



AdSWiM

EVENTS ORGANISATION AND PARTECIPATION

Deliverables 2.4.3

INTERNATIONAL EVENTS



Deliverable 2.4. EVENTS

National, International events and Workshops

In order to promote and disseminate the activities and the results of the projects over the years to a broader audience and to sensitize the territories reached by the project on the topic of sea water pollution, the role of the nutrients in the marine ecosystem and the innovative role water treatment plant can play, we organised, hosted and/or participated in 110 events in person, online and in blended editions. Each partner hosted at least one workshop and participated in at least in two major events. **All the photo material is presented in the multimedia galleries on the project website and many of the events are presented in the news and events website section.**

Most of the events were technical workshops or conventions or scientific meetings (such as **WaterSafetyPlan Convention, BioMA, Biocampa, DESIR, XVII IHSS Symposium Torino, AIOL Congress, PhD Ocean Hackathon**)

or scientific or technical conferences and fairs (**ABC Urbino, Festival dell'Acqua, Marano Lagunare workshop on Quality of waters and fertility of Sea, Water and Climate Conference Split, Crofish, Sealogy, Remtech Europe, ESOF TRIESTE, Giornata Bioanalitica Conference, The World Congress of Biosensors**). Some of the events involved the general public and students as well (such as **Researcher's Night in Rome and Ancona and Festival Znanosti in Pula, Zadar and Split**) held in person and online, due to COVID-19 restrictions. Several joint meetings were organised with other Interreg Italy–Croatia projects (**Watercare, Ecomap, Asteris**) or other EU projects on overlapping issues (**EUSAIR Forum, BoDEREC-CE, City Water Circles – CWC**) in order to strengthen cooperation between public administrations, scientific and research institutions and water managers. Several workshops for schools and universities were organised in different project areas and also online (such as **Ada Lovelace Day and Chemist table Day in Rome, Nautici in Blu in Trieste, PLS workshop in Iesi, Smart open Days and Orienta Days of UNIVPM, Environmental Course and Sustainability Course of UNIUD**). Various social media campaigns were organised that also included participation in online events and dissemination of international campaigns (**EU Water Day congress, EU Health Day Congress, International Social Day and a video realisation for Interreg Italy –Croatia Programme, SLAM Interreg competition, Comunicare Interreg with the Italian Agency for Territorial Cohesion, EU Research Day and Congress, Girls' Day and Education day, Mediterranean Day** with the realisation of one shared poster with photos of sea colours from different AdSWiM locations, etc.).

Deliverable 2.4.3 International events

Here is the list of 55 international events and workshops. We need to precise that some events are presented in the deliverable 2.4.4 and 2.4.5 as many of the events were organised as joint events between the partners and they were held jointly with the by the guided visits and open doors events or labs for schools and citizens or social campaigns. No double counting is present. For the details, you can check the monitoring presentations per semester that are available on this website and on social media project channels. All other documentation related to this deliverable is part of the reporting documentation of the partners during the project lifetime.

PR1

PP10 METRIS

Metris held a public **press conference June 27, 2019** for the project presentation. Several administrative and media stakeholders took part in the event. Materials were produced, invitation were done by the partner.

1



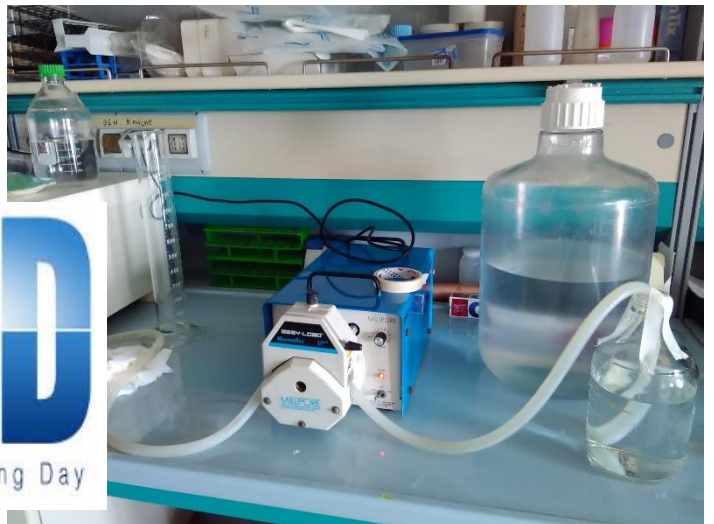


2



PP3 OGS

Ocean's sampling day on June 21, 2019. The adswim researchers participates with the sampling related to the WP3 activities.




PP0 University of Udine and PP4 POLITECHNIC UNIVERSITY OF MARCHE



La Società Chimica Italiana (SCI, The Italian Chemical Society), founded in 1909 and erected in a Moral Body with R.D. n. 480/1926, is a scientific association which has over three thousand five hundred members. Members carry out their activities in universities and research institutions, in schools, industries, in public and private research and control laboratories, in the freelance profession. In addition to their interest in chemical science, they are united by their willingness to contribute to the cultural and economic growth of the national community, improving the quality of human life and protecting the environment. The Society organizes numerous conferences, courses, schools and seminars both nationally and internationally and XVIII ABC CONGRESS is one of them. This year congress was organised by the University of "Carlo Bo", Palazzo Battiferri, Urbino from 24 to 27 June 2019. Two project chemists,

Anna Annibaldi from Polytechnic University of Marche and Sabina Susmel from University of Udine participated at the event with the Adswim project that was acknowledged with posters presentation with the title "[Total Mercury in seawater of Central Adriatic Sea](#)", Authors: F. Girolametti, C. Truzzi, S. Illuminati, F. Vagnoni, G. Scarponi, S. Susmel, A. Annibaldi.

XVIII CONGRESSO ABC Urbino (PU) 24-27 June 2019








Total Mercury in seawater of Central Adriatic Sea

F. Girolametti¹, C. Truzzi¹, S. Illuminati¹, F. Vagnoni¹, G. Scarponi¹, S. Susmel², A. Annibaldi¹.

¹Department of Life and Environmental Sciences, Marche Polytechnic University, Via Breccie Bianche, 60131 Ancona, Italy
²Department of Food, Environmental and Animal Sciences (DMA), University of Udine, via del Cottonificio 108, 33100 Udine, Italy



Link among PPs

PR2PP0 University of Udine, PP3 OGS and PP4 POLITECHNIC UNIVERSITY OF MARCHE

The three partners Udine took part "Festival dell'acqua" on October 10t 2019 with OGS in Venice. The event was held at Fondazione Querini Stampalia. In this occasion the AdSWiM project was presented. 660 people attended the event. A specific flyer was done for the occasion and the official project campaign was presented to the public.



/ENERDÌ 11 OTTOBRE



SESSIONE PARALLELA
 14:15-18:00 | SALA GIOVANNI PAOLO II*

Materia ed energia recuperata dal servizio idrico

L'economia circolare si fonda su un nuovo modello sostenibile e competitivo su cui l'Unione Europea ha investito molto. L'area di queste nuove, varate nel 2018 con il così detto pacchetto dell'economia circolare ha aperto una nuova fase precipuamente indirizzata alla gestione dei rifiuti (recupero e riciclo per ridurre il ruolo delle discariche) per estendersi poi anche al ciclo idrico integrato. Questo ha consentito di avviare una serie di azioni in materia di riutilizzo delle acque, ma anche di recupero di materia ed energia dai fanghi di depurazione. Il quadro normativo sia nazionale che comunitario ha evidenziato tuttavia in questi anni di una serie di carenze che vanno rapidamente colmate, segnali in questo senso già si avvertono. Al tempo stesso l'evoluzione tecnologica e la ricerca scientifica stanno prospettando nuove opportunità che il seminario intende evidenziare.

Chairman 1: Francesco Fatone - Università Politecnica delle Marche

14:15 Introduzione di FRANCESCO FATONE - Università Politecnica delle Marche
 Come l'evoluzione scientifica/tecnologica può influire nella gestione delle acque reflue a livello UE
 ANGIOLA RUBINI - Piattaforma tecnologica Europea Bruxelles
 Rapporto ISPRA-Utilitalia sul recupero di energia dai fanghi
 PAOLO GIACOMELLI - UTILITALIA

FESTIVAL dell'ACQUA

BRESSANONE 13/15 maggio 2019 - Forum Brixen
 VENEZIA 10/11 ottobre 2019 - Fondazione Querini Stampalia

4



Twelve partners against marine water pollution to improve the quality of Adriatic Sea and coastal waters with innovative technologies in quality monitoring, treatment and management of urban wastewater.

In **24 months**, **6** research institutions, **2** municipalities, **3** companies of wastewater collection, treatment and supply and **1** unit for regulation and provision of health care and education to public **will investigate new treatments, new analytical devices and new chemical and microbiological parameters of the waste water.** They will examine the level of nutrients, pollutants, fecal bacteria near the marine discharges and depuration plants by sampling, testing, analyzing and comparing the data. In order to empower the efficiency of the **AdSWiM research outputs, they will define new Adriatic guidelines and a common measurement model** for more efficient wastewater treatment management. **The Adriatic Sea is one, its care is of everybody.**



Looking for more information?
 Please, contact AdSWiM representatives
 at Festival dell'Acqua, in Venice on October 10, 2019.

European Regional Development Fund    www.italy-croatia.eu/adswim

PP3 OGS

ADSIM project at the BioMa scientific meeting on the Upper Adriatic. During a public meeting, scheduled for Friday, July 26 at 10 am at the **BioMa - Marino Biodiversity Office in Miramare, next to Triest**, Italy-Croatia research projects involved in the studies of the area of the Upper Adriatic, was presented. Oceanographic and ecological research, monitoring activities, conservation strategies, sustainable fishing and blue economy: on Friday 26 July BioMa, the immersive museum of WWF AMP Miramare hosted a public meeting entitled "Shared projects for the sustainable

development of the Northern Adriatic”, organized in collaboration with OGS National Institute of Oceanography and Experimental Geophysics. It was moment of confrontation, of networking but also of presentation to the general public of the many ongoing projects that foresee monitoring activities and the development of conservation and development strategies for our sea. Among these, the AdSWiM project of which INOGS is one of the partners.



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Participants:

- Maurizio Spoto - Director of AMP Miramare
- [Paola Del Negro](#) - General Director of INOGS (National Institute of Oceanography and Experimental Geophysics)
- ECOSS Project - Bruno Cataletto INOGS and Saul Ciriaco (Shoreline Soc Coop)
- ROC-POPLife project - Annalisa Falace (University of Trieste)
- ITA-CRO FAIRSEA project - Simone Libralato INOGS
- ITA-CRO ADRIREEF Project - Diego Borme INOGS
- Project ITA-CRO PRIZEFISH - Cosimo Solidoro INOGS
- ITA-CRO AdSWiM project - Paola Del Negro INOGS
- Project ITA-CRO ECOMAP Flavio Accaino INOGS



PP4 POLITECHNIC UNIVERSITY OF MARCHE

On **September 27th**, 2019 [the Sharper night \(Notte dei ricercatori\)](#) took place in Ancona. They presented their work of measuring nutrients and tracing elements to evaluate the level of pollution of the Adriatic people. Posters, gadgets were produced and distributed. A lab for citizens and families were organized in Ancona. 9.513 persons were reached during the Event in Ancona. The event is part of a International Event in Europe.



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PP5 INSTITUTE OF CRYSTALLOGRAPHY NATIONAL RESEARCH COUNCIL

Contemporary with the Ancona event, the event "Notte dei ricercatori" was held also in AdR1 National Research Council Rome, Italy, **September, 27 2019**. In this occasion Viviana Scognamiglio



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and Amina Antonacci involved “Young scientist” in how to improve the wastewater management and obtain better quality of our marine waters. 11.000 people were reached in Rome that night.



Ada Lovelace Day is the international event that every year on the second Tuesday of October promotes and collects initiatives from all over the world for the promotion of the study of scientific subjects by girls and the elimination of prejudices and gender stereotypes as well as barriers to entry and career progression for women. From the collaboration between the Institutes of research on population and social policies (Irpss) and of crystallography (Ic) of the Cnr and the Infn, the initiative was born to bring Italy, with two large research institutions, to this international forum. **On 8 October, 2019** in the conference room of the CNR, in the presence of the president of the CNR prof. Massimo Inguscio, an interactive event will take place that will involve high school students, teachers and experts. A time machine will allow a virtual journey into the history of science for women, the latest data on women in science, videos and information elaborated by students will be presented; it will be possible to attend an informative seminar to deepen the fundamental concepts of quantum mechanics, with a wide range of developments in quantum technologies. Participants will be able to speak live to have their say through an interactive platform. The Adswim project was presented to the schools involved during the meeting.



On October 10 and 11·2019, Viviana Scognamiglio joined [The Ninth International Workshop on Biosensors](#) in Merzouga, Morocco. IC-CNR is focused on the development of biosensors and bioassays for the assessment of seawater #biotoxicity and pollutant monitoring and water analysis as well. In AdSWiM project we are developing a rapid monitoring system thanks to optical biosensors for measuring the microbiological pollution indicators of Adriatic coastal bathing areas.



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On November 11, 2019 the Institute of Crystallography organized a commemorative day for the 150th anniversary of the #PeriodicTable, a year in which the 100th anniversary of the famous chemist and writer Primo Levi was born. The event held in the conference room of the CNR Research Area of Rome1 involved an audience of high school students in the area north of Rome. The day was organized in collaboration with the chemistry museum of the Department of #Chemistry of the University La Sapienza of Rome which made available some didactic equipment for the laboratory experiences and performed some experiments demonstrating the properties of the chemical elements



PP4 POLITECHNIC UNIVERSITY OF MARCHE, PP6 MUNICIPALITY OF PESCARA and PP10 METRIS

On **November 19, 2019** Pescara held the third project partner meeting of Watercare Project. In this occasion co-organized a AdSWiM project presentation made by University of Udine. This meeting was attended by Metris and by PP4 Polytechnic University of Marche as well.



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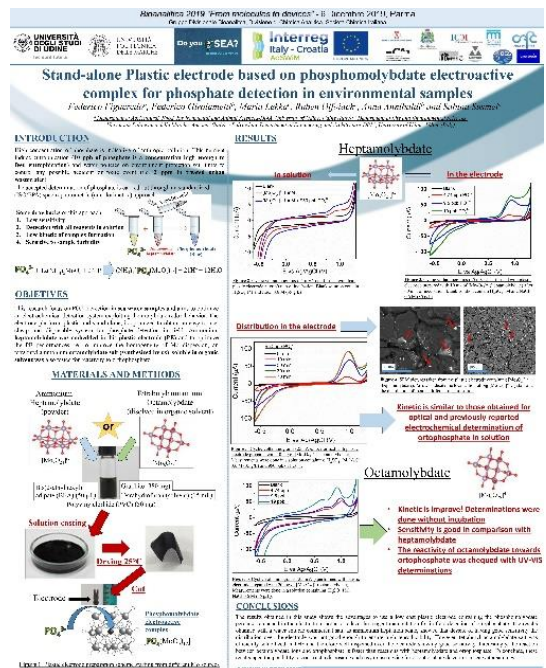
PP3 OGS and PP10 METRIS

OGS held a stand during the International CroFish Fair from **November, 22 to 24 ,2019** in Porec, Croatia. With Metris they presented AdSWiM project to the public.



PPO UNIVERSITY OF UDINE AND PP4 POLITECHNIC UNIVERSITY OF MARCHE,

Giornata Scientifica Bioanalitica was held on **December 6, 2019** by Società Chimica Italiana in Parma. Adswim partners did a project presentation and exposed an abstract scientific poster: Stand-alone Plastic electrode based on phosphomolybdate electroactive complex for phosphate detection in environmental samples, F. Figueredo, F.Girolametti, M. Lekka, R. Offoia, A. Annibaldi, S. Susmel.



PR3

PP9 SPLIT WATER AND SEWERAGE COMPANY LTD and PP11 FACULTY OF CIVIL ENGINEERING, ARCHITECTURE AND GEODESY UNIVERSITY OF SPLIT

A joint working meeting between the AdSWiM and WATERCARE project teams in Split- Dalmatia County were held on **February 3, 2020**..The meeting was attended by Nikša Jajac, Dean of the Faculty of Civil Engineering, Architecture and Geodesy in Split, and Anđelko Katavić, Head of the Management Board for Economy, EU Funds and Agriculture, Dalmatia County..VIK representatives attended the meeting as well. Following the presentations, it is evident that both projects are related to wastewater monitoring in the bathing area (this would be one broad link because while WATERCARE is working on the river segment, AdSWiM deals with discharges of wastewater treatment plants going directly into the sea), and found a whole series of common touch points in terms of monitoring and sea quality in general since we cover the "same" area. The common conclusion is that cooperation between public administration and scientific and research institutions must be further strengthened, all for the purpose of applying innovative approaches to coastal protection to advance the improvement of coastal waters.

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Both partners participated together also in the Water and Climate Change Conference organized by Split-Dalmatia County in Hotel Cornaro (Split, Croatia) on **June 17th 2020**. UNIST-FGAG presented the project during conference session. Promotional materials were distributed (80 giveaway sets), 86 people participated.



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PP10 METRIS

Metris representatives participated in a joint meeting with the WATERCARE project **on June 4, 2020** to share the partial results regarding the interventions and biomass technology with the partners involved. They all went to the coastal point Stalija to check the installation of the new measurement points. Articles in magazine were published to present the event and the results.



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PP1 Comune di Udine

The partner organised a social campaign with a video sharing involving all partners **on March 8, 2020** for the celebration of the International Women Day. The project is particular focused on the Horizontal principals and the gender equity. The video message shared with the video “Dear colleagues, thank you for listening us and sharing with us your knowledge: there will be no testing results, no biosensors, no analysis, no labs without you. Thank you for the excellent project management and guidelines. All the men from the AdsWiM project team “



March 8, 2020 3.mp4

PP7 ZZJZ

The partner organised a social campaign **#7April2020 #Health4All saluteper tutti #zdravlje za sve** in order to do a call to action for the activities related to the Adswim objectives and safe and better sea for all. An article and a general presentation of the partner was done on social channels, on project website and on partner's corporate website. In particular they explained the involvement on the Department for Health Ecology and Environmental Protection in the project activities (it monitors, analyzes and evaluates the impact of the environment (water, sea, air, soil, noise) and food on the health status of the population, health safety: food, raw material, water for human consumption, water for recreation and physical therapy, and items of general use; examine and evaluate the composition and quality of wastewater, surface and groundwater, sea and sediment, the ecotoxicological properties of wastewater, and the composition and quality of waste; perform professional environmental work. They also presented the instrument that has been purchased thanks to ADSWIM project, that is the Continuous Flow Analyser (CFA) for the measurements of nutrients in the seawater.

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ALL CROATIAN PARTNERS

A social call to action was organized **on the April,22, 2020** for the occasion of celebration of World Earth Day and we joined the international campaign from April 22, the 50th anniversary of Earth Day, to April 24, with activists, performers, thought leaders, and artists for an empowering, inspiring, and communal three-day livestream mobilization. We promote the next Festival of Research where we planned several labs with schools.





ALL PARTNERS with the PROGRAMME ITALY CROATIA

← **AdSWiM Project**
316 Tweets

AdSWiM Project @AdswimProject · May 6, 2020
 @AdswimProject team is happy to be a part of the 150 stories submitted to #interregslam 🙌 @OGS_IT @HrUnist @uniud @UnivPoliMarche @ZJZadar @ComuneDiUdine @di_pescara #CAFC from #Udine #VIK from #Split #IzvorPloce 🇨🇷🇮🇹🇪🇺🇦🇩

Interact Programme @InteractEU · May 5, 2020
 🎉 The Interreg Project Slam received 150 project stories

The next stage will be shortlisting the 30 best stories to be developed as part of the 30 years together campaign.

Thank you to all who applied, and more to follow soon!
 interact-eu.net/#o=news/over-1...

Interreg Project Slam
 30 years together
 150 project stories
 0:01 | 450 views

On May 6, 2020 we applied for the Interreg 30 years PROJECT SLAM and entered in the short top ten list of 150 project stories presented.

← **AdSWiM Project**
316 Tweets


You Retweeted



Interreg Italy-Croatia Programme @ItalyCroatia · May 8, 2020

8 project stories submitted for #interreg project slam 2020 to @interacteu looking forward to be shortlisted

 Greener EU
@JointSecap
NET4mPLASTIC
@RepairMI
WATERCARE

 We all have neighbour
@OGS_IT LP of FAIRSEA
@IcarusProject2
PRIZEFISH

 #interreg30 Youth
@AdswimProject



🗨️ 3 ❤️ 10 ↗️

PP1 COMUNE DI UDINE

For celebration of the **Environmental International UN Day on May 6, 2020** PP1 prepared a media campaign and a press release to present the first [video infographics](#) through social, mailing and media to the general public. The video was inserted on the INDIRE portal, in the distance learning program,

thanks also to the collaboration with the OGS partner of Trieste. In addition, an educational module was developed for elementary school teachers in collaboration with professors from UNIUD LaREA of ARPA FVG and Municipality subcontractor LETTERA B: free workshops for elementary schools at the Natural History Museum of Udine and guided visits to the treatment plant with the collaboration of CAFC SpA were-proposed to children and schools for the school year 2020/2021. The same activities have been accepted and adapted by the Croatian partners who carried them out in their own territories in the next project periods. A visitor and didactic kit were prepared and presented.

The Adriatic Sea is one. Its care belongs to everybody.

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@Adswimproject

DO YOU SEA?



Take special waste in your local waste collection centre.



Check local programs for local recycling



Glass containers are the best choice!



Use refillable bottles



ALL PARTNERS AND SPECIAL EVENTS FOR PP7 ZZJZ (labs for citizens) and PP9 VIK

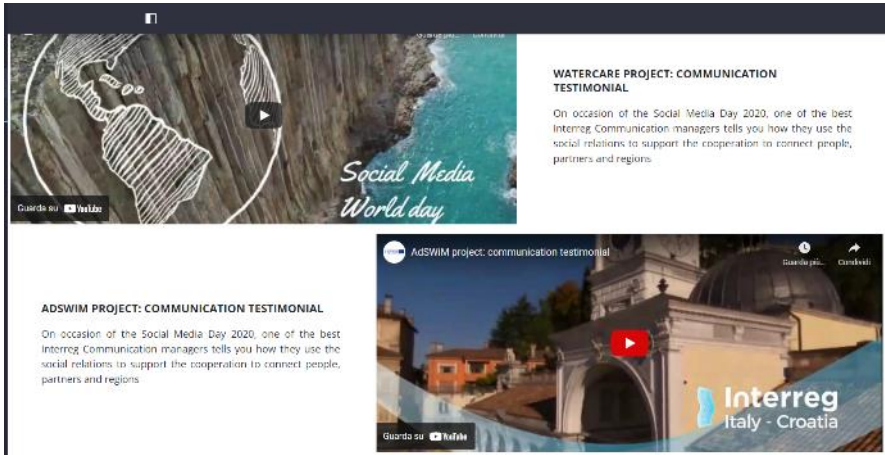
For the occasion of the Celebration of the International Oceans' Day on June, 8, 2020, an ADSWIM call the action campaign was organised. A press release in three languages was prepared and disseminated through media by all the partners. As part of the implementation of educational activities of the Interreg project AdSWiM - Managed use of treated urban wastewater for the quality

of the Adriatic Sea, a didactic laboratory for children was held on the city beach Jadran in Zadar. Employees of the Department of Health Ecology and Environmental Protection of the Zadar Institute of Public Health, in cooperation with the project partner Split Water and Sewerage Company Ltd (Vodovod i kanalizacija Split), tried to bring the value and importance of preserving the quality of the Adriatic Sea closer to the youngest residents of our city with story, joint practical work related to wastewater treatment methods with simple experiments, games and socializing. As part of the activities, children experienced a visual demonstration of a simple way of wastewater treatment (filtration), learned about the importance of economical use of drinking running water, reducing pollution, recycling and/or reuse of non-degradable materials and learned about various plants and animal species living in Adriatic and in the coastal areas. VIK prepared special gadgets (T SHIRTS) for the participants .10 children also made the Zadar "sea postcard" to say to the adults how much the sea means to them.



PP1 Municipality of UDINE and the PROGRAMME

Our subcontractor LETTERA B did a video for the celebration of the INTERNATIONAL SOCIAL DAY, **June 30, 2020**, for a social campaign that was uploaded [on the HP of the programme website.](#)



Very proud to represent our work and the programme communication work thanks to Tea Ivanisevic and her efforts!

All partners

On July 8, 2020 we celebrated the Mediterranean Day and created a social campaign by doing a poster with the sea images of different locations included in our project to sensibelize the general public on the sea environment. The partners were invited to take a picture of the sea next to the coast and PP1 communication agency did a poster and shared the campaign through social media and on the project website. Many of partners put the posters in the offices and headquarters.



- From top to bottom
- 1 Pula
 - 2 Ancona
 - 4 Trieste
 - 6 Lignano
 - 3 Split
 - 5 Fano
 - 7 Pescara

PR4

PP0 University of Udine and PP1 Municipality of Udine, CAFC

Adswim participated to **ESOF 2020 September 2-6, 2020**. Adswim presented the project on the stand of Università degli Studi di Udine successfully. LP - Università degli Studi di Udine and PP1-



Comune Di Udine participated in several workshops in presence focused on the marine litter problem, blue skills to feed jobs in the Mediterranean area, on pollution and cities and on protection of marine habitats and reduction of CO2 along coastal areas (scientific and social aspects). They met with the representatives of PP3 - OGS Istituto Nazionale di Oceanografia e di Geofisica Sperimentale that were present at #ESOFTrieste with a stand, participations and speakers. On September 4th the round table debate on "The marine litter problem: sources, dispersion and impacts" with Agenzia Regionale per la Protezione dell'Ambiente del Friuli Venezia Giulia - ARPA FVG, OGS Istituto Nazionale di Oceanografia e di Geofisica Sperimentale and other experts. According to ESOF press office 2500 people were registered of this more than 1000 people were involved on spot and 1400 people were involved online. 300 people participated in each event on line and did approximately 4300 virtual visits. The online communication and social network has been rated with the Facebook page of ESOF2020 for more

than a million people, with 26,000 interactions. There are 200,000 interactions on Twitter and 237,000 visits to the web site.





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UNIUD stand and representatives attending meeting and workshops on the topics of wastewater and the sea.





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CAFC; OGS, UNIUD; MUNICIPALITY OF UDINE representatives during workshops as speakers and as participants.

PP0 UNIVERSITY OF UDINE, PP1 MUNICIPALITY OF UDINE, PP3 CAF, PP4 POLITECHNIC UNIVERSITY OF MARCHE, PP5 INSTITUTE OF CRYSTALLOGRAPHY NATIONAL RESEARCH COUNCIL, PP6 MUNICIPALITY OF PESCARA, PP8 IZVOR PLOČE, PUBLIC INSTITUTION FOR PUBLIC UTILITIES CROATIA, PP9 SPLIT WATER AND SEWERAGE COMPANY LTD

Conferenza Nazionale sulla Pianificazione delle coste e dello spazio marino

24 SETTEMBRE GIOVEDÌ
9.00-11.00

Il Decreto sulla pianificazione dello spazio marittimo è teso a promuovere la crescita sostenibile delle economie marittime, lo sviluppo sostenibile delle zone marine e l'uso sostenibile delle risorse marine, assicurando la protezione dell'ambiente marino e costiero attraverso l'applicazione dell'approccio ecosistemico, tenendo conto delle interazioni terra-mare e del rafforzamento della cooperazione transfrontaliera, in conformità alle pertinenti disposizioni della Convenzione delle Nazioni Unite sul diritto del mare (UNCLOS), fatta a Montego Bay il 10 dicembre 1982 e ratificata con legge 2 dicembre 1994, n. 689. La pianificazione dello spazio marittimo è un processo mediante il quale vengono analizzate ed organizzate le attività umane nelle zone marine al fine di conseguire obiettivi ecologici, economici e sociali.

Moderano: **Andrea Zamarolo**, Coordinatore CS Coast, **Francesco Benedetti** Comitato Scientifico Coast
Indirizzi di salute e introduzione di tema
Stefano Vignaroli, Presidente Commissione Parlamentare di inchiesta sulle attività illecite connesse al ciclo dei rifiuti e sui illeciti ambientali ad esse correlati
Giuseppe Italiano, Direttore Generale, Direzione Generale per il mare e le coste del Ministero dell'ambiente

La Pianificazione delle coste e dello spazio marino
Prof: **Giuseppe Mastroruzzi**, Università degli Studi di Bari "Aldo Moro"
L'armonizzazione e la condivisione dei dati e delle informazioni per la gestione dello spazio marittimo in aree transfrontaliere e transnazionali
Marina Lipizer, Istituto Nazionale di Oceanografia e Geofisica Sperimentale OGS

Determinazione dei livelli di riferimento verticali durante la pianificazione delle opere portuali
Massimiliano Nannini, Erik D. Biscotti, Nunziante Longelotto, Istituto Idrografico della Marina

Le potenzialità delle opere di difesa nel campo della Blue Energy
Marco Bello, M.Chiaara Invernizzi, UNICAM

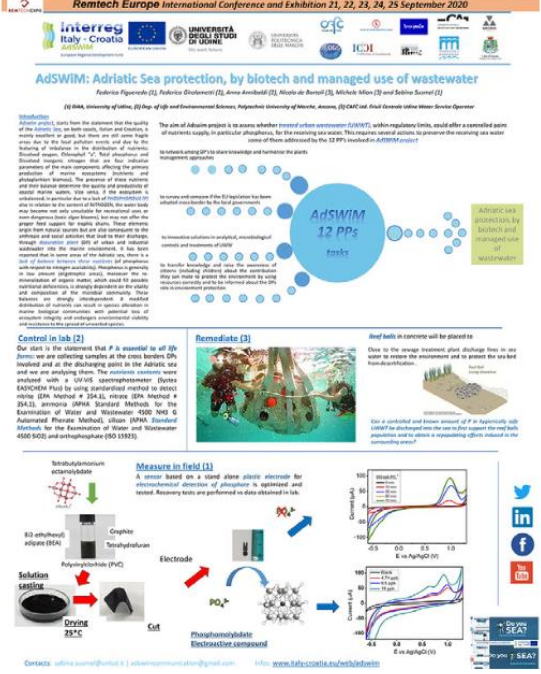
Inquinamento microbiologico e impatto sulla qualità delle acque di balneazione lungo la costa dell'Adriatico nord-orientale: analisi areole integrate nel periodo 2010-2018
Marco Ostoič, Enrico Cabras, ARPAV

Le acque di balneazione alla foce del Canale dei Ragni Loro: analisi statistica preliminare dei dati
Pasquale Luongo, Loredana Pascarella, Flavia Occhibove, **ARPAV Dipartimento di Caserta; **UK Centre for Ecology&Hydrology, Wallingford, OX

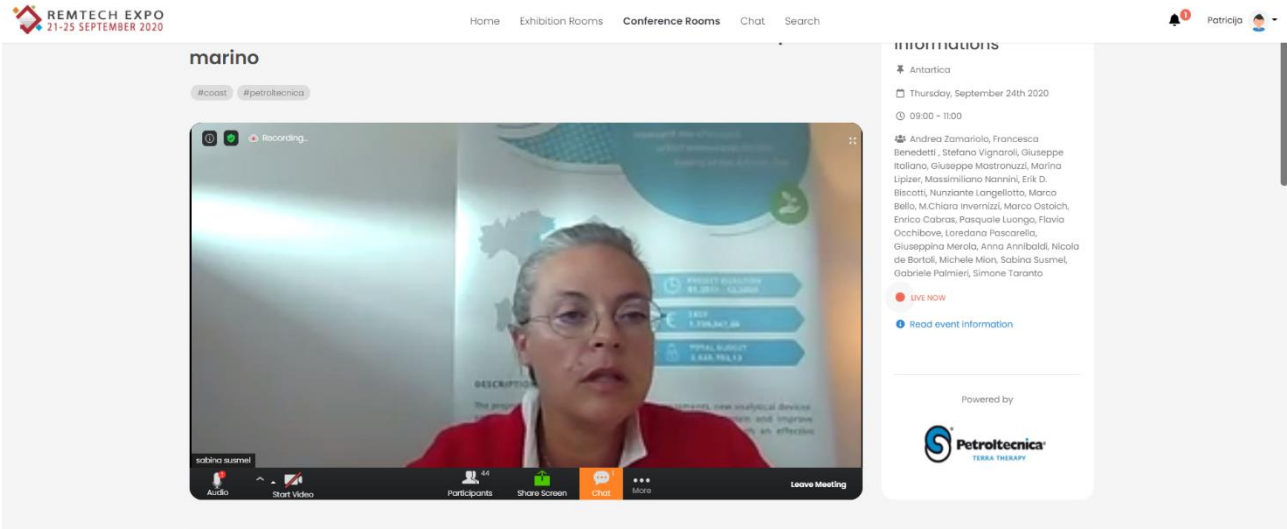
Adswim: Adriatic sea protection, by biotech and managed use of wastewater
Federico Figueredo (1), **Federico Girolametti** (2), **Anna Annibaldi** (2), **Nicola de Bortoli** (3), **Michele Mion** (3) and **Sabina Susmel** (1), (1), D14A-University of Udine-IT (2) Dep. of Life and Environmental Sciences, Università Politecnica delle Marche, Ancona, (IT) (3) CAF-C Sp.A. Gestore del Servizio Idrico Friuli Centrale-Udine

Intercettazione e cattura di plastiche, rifiuti galleggianti e idrocarburi a seguito di spill, in corsi d'acqua e laghi
Dr. **Gabriele Palmieri**, ing. **Simone Taranto**, Petrotecnica S.p.A.

Conclusioni

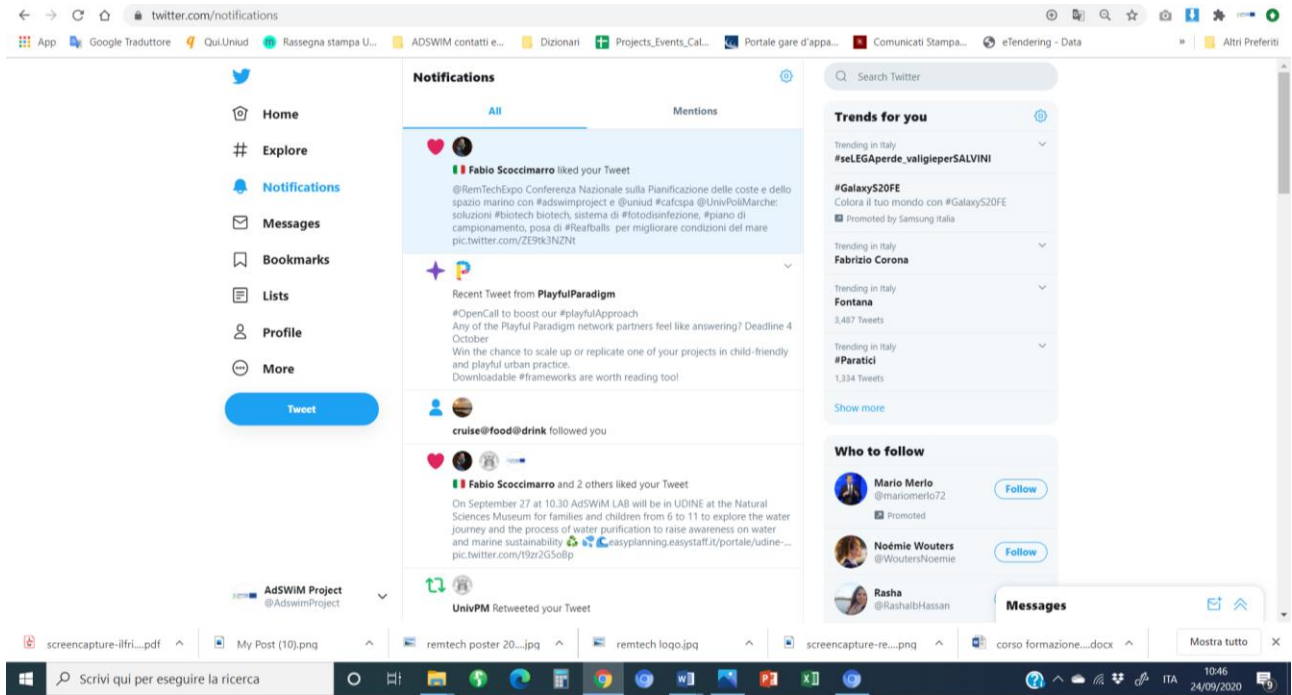



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On **September 24th, 2020** AdSwiM presented its activities at the National Conference on Coastal and Marine Space Planning (Conferenza Nazionale sulla Pianificazione delle coste e dello spazio marino) with Adswim researchers and technicians from Università degli Studi di Udine, Univpm Università Politecnica delle Marche, Dipartimento di Scienze della Vita e dell'Ambiente - Univpm and Cafcsa and RemTech Expo2020 digital edition. 44 people attended this Conference. The conference had 10.000 online visitors. On July 17, 2020 the partners submitted also an ad hoc poster elaborated for the occasion, that was presented during the Fair.

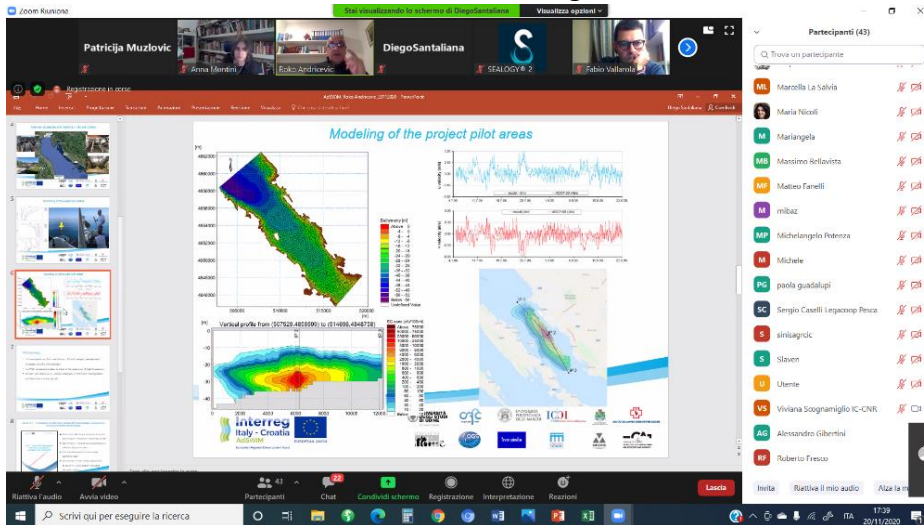
The councilor of the Environment of the FVG Region presented our work on twitter.:



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PP6 MUNICIPALITY OF PESCARA, PP11 FACULTY OF CIVIL ENGINEERING, ARCHITECTURE AND GEODESYUNIVERSITY OF SPLIT, PP0 University of Udine, PP1 Municipality of UDINE, PP8 IZVOR PLOČE, PUBLIC INSTITUTION FOR PUBLIC UTILITIES CROATIA, PP9 SPLIT WATER AND SEWERAGE COMPANY LTD

Sealogy event had several workshop and conferences – it was held locally in Italy, but it is considered and international event. One of the events, held on November, 20, 2020 was entitled SEALOGY - TRAINING ATELIER: Water management in the Port areas, bathing waters and marinas. -



The European Exhibition on Blue Economy in collaboration with ECOMAP project - INTERREG Italy-Croatia Program. Comune di Pescara and University of Split presented the project AdSWiM. 5520 persons globally attended




the SEALOGY event. 45 people max attended the conference. All other partners participated in the event.

PP9 SPLIT WATER AND SEWERAGE COMPANY LTD

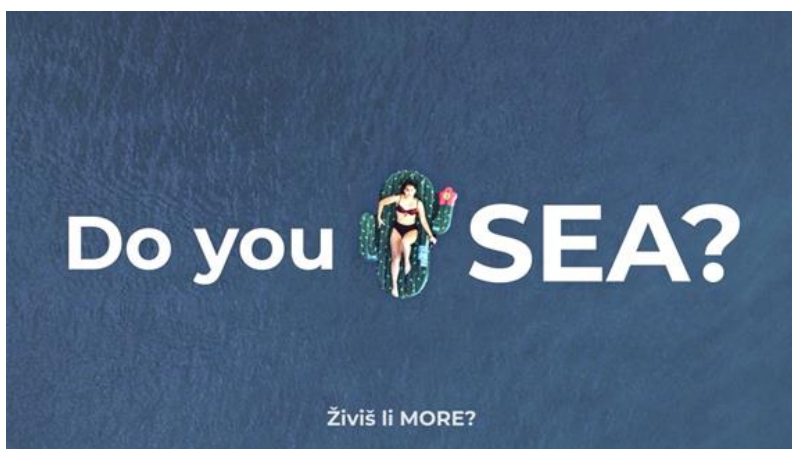
On **September 24, 2020** Vodovod i kanalizacija Split (Split Water and Sewerage Company), one of our project partners, within the boDEREC-CE project, organized a national workshop co-financed from the INTERREG Central Europe Transnational Cooperation Programme 2014-2020. The workshop hosted representatives of the water-oriented institutions in Solin (Split). During the workshop introduction, the AdSWiM project was briefly presented to the participants. They discussed on waterworks needs and possible benefits resulting from the projects' implementation. Our project is dealing with innovative technologies to improve the depuration plants and treated urban wastewater management and the quality of the Adriatic Sea, whereas the boDEREC-CE project is involved in monitoring and removal of Pollution from pharmaceuticals and personal care products (PPCPs) in water. Everything is connected so this is a good example of Interreg projects overlapping and collaboration that are related to a common territory. participants.



PP11 FACULTY OF CIVIL ENGINEERING, ARCHITECTURE AND GEODESY UNIVERSITY OF SPLIT

November 26, 2020.  FGAG - Fakultet građevinarstva, arhitekture i geodezije u Splitu participated in marking the [#European](#) Researchers'Night under the coordination of the [Sveučilište u Splitu - University of Split](#), University of Split. They have prepared a short zoom workshop for students of the Grammar School for Sustainable Development - School of Design, Graphics and Sustainable Construction in Split (Croatia). They have showcased the [#adswimproject](#) infographic video in english with croatian subtitles, presented up-to-date project activities and results and, primarily, acquainted the students with key areas/concepts of the project. A discussion with the students and a fun quiz have followed with promo and digital info material distribution

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PP4 POLITECHNIC UNIVERSITY OF MARCHE



Ocean Hackathon® - 48 ore per decodificare il mare
Maratona di 48 ore non-stop



Cosa è Ocean Hackathon®?

Il mare cela tra le sue onde moltissime sfide e domande irrisolte. Ocean Hackathon® vuole raccogliere e affrontarle in una maratona di 48 ore non-stop, durante la quale diverse squadre cercheranno di trovare soluzioni e risposte ai quesiti proposti, con il supporto di esperti del settore e con l'opportunità di usare dataset marini. Ecologia, scienza partecipata, educazione al mare, nautica, sport, sicurezza della navigazione, gestione delle risorse, inquinamento, turismo ecosostenibile, specie aliene e invasive, questi sono alcuni esempi dei temi che chiunque può proporre in una sfida, alla ricerca di un risultato o di una risposta. La sede di Ancona dell'Istituto per le risorse biologiche e le biotecnologie marine (Cnr-Irma), in collaborazione con l'Università Politecnica delle Marche, organizza dal 9 all'11 ottobre 2020 la quinta edizione dell'Ocean Hackathon per l'Italia, mettendo a disposizione infrastrutture, coordinamento e risorse scientifiche.

Registrazione e informazioni utili per la partecipazione

Per registrarsi è disponibile la pagina di iscrizione all'indirizzo: <https://site.evenium.net/kcheb8z/>

Le challenges sono visualizzabili alla pagina: https://www.campusmer.it/files/3567/OH5_CatalogueOfChallenges_2020_09_10.pdf

Documento che spiega tutto il funzionamento dell'evento: <https://docs.google.com/document/d/1k6eXV4YD-FutnodlUxXoOmIcHOBIkSRVH1H071zvB0/edit?usp=sharing>

Programma inaugurale dell'evento: [Inaugurazione Hackaton Ancona\(528 kB\)](#)

Dove e quando

Dal 09/10/2020 ore 14.30 al 11/10/2020 ore 16.00

The young scientists of PP4, participated with the Adswim project in the international 48 hours Ocean Hackathon event from **October 9 -10, 2020**. They presented the PP4 work in the project to the public.

All PARTNERS

On **November 10, 2020** a social campaign was done in occasion of the World Science Day.

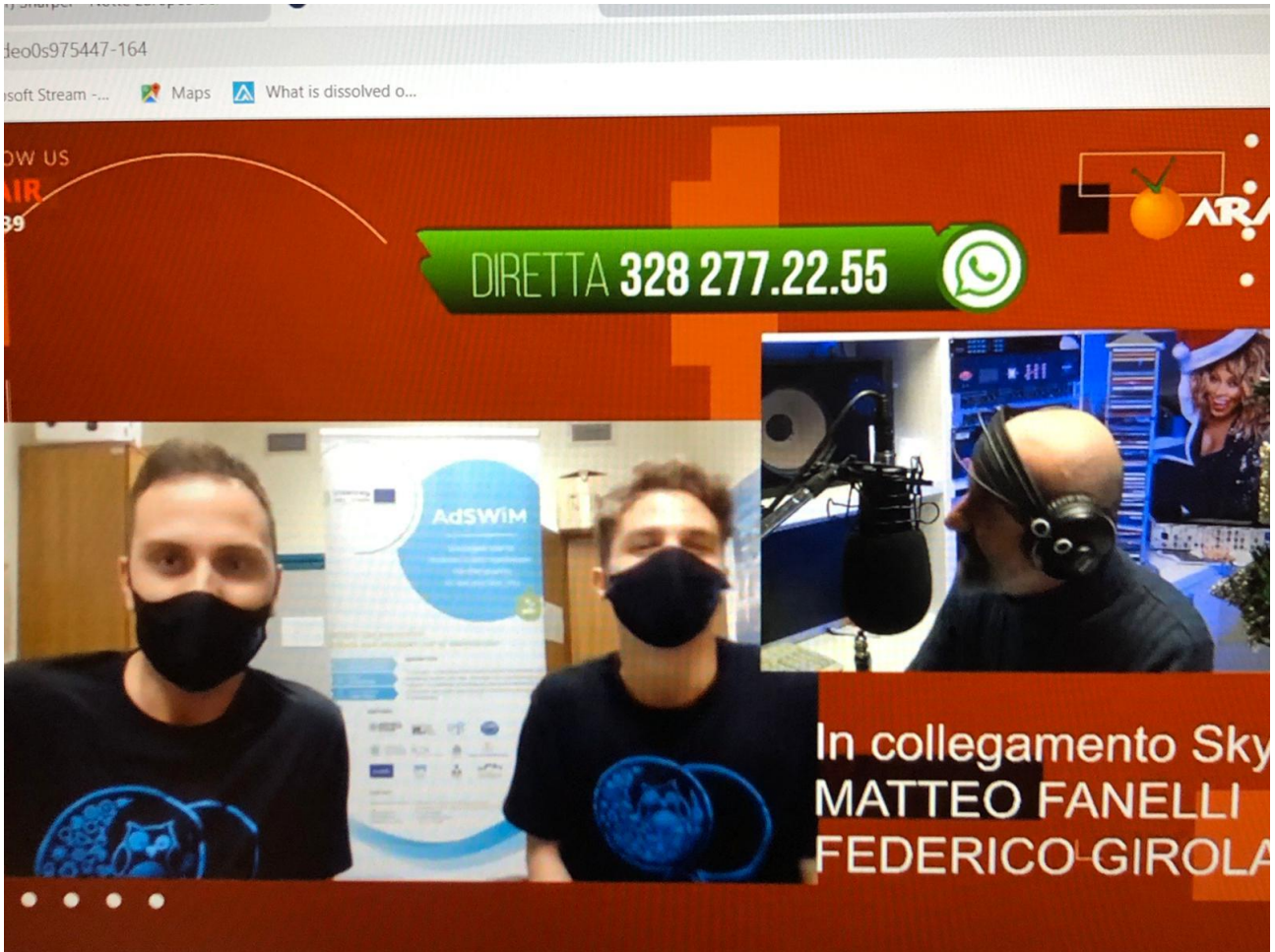


PP4 POLITECHNIC UNIVERSITY OF MARCHE

Several online events for the 2020 edition of the Sharpers' night –held on November 27, 2020.

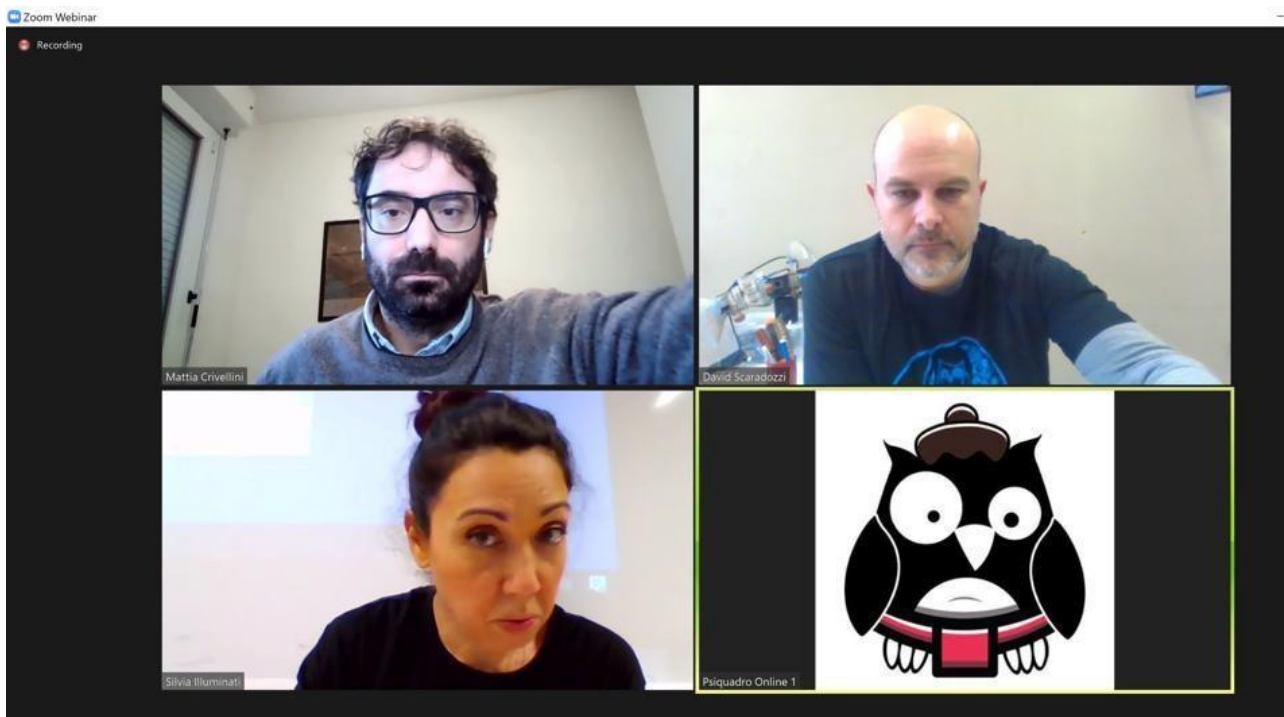
The [Univpm Università Politecnica delle Marche Dipartimento di Scienze della Vita e dell'Ambiente](#) - [Univpm #AdSWiM](#) researchers [#MatteoFanelli](#) and Federico Girolametti were on air in the afternoon on [Radio Arancia Television](#). Eight [#songs](#) that have made the history of music anticipated eight stories of research that see the Marche Polytechnic University as protagonist. Matteo (we have presented his [#seasampling](#) months ago) and Federico (we have presented his poster on Adswim as well). have chosen a theme song and they will briefly talk about the safeguarding of our sea and their "scientific vocation". Matteo and Federico Girolametti [TraCE Lab](#) ..from White Room used as a chemical laboratory, whose main feature is the presence of very pure air, i.e. very low content of micro particles of suspended dust that they use for the study of analysis of metals in the @Sea: these two researchers have found a perfect music match for the Sharper presentation: [#EricClapton](#) [#WhiteRoom](#) ...Beacuse [#adswimproject](#) is [#rock!](#) Sharper - [Notte Europea dei Ricercatori](#)

#ancona Radio Arancia Television From 4 to 5 pm live also on: <https://maratona.sharper-night.it/>
Sharper - Notte Europea dei Ricercatori



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Do you remember [#SilviaIlluminati](#) Environmental science researcher of [Dipartimento di Scienze della Vita e dell'Ambiente - Univpm Adswim Univpm](#) who held a training for teachers and a creative lab for schools on [#waterdeputation](#) and how to make water purifier in class to show how a DP works? Well, Silvia has participated in [#SumoScience](#) challenge during the [Sharper - Notte Europea dei Ricercatori](#)– Italian Researchers’Night. Sumo Science is a 5-round challenge with questions and answers. On the mat, two [#researchers](#) who work in different fields and they have to convince the students who participate about their science work!. And guess what? Silvia bet [#DavideScaradozzi](#) [#Robotics](#) engineering during their challenge! Sea and oceans 🌊🌊 against robotics 🤖🤖... what a match!!

PR5

All partners: PP1 Municipality of UDINE carried the presentation with the communication agency

January 26. The annual [#5thEUSAIRForumBelgrade](#), organized by the outgoing Serbian presidency, will be held on 28-29 January 2021. A session dedicated to ETC projects is scheduled for 28th January 13:40-14:30 called "30 years of Interreg - Good practice cooperation projects in the EUSAIR thematic pillars". [#Adswimproject](#) 🌐 has been identified as one of the relevant projects implemented by the [#ItalyCroatiaCBCprogramme](#) that has produced high quality video material, high level communication strategy and activities on different levels and that is at the same time in line with the EUSAIR pillars and with the flagships and will be presented at the Forum by the Italian delegation representative. Very proud for this achievement and looking

forward for new partnerships 🍌 [Università degli Studi di Udine](#) [Univpm](#) [Università Politecnica delle Marche](#) [Adswim](#) [Univpm](#) [Adswim](#) [Ic-Cnr](#) [Comune Di Udine](#) [Cambia Clima - Udine](#) [Zavod za javno zdravstvo Zadar](#) [FGAG - Fakultet građevinarstva, arhitekture i geodezije u Splitu](#) [Pescara Europa](#) [Ploce Vodovod i kanalizacija Split](#) [#cafcsipa](#) [#metrispula](#) [OGS Istituto Nazionale di Oceanografia e di Geofisica Sperimentale](#) For more info and agenda ➡ <https://www.adriatic-ionic.eu/.../5th-annual.../programme/>



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PP0 UNIVERSITY OF UDINE, PP5 INSTITUTE OF CRYSTALLOGRAPHY NATIONAL RESEARCH COUNCIL

As part of the DESIR project (Depositions for ElectroSpray Ionization and biosensoRi), a project financed pursuant to the LR13 / 08 CALL FOR "RESEARCH GROUPS" by Lazio Innova, a online workshop "New technologies for sensors and biosensors @ Research Area of Rome 1" was held on **February, 25, 2021**. IC CNR and Università degli Studi di Udine [presented an abstract](#) and their achievement on the development of innovative #biosensing solutions for the detection of pesticides, pathogens, and orthophosphates. The event also provided an opportunity to discuss the technologies developed, and evaluate possible applications / collaborations and market



**“Nuove tecnologie per sensori e biosensori
@ CNR- Area della Ricerca di Roma 1”
25 Febbraio 2021- [Virtual Event](#)**

Evento nell'ambito del Progetto
«Deposizioni per ElectroSpray Ionization e biosensoRi-
DESIR»
Bando «progetti di Gruppi di Ricerca» 2017-Legge13/2008-art4 Lazio Innova

TOPICS: Nuove tecnologie per la realizzazione di sensori e biosensori:

- Biosensori per diagnostica medica:** Identificazione di biomarcatori
- Biosensori per applicazioni ambientali:** monitoraggio delle acque
- Sensori per applicazioni ambientali:** monitoraggio della composizione dell'aria in ambienti di lavoro e ambienti museali, monitoraggio del radon

INTRODUZIONE
Dr. M. Smeriglio
Dr. G. Mancini, Presidente Area della Ricerca di Roma 1
Prof. A. Di Carlo, Direttore CNR-ISM
Dr. L. Avaldi, Coordinatore progetto DESIR CNR-ISM

Partecipa all'evento da computer-tablet-smartphone:
<https://global.gotomeeting.com/join/527846589>

Accedi tramite telefono:
+39 0 230 57 81 42
Codice accesso:527-846-589

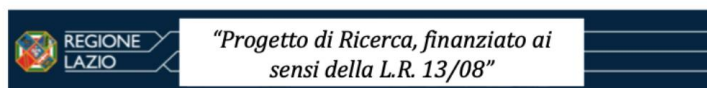
Website:
<http://www.pz.ism.cnr.it/desir/>
Info:
antonietta.parracino@mib.ism.cnr.it

INVITED SPEAKERS:
V. Scognamiglio (CNR-IC) [AD-SWIN](#) project
A. Maccagnano (CNR-IIA) [BRIC](#) project
D. Trucchi (CNR-ISM) [NMBP-Apache](#) project
C. Bombelli (CNR-ISB) [EU-Acquality](#) project
G. Ciotali (CNR-IGAG) [Life-RESPIRE](#) project
M.A. Parracino (CNR-ISM) [Sensocard](#) project
PMI : [Microsis Srl](#), [SENSE4MED Srl](#), [Biosensor Srl](#)

Partner del progetto
CNR-ISM, CNR-IGAG, CNR-IIA, Lazio Innova, Regione Lazio, Ministero della Sanità, Ministero dell'Università e della Ricerca, Università degli Studi di Udine

Collaboratori del progetto
ICCI, IAG, IRI

opportunities together with innovative SMEs in the area and make a small contribution to building a more sustainable planet. The presentations will be interspersed with “Meet the speakers” sessions where participants can ask questions to the speakers.



Workshop “Nuove tecnologie per sensori e biosensori @ Area della Ricerca di Roma 1”
Evento conclusivo progetto DESIR
 Bando “Progetti di Gruppi di Ricerca” 2017
 Lazio Innova

Agenda	Speaker		Time
Welcome	L. Avaldi Project Coordinator		9:00-9:05
Opening	On. M. Smeriglio, Dr.G. Mancini, Prof. A. Di Carlo		9:05-9:30
<i>DESIR Project: Principal results</i>	Speakers L.Avaldi, P. Bolognesi, A.R. Casavola,A. Cartoni, M Castrovilli		9:30-10:30
Topic1: Diagnostica medicale	PMI Microsis	R. Antonucci	10:30-11.15
	Progetto Sensocard	M. Parracino	
	PMI Sens4Med	F. Arduini	
Time for discussion: Meet the speakers 10:45– 11.15			
Topic2: Diagnostica ambientale	Progetto AD-SWIM	V.Scognamiglio	11:15-12:00
	PMI Biosensor	G. Varani	
	Progetto BRIC	A. Maccagnano	
Time for discussion: Meet the speakers 12:00-12:15			
Topic2: Diagnostica ambientale	Progetto NMP-APACHE	D. Trucchi	12:15-13:00
	Progetto AQUALITY	C. Bombelli	
	Progetto Life-RESPIRE	G. Ciotoli	
Time for discussion: Meet the speakers 13:00-13:15			
Conclusive remarks 13:15-13:30			

Partecipa all'evento da computer-tablet- smartphone:

<https://global.gotomeeting.com/join/527846589>

Accedi tramite telefono:

+39 0 230 57 81 42

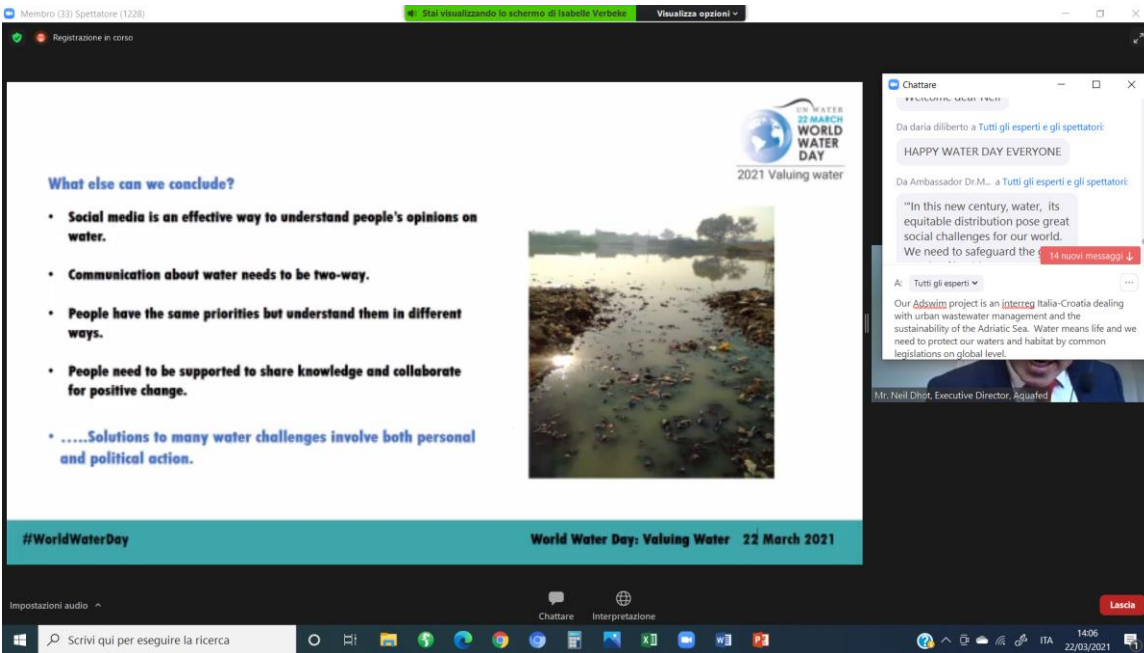
Codice accesso: 527-846-589



PP3 CAF, PP9 SPLIT WATER AND SEWERAGE COMPANY LTD, PP11 FACULTY OF CIVIL ENGINEERING, ARCHITECTURE AND GEODESY UNIVERSITY OF SPLIT, UNIVERSITY OF UDINE, PP1 MUNICIPALITY OF UDINE, PP4 POLITECHNIC UNIVERSITY OF MARCHE and all partners as participants

On March 22, 2021 we celebrated the International Water Day “Water means life” and for our [#Adswimproject](#) network means also keeping our seas clean by improving [#wastewatermanagement](#) thanks to innovative sustainable technologies and by finding and adopting common legislative and administrative guidelines a shared water safety plan between countries. All partners joined in and celebration [#worldwaterday2021](#) with several activities to celebrate the day: we participated in the international UE Campaign and to the UE webinar 2021 [Valuing water](#).

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Most partners were involved in the school labs and in the didactic module program and a special lesson was done for the Day online from the labs of the PP4. A social campaign was done with the participations



of local administrative stakeholders, here PP1 Municipality of Udine councilor:



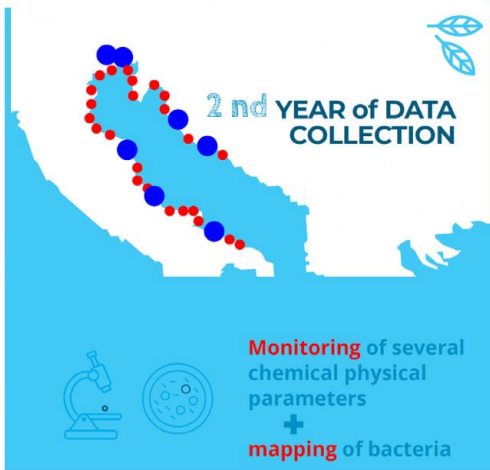
CWC project partners Vodovod i kanalizacija d.o.o. Split and Public Institution RERA S.D. jointly celebrated World Water Day 2021 with the aim of advocating for the importance of this valuable resource and raising awareness of sustainable development. A public consultation workshop was held at the Faculty of Civil Engineering, Architecture and Geodesy to inform students about this topic and instruct them on what they can do to better protect this vital resource. Assistant Professor dr.sc. Ivo Andrić presented the CWC project and the results of the pilot action "Smart measurement of water consumption in real time", installed at the Faculty of Civil Engineering, Architecture and Geodesy in Split. After the presentation, students solved the quiz via a QR code with questions about water efficiency, gray water and rainwater. PP9 also launched on line their 15 min guided tour to DP Stupe video.

Many partners participated on the online event on LINKED on wastewater management.

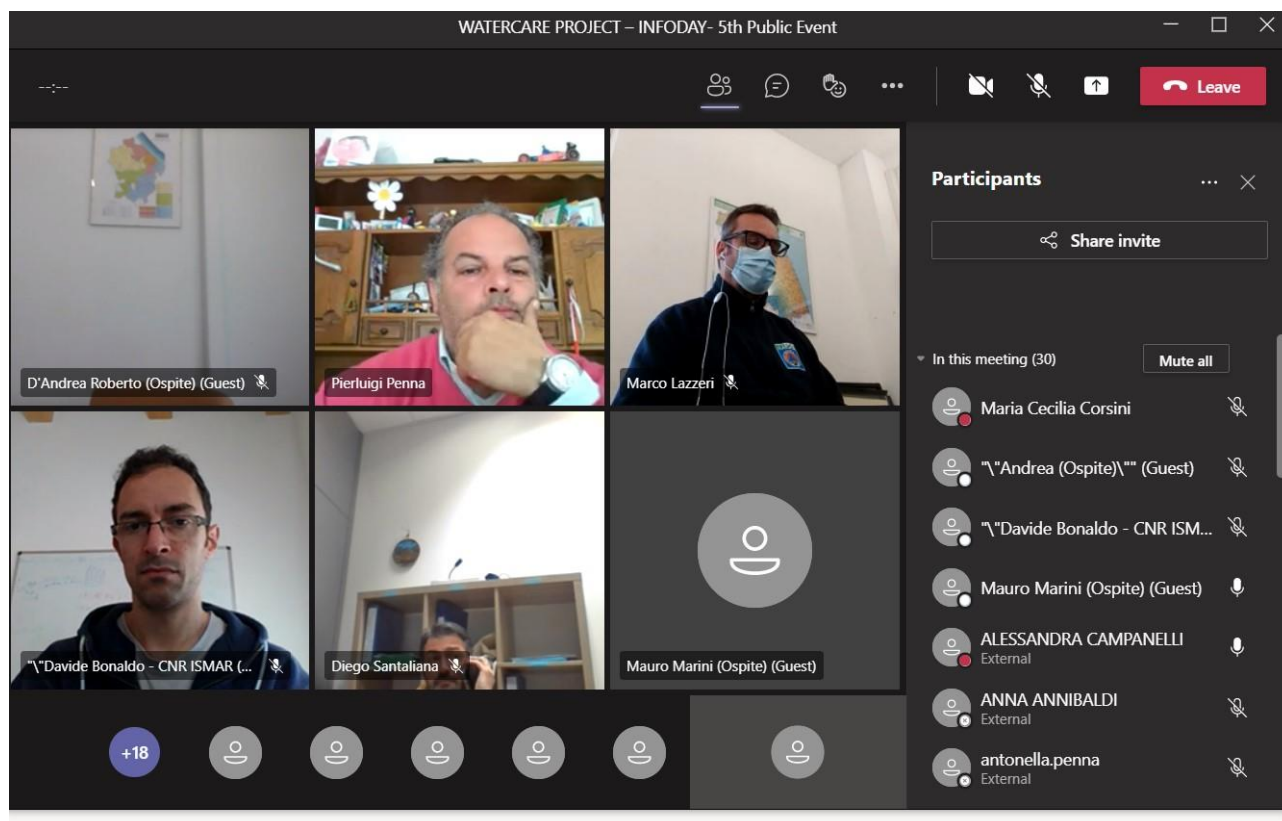
A joint press release was done in all three languages and is on the project website.

All partners

All partners organized and participated the World Health Day on April,7, 2021 with a common social campaign.



PP0 University of Udine, PP1 Municipality of Udine; PP6 MUNICIPALITY OF PESCARA, , PP10 Metris; PP4 POLITECHNIC UNIVERSITY OF MARCHE, PP11 FACULTY OF CIVIL ENGINEERING, ARCHITECTURE AND GEODESYUNIVERSITY OF SPLIT



Info-day WATERCARE project: 5th public event **April 14th, 2021.**

PP0 University of UDINE and PP3 CAFC

22 April 2021 > Two men, a woman and a boat on Adriatic! This could be our today's title to celebrate the [#EarthDay](#). Adswim partners from [CAFCItD](#). and project manager of [Università degli Studi di Udine](#) have been busy today with the laying of reef balls along the coast near [#LignanoSabbia](#) ([#Italy](#)) next to the Depuration Plant. The theme for [#EarthDay2021](#) is "Restore Our Earth", which focuses on natural processes, emerging green technologies, and innovative thinking that can restore the world's ecosystems. In this way, the theme rejects the notion that mitigation or adaptation are the only ways to address climate change. Today's CAFC activity is part of the Adswim interventions in order to improve the sustainability of the [#Adriatic](#) and the coastal areas and is an innovative way to restore Adriatic ecosystem. A [ReefBall](#) allows to counter the voracity of the sea through an eco-friendly solution and it is an artificial fish restocking barrier.

1737 persons reached on FB!

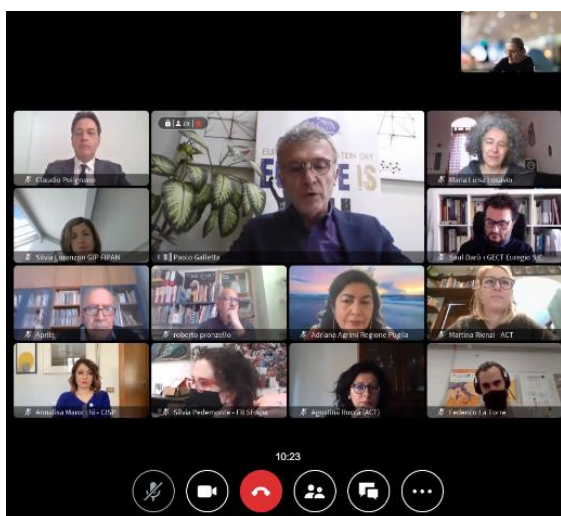
[WEB ARTICLE](#)

PP1 Municipality of Udine

May, 6th 2021: "Comunicare Interreg" event organized by the Italian Agency for Territorial Cohesion and the Puglia Region, as a good practice of the Italy-Croatia interreg program 🌍 in line with "[#Europe](#) closer to citizens" with our activities that protect and improve the urban environment, educate and inform citizens, in order to achieve local and global [#sustainability](#).

[Patricija Muzlovic presented the Adswim Communication work.](#) Almost 500 people saw the event online on youtube.

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ALL partners

To celebrate the WorldOceansDay, on June, 8, 2021 a social campaign was done promoting a special appointment online at 16.30 for teachers and pupils of the elementary schools, thanks to the researchers and professionals that held online the Adswim training module for teachers from January till April, 2021. This webinar was the final event of the training module, developed through 8 online lessons and workshops thanks to all Adswim partners that were involved with the module. More than 51 teachers and 500 pupils have been involved in the module. During the event the teachers, who participated in the training programme, will have the possibility to present their lab work realised in classes with pupils during the period from April till June. Most of them have in fact created an infographic, a didactic tool that can be easily used in class and that is suitable for visual learning.

WEB ARTICLE

PP9 METRIS

The partner presented the AdSWiM project during the international Asteris final event on **June 11, 2021**.




ASTERIS Final Event Pula
Istrian University of Applied Sciences
11th June 2021
Circolo, Pula

AGENDA	
09:30 – 10:00	Registration
10:00 – 10:10	Welcome speech <i>Daglas Koraca, Dean of the Istrian University of Applied Sciences</i>
10:10 - 10:25	Project overview, activities and results <i>Simone Galeotti, LP, University of Urbino Carlo Bo</i>
10:25 – 10:40	Risks of salt intrusion related to climate scenarios <i>Gaia Galassi, University of Urbino Carlo Bo</i>
10:40 – 10:50	Communication activities <i>Andrea Vareško, Istrian University of Applied Sciences</i>
10:50 – 11:05	Identifying needs and barriers in coastal aquifer management, case study Neretva Delta <i>Monika Zovko, IACR-Split, Hrvatske vode</i>
11:05 – 11:25	Modeling and dynamics of coastal aquifers: the Ravenna and Fano (Adriatic Sea, Italy) case studies <i>Barbara Nisi & Matia Menichini, IGG-CNR</i>
11:25 – 11:40	Planning the adaptation <i>Italian partners on Asteris project Fano and Ravenna</i>
11:40 - 11:55	Presentation of the INTERREG IT-HR project "Watercare" <i>Vedrana Špada, Istrian University of Applied Sciences</i>
11:55 – 12:10	Presentation of the INTERREG IT-HR project "AdSWiM" <i>Josipa Bilić, Istrian University of Applied Sciences</i>
12:10 – 12:40	Debate
12:40 – 12:50	Conclusion
12:50 -	Light lunch

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PP4 POLITECHNIC UNIVERSITY OF MARCHE

June 18, 2021. The 17th Italian-Hungarian Symposium on [#Spectrochemistry](#) was held in Torino, Italy. [Univpm Università Politecnica delle Marche](#) has actively participated through the presentation of various scientific contributions on the topic of [#environment](#) and [#pollution](#) 🧑🏫🧑🏫
🌐 Two posters in collaboration with the adswim partners [Università degli Studi di Udine Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS](#) and [#CAFC](#) were realised presenting the last results on [#eutrophication](#) and dissolved potentially toxic elements in relation to the DPs outflows in the Northern Adriatic.



IMPACT OF DEPURATION PLANTS ON NUTRIENTS LEVELS IN NORTH ADRIATIC SEA

Matteo Fanelli¹, Cristina Truzzi¹, Silvia Illuminati¹, Federico Girolametti¹, Flavio Vagnoni¹, Sabina Susmel², Mauro Celussi³, Michele Mion⁴, Nicola De Bortoli⁴, Claudio Franci⁵, Anna Annibaldi¹

¹ Department of Life and Environmental Sciences, Università Politecnica delle Marche, Via Brecce Bianche, 60131 Ancona, Italy
² Department of Agricultural, Food, Environmental and Animal Sciences (Di4A), University of Udine, Via delle Scienze 208, 33100 Udine, Italy
³ National Institute of Oceanography and Experimental Geophysics (OGS), Department of Biological Oceanography (BIO), via A. Piccard, 54; I-34014 Trieste, Italy
⁴ Cefè S.p.a., Viale Palmanova, 192, 33100 Udine, Italy
⁵ BIO-RES - BIOLOGICAL RESEARCHES SOC. COOP., Via G. B. Maddalena, 5, 33040 Povoletto UD, Italy

INTRODUCTION

Eutrophication

MSFD – Descriptor n°5: “Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters”

Main nutrients inputs

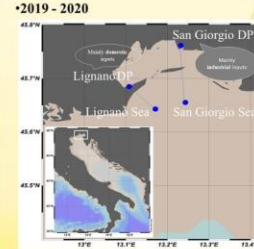
- rivers-runoff;
- wastewaters outflows

MATERIALS AND METHODS

Where & When

• Bathing season (April – October)

• 2019 - 2020




• 2 Sea Sites (-15m, next to DP discharge point)
 • 2 DP sites, after depuration treatment

What

Nitrite N-NO₂
 Nitrate N-NO₃
 Ammonia N-NH₃
 Si Silicon Si-SiO₂
 P Orthophosphate P-PO₄ (P-DIP, P-Plut)

How

- Filtration 0.45µm in place
- Clean room analysis between 18 hours from thawing



RESULTS & DISCUSSION

General results

mg/L	P-PO ₄	P-DIP	N-NO ₂	N-NO ₃	N-NH ₃	Si-SiO ₂
DP average (2019)	0.197	2.417	0.129	1.766	0.014	0.834
Sea average	0.025	0.240	0.007	1.167	2.47	5.804
DP average (2020)	0.895	0.661	0.155	2.655	0.235	4.068
Sea average	0.125	2.441	0.044	1.830	0.085	1.2
DP average	0.707	0.576	0.153	0.003	7.056	0.02
Sea average	1.989	1.609	2.833	-1.00	0.012	0.041
DP average	0.053	0.082	0.005	0.008	0.011	0.004
Sea average	0.065	0.007	0.007	0.029	0.004	0.132
DP average	0.041	0.093	0.004	0.009	0.002	0.008
Sea average	0.063	0.007	0.005	0.022	0.045	0.007
DP average	0.114	0.301	0.045	0.007	0.072	0.114
Sea average	0.063	0.007	0.005	0.022	0.045	0.181

3 Directives aims to reduce N-P loads:

- Nitrates directive (1991)
- Urban wastewater treatment (1991)
- Water Framework Directive (2000/60/CE)

Strong dilution effect of the water body from DP to sea (nutrient-type specific)
 Except few data, all results are highly below the legal limits (D.Lgs. 152/06)
 No differences between the Sea sites

Trends comparison for DPs and Sea, shows a correspondence in increments and decrements for Silicon, Ammonia and in part for Phosphorous.

The DPs outflow composition is different due to the different typology of wastewaters inputs (mostly domestic or industrial) in the DPs.

An increment on N-NH₃ levels were found both in DPs and Sea sites, probably ascribed to a different typology of wastewaters inputs due to the lockdown induced by the pandemic.

Sea nutrients levels, in corispondance of the DP discharge point, resulted not harmful for the marine environment.

Dissolved Phosphorous distribution

DP average: 31% DIP, 69% DOP
 Sea average: 89% DIP, 11% DOP

Passing from DP to Sea the P main fraction in respect to Plot is the opposite

Dissolved Inorganic Nitrogen distribution

2019: 94% N-NO₃, 5% N-NO₂, 1% N-NH₃
 2020: 81% N-NO₃, 17% N-NO₂, 2% N-NH₃

Lignano DP: 43% N-NO₃, 52% N-NO₂, 5% N-NH₃
 San Giorgio DP: 88% N-NO₃, 11% N-NO₂, 1% N-NH₃


Sea average: 42% N-NO₃, 48% N-NO₂, 10% N-NH₃


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Do you SEA?


Dissolved Potentially Toxic Elements (PTEs) in relation to depuration plants outflows in northern Adriatic coastal waters: a two years monitoring survey

F. Girolametti, C. Truzzi, S. Illuminati, M. Fanelli, F. Vagnoni, S. Susmel, M. Celussi, J. Šangulin, M. Mion, N. De Bortoli, C. Franci, A. Annibaldi










SCIENZE DISVA - DIPARTIMENTO DI SCIENZE DELLA VITA E DELL'AMBIENTE



European Regional Development Fund

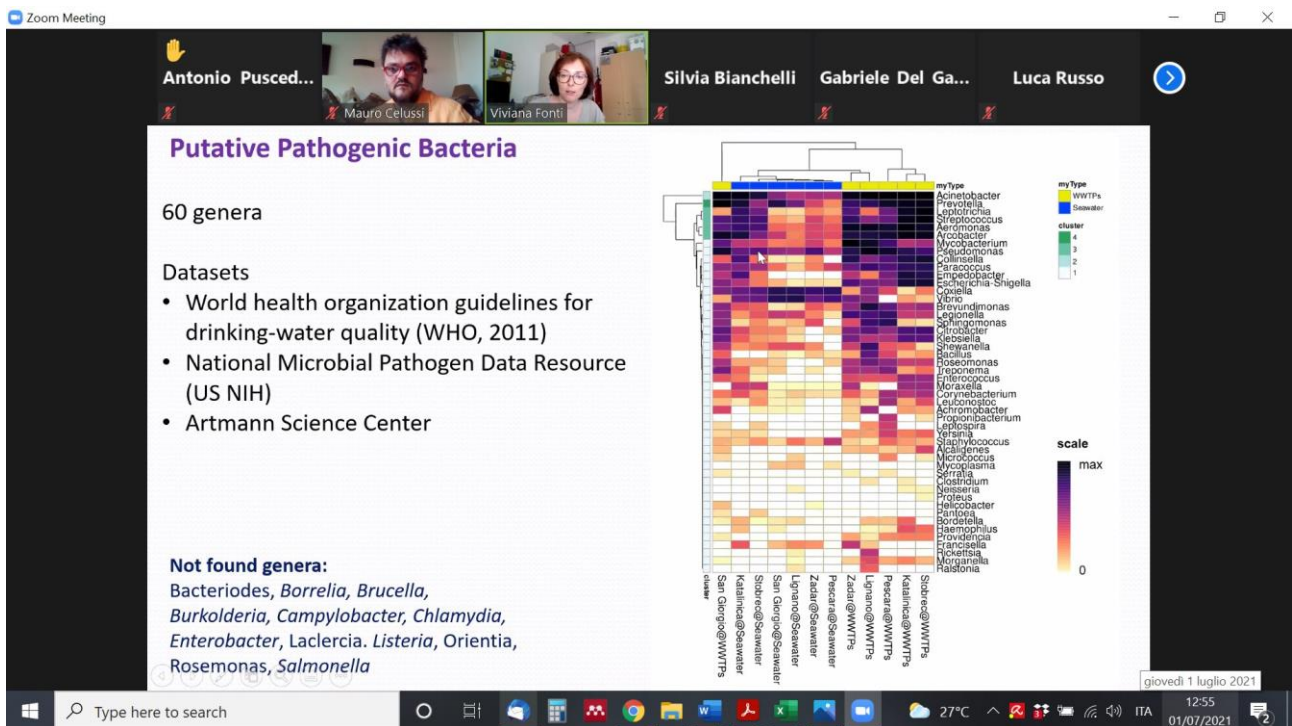
www.italy-croatia.eu/adswim

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PP3 OGS

July 1. 🌍 Our partner's, the [Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS](#) researcher Mauro Celussi, moderated today the session entitled "New prospects in integrated [#marine #ecology](#): from [#biodiversity](#) to ecosystem services" at the 25th [#AIOLCongress](#) that takes place online between 30 June and 2 July 2021. He also presented the research entitled "Microbial [#pollution](#) and antimicrobial resistance associated with urban wastewaters treatment plants in the [#AdriaticSea](#)" as part of the Adswim project results with Viviana Fonti, Andrea Di Cesare, Paola Del Negro. The AIOL Congress has represented for almost 50 years a unique opportunity for debate and interdisciplinary discussion on topics concerning the oceanographic sciences e limnological. Well done, Mauro!

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PR6

PP3 CAFC

July 8. 2021: To celebrate the International Day of the Mediterranean Sea 🌊, the Adswim's project presents the complete video with the partners' interviews and the reef balls placement 🐠 done next to the Lignano coast in Italy. The reef balls placement was one of the project objective to help to protect the sea environment that is physiologically quite arid, as the seabed of our coasts are sandy and due to the coastal erosion, the sea habitat and marine ecosystem are in danger.

The reef balls placement was completed on June 8, on the International Ocean's day, thanks to the collaboration with Reef Ball Italia, when also the video's teaser was put on our YouTube channel. One month later, the celebration of the Mediterranean Sea, it seems to us a good opportunity to present and to show for the first time the complete video realised by [#CAFC](#) from [#Udine](#), [Università degli Studi di Udine](#) and [Comune Di Udine](#) (Municipality of Udine) and in this way raise awareness of the health of the Mare Nostrum and the dangers that threaten it. [#DoyouSea?](#) Because the [#sea](#) matters.

Bioanalitica 2021 | Electrochemical Sensors

POM/PMO-decorated Plastic Electrode for the Sensitive Detection of Phosphate in Oligotrophic Seawaters

[Sondes Ben Aissa](#), [Anna Annibaldi](#), [Sabina Susmel](#).

Online Conference | 13 July 2021

www.italy-croatia.eu/adswim
European Regional Development Fund

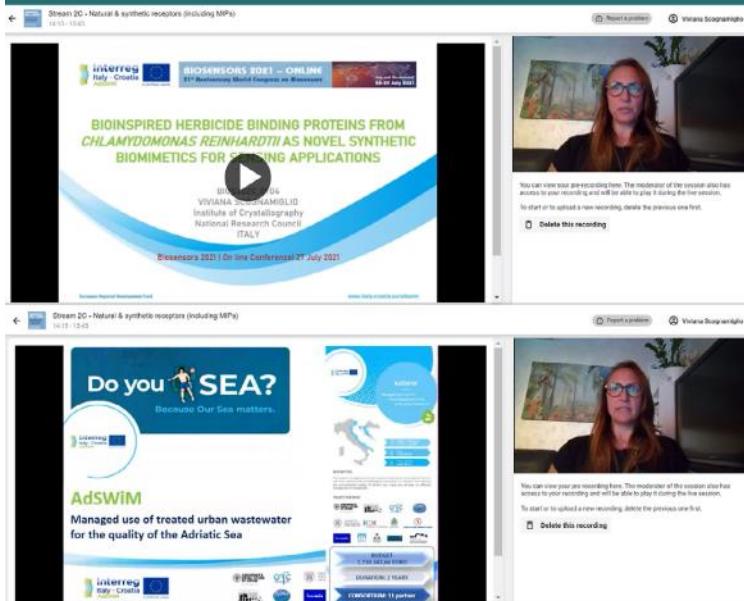


July, 13, 2021. New scientific contribution from our partners [Università degli Studi di Udine](#) and [Univpm Università Politecnica delle Marche](#) [TrACE Lab](#) related to the technological innovations and [#wasterwater](#) management. Great STEM [adswim women](#), keep going! [#electrochemical](#) [#sensors](#)



[#giornatabioanalitica2021](#)

conference: Bioanalytical chemistry for well-being: environment, health and nutrition.

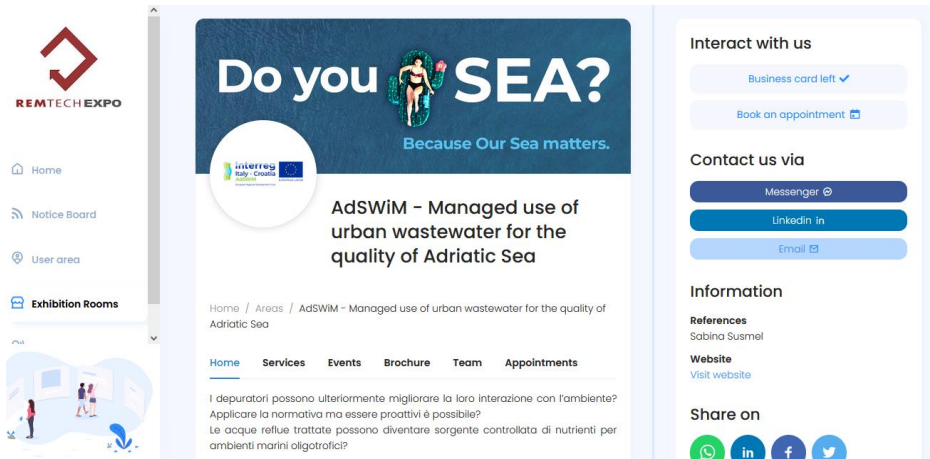


PP5 – IC CNR

July 27. [Dr. Viviana Scognamiglio, PhD](#) from our Italian partner IC -CNR- [Institute of Crystallography, National Research Council – CNR](#) (PP5) presented the Adswim research work and project partial results during the International Biosensors Conference 2021.

ALL PARTNERS

September 24, 2021.: Adswimproject was present on RemTech Expo Ferrara Fiere by organising and participating in a special European conference on wastewater and with a virtual stand/room.



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Interreg Italy - Croatia AdSWiM  **REMTECH Europe**

SESSION 23
Wastewater control and seawater quality: it is possible to do it acting differently?
24 SEPTEMBER FRIDAY
14.30 – 19.00 CEST (Central European Summer Time)

Opening
14:30 Welcome from AdSWiM and Remtech Europe
Sabina Susmel (Università degli Studi Udine_AdSWiM project) Marco Falconi (ISPRA, Remtech Europe)

14:45 Welcome from the chairs
Sabina Susmel (Università degli Studi Udine_AdSWiM project) Marvin Unger (SERDP-ESTCP, Remtech Europe)

Presentations
15:00 Biosensors for environmental analysis: Trends and perspectives
Dr. Ilaria Palchetti Università degli Studi Firenze

15:45 Algae based biosensors and total toxicity
Dr. Viviana Scognamiglio (IC-CNR-Rome_AdSWiM project)

16.15 *Coffee break*

16.30 Molecular tools for new insights into the microbiology of treated sewage and consequences on coastal seawaters
Dr. Viviana Fonti (OGS-Trieste_AdSWiM project)

17.00 Depuration plant, Wastewater and Adriatic Sea: experiences in Interreg IT-HR projects (VIK/PHI-Zadar/CAFC/ACA)
Ing. Božidar Čapalija, Dr. Jadranka Šangulin, Ing. Nicola De Bortoli, Ing. Giovanna Brandelli (AdSWiM-Watercare)

17:45 Intervention of the participant suggestions on analytes of interest and / or emerging problems

18.15 Conclusions

19:00 End of the session

PP1 MUNICIPALITY of UDINE and PP7 INSTITUTE OF PUBLIC HEALTH ZADAR CROATIA



September 23. [Project Watercare](#) joint event with [Comune Di Udine](#) and [Zavod za javno zdravstvo Zadar](#) as Adswim representative that presented the project results.

PP 4- UNIVPM (check also local events and lab) This is a shared event.

Sharper's night with the researchers of Polytechnic University of Marche in Ancona on September 24, 2021 in Ancona. They organised a **demonstration laboratory on the functioning of a Depuration Plant (DP)** and on the depuration process of the wastewater to the general public. The proposed activity aimed to enhance the importance of the sea as a source of resources and biodiversity. In particular, attention is focused on anthropogenic pollution and on the importance of an efficient purification system for all those urban or industrial discharges that have the sea as their last recipient. A lot of curious citizens, family with children gathered around the Adswim stand and they were satisfied to participate to the lab and received the educational AdSWiM kits (bags, leaflets, pencils).

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PP9 - VIK Split Water and Sewerage (check also local events and lab)

Our Project AdSWiM was presented at a National policy roundtable which gathered 22 key stakeholders that are co-creating the legal and policy framework in Croatia. The roundtable was organized on Thursday, 7th of October 2021 at the Dioklecijan Hotel & Residence, Split by PP9 (Split Water and Sewerage Ltd.) within Project City Water Circles - CWC (co-financed through the Transnational cooperation program INTERREG Central Europe 2014.-2020.),

Boris Bulović, Project Manager of Vodovoda i kanalizacije d.o.o. Split provided participants with interesting information about the AdSWiM project, its main objectives, and results. The main goal of the CWC roundtable was to develop a dialogue regarding the country's national frameworks and the developed national level policy recommendations. Moreover, a creative debate and brainstorming session was encouraged in order to underline the key data and stimulate further sustainable development. More about Adswim: <https://lnkd.in/dpzVnyQy>



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All partners

October 11, 2021. [#internationalgirlday](#). "[#Girls](#)are leaders. Girls are [#changemakers2021](#) . Girls are driving good and growth around the world. They are a fundamental source of transformational change for gender equality, and technology is a crucial tool to support their work, activism and leadership." The Adswim project foresees the engagement of staff complying with the gender equality and all our activities, in particular education activities are based on the horizontal principles. We are supporting equal access to the internet and digital devices for girls' and targeted investments to facilitate opportunities for girls' to safely and meaningfully access, use, lead and design technology. The Adswim Team: [Università degli Studi di Udine](#), [COMUNE DI UDINE](#), [Università](#)

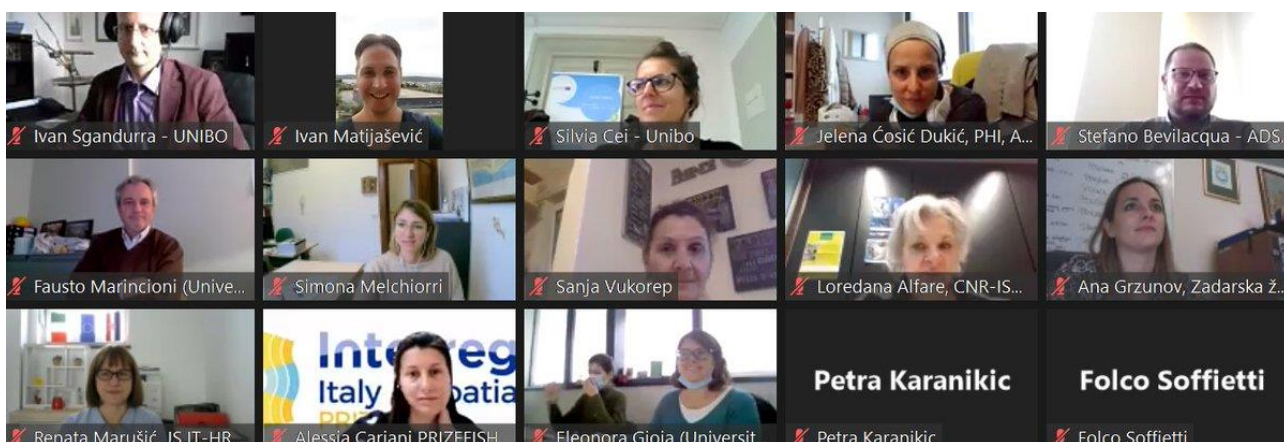
[Politecnica delle Marche](#), [Ic-Cnr](#) [Consiglio Nazionale delle Ricerche](#), [Comune Di Pescara](#)



[a](#), [Zavod za javno zdravstvo Zadar](#), [Vodovod i kanalizacija Split](#), [IZVOR PLOČE doo](#), [CAFC S.p.A.](#), [Istarsko Veleučilište](#) - [Università Istriana di scienze applicate](#), [FGAG](#) - Fakultet građevinarstva, arhitekture i geodezije u Splitu, [OGS](#) [#interreg](#) [#italy](#) [#croatia](#).

PP8 IZVOR PLOČE

On November 9, 2021, a [joint workshop of TSG3 and TSG1 was organised](#) with the focus on the state of the art and further enhancement and recognition of **marine protected areas (MPA)** and spatial planning at sea and river basins in EUSAIR region. The speakers (Albania - Josip Njavro, Bosna and Herzegovina & Croatia - Christina Pavloudi, Hellenic Centre for Marine Research, Greece - Francesco Musco, IUAV University of Venice, Italy - Ivana Stojanović, Directorate for Integrated Management of Marine and Terrestrial Ecosystems, Montenegro - Nataša Bratina, Ministry of Spatial Panning, Slovenia) presented good practices



and analysis already done in EUSAIR area and that was further reinforced with the analysis of the legal basis in establishing MPA's.

PP4 UNIVPM

The Adswim Project, EU Interreg Italy Croatia funded project, that counteracts marine [#water](#) pollution improving the quality of the [#sea](#) and coastal waters with innovative technologies in quality monitoring, treatment, and management of urban wastewater will be present at Sealogy, The European [#BlueEconomy](#) Exhibition 2021 thanks to the partner [Univpm Università Politecnica delle Marche Adswim Univpm](#), Polytechnic University of Marche (UNIVPM - DISVA).



PP9 - VIK Split Water and Sewerage (check also local events and lab)

Our Project AdSWiM was presented at the 5th Stakeholder Group meeting which gathered various key stakeholders and external experts working on the Project. The meeting was organized within the Project City Water Circles - CWC (co-financed through the Transnational cooperation program INTERREG Central Europe 2014.-2020.) by Split Water and Sewerage Ltd., one of the Croatian AdSWiM Partners (PP9) that held the meeting in blended edition. The participants were provided with interesting information about the Project AdSWiM, its main objectives, and results. The main goal of the CWC Stakeholder Group meeting was to develop a dialogue regarding water efficiency and reuse, as well as showcasing the pilot project results and future actions. Moreover, a creative debate and brainstorming session with a panel of experts was encouraged in order to underline the key data and stimulate further sustainable development.

Split Water and Sewerage Company Ltd. (VIK Split) provides water supply and waste water treatment services to Split-Solin and Kaštela-Trogir conurbations and covers the area of four cities and nine municipalities in Split-Dalmatia County. VIK as project partner N°9 (PP9) is involved in the ongoing project management, communication and dissemination activities, as well as study of seawater quality in cooperation with Faculty of Civil Engineering, Architecture, and Geodesy of University of Split (PP11).

