

# End of project conference in Rijeka

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Event's Report



ISTITUTO DI INGEGNERIA DEL MARE  
INSTITUTE OF MARINE ENGINEERING

<b>Project Acronym</b>	SOUNDSCAPE
<b>Project ID Number</b>	10043643
<b>Project Title</b>	Soundscapes in the north Adriatic Sea and their impact on marine biological resources
<b>Priority Axis</b>	3
<b>Specific Objective</b>	3.2
<b>Work Package Number</b>	2
<b>Work Package Title</b>	Communication activities
<b>Activity Number</b>	2.7
<b>Activity Title</b>	Final Event
<b>Partner in Charge</b>	TIPH
<b>Partners Involved</b>	ALL
<b>Authors</b>	Alice Pari (CF)
<b>Status</b>	Final
<b>Distribution</b>	Confidential

## Summary

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## Abstract

The main Croatian and Italian stakeholders already involved during the project and the Programme Interreg MJ/JS were invited to the final conference organized by Teaching Institute for Public Health, Primorje-Gorski Kotar County (TIPH) in Croatian Cultural Center of Rijeka on November 23<sup>th</sup> 2021, in the afternoon. In the morning of the same day took place the last SC meeting.

The event was published and promoted on SOUNDSCAPE website and TIPH announced it on its website. News about the conference were uploaded on the Facebook page of the project before and at the end of the event.

TIPH also contacted Nova List journalist and an article was published on newspaper on 24<sup>th</sup> November 2021.

During this event, organized both in presence and online because of the difficult situation of Covid-19 pandemic, all the main results achieved during the project have been illustrated with particular attention to the mitigation actions and the future perspective of the underwater noise management in view of biodiversity preservation. The possibility to extend the SOUNDSCAPE approach to assess and mitigate the impact of underwater noise in NAS to the full EUSAIR area have been illustrated. LP and CF chosen to organize the **D2.4.3 Portable exhibition with sound and video installation** (*Different waves* performance) in Split on November 29<sup>th</sup> instead of during the final event in Rijeka as written on the application form.

Each WP leader presented results achieved during the project and all the intervention, discussion and presentation are reported in details in the *Minutes* section of this document.

Due to the Covid-19 pandemic organizers limit the number of participants in presence, and some partners and MJ-JS representative decided to participate through Skype. The Skype call was recorded by the partner responsible of communication and uploaded on SOUNDSCAPE YouTube channel, and then shared on the official website and Facebook page.

At the final event took part 25 participant included 5 representatives of Primorsko-goranska županija county, 2 journalists of Novi List plus 13 online participant included MJ-JS representative Dr. Anca Daniela Simion.

The conference was organized by TIPH together with lead partner IOF. In the beginning, Mr. Albert Cattunar (TIPH) welcomed all participants presented at the site in Rijeka despite the COVID-19 pandemic and those who attended remotely.

Then, he introduced participants to TIPH and town Rijeka, the most prominent Croatian trade ports. He particularly emphasized the importance of protecting the marine environment of the north Adriatic and biodiversity against underwater noise and successful participation of TIPH in the Soundscape Project.

Mr Vlado Dadić, project coordinator thanked Mr Cattunar for kind words and TIPH for organization of the Soundscape Conference in Rijeka.

Mrs Anca Daniela Simion, Project manager from JS, presented general information about Interreg V/A Programme Italy Croatia and its importance for collaboration between Italy and Croatia on marine protection enabling sustainable usage and development of the region the Adriatic Sea. She emphasized that Interreg Italy - Croatia Programme overlooks the Adriatic Sea and is driven by the overall objective to increase the prosperity and the blue growth potential of the area by stimulating cross-border partnerships able to achieve tangible and concrete changes. She explained priority axes and specific objectives of the Programme, and key outputs. She expressed the main goals of the Soundscape project and its influence on the improvement of protection of the sensitive environment of the North Adriatic Sea (NAS) related underwater noise through achievements of the plans: creating a shared underwater noise network, assessing the influence of underwater noise on biodiversity, and developing mitigation measures. It is crucial that fully documented outputs and results will be shared with the public institutions involved in MSP and MSFD D11 monitoring program at the local, regional, national and EU levels.

She presented the structure and timetable of the new programming period of Interreg programme Italy Croatia for 2021 to 2027, which will focus on the blue economy, capitalizing on previous cooperation experiences and creating more substantial synergies with EUSAIR.

Mr Vlado Dadić from IOF, project coordinator, presented an overview of the Soundscape Project, objectives and achievements of main results. He emphasized that cooperation between four partners from Italy and four from Croatia contributed to ensuring the efficient protection of marine biodiversity and developing sustainable marine and coastal ecosystems and resources. Marine Strategy Framework Directive (MSFD) Descriptor 11(D11) points out the need to monitor and manage underwater noise to achieve Good Environmental Status (GES) of EU marine waters by 2020. Soundscape represents the most extensive project-related underwater noise at the Mediterranean Sea, starting on January, 1st 2019, ending in November 2021. In short words, the Soundscape project changed the situation in the NAS with "no data" about underwater soundscapes to 15 months of continuous data measure on the nine stations located in Croatian and Italian waters. This data was used to calibrate Quonops numerical model to create monthly spatial maps in the NAS and their importance for implementing MSFD. The project's main objective is to transfer acquired knowledge and experience of underwater noise monitoring to all potential target groups, as stakeholders and citizens from local to EU level.

Mr Hrvoje Mihanović from IOF presented a network of 9 measuring stations distributed in the coastal and open sea of the NAS, 48 kHz of sampling interval, production of totally more than 30 TBytes of data, used protocols for data exchange, validation, processing and archiving.

Mrs Fantina Madricardo (CNR) presented the main results achieved in the framework of the Soundscape project. Monthly maps of the underwater noise in the NAS were produced by Quonops numerical model, which calibrated with 20 seconds SPL averaged

data from nine stations distributed in Italian and Croatian waters of the Adriatic Sea.

Furthermore, obtained monthly maps were integrated into Geoportal "Tools4MSP", with various thematic maps from NAS for spatially analysis, which can help decision-makers for decisions related to underwater sound.

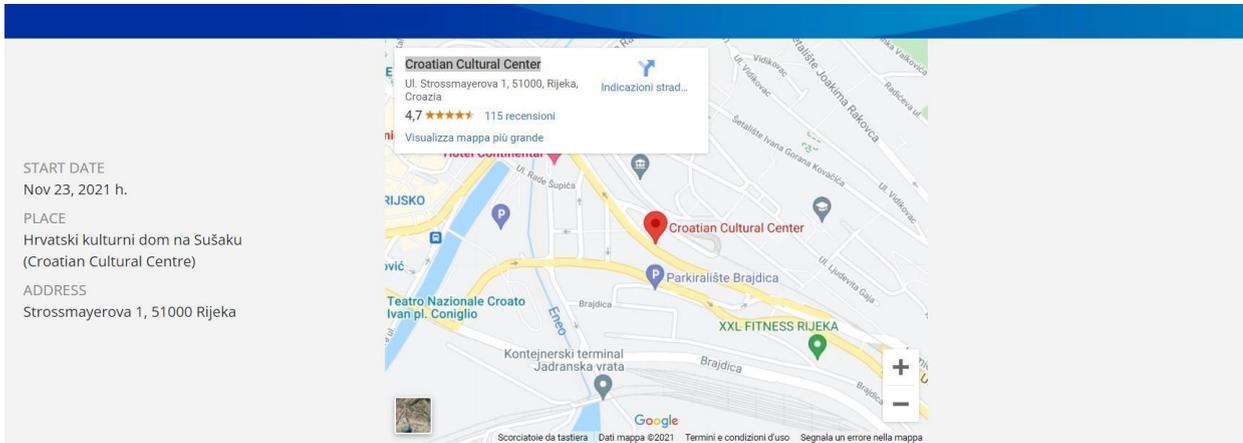
She compared reduced levels of underwater noise obtained during the Covid 19 period with the usual situation before the COVID-19.

She presented the influence of underwater noise on sensitive species (XXX) and in the Natura 2000 area close in the broad scope of the island of Lošinj, and the first time investigating the production of underwater noise by recreational boats, which is considerable in the NAS.

Mrs Alice Pari (CF) presented promotion of the Soundscape project and transferred knowledge to stakeholders and ordinary citizens on the importance of underwater noise reduction for the protection of the marine environment at more events in Italy and Croatia, and showed several videos related to activities and results obtained by Soundscape Project. In addition, all participants got a bag with some gifts (flyer, brochure, pencil, umbrella, memory stick and notebook) with the logo of the Soundscape project. In the end, she emphasized the importance of transferring knowledge to stakeholders, decision-makers, and ordinary citizens about the influence of underwater noise on the marine environment and its reduction, especially in very vulnerable NAS, to help sustainably use marine resources.

After that it was discussion of underwater noise and its influence on marine biodiversity and necessary actions for its mitigation, especially during the touristic season and close to main trade ships and ferries routes, as well as transferability of knowledge to stakeholders and ordinary citizens to increase their awareness of the negative impact of underwater noise on the marine environment.

## Event on SOUNDSCAPE website

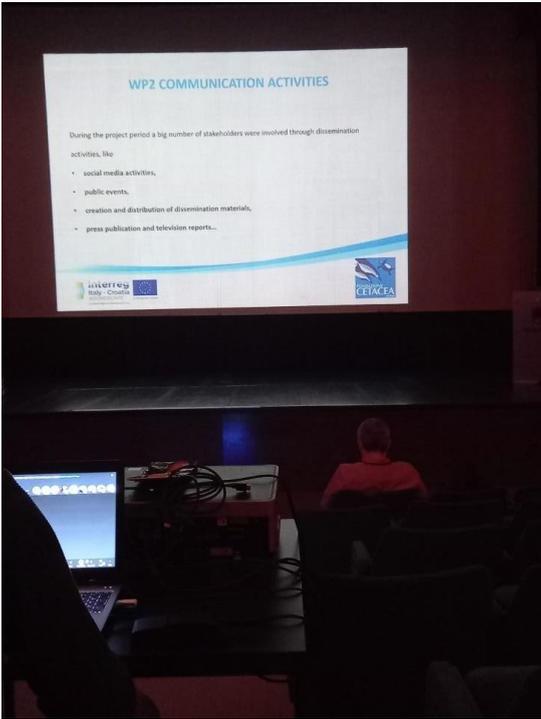


**Final event in Rijeka, November 23th, organized by TIPH and IOF.**

## Photo







## Video of the event

[Link to the video of the conference uploaded on YouTube channel](#)

## Announcement on TIPH website

14:07 VoIP LTE1

www.zzjzpgz.hr

PCR AND RAT ORDER FORM

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**PROJEKT SOUNDSCAPE**



**Poziv na Završnu konferenciju povodom predstavljanja rezultata projekta "SOUNDSCAPE"**

Nastavni zavod za javno zdravstvo PGŽ vas poziva na Završnu konferenciju povodom predstavljanja rezultata projekta "Soundscape in the North Adriatic Sea and their impact on marine biological resources – SOUNDSCAPE" i mogućnosti njihovog uključivanja u relevantne dokumente i postupanja nadležnih institucija koji će se održati

**23. studenog 2021. (utorak) s početkom u 14:00 sati**

**u Hrvatskom kulturnom domu na Sušaku, Ul. Strossmayerova 1, Rijeka**

Ljubazno molimo da svoje sudjelovanje potvrdite (zbog ograničenog broja uzvanika) najkasnije do 15. studenog 2021. godine elektronskom poštom na adresu [lina.velcic@zzjzpgz.hr](mailto:lina.velcic@zzjzpgz.hr)

Projekt SOUNDSCAPE se provodi u okviru Programa prekogranične suradnje INTERREG V-A Italija – Hrvatska 2014. – 2020. i traje do 30. studenog 2021. godine. Vodeći partner je Institut za oceanografiju i ribarstvo, a pored Zavoda sudjeluje još 6 partnerskih institucija iz Italije i Hrvatske.



Projekt ima za cilj razvijanje prekogranične institucionalne i znanstvene suradnje kako bi se upotpunila dosadašnja saznanja o podvodnoj buci i ljudskim aktivnostima koja joj značajno doprinose s konačnim ciljem zaštite osjetljivih morskih vrsta kroz održivo korištenje morskih i obalnih ekosustava. Cilj projekta je također dati doprinos implementaciji Okvirne direktive o morskoj strategiji EU (ODMS) u ostvarivanju dobrog stanja okoliša u Jadranskom moru vezanog za podvodnu buku, odnosno Deskriptor D11.

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**Nacionalni program Živjeti zdravo**

**Volonteri u parku**

## Event posted on Facebook profile

**Dettagli sul post** ×



**Soundscape**  
24 novembre alle ore 17:52 · 🌐

⋮

Final event in Rijeka announcement 📌

ITALY-CROATIA.EU  
**SOUNDSCAPE - SOUNDSCAPE - Italia-...**  
The Northern Adriatic Sea (NAS) is an area highly impacted by increasing...



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💬 Commenta
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Commenta come Sound...
😊 📷 GIF 🗨️

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**54** Persone raggiunte

**1** "Mi piace", commenti e condivisioni

**7** Clic sul post

<b>0</b>	<b>7</b>	<b>0</b>
Visualizzazioni della foto	Clic sul link	Altri clic

**Visualizza altri dettagli**

**Feedback negativo**

**0** Nascondi tutti i post **0** Nascondi post  
**0** Segnala come spam **0** Non mi piace più

**1** "Mi piace", commenti e condivisioni

**DISTRIBUZIONE DEI CONTENUTI BRANDIZZATI**

<b>54</b>	<b>54</b>	<b>0</b>
Copertura totale	Copertura organica	Copertura a pagamento
<b>60</b>	<b>60</b>	<b>0</b>
Impressioni totali	Impressioni organiche	Impressioni a pagamento

**Visualizza i dettagli**

## Post on Facebook profile



## Agenda

### SOUNDSCAPE

Soundscapes in the North Adriatic Sea and their impact on marine biological resources

### Final SC & MC meeting and Conference

*Hrvatski kulturni dom na Sušaku (Croatian Cultural Centre)*  
*Strossmayerova 1, 51000 Rijeka, 23<sup>rd</sup> November 2021: 09:00 – 17:30*

## Agenda

#### Morning session - Final SC and MC meeting (Participants: PPs, MA/JS)

- 9:00 - 9:15 Registration
- 9:15 - 9:25 Welcome words (TIPH, MA/JS, IOF)
- 9:25 - 9:40 Project - General Introduction (IOF)
- 9:40 - 9:55 Project management (IOF)
- 9:55 - 10:10 Project communications (CF)
- 10:10 - 10:25 Underwater noise monitoring (IOF)
- 10:25 - 10:40 Noise modelling results (QO, CNR)
- 10:40 - 11:10 *Coffee break*
- 11:10 - 11:25 Project results and achievements (CNR, BWI)
- 11:25 - 11:40 Target Sensitivity results (BWI, CNR)
- 11:40 - 11:55 Development of mitigation measure (CNR)
- 11:55 - 12:10 MSFD implementation (ARPA-FVG)
- 12:10 - 12:50 General Discussion on the results (all PPs)
- 12:50 - 14:00 *Lunch break*

#### Afternoon session - Conference (Participants: PPs, MA/JS, stakeholders and public bodis)

- 14:00 - 14:15 Registration
- 14:15 - 14:30 Welcome words (TIPH, PG County, Rijeka City)
- 14:30 - 14:50 CBC IT - HR Programme key delivery note (MA/JS)
- 14:50 - 15:10 Soundscape Project overview (IOF)
- 15:10 - 15:30 Monitoring Network, deployment and data collection protocols (IOF)
- 15:30 - 16:00 *Coffee break*
- 16:00 - 16:20 Project results and achievements (CNR, BWI)
- 16:20 - 16:40 Implementation of D11 (MSFD) in Italy and Croatia (ARPA-FVG, IOF)
- 16:40 - 17:00 Promotion of the Project – overview, events, publish materials, brochure, video (CF)
- 17:00 - 17:30 General discussion (all participants)
- 17:30 *Closure of the event & light meal on site (catering)*



Press

rijeka

srijeda, 24. studenoga 2021.

NOVI LIST 13

**SOUNDSCAPE** Prekogranična znanstvena i institucionalna suradnja Italije i Hrvatske

# Podvodna buka – prijetnja bioraznolikosti Jadrana

Tijekom trogodišnjeg istraživanja, polaganjem hidrofona na deset lokacija u sjevernom Jadrani, mjerena je podvodna buka uzrokovana ljudskim aktivnostima te napravljena procjena njezinog utjecaja na bioraznolikost

Ervin PAVLAKOVIĆ

**MURKA** • U HKD-u na Salsaku Jucer je održana završna konferencija na kojoj su predstavljene rezultate projekta Soundscape in the North Adriatic Sea and their impact on marine biological resources – SOUNDSCAPE, unutar kojeg su provedena istraživanja o podvodnoj buci i ljudskim aktivnostima koja joj značajno doprinose, s konkretnim ciljem zaštite osjetljivih morskih vrsta kroz održivo korištenje morskih i obalnih ekosustava.

**Ljudski faktor**

Uz zagađenje i more koje je nastalo izljevanjem otrovnih tvari, krutinom otpadom, poljivom i opilinska onečišćenja te zagađenju bukom koja su također veliki problem. Naravno, mnoge su dijelove povezujuju preteranu razinu podvodne buke ugrađenim i naskrivljenim različitim morskih bitka, a ona je znatno porasla tijekom prošloga stoljeća te je gotovo u potpunosti prešla



Rezultati istraživanja objavljeni su u brosuru, a bit će predstavljani i Europoskoj komisiji

prirodne podvodne zvukove. Kako su članovi Instituta za oceanografiju i ribarstvo u svojem izlaganju pojašnjili, uzročnici zagađenja podvodnom bukom su razni, no primarno je riječ o prirodnom izvoru buke i ljudskome faktoru kao uzročniku buke, a problem je

svakako ovaj potrošiti. U ljudsku aktivnost koja uzrokuje podvodnu buku ubrajaju sezonička istraživanja, obalne i priobalne poslove, vojne aktivnosti, pomorski promet, ribolovne aktivnosti te razne jahte i plovila za rekreaciju. Takve aktivnosti imaju utjecaj

na morske žive organizme, pa rezultiraju iznatskim učincima, gubitkom stihna i neprepoznatvanjem zvukova, kao i drugim promjenama u ponašanju i vokalizacijskim parametrima izloženih životinja. Tijekom trogodišnjeg istraživanja polaganjem hidrofona

na deset lokacija u sjevernom Jadrani, rečeno je, mjerila se podvodna buka uzrokovana ljudskim aktivnostima, zatim se svršila procjena utjecaja zagađenja podvodnom bukom na bioraznolikost istražujući učinak posebno na dvije ciljane vrste – na dupina Turst-ops trunccatus i na kornjaču Caretta caretta, a projekt je i predstavjen na javnim događanjima u Italiji i Hrvatskoj. Podaci su također objavljeni u brosuru, a bit će predstavljani i Europoskoj komisiji.

**Mreža nadzora**

Glavna svrha projekta je procjena utjecaja podvodne buke na morski životinjski svijet i općenito na ekosustav sjevernog Jadrana, a jedan od ciljeva je i razvoj mjera za ublažavanje buke – stvaranje prekogranične mreže nadzora osigurava se učinkovita zaštita morske bioraznolikosti te održava uporaba morskih bogatstava, ekosustava i obalnih izvora. Osim toga, želi se dati doprinos implementaciji Okvirne direktive o morskoj strategiji

EU-a (ODMS) u osvrtaivanju dobrog stanja okoliša i Jadranskog mora vezanog za podvodnu buku. U suradnji će biti izrađene prostorno-vremenske karte podvodnih zvukova sjevernog Jadrana koji će se integritirati u ADRIAPLAN portal koji je razvijen u okviru projekta GEMARE ADRIAPLAN – data adriaplan.eu.

Projekt SOUNDSCAPE koji je započeo u siječnju 2019. godine provodi se u okviru prekogranične suradnje INTERREG-7-A Italija-Hrvatska, a traže do kraja ovoga mjeseca. Ukupan iznos projekta je oko 1 milijun eura. Uz Institut za oceanografiju i ribarstvo koji je vodeći partner, u projektu sudjeluje još šest partnerskih institucija iz Italije i Hrvatske – Nacionalno vijeće za istraživanje, Plavi svijet institut za istraživanje i zaštitu mora, Agencija za zaštitu košta regije Furla-Venećija-Giulia, Ronacija Caracra, egija Marche, Ministarstvo gospodarstva i održivog razvoja te Nastavni zavod za javno zdravstvo PGZ-a.

## Minutes

### SOUNDSCAPE

Soundscapes in the North Adriatic Sea and their impact on marine biological resources

## Final Conference

*Hrvatski kulturni dom na Sušaku (Croatian Cultural Centre)*  
*Strossmayerova 1, 51000 Rijeka, 23<sup>rd</sup> November 2021, 14:00 – 17:30*

## Minutes

### Agenda:

- 14:15 - 14:30 Welcome words (TIPH)
- 14:30 - 14:50 CBC IT-HR Programme key delivery note (MA/JS)
- 14:50 - 15:10 Soundscape Project overview (IOF)
- 15:10 - 15:30 Monitoring Network, deployment and data collection protocols (IOF)
- 15:30 - 16:00 Coffee break
- 16:00 - 16:45 Project results and achievements (CNR, BWI, ARPA-FVG and all)
- 16:45 - 17:00 Promotion of the Project – overview, events, publish materials, brochure, video (CF)
- 17:00 - 17:30 General discussion (all participants)
- 17:30 *Closure & light meal on site (catering)*

The teaching institute for public health of Primorje Gorski Kotar County (TIPH) organized the Soundscape project's SC and MC final meeting.

Mrs Lina Velčić, on behalf of the director of TIPH, welcomed all participants in Rijeka and remotely, with a wish for successful work of the meeting.

Mr Vlado Dadić, the Soundscape project coordinator, thanked Mrs Velčić and TIPH for organizing the final SC and MC meeting in Rijeka and welcomed participants who attended the meeting on-site or remotely. He thanks all partners for successfully implementing the Soundscape project in a very demanded period caused by Covid-19 pandemia.

Mr Dadić presented an overview of the Soundscape project with general achievements. He emphasized that all WPs have 27 activities and 67 deliverables, despite the situation with Covid-19 finalized in the extended six-month project implementation period. Partners finished almost all deliverables, outputs and objectives. Only a few deliverables need some justification.

Mrs Vedrana Franić (IOF) remotely presented the project management status with stress on tasks to be prepared by all project partners during the closing period (by the end of February). She mentioned document Activity report no.6 with uploading financial matters and relevant documents in SIU on time, and LP to finalize 6th Progress and Final report.

Mrs Alice Pari (CF) presented activities related to the Soundscape project during an implementation period of 35 months. CF and other partners organized promotion of the Soundscape project at more meetings on local, regional, governmental and EU levels, as special events for stakeholders and ordinary citizens (Different waves in Ancona, Venice and Split, EU TG-noise, ministries and governmental agencies). More promotional material was prepared like flyers, posters, leaflets, brochures, short videos, and gifts for attendees to the meetings.

Mr Hrvoje Mihanović (IOF) presented the main facts related to instruments' procurements for underwater noise measurements, calibration and set up of them, deployment and redeployment, data downloading, validation and archiving data from nine stations in mirroring databases at CNR-ISMAR and IOF.

Mrs Fantina Madricardo (CNR) presented the main results achieved in the framework of the Soundscape project. Monthly maps of the underwater noise in the North Adriatic Sea (NAS) were produced by Quonops numerical model, which calibrated with 20 seconds SPL averaged data from nine stations distributed in Italian and Croatian waters of the Adriatic Sea. Furthermore, obtained monthly maps were integrated into Geoportal "Tools4MSP", with various thematic maps from NAS for spatial analysis, which can help decision-makers for marine spatial planning related to underwater sound in the NAS.

Mrs Mardricardo compared levels of various sources (ferries, oil and cargo ships, recreational boats) of the underwater noise during the Covid 19 pandemic period with the common situation before the COVID-19.

She also presented the influence of underwater noise on sensitive species (bottlenose dolphin and loggerhead turtle) in the broad area of the island of Lošinj. She showed that in the Soundscape project, the production of underwater noise by recreational boats was investigated for the first time, which is considerable in the NAS, especially during the touristic season of the year.

In the end, she emphasized the importance of transferring knowledge to stakeholders, decision-makers, and ordinary citizens about the influence of underwater noise on the marine environment and its mitigation, especially in very vulnerable NAS, to help sustainably use of marine resources.

Mr Antonio Petrizzio (CNR) presented a spatial analysis of the underwater noise and its importance for planning and managing marine and coastal regions and implementing the EU MSFD directive in the NAS as a vulnerable area. For this purpose, a monthly map of underwater noise was integrated into geoportale "Geo4tools". Underwater noise level spatial-timely varied depending of area and period of year. Generally, the underwater noise was higher close to large ports and close to traffic routes (ferries, cargo ships, tankers, fishing ship) during whole year, and also in the touristic area during touristic season (recreational boats).

## Conclusion

All project partners expressed willingness to continue to join the consortium for the underwater noise research and measurements in the framework of future Interreg and other international programs. Also, they expressed their high appreciation for the results of the SOUNDSCAPE project. All the participants agreed to be more coordinated also at the national and european level with respect to the underwater noise pollution issue and in the exploitation of the project results.

Mr Dadić thanked all project partners and staff for successful achievement all objectives despite the uncommon and demanded period caused by Covid-19 pandemia. He asked project partners to finish all tasks scheduled for the next three months of the Project closing period.