

REPORT ON ORGANIZED FINAL CONFERENCE

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University of Nis



**Strengthening of master curricula in water resources management
for the Western Balkans HEIs and stakeholders**

PROJECT INFO

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1. Introduction

This document reports the **Final conference** of the Erasmus+ Capacity Building in the Field of Higher Education project „Strengthening of master curricula in water resources management for the Western Balkans HEIs and stakeholders“ (SWARM), held on the 31st March and 1st April 2022. The final conference was chaired by Milan Gocić (UNI) and Biljana Šćepanović (UoM). The final conference was organized as a hybrid event (in-person and online using Zoom platform) technically supported by the University of Montenegro (UoM).

The final conference was organized by the University of Montenegro (UoM) in collaboration with the consortium partners.

2. Final conference in general

The final conference was a chance to discuss the achieved project results.

The following topics were discussed:

- water resources management in the Western Balkans,
- importance of knowledge sharing,
- water resources management curricula in the Western Balkans,
- introducing LLL program to water professionals,
- keeping SWARM results alive.

In total, 45 participants attended (40 in-person and 5 online) from all partner institutions. It should be highlighted that representatives from the NEO Montenegro, Regional water supply company (associated partner) and EP Montenegro took part in final conference.

Final conference moderators:

Biljana Šćepanović, University of Montenegro

Milan Gocić, University of Nis

First day, 31 March 2022

Panelists:

Sanja Peković, Vice-rector for Internationalisation, University of Montenegro

Goran Sekulić, Contact person, University of Montenegro

Rina Muhaj, National Erasmus Office in Montenegro

Milan Gocić, University of Nis

Milan Janović, Regional water supply company

Ivana Ćipranić, University of Montenegro

Daniel Wildt, University of Natural Resources and Life Sciences, Vienna

Maja Petrović, University of Novi Sad

Vesna Mašulović, University of Novi Sad

Merima Salčin, Džemal Bijedić University of Mostar

Panagiotis Prinos, Aristotle University of Thessaloniki

Jelena Đokić, University of Pristina in Kosovska Mitrovica

Agnieszka Katarzyna Cuprys, Norwegian University of Life Sciences

Emina Hadžić, University of Sarajevo

Barbara Karleuša, University of Rijeka, Faculty of Civil Engineering

Summary:

Final conference started at 9:30 after the participant's registration and finished at 15:30. After each presentation, participants answered the questions.

Biljana Šćepanović as a moderator opened the event. During the opening ceremony **Sanja Peković** highlighted the importance of participation of the University of Montenegro in SWARM and similar projects. **Rina Muhaj** pointed out the importance of internationalization and achieving the sustainability of the project results. **Goran Sekulić** as a contact person and the host of the final conference welcomed the participants explaining some technical details.

Milan Gocić presented SWARM booklet summarizing the results achieved during the last project year.

First session was oriented to topics presenting how to strengthen water resources management in the Western Balkans.

Milan Janović presented work experiences and challenges in the field of water resources management achieved by the Regional water supply company that is an associated partner in the SWARM project consortium.

Ivana Ćipranić and **Daniel Wildt** presented water resources management in the Western Balkans including challenges and opportunities. The following opportunities were presented:

- high capital
 - creativeness,
 - human resources,
 - education,
- existing experience
 - best practice from EU,
 - learn from mistakes,

- digitalization,
- collaboration between WB countries,
- EU funding systems,

and the following challenges:

- missing legal framework,
- corruption,
- water related issues not on political agenda,
- lack of technical understanding of decision makes,
- no cooperation between different government units,
- existing legislation insufficiently implemented,
- unstable political situation.

Maja Petrović and **Vesna Mašulović** presented importance of knowledge sharing through the theme-based training activities. They highlighted that six trainings in program partner countries were organized with two objectives: to educate WB teachers in innovative teaching methods and to improve teachers' professional, pedagogical and methodological knowledge. In total, 92 WB teaching staff were trained.

Panagiotis Prinós and **Merima Salčin** presented experiences and good practices in developing water resources management curricula in the Western Balkan. Good practices are:

- restructuring of curricula every 4-5 years,
- cooperation with civil engineering and water engineering professionals,
- lessons and practices from other countries but ... needs are different,
- introduce new methods and techniques in design and analysis in conjunction with existing methods used in practice.

Jelena Đokić presented how to introduce LLL to water professionals. First the needs assessment was done by collecting data on stakeholders and the non-academic sector. Then, the list of companies in the water sector was created. Comprehensive survey of employees in the water sector in the Western Balkans was conducted. During the training participants were learnt about

- Water as a scarce resource,
- EU water policy under the Water Framework Directive,
- Water management and climate change adaptation,
- Wastewater treatment and reuse of treated wastewater,
- Flood and drought risk management,
- Innovation in the water sector.

The participants achieved the following knowledge, skills and competencies:

- understanding on climate change and its impact on water resources, and the EU Water policy
- applying the best practices in water saving and water use,
- implementing advance techniques for water and waste water treatments,
- applying measures for adaptation to the climate change in the given political framework.

Agnieszka Cuprys explained how to keep SWARM results alive. Some conclusions related to the winter school organisation:

- high need of this type of activities,
- familiarization of students with ITCs,
- inter communication,
- increase the number of students,
- technical issues (lack of microphones, etc.),
- demonstrating programs and tools virtually (it's difficult online)

Emina Hadžić presented how to establish human and technical capacities for advanced water resources management teaching. With the dramatic changes in the water cycle expected in the coming years, traditional and fragmented approaches to water resource planning are simply not good enough. It is clear that only an integrated approach to water management can solve numerous problems of water - from water scarcity and climate extremes, floods, torrents, etc., to resource fragmentation, more water issues need to be addressed than ever before. The great potential lies in smart technologies that can help us make the right decisions faster. Advanced water management technologies can efficiently collect, combine and analyze complex data from a variety of sources in real time, which is one of the key factors for making urgent, but good decisions.

Barbara Karleuša presented how to build winter/summer school programs in water resources management. Some conclusions for the organized schools:

- They covered different topics that are related to water resources management.
- The overall aim of organized schools is to enhance knowledge in the field of water resources management, give confidence to talk in a foreign language, improve general skills such as giving a presentation and giving insights into working on an individual research topic.
- The students have different study backgrounds. None of the participants, neither students nor teachers, have English as their native language.
- The schools consist of lectures and practical work. Unfortunately, because of COVID-19 social events and excursions have not been organized.
- In total, 25 virtual student mobilities were realized.
- Duration: 10 working days.
- As platforms for giving lessons, Microsoft Teams and Zoom were used.

Final conference participants have a chance to visit laboratories at the Faculty of Civil Engineering.

Second day, 01 April 2022Panelists:**Milan Gocić**, University of Nis**Charalampos Skoulikaris**, Aristotle University of Thessaloniki**Maria Manuela Portela**, University of LisbonSummary:

Final conference started at 9:30 after the participant's registration and finished at 14:30. After each presentation, participants answered the questions.

Second session was oriented to SWARM ongoing and future activities.

Charalampos Skoulikaris presented conclusions from the workshop on the sustainability of the SWARM results. The workshop was organized as a hybrid event (in-person and online using Zoom platform) technically supported by the Aristotle University of Thessaloniki (AUTH). The following topics were discussed:

- dissemination and sustainability,
- experiences and good practices in the implementation of similar projects in programme partner countries,
- feedback from the organized schools,
- impact of the SWARM results on different levels.

Maria Manuela Portela presented results achieved during the winter school at UL. The school included the general topic water resources management and the following two sub-topics i.e. I) flood and drought analysis and II) reservoir operation. She highlighted the students' engagement and achieved evaluation results.

Milan Gocić pointed out that six training activities will be organized by the end of the project life time. Two schools were organized in March and the rest will be organized in April. It is planned participation of 33 WB teaching staff.

He presented final quality report which was adopted by the SC members. The following key benefits were highlighted:

- Very strong and new connection between expert from different countries; new ideas for collaboration
- Establishment of a new study program, procurement of laboratory equipment, student training, training of engineers
- Strengthening of personal skills and competences in water resources management due to the participation of high-quality experts from program countries. Moreover, my professional network has increased. SWARM project gave me the possibility to get a high-quality

knowledge related to the project management tasks, dissemination possibilities and quality assurance and control methods.

- Personally, I have met many wonderful people and I am sure that friendship with them will last for a long time. I had opportunity to see different cultures, lifestyles etc. Professionally, I developed my communication, professional and methodological skills. The future cooperation with EU and WB colleagues will certainly improve my professional skills to higher level. I would especially like to thank to our coordinator Milan, who is the best coordinator ever, very skillful, professional and good person.
- New contacts for possible future collaboration
- Personally, it has been great to be a part of SWARM. Even though I came into the project quite late, fortunately for me, the project was extended. This gave me the benefit and opportunity to join and get to know the SWARM partners better. It was especially interesting and existing to be a part of the conference which was held in Novi Sad in September 2021. Also, I must say that it has been very insightful to be a part of a project with such good reporting routines! It has been so inspiring to see how Milan is tackling the different reporting requirements, and I hope that I professionally can learn from this and adapt this into other projects I am involved in. Milan is always responsive and helpful, which I really appreciate! Thank you so much to Milan and all other partners who has been involved in SWARM.
- Acquisition of knowledge and specific knowledge from good practice abroad. Developing one's own competence in one's field and increasing the relevance of my learning. Build new contacts. Good cooperation with a partner institution etc.
- Scientific collaborations expressed through common scientific publications, familiarization with colleagues coming from Western Balkans, development of an active network that is seeking for new cooperation opportunities.
- Improved inter-cultural working skills (even though Europe shares a common historical cultural background, working styles are different in various geographical locations). Learned about different water management approaches applied in other countries.
- Collaboration between colleges from different countries, interchange of knowledge, education, new ideas.
- Networking and meeting with new colleagues what make good basis for new partnerships.
- Professional development, team building, improving skills.
- New colleagues - network, participation in scientific boards for conferences, collaboration in research, improvement of my teaching skills, improvement of teaching content.
- Training opportunities for improving water resources management and cooperation with colleagues from the Western Balkans were provided. As part of the project, new and improved old curricula for graduate studies in the field of water management were developed, as well as lifelong learning programs.
- Professionally I am very satisfied with experience of training programs, and personally I think we all gained valuable acquaintances as colleagues and friends.
- Experience gained in joint trainings in the field of water. Acquiring new and useful acquaintances of colleagues from the region and abroad.

Third session was oriented to the financial management and final reporting.

Milan Gocić presented future activities in preparing final report and collecting financial documentation as well as organization of the financial audit.

At the end of the workshop Milan Gocić made final remarks.

The presentations can be downloaded from <http://www.swarm.ni.ac.rs/>.

3. Final conference evaluation

The symposium evaluation form had the following questions:

- Relevance of the topic (Figure 1),
- Usefulness of the acquired knowledge (Figure 2),
- Rating of presented materials (Figure 3),
- Rating organization (Figure 4),
- Rating of working conditions (Figure 5),
- Rating interactivity in final conference (Figure 6),
- Assessing the fulfilment of expectations regarding final conference (Figure 7),
- Overall impression (Figure 8).

In total, 18 responses were received. The general conclusion is that the final conference had an excellent logistic and that the quality of presented material was very good. Some opinions (comments):

- Thank you for a great organisation and cooperation.
- Great closing conference in every way. This is the best Erasmus + team.
- I am very glad that this activity could be organized “in person” and that most members of the project partner team were able to participate in person after many activities that had to be organized online / virtually due to the COVID-19 pandemic. We achieved all the goals set in the project application and delivered even more than promised and in a very challenging pandemic time. I am glad to have been part of this consortium and to have had the opportunity to collaborate with all the other members of the project. I am sure that the network built in this project at the institutional and individual (personal) level is a strong basis for many future collaborations in all areas of higher education.
- Excellent organization of the final conference.
- Everything was great... Congratulations

Relevance of the topic

18 responses

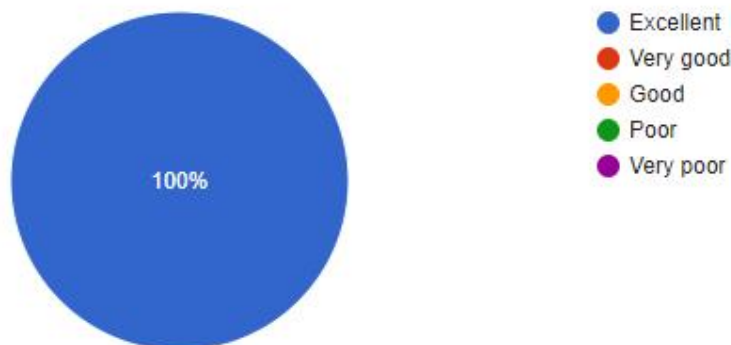


Figure 1 Relevance of the topic

Usefulness of the acquired knowledge

18 responses

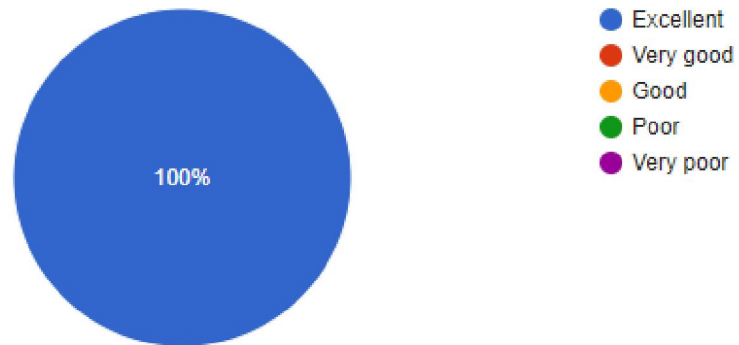


Figure 2 Usefulness of the acquired knowledge

Rating of presented materials

18 responses

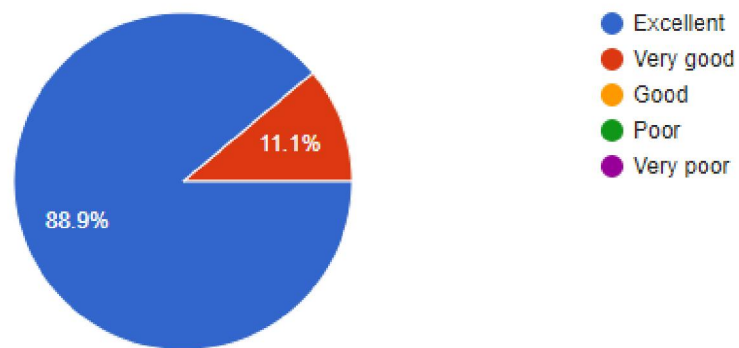


Figure 3 Rating of presented materials

Rating organization

18 responses

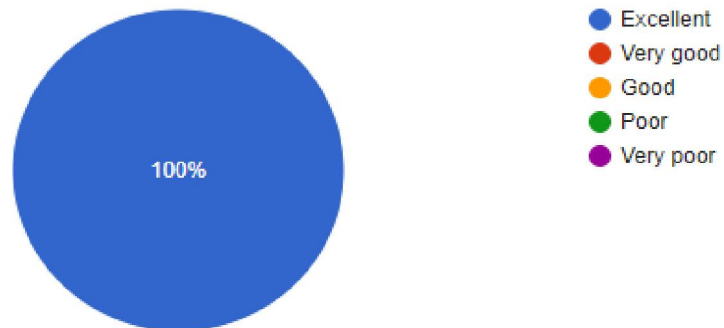


Figure 4 Rating organization

Rating of working conditions

18 responses

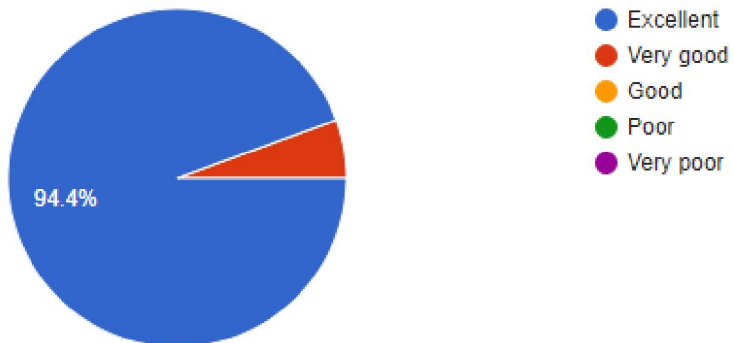


Figure 5 Rating of working conditions

Rating interactivity in final conference

18 responses

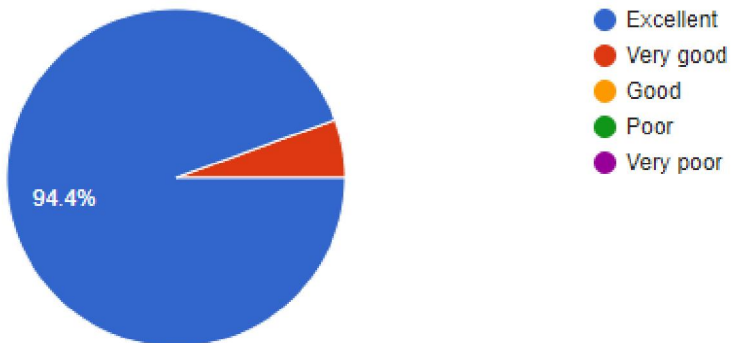


Figure 6 Rating interactivity in final conference

Assessing the fulfilment of expectations regarding final conference

18 responses

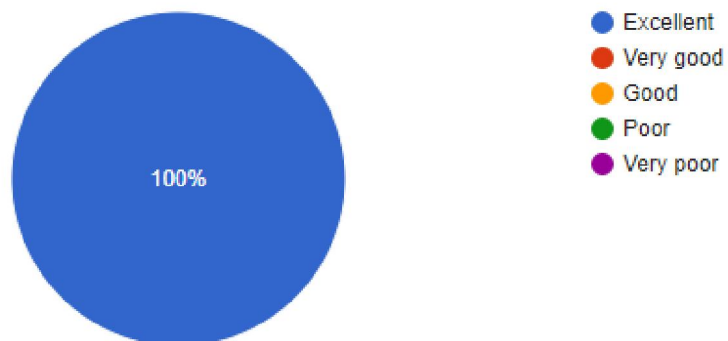


Figure 7 Assessing the fulfilment of expectations regarding final conference

Overall impression

18 responses

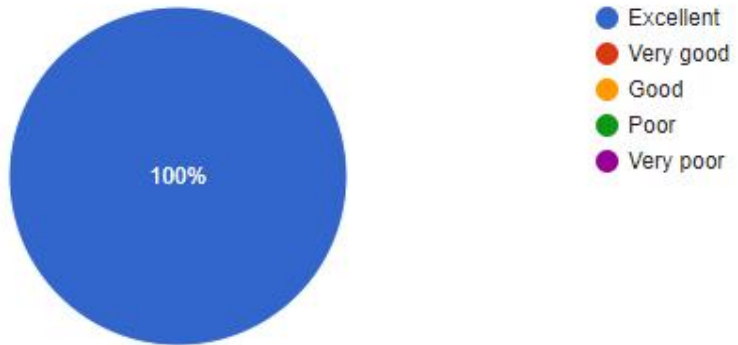


Figure 8 Overall impression

ANNEX I – Final conference agenda

Final conference

30 March-1 April 2022, Podgorica, Montenegro

Venue: University of Montenegro, Faculty of Civil Engineering

Thursday, 31 st March 2022		
University of Montenegro, Faculty of Civil Engineering		
09:30-10:00	SWARM participants registration	
Opening ceremony Moderator: Biljana Šćepanović, University of Montenegro		
10:00-10:30	Welcome speech	Sanja Peković, Vice-rector for Internationalisation, University of Montenegro Goran Sekulić, Contact person, University of Montenegro Rina Muhaj, Erasmus+ Office in Montenegro
10:30-10:50	SWARM project – overview and outcomes	Milan Gocić, Project coordinator, University of Nis
10:50-11:30	Coffee break	
Strengthening water resources management in the Western Balkans Moderator: Milan Gocić, University of Nis		
11:30-11:40	Regionalni vodovod Crnogorskog primorja: work experiences and challenges	Milan Janović, Regionalni vodovod Crnogorskog primorja
11:40-12:00	Water resources management in the Western Balkans: challenges and opportunities	Ivana Čipranić, University of Montenegro Daniel Wildt, University of Natural Resources and Life Sciences, Vienna
12:00-12:20	Importance of knowledge sharing through the theme-based training activities	Maja Petrović, University of Novi Sad Vesna Mašulović, University of Novi Sad
12:20-12:40	Water resources management curricula in the Western Balkans: experiences and good practices	Merima Salčin, Džemal Bijedić University of Mostar Panagiotis Prinos, Aristotle University of Thessaloniki
12:40-13:00	Introducing LLL program to water professionals	Jelena Đokić, University of Pristina in Kosovska Mitrovica
13:00-14:00	Coffee break	
14:00-14:20	Keeping SWARM results alive	Agnieszka Katarzyna Cuprys, Norwegian University of Life Sciences
14:20-14:40	Establishing human and technical capacities for advanced water	Emina Hadžić, University of Sarajevo

	resources management teaching	
14:40-15:00	Building winter/summer school programs in water resources management	Barbara Karleuša, University of Rijeka, Faculty of Civil Engineering
15:00-15:30	Closing words	

Friday, 01st April 2022

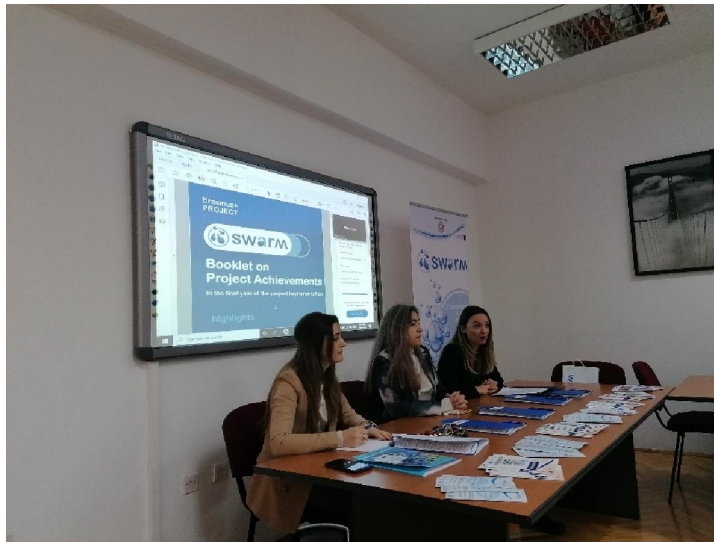
University of Montenegro, Faculty of Civil Engineering

09:30-10:00	SWARM participants registration	
SWARM – ongoing and future activities		
10:00-10:20	Workshop on the sustainability of the SWARM results: conclusions	Panagiotis Prinos, Aristotle University of Thessaloniki Skoulikaris Charalampos, Aristotle University of Thessaloniki
10:20-10:40	Results from winter school at UL	Maria Manuela Portela, University of Lisbon
10:40-11:00	Training of WB teaching staff	Milan Gocić, University of Nis
11:00-11:20	Final quality report adoption	Maria Manuela Portela, University of Lisbon Milan Gocić, University of Nis
11:20-12:00	Coffee break	
Financial management and final reporting		
12:00-13:00	Financial plan and its realization	Milan Gocić, University of Nis
13:00-14:00	Final reporting	Milan Gocić, University of Nis
14:00-14:30	General conclusions	

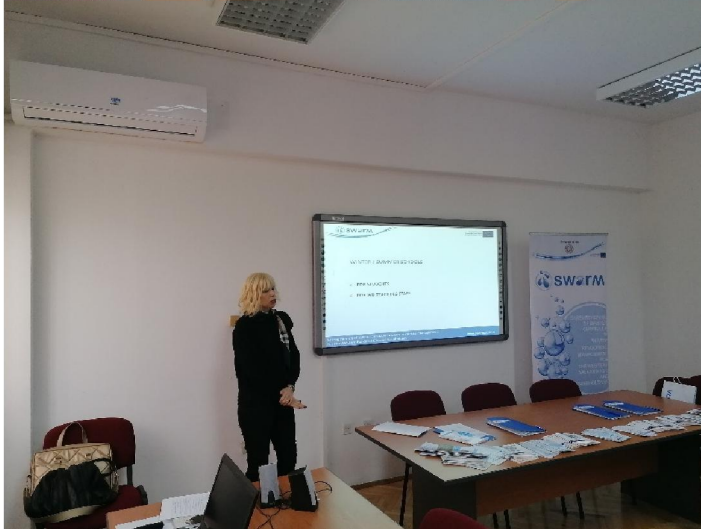
ANNEX II – Attendance list

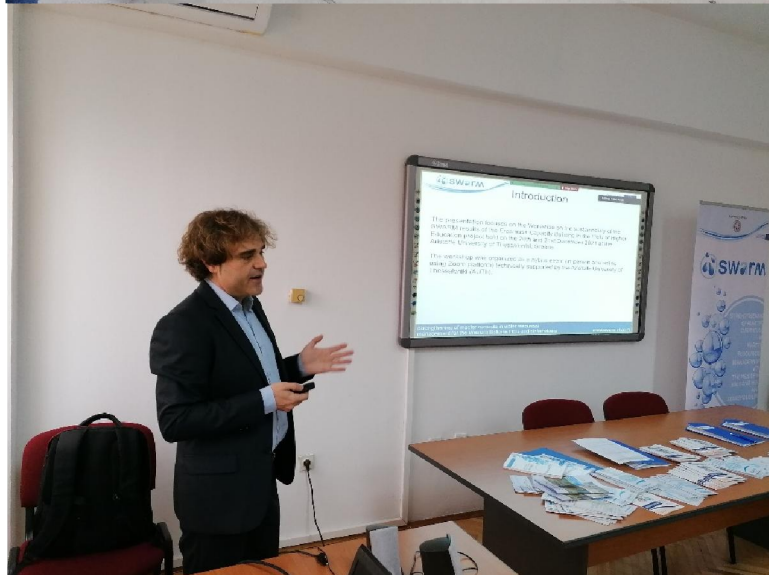
Name	Country	Participation
Milan Gocić	P1-UNI	In-person
Slaviša Tajković	P1-UNI	In-person
Mladen Milanović	P1-UNI	In-person
Daniel Wildt	P2-BOKU	In-person
Agnieszka Katarzyna Cuprys	P3-NMBU	In-person
Panagiotis Prinos	P4-AUTH	In-person
Skoulikaris Charalampos	P4-AUTH	In-person
Petar Filkov	P5-UACEG	Online
Barbara Karleuša	P6-UNIRIFCE	In-person
Bojana Horvat	P6-UNIRIFCE	In-person
Maria Manuela Portela	P7-UL	Online
Maja Petrović	P8-UNS	Online
Vesna Mašulović	P8-UNS	In-person
Emina Hadžić	P9-UNSA	In-person
Ammar Šarić	P9-UNSA	In-person
Merima Šahinagić-Isović	P10-UNMO	In-person
Merima Salčin	P10-UNMO	In-person
Mili Selimotić	P10-UNMO	Online
Marko Čeček	P10-UNMO	Online
Nebojša Arsić	P11-UPKM	In-person
Aleksandra Petrović	P11-UPKM	In-person
Jelena Đokić	P11-UPKM	In-person
Goran Sekulić	P13-UoM	In-person
Ivana Čipranić	P13-UoM	In-person
Biljana Šćepanović	P13-UoM	In-person
Sanja Peković	P13-UoM	In-person
Ana Dragičević	P13-UoM	In-person
Milan Radulović	P13-UoM	In-person
Nina Serdar	P13-UoM	In-person
Radovan Đurović	P13-UoM	In-person
Milivoje Rogač	P13-UoM	In-person
Srđa Aleksić	P13-UoM	In-person
Mladen Muhadinović	P13-UoM	In-person
Jelena Pejović	P13-UoM	In-person
Srđan Janković	P13-UoM	In-person
Radenko Pejović	P13-UoM	In-person
Vesna Labudović	P13-UoM	In-person
Marina Rakočević	P13-UoM	In-person
Radenko Pejović	P13-UoM	In-person
Saša Ilić	P13-UoM	In-person
Olivera Gavrilović	P14-PWMC VV	In-person
Jelena Vojvodić	P14-PWMC VV	In-person
Milan Janović	Regional water supply company	In-person
Rina Muhaj	NEO	In-person
Mihailo Ostoić	EP CG	In-person

ANNEX III – Accompanying photos















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