MicroDrink

Capacity building for management and governance of MICROplastics in DRINKing water resources of Danube Region

Newsletter 04, December 2025

Interreg Danube Region

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MicroDrink

4th Partner Meeting of the MicroDrink project held in Postojna, Slovenia

The MicroDrink project held its 4th Partner Meeting in Postojna, Slovenia, from October 14th to 16th, 2025. The meeting was organized by SO3 leader PP3 – University of Ljubljana, Faculty of Natural Sciences and Engineering, with the support of PP4 – Public Company KOVOD Postojna, the Lead Partner – the Croatian Geological Survey, and the Communication Manager PP9 – University of Belgrade, Faculty of Mining and Geology.

The meeting brought together project partners to advance collaborative research on microplastics. It was opened by the Lead Partner Croatian Geological Survey (HGI-CGS), followed by welcome greetings from Dr. Anja Torkar of the University of Ljubljana (PP3) on behalf of the hosts, and Mr. David Penko, Director of KOVOD Postojna (PP4), who delivered the main welcome speech.

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4th Partner Meeting of the MicroDrink project held in Postojna, Slovenia

On the first day, partners presented their national sampling activities and analysis results, including the challenges their laboratories encountered, the extent to which they comply with the expected criteria, and the QA/QC procedures.

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4th Partner Meeting of the MicroDrink project held in Postojna, Slovenia

On the second day, a field trip was organized to the Slovenian pilot site – the Malenščica spring in Planinsko Polje. Participants visited the facilities of KOVOD Postojna, including the drinking water supply system, from the abstraction site and the treatment and transport systems to the monitoring and control facilities.

At the end of the day, a visit to Postojna Cave and Planinska Cave was organized. Postojna Cave is one of the largest karst caves in Europe.

In addition to exploring its impressive underground formations, the excursion provided an excellent opportunity for networking and the exchange of ideas among partners.

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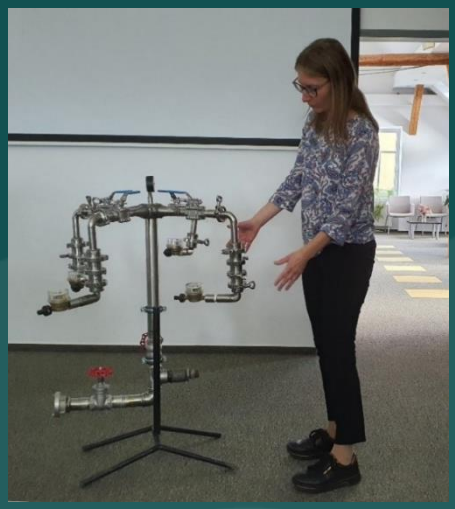
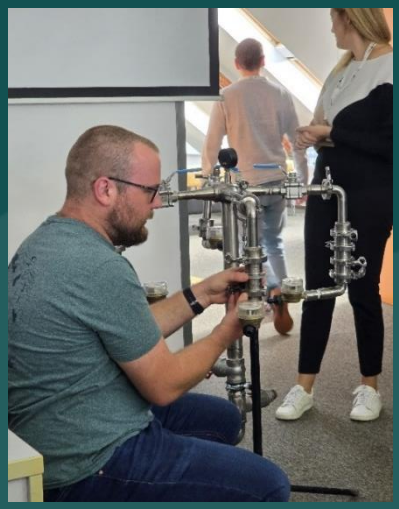
On the third day, an invited lecture was organized on the topic of microplastics research and sampling methodologies. The lecture was delivered by Dr. Manca Kovač Viršek, from the and the National Institute of Biology together with colleagues from the Geological Survey of Slovenia. During the session, the team presented the Filtration Sampling System equipment and demonstrated its application in practice.





The meeting included sessions dedicated to project communication, led by the Communication Manager, during which all partners delivered brief presentations on their communication activities carried out in this phase of the project. All partners also presented their dissemination activities and efforts to build synergies.

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MicroDrink Project Presents at second call Lead Partner seminar in Bucharest

On 11 June 2025, the Interreg Danube Region Programme (DRP) Managing Authority/Joint Secretariat (MA/JS) organised a Lead Partner Seminar for Lead Partners of projects selected in the second call. On the following day, a Synergy Building and Capitalisation Workshop was held with the participation of Lead Partners from the first call and Priority Area Coordinators of the EU Strategy for the Danube Region (EUSDR).

More about this event can be found on the link: https://interreg-danube.eu/news/lead-partner-seminar-and-synergy-building-workshop-held-in-bucharest

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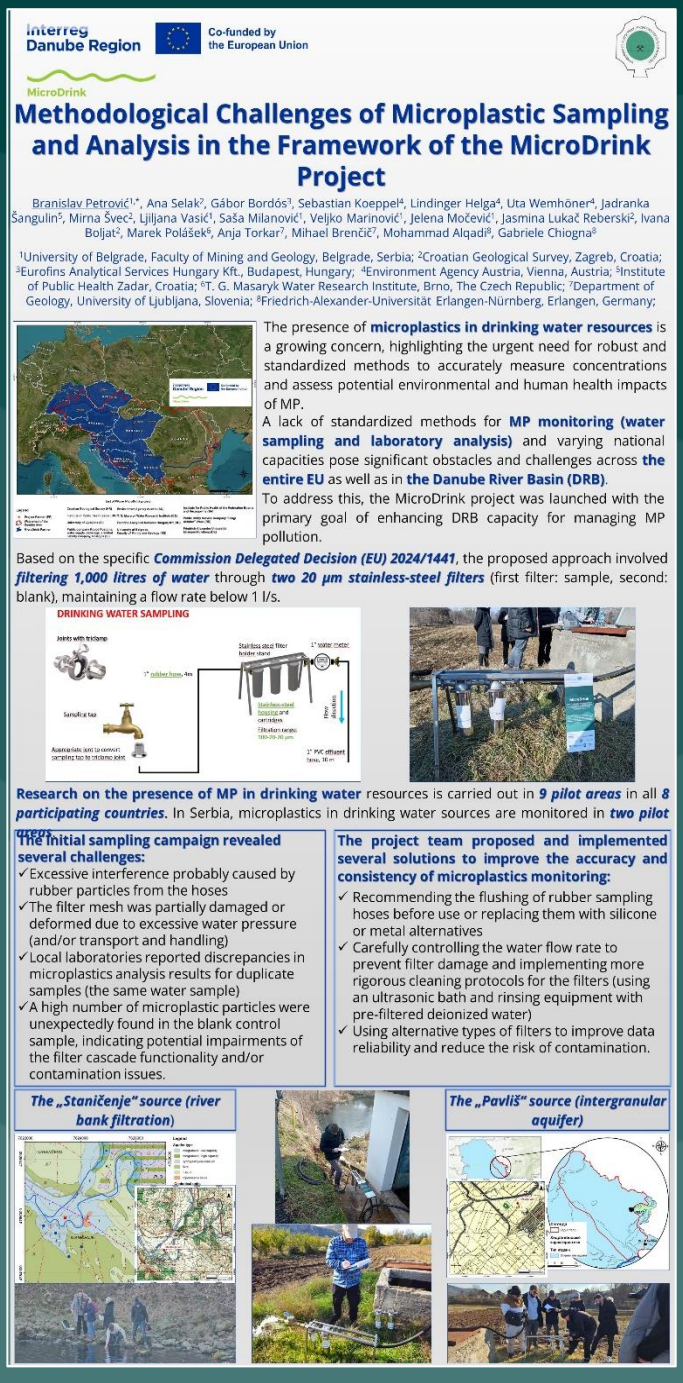
MicroDrink Project Presented at MICROM 2025 Conference

The MICROM 2025 Conference was held in Novi Sad on 26–27 November, bringing together experts and researchers dedicated to advancing microplastic science.



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MicroDrink

Methodological Challenges of Microplastic Sampling and Analysis in the Framework of the MicroDrink Project

Branislav Petrović[1,*], Ana Selak[2], Gábor Bordós[3], Sebastian Koeppel[4], Lindinger Helga[4], Uta Wemhöner[4], Jadranka Šangulin[5], Mirna Švec[2], Ljiljana Vasić[1], Saša Milanović[1], Veljko Marinović[1], Jelena Močević[1], Jasmina Lukač Reberski[2], Ivana Boljat[2], Marek Polášek[6], Anja Torkar[7], Mihael Brenčič[7], Mohammad Alqadi[8], Gabriele Chiogna[8]

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The presence of **microplastics in drinking water resources** is a growing concern, highlighting the urgent need for robust and standardized methods to accurately measure concentrations and assess potential environmental and human health impacts of MP.

A lack of standardized methods for **MP monitoring (water sampling and laboratory analysis)** and varying national capacities pose significant obstacles and challenges across **the entire EU** as well as in **the Danube River Basin (DRB)**.

To address this, the MicroDrink project was launched with the primary goal of enhancing DRB capacity for managing MP pollution.

Based on the specific ***Commission Delegated Decision (EU) 2024/1441***, the proposed approach involved ***filtering 1,000 litres of water*** through ***two 20 µm stainless-steel filters*** (first filter: sample, second: blank), maintaining a flow rate below 1 l/s.

DRINKING WATER SAMPLING

Research on the presence of MP in drinking water resources is carried out in ***9 pilot areas*** in all ***8 participating countries***. In Serbia, microplastics in drinking water sources are monitored in ***two pilot areas***.

The initial sampling campaign revealed several challenges:

- ✓Excessive interference probably caused by rubber particles from the hoses
- ✓The filter mesh was partially damaged or deformed due to excessive water pressure (and/or transport and handling)
- ✓Local laboratories reported discrepancies in microplastics analysis results for duplicate samples (the same water sample)
- ✓A high number of microplastic particles were unexpectedly found in the blank control sample, indicating potential impairments of the filter cascade functionality and/or contamination issues.

The project team proposed and implemented several solutions to improve the accuracy and consistency of microplastics monitoring:

- ✓ Recommending the flushing of rubber sampling hoses before use or replacing them with silicone or metal alternatives
- ✓ Carefully controlling the water flow rate to prevent filter damage and implementing more rigorous cleaning protocols for the filters (using an ultrasonic bath and rinsing equipment with pre-filtered deionized water)
- ✓ Using alternative types of filters to improve data reliability and reduce the risk of contamination.

The „Staničenje" source (river bank filtration)

The „Pavliš" source (intergranular aquifer)

At the event, the MicroDrink project team, represented by PP9 – University of Belgrade, Faculty of Mining and Geology, presented some of the results from the ongoing project.

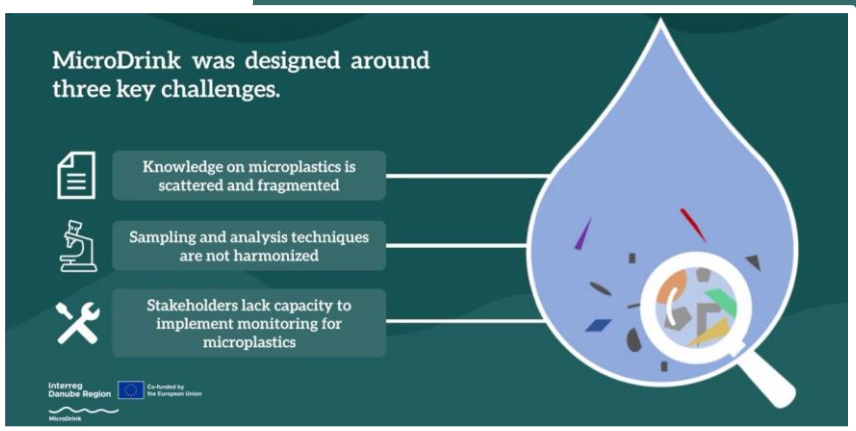
MicroDrink Project Presents at first Water Resilience Forum

The video on MicroDrink project objectives, results and relevance was showcased at the 1st Water Resilience Forum, organized by the European Commission.

Video was displayed throughout the event, reaching a large and diverse audience, including policymakers, public service providers, high-level commissioners, and other experts relevant for water sector.

The video is available at the following link:

https://www.youtube.com/watch?v=Ls5Zx66PKMc



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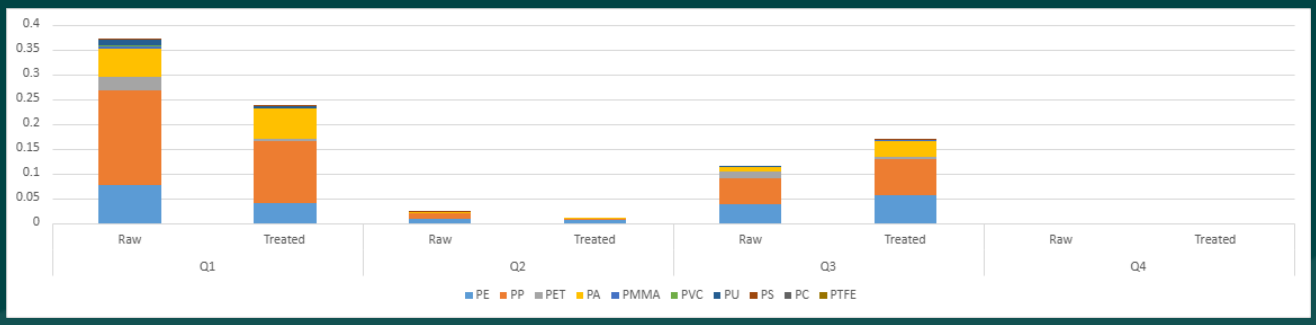
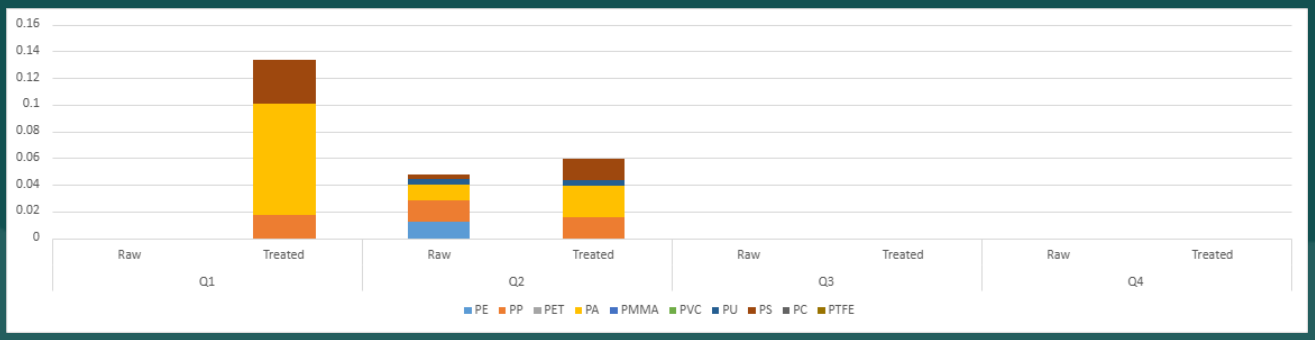
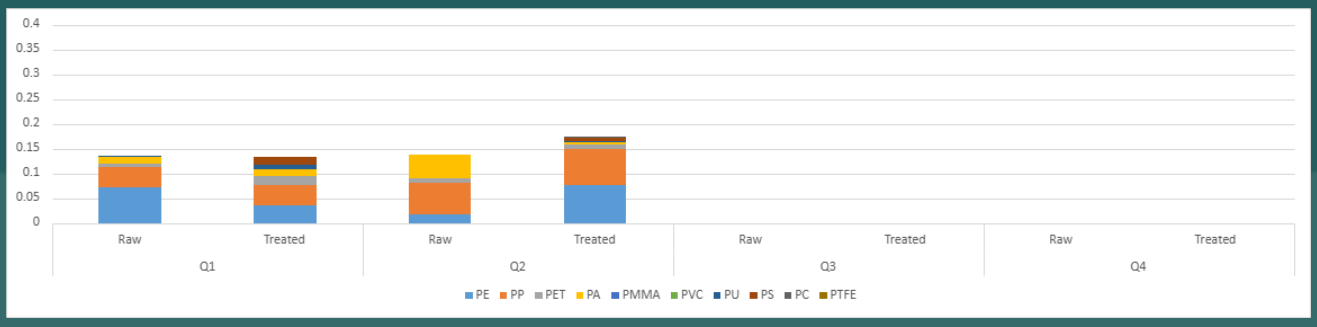
PRELIMINARY RESULTS
Karst water resources (particles/L)



Pilot Action 1, Croatia



Pilot Action 2, Austria



Pilot Action 3, Bosnia & Herzegovina

Disclaimer: The implementation of the requirements for sampling and analysis of microplastics in accordance with the Commission Delegated Decision (EU) 2024/1441 still presents challenges. Specifically, the method for sampling is not yet fully developed, and no validated or certified equipment is available. Currently there are no regulatory limits for microplastics in water resources.

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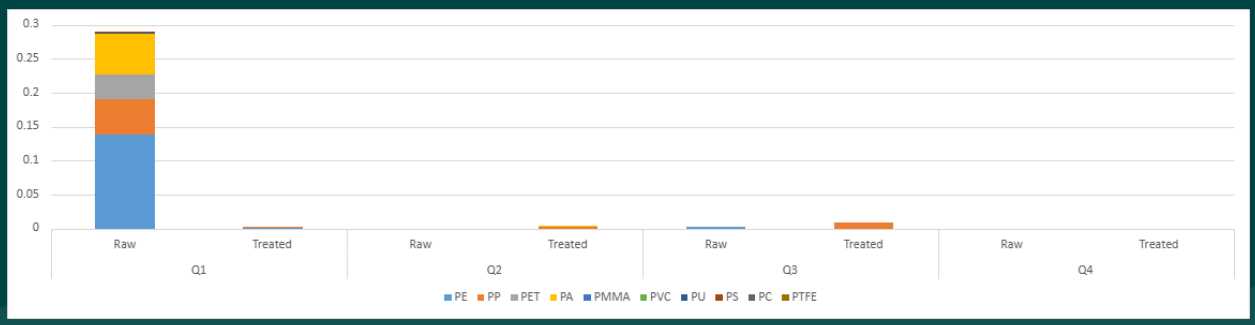
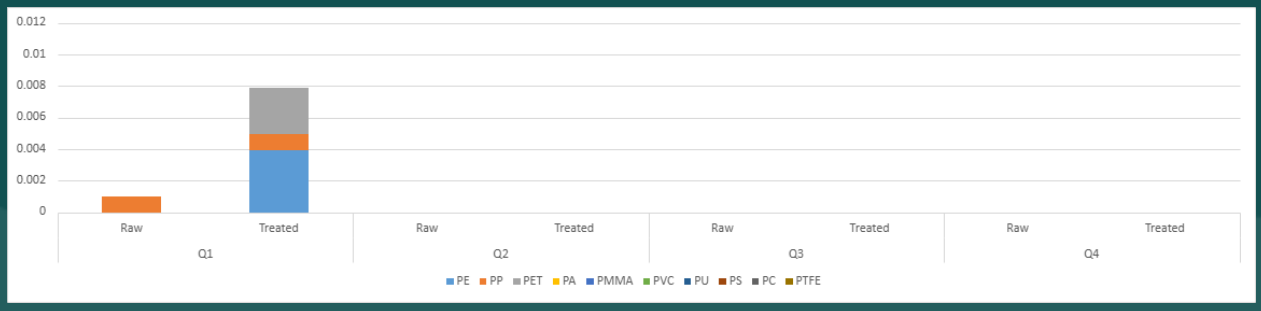
MicroDrink

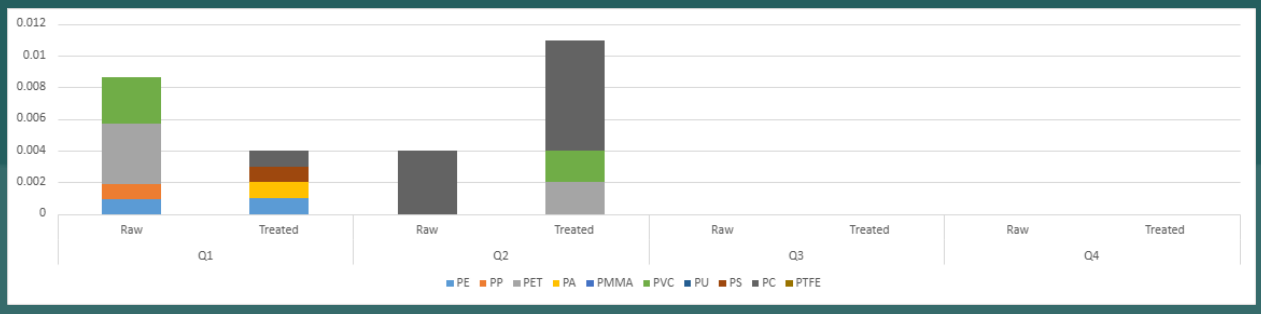
PRELIMINARY RESULTS
Intergranular water resources (particles/L)



Pilot Action 4, Hungary



Pilot Action 5, Serbia



Pilot Action 6, Germany

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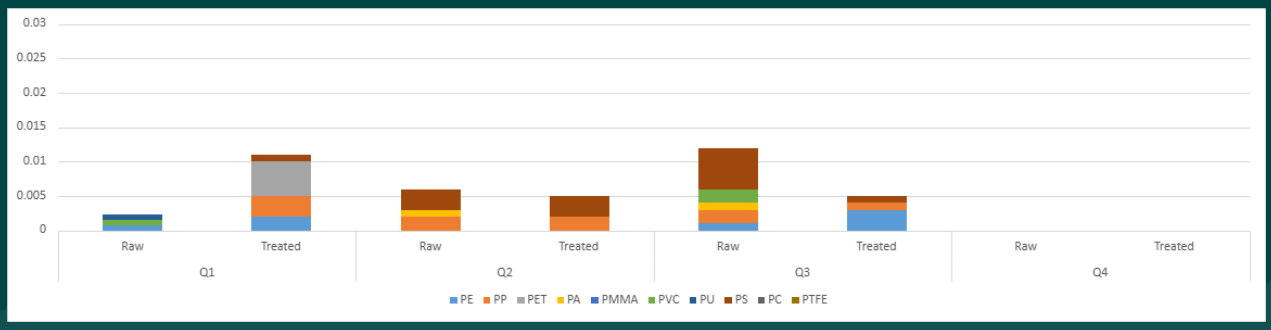
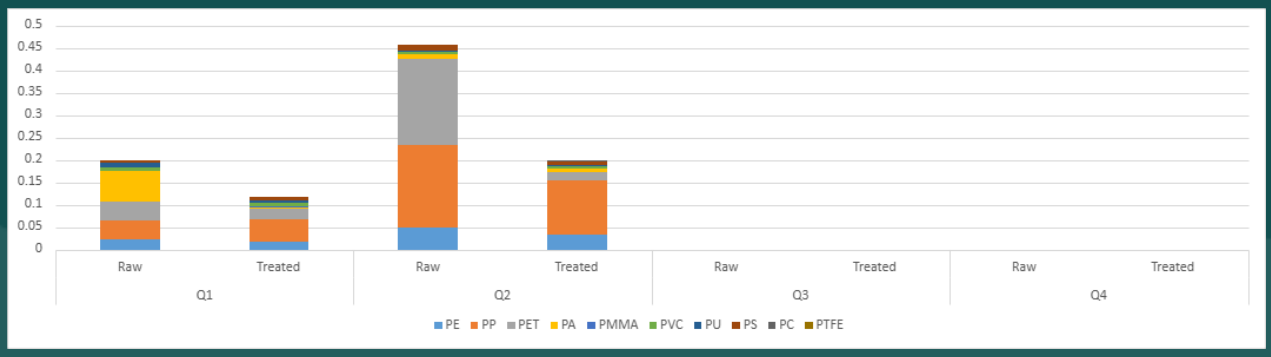
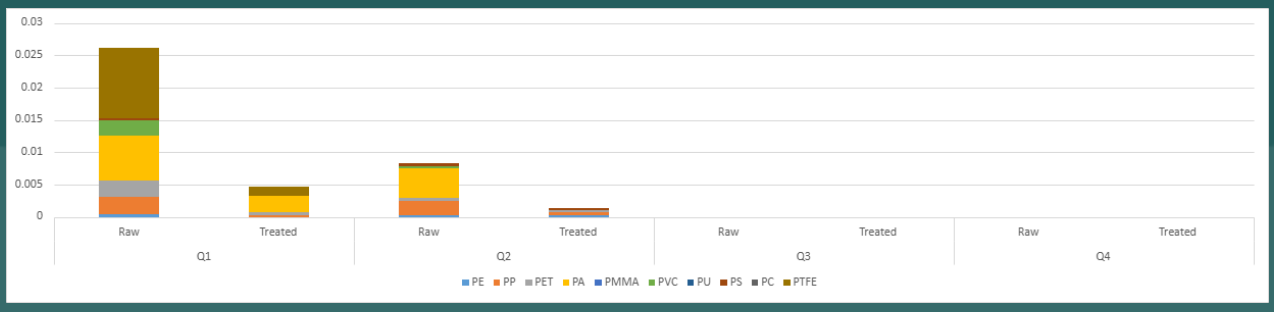
PRELIMINARY RESULTS
Surface/bank filtration water resources (particles/L)



Pilot Action 7, Serbia



Pilot Action 8, Czech Republic



Pilot Action 9, Slovenia

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The MicroDrink Knowledge Base is now live!

The MicroDrink Knowledge Base – an open-access platform that consolidates and shares knowledge on microplastics (MP) in drinking water resources across the Danube River Basin is LIVE!

Available at https://microdrink.wordpress.com and integrated into the main MicroDrink project website: https://interreg-danube.eu/projects/microdrink.

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MicroDrink

The MicroDrink Knowledge Base is now live!

The Knowlegde Base is developed to overcome fragmentation in MP monitoring and management, it brings together sampling protocols, analytical methods, laboratory capacities, instruments, legislation, and ongoing projects into one comprehensive resource. It supports scientists, policymakers, water utilities, NGOs, and other stakeholders with reliable, harmonized information and promotes cross-border cooperation in the Danube Region.

By publishing this resource openly, the MicroDrink project fosters standardization, knowledge exchange, and coordinated action toward reducing microplastics in drinking water — contributing to both the EU Strategy for the Danube Region (EUSDR) and the Circular Economy Action Plan.

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National Stakeholder Workshops

https://interreg-danube.eu/projects/microdrink/events

National-level workshops, with the support of a software developer, will be organized to train stakeholders in the application of the Decision-Making Support Tool (DMST). The workshops will also include a live demonstration of the published MicroDrink Knowledge Base, as well as the results of MP analyses in drinking water.

The event is aimed at a wide range of stakeholders, including water operators, decision-makers, regulatory and authority bodies, sectoral agencies, and environmental agencies, who would benefit from increased capacity, particularly in relation to the DMST.

These workshops will bring together key stakeholders to exchange knowledge, discuss project-related topics, and contribute to the achievement of the project objectives.

Exact dates, venues, and further details will be announced in due course. Interested parties are invited to follow our website and social media channels, where official invitations and timely updates will be published.

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MicroDrink Project Final Conference

Microplastics in drinking water: From evidence to management

SAVE THE DATE

May 20th, 2026 | Belgrade, Serbia

University of Belgrade, Faculty of Mining and Geology with support of the Croatian Geological Survey are pleased to invite you to the Final Conference of the MicroDrink Project.

This high-level event will bring together project partners, stakeholders, and experts from across the Danube Region to present and discuss the results and solutions jointly developed by the MicroDrink consortium.

- Harmonized approach to sampling and analysis in 9 pilot actions
- Decision-making support tool and MicroDrink Knowledge Base
- Keynote speakers with long-term experience in microplastics research and management

Join us as we reflect on our shared achievements, explore key findings, and look ahead to future collaboration opportunities in ensuring safe and resilient water systems for the Danube Region.

Full agenda, keynote speakers and registration details will be announced on the official MicroDrink project website.

FIND OUT MORE

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Youtube profile: https://bit.ly/3VPNFCj

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