation.

The list of the e-mail addresses is reported in the communication report.

In the following pages the text of the newsletter (English, Italian and Croatian versions – ANNEX 2).

Object: Webinars NET4mPLASTIC Interreg Italy-Croatia Project

Marine litter affects the quality and biodiversity of the marine environment with impacts on fishing, tourism, navigation and health. It is everywhere and the Adriatic Sea is not an exception. But, how does it disperse, where does it accumulate and what is its composition? NET4mPLASTIC Project, which lasts 30 months and is co-financed with 2,106,844 euros by the European Interreg Italy-Croatia Fund, aims to answer some of these questions.

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In particular, data on the distribution, origin and characterization of macro and microplastics present in the sea, sediments and molluscs are collected in 4 macro Italian and Croatian coastal areas. This will improve the knowledge of the impact on the environment and human health. The aim is to develop a warning systems and introduce sea drones, as well as to provide indications for the removal and recycling of plastics.

Since one of the objectives of the project is to share information and to improve the dialogue with stakeholders, we have decided to include Your Institution in a list of contacts including Administrations, Research Bodies, Associations, etc.

Within this project we have scheduled 3 webinars with the following titles:

- New frontiers for coastal monitoring
- Sustainability, circular economy and actions on post-consumer materials
- Micro-pollutants and microplastics in water: risks for environment and health

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If you are not interested in receiving the above information, please let us know by replying to this e-mail. However, trusting in your availability and interest, we take this opportunity to to send you our best regards.

The NET4mPLASTIC team

Oggetto: Webinars Progetto NET4mPLASTIC Interreg Italia-Croazia

I rifiuti pregiudicano qualità e biodiversità dell'ambiente marino con impatti sulla pesca, turismo, navigazione e salute. Sono ovunque e l'Adriatico non fa eccezione. Ma come si disperdono, dove si accumulano e qual è la loro composizione? Sono alcune delle domande a cui vuole rispondere il progetto NET4mPLASTIC che ha durata di 30 mesi ed è co-finanziato per 2.106.844 euro dal Fondo Europeo Interreg Italia-Croazia.

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In particolare, sono raccolti dati sulla distribuzione, provenienza e caratterizzazione delle macro e microplastiche presenti nel mare, nei sedimenti e nei molluschi in 4 macro aree costiere italiane e croate. Ciò consentirà di migliorare le conoscenze dell'impatto sull'ambiente e sulla salute umana. Si mira sviluppare sistemi di allerta, droni marini ed a fornire indicazioni per la rimozione e riciclaggio delle plastiche. Poichè uno degli obiettivi del progetto è quello di condividere le informazioni e migliorare il dialogo con i portatori di interesse, abbiamo deciso di includere l'Istituzione che rappresenta in una lista di contatti di cui fanno parte Amministrazioni, Enti di ricerca, Associazioni, ecc.

Nell'ambito di questo progetto abbiamo programmato 3 webinar dai seguenti titoli:

- Nuove frontiere per il monitoraggio delle coste
- Sostenibilità, economia circolare ed azioni sui materiali post-consumo
- Microinquinanti e microplastica nelle acque: rischi per l'ambiente e per la salute

Ogni seminario dà diritto a 3 CFP professionali per tutti gli ingegneri.

Alleghiamo alla presente le relative locandine con il link per l'iscrizione.

La invitiamo a seguirci sulla nostra pagina Facebook

www.facebook.com/NET4mPLASTIC. Potete, inoltre, trovare ulteriori informazioni al sito web del progetto: www.italy-croatia.eu/netformplastic. Nel caso in cui non fosse interessato a ricevere le informazioni sopra citate, si prega di comunicarlo rispondendo alla presente mail. Confidando tuttavia nella sua disponibilità ed interesse, si coglie l'occasione per porgere i più cordiali saluti.

Il team NET4mPLASTIC

Il contenuto di questa Newsletter è di esclusiva responsabilità del progetto NET4mPLASTIC e non riflette necessariamente i punti di vista dell'UE. Le autorità del Programma non sono responsabili per l'uso che può essere fatto delle informazioni in essa contenute. I vostri dati di contatto non saranno utilizzati per scopi diversi da quelli indicati.

Predmet: Webinari Projekta NET4mPLASTIC Interreg Italija-Hrvatska

Otpad smanjuje kvalitetu i biodiverzitet morskog okoliša i utječe na ribarstvo, turizam, pomorstvo i zdravlje čovjeka. Prisutan je svuda, a Jadransko more nije iznimka. Ali, kako se rasprostranjuje, gdje se akumulira i koji je njegov sastav? Projekt NET4mPLASTIC, koji traje 30 mjeseci i sufinanciran je novcem iz Europskog fonda u iznosu od 2,106,844 eura iz programa Interreg Italija-Hrvatska, pokušat će odgovoriti na neka od ovih pitanja.

NET4mPLASTIC, kojeg vodi Sveučilište iz Ferrare, okupio je brojne stručnjake koji pripadaju talijanskim (Sveučilišta u Ferrari i Trstu, Regija Marche, Veterinarski institut Abruzzo i Molisea) i hrvatskim (Sveučilište u Splitu, Fakultet građevinarstva, arhitekture i geodezije, Nastavni zavod za javno zdravstvo Primorsko-goranske županije i Javna ustanova RERA S.D.) tijelima i institucijama kao i dvjema privatnim kompanijama (Hydra Solutions i Prosoft).

Podaci o distribuciji, porijeklu i karakteristikama makro i mikroplastike prisutne u moru, sedimentu i školjkama prikupljaju se na 4 lokacije na talijanskom i hrvatskom obalnom području. To će povećati znanje o utjecaju makro i mikroplastike na okoliš i ljudsko zdravlje. Cilj je razviti sustave upozorenja i uključiti podvodne dronove, kao i osmisliti načine za uklanjanje i recikliranje plastike.

Kako je jedan od ciljeva projekta dijeljenje informacija i poboljšanje dijaloga s dionicima, odlučili smo Vašu instituciju uključiti na našu listu kontakata.

Unutar ovog projekta organizirali smo 3 webinarima sa sljedećim naslovima:

- Nuove frontiere per il monitoraggio delle coste**
- Sostenibilità, economia circolare ed azioni sui materiali post-consumo**
- Microinquinanti e microplastica nelle acque: rischi per l'ambiente e per la salute**

Molim, slijedite našu Facebook stranicu www.facebook.com/NET4mPLASTIC

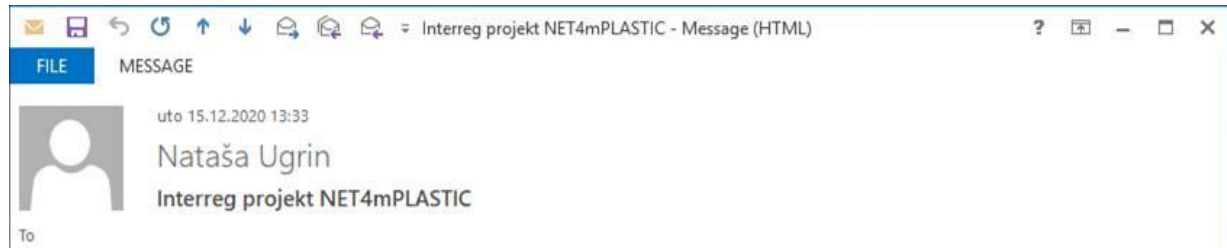
Dodatne informacije možete naći na web stranici projekta: www.italy-croatia.eu/netformplastic

Ako ne želite više primati obavijesti o projektu, molimo da nam to javite odgovarajući na ovaj e-mail.

U nadi da Vam je tema zanimljiva i da ste u mogućnosti prisustvovati našim webinarima, ovom prilikom Vam šaljemo naše srdačne pozdrave.

Tim projekta NET4mPLASTIC

Newsletter sent by RERA (English version)



JU RERA S.D.Ž. as a project partner participates in the implementation of the NET4mPLASTIC project dealing with the accumulation of PLASTICS and MICROPLASTICS in the Adriatic (funded by the EU program Interreg Italy - Croatia 2014-2020), so given the common goals and some previous cooperation, we hereby invite you to join on social networks

FACEBOOK <https://www.facebook.com/NET4mPLASTIC>

INSTAGRAM <https://www.instagram.com/net4mplastic/>

TWITTER <https://twitter.com/NET4mPLASTIC>

Web <https://www.italy-croatia.eu/web/netformplastic>

We would also ask you if you can take a few minutes of your time and fill out a short survey on the visibility of the NET4mPLASTIC project

SURVEY: <https://docs.google.com/forms/d/e/1FAIpQLSdHfblcvXJfa2RSVr5RsJdnRAGLLvpLckFXIcJNiNyU6nCxBw/viewform?fbclid=IwAR3BFGpbS4nOWKymdNzrBEY6-y8VQ5SZ22PuToPvdS55fdarp6sO4M2S5-4>

4 NEWSLETTER n.3

Newsletter 2021 deal with the first trials of the microplastics data collection system using a marine drone in Volano-ITA (20th October, marine drone testing), Rijeka-CRO (27th October, entire set up testing) and in Split (CRO) (29th October, entire set up testing). It has been prepared by UNITS and UNIFE and shared with all partners. Date of publication: November 2021.

Circular mail has been sent to stakeholders and general public.

In the following pages the text of the newsletter (Italian, Croatian and English versions – ANNEX 3).



Oggetto: **Progetto Interreg Italia-Croazia NET4mPLASTIC - inizia la campagna di acquisizione dati da droni marini!**

I rifiuti marini incidono ancora sulla qualità e la biodiversità dell'ambiente del mare Adriatico. Uno degli obiettivi del progetto Interreg Italia-Croazia NET4mPLASTIC è quello di analizzare come la plastica e le microplastiche si diffondono e si accumulano sulle zone di riva e di costa, contribuendo all'inquinamento delle acque del mare. La misurazione delle particelle di microplastica in mare è un processo difficile a causa delle basse concentrazioni diffuse su grandi aree e volumi che caratterizza questi elementi. Attualmente, il principale processo di prelevamento in mare consiste nella raccolta di campioni d'acqua con un dispositivo meccanico (manta trawl) e nell'analisi di laboratorio dei campioni filtrati (identificazione con microscopi). Questo processo richiede molto tempo e i risultati affidabili sono disponibili solo dopo tre o quattro settimane dai prelievi.

Durante le campagne di acquisizione dati nei diversi siti pilota del progetto previste nelle prossime settimane, sarà testato uno strumento innovativo per la raccolta e l'elaborazione di immagini olografiche ad alta velocità per la quantificazione delle particelle di microplastiche in mare. Il sensore che useremo sarà integrato in un veicolo marino autonomo (drone marino), ma potrà essere usato anche direttamente installato e guidato da una barca. I risultati dei dati saranno disponibili entro sole 8-24 ore dalla campagna di acquisizione.

Un importante risultato del progetto NET4mPLASTIC sarà la validazione del nuovo processo per dimostrare che le tecnologie per identificare rapidamente la concentrazione di microplastiche nell'acqua di mare è possibile e, se usato su larga scala, potrebbe fornire utili informazioni che ad oggi sono raramente monitorate e mai in tempo reale.

Seguiteci sui nostri social network per qualsiasi aggiornamento sulle aree di test e le rispettive date di campagna acquisizione dati!



TEMA: NET4mPLASTIC Interreg Italija-Hrvatska projekt- kampanja prikupljanja podataka o morskim bespilotnim letjelicama počinje!

Činjenica je da morski otpad utječe na kvalitetu i bioraznolikost okoliša mora, pa tako utječe i na kvalitetu Jadranskog mora. Analiza kako plastika i mikroplastika, koje doprinose tom zagađenju, dospiju u more, šire se dalje i nakupljaju na morskoj obali, jedan je od projektnih ciljeva NET4mPLASTIC Interreg Italija-Hrvatska projekta. Naime, mjerenje mikroplastičnih čestica u moru je složen zadatak radi naizgled niske koncentracije na morskoj površini. Trenutno se glavni postupak mjerenja uzorkovanja na moru sastoji od prikupljanja uzoraka vode mehaničkim uređajem (manta mrežama) i laboratorijske analize filtriranih uzoraka (identifikacija mikroskopom). Ovaj proces analize u cjelini je dugotrajan a pouzdani rezultati obično su dostupni tek nakon tri ili četiri tjedna nakon uzorkovanja.

Tijekom terenskih kampanja sljedećeg tjedna, inovativni instrument za brzo prikupljanje i obradu hologramskih slika bit će testiran za mjerenje na licu mjesta, na različitim pilot lokacijama projekta. Senzor koji ćemo koristiti biti će integriran u autonomno brodsko vozilo (marine-drone), no u drugim bi se okolnostima mogao koristiti i izravno instaliran i vođen s broda. Podaci će biti dostupni u roku od 8-24 sata. Važan rezultat našeg projekta bit će potvrđivanje novog procesa koji će pokazati da su tehnologije za brzo utvrđivanje koncentracije mikroplastike u morskoj vodi moguće i ako se koriste u velikom opsegu mogle bi pružiti korisne informacije koje se danas rijetko prate a uz to nikada se ne prate u stvarnom vremenu. Na našim društvenim mrežama popratite novosti na svim projektnim pilot lokacijama!



Object: NET4mPLASTIC Interreg Italy-Croatia Project – marine drone data acquisition campaign is starting!

Marine litter still affects the quality and biodiversity of the Adriatic Sea environment. One of the NET4mPLASTIC Interreg Italy-Croatia Project target is to analyse how the plastic and microplastic spread out, end up and accumulate on the seashore, contributing to the pollution in marine water. The measurement of microplastic particles at sea is a difficult task due to the typical low concentration spread on large areas and volumes. Currently, the main sampling measurement process at sea consists in the collection of water samples with a mechanical device (manta trawl) and laboratory analysis of filtered samples (identification by microscopes). This process is high-time demanding and usually reliable results are available only after three or four weeks.

During next week's field campaigns, an innovative instrument for high-speed holograms pictures collection and processing will be tested for in-situ measurement, in different projects pilot sites. The sensor that we are going to use will be integrated in an autonomous marine vehicle (marine-drone), but in other circumstances could be used also directly installed and guided from a boat. Data results will be available within only 8-24 hours.

An important result of our project will be the validation of the new process to show that the technologies to quickly identify the microplastics concentration in seawater is possible and if used on large scale could provide useful information that nowadays are rarely monitored and never in real time.

Follow us on our social networks for any update including selected areas and dates!

5 NEWSLETTER n.4

Newsletter 2022 deal with NET4mPLASTIC results and highlights. Each PP wrote a short text regarding the involvement and main role of the single university/institution in the project, the main goals and principal results obtained. In the following pages the text of the newsletter (English version – ANNEX 4).

Newsletter 2022: latest news and highlights of the project

During these 3.5 years, multiple competencies, mutual knowledge sharing and collaboration allowed the project to progress, despite the difficulties related to the Covid-19 pandemic.

The University of Ferrara, with the contribution of three Departments, as LP of NET4mPLASTIC Project, guaranteed the management and connection between PPs involved, but also internal and external communication and dissemination. UniFE contributed also with:

- Sediment and sea water samples and data collection in 2 Italian pilot sites;
- Testing and implementation of new technologies for the coastal and marine environment monitoring (unmanned autonomous vehicles – aerial and marine drones, sampling and lab activities);
- Development of new links between presence of contaminants in the environment (e.g. microplastic) and human health.

The University of Trieste carried out laboratory analysis consisting of separation and identification of plastic components in water, sediment and biota in order to develop plastic distribution maps useful for the final integrated platform (microscopy, Raman microspectroscopy, thermal analysis and imaging). The main project target was to develop a patented method for the recycling of microplastics, completely green, which enabled the production of prototype samples of thermal and acoustic insulation material for use in the civil/naval/automotive sectors. The research results are collected in many scientific journals.

The Institute of Marine Sciences of the CNR in Venice carried out a series of simulations of dispersion and accumulation of microplastics for 4 pilot sites on behalf of the Marche Region: Po Delta, Pescara, Split, entire Adriatic basin. The simulations are based on the ROMS (Regional Ocean Modelling System) oceanographic model for the hydrodynamic component and on the Lagrangian model ICHTHYOP for the simulation of the dispersion and potential accumulation of microplastics of fluvial origin in the coastal waters of each pilot site.

In the latest months Hydra Solutions was involved mainly in the finalization of the software functionalities for data loading and visualization with the implementation of the hazard level periodical bulletin and the generation of the micro-litter size distributions related to the campaigns carried out in Autumn 2021. Moreover at the beginning of May 2022 it is planned the execution of additional measurement campaigns in Italy and Croatia.

For ProSoft the NET4mPLASTIC project was an opportunity to step out of the ICT world into an unknown field where science, ecology and innovation intertwine and their synergy creates new values. ProSoft biggest contribution was in helping to establish a common platform that facilitates interaction between partners, in developing an EWS system and a database in which project results are collected. It be part of a field team that tested the use of an innovative marine drone equipped with sensors and communication devices that enable the delivery of collected data in real time.

The IZSAM Teramo was involved in microplastics monitoring in mussels in Sacca di Goro and Pescara areas, and laboratory uptake and clearance experiment of mussels from microplastics. Analysis's results suggest that MPs frequency of occurrence was 53%; the revaling type of MPs were fibers; the prevailing size range were greater than 500 micrometers and the prevailing color was black. Clearance experiment showed both 2 and 7 days of mussels purification allow a statistically significant decrease in the presence of the number of MPs particles found per gram of soft tissue of the analyzed mussels (Group T0: 2.17 MPs/g; Group T2: 0.49 MPs/g; Group T7: 0.27 MPs/g).

Teaching institute of public health of Rijeka participated in field activities, in obtaining physical and environmental data and data about plastics in the environment. Tiph also did analisys of collected samples of sea water, beach sediments and mussels. The main goal for Tiph was to assess risks for human health regarding microplastics in the environment.

RERAs' project activity issues mainly was focused on the sampling and analysis of plastics and MP in sediment, water column and in mussels and shellfish activities – that were taken on 4 pilot sites in the middle and southern part of Adriatic on the Croatian side. These project activities of the sampling and analysis were performed by IOF – Institute of Oceanography and Fisheries from Split (Croatia), with who RERA has long-term cooperation in various international projects dealing with marine litter issues as well as plastic and microplastic and climate changes.

The UNIST-FGAG participated in sampling activities on the Croatian side, preparing and analyzing all necessary input data for NET4mPLASTIC modeling task including the bathymetry of the modeling domain, Data on physical and chemical parameters for two major submarine wastewater discharge points, analysis of meteorological data with estimates of discharges and source data from 11 waste water treatment plants within the modeled domain on the Croatian side.

The next commitments that will see the project as a protagonist will be: the participation in the EMD2022 event, scheduled on 19th and 20th June in Ravenna with the workshop "A holistic circular economy approach: how could local, business and scientific communities address marine litter best together?" and the final project meeting, scheduled on 28th and 29th June in Ferrara.

6 ANNEXES

The four pdf versions of the newsletters are annexes:

- ANNEX I: Newsletter 2019
- ANNEX II: Newsletter 2020
- ANNEX III: Newsletter 2021
- ANNEX IV: Newsletter 2022