Interreg Danube Region

Co-funded by the European Union

MicroDrink

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CROATIAN GEOLOGICAL SURVEY

MicroDrink

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

Conference on Microplastics in drinking water – from source to tap

Budapest, 3.10.2024

Croatian Geological Survey

Mirna Švec

Facts and figures

Programme priority: 2: A greener, low-carbon Danube Region

Programme priority specific objective: 2.3: Sustainable, integrated, transnational water and sediment management in the Danube River Basin ensuring good quality and quantity of waters and sediment balance

30 months:
5 periods
6 months each

From 8 countries:
11 project partners
19 associated strategic partners

2.351.480,00€ total budget
1.881.184,00 from Interreg Funds

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Partnership

List of PPs in MicroDrink project

Legend

- Project Partner (PP)
- Watershed of the Danube river
- MicroDrink Partner

1. Croatian Geological Survey
2. Institute of Public Health Zadar
3. University of Ljubljana
4. Public company Kovod Postojna, water supply, sewerage, a limited liability company, Postojna
6. Environment Agency Austria
7. T. G. Masaryk Water Research Institute
8. Eurofins Analytical Services Hungary Kft
9. University of Belgrade, Faculty of Mining and Geology
10. Institute for Public Health of the Federation Bosnia and Herzegovina
11. Public Utility Service Company Drugi oktobar" Vrsac
12. Friedrich-Alexander Universität Erlangen-Nürnberg

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ZAVOD ZA JAVNO ZDRAVSTVO ZADAR

UNIVERZA V LJUBLJANI
University of Ljubljana

KOVOD

umweltbundesamt
ENVIRONMENT AGENCY AUSTRIA

VÚV TGM

eurofins

ZAVOD ZA JAVNO ZDRAVSTVO FBiH
INSTITUTE FOR PUBLIC HEALTH FB&H

УНИВЕРЗИТЕТ У БЕОГРАДУ - РУДАРСКО-ГЕОЛОШКИ ФАКУЛТЕТ

ЈКП ДРУГИ ОКТОБАР ВРШАЦ

FAU
Friedrich-Alexander-Universität
Erlangen-Nürnberg

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Project objectives

MicroDrink's main objective is to enhance capacity building and governance at different levels for management and prevention of microplastics (MP) pollution in drinking water resources of Danube region. MicroDrink will jointly collect, valorize and extend existing knowledge on sampling, analysis, mitigation and prevention of microplastic in drinking water resources and develop tools to strengthen policy and decision makers' knowledge and ensure their collaboration with practitioners and scientific community.

SO1: Developing transnational knowledge base on microplastics in Danube region drinking water resources

Consolidation of scattered knowledge on microplastics sampling, analysis, monitoring and risk assessment in Danube River Basin with the objective to foster collaborative management, esp. for transboundary aquifers and rivers.

SO2: Occurrence of microplastics in the water environment used for drinking water supply

Pilot areas will serve for testing, learning and demonstration of harmonized microplastics approach. Partners will obtain info on occurrence of MP in Danube River Basin drinking water resources and treated water and engage and prepare key actors in EU and non-EU countries for implementation of EU DWD.

SO3: Capacity building for management of microplastics in drinking water facilities (from source to tap)

Develop methodological approaches to MP management & governance at all levels. MicroDrink board and DMST engages policymakers at local, regional and national levels, ensuring lasting impact beyond project and effective implementation of EU DWD.

Outputs & results

O1.1 MP approach harmonized at EU & non-EU level

→ **Result 1 – Microplastics approach harmonized** at EU and non-EU level contributing to enhanced cooperation and knowledge exchange beyond borders, uptake of harmonized best practices.

O2.1 Microplastics in drinking water obtained from karst water resources in Danube region
O2.2 Microplastics in drinking water obtained from intergranular water resources in Danube region
O2.3 Microplastics in drinking water obtained from surface/river bank filtration water resources in Danube region

→ **Result 2 –** End users take part in roundtable discussions, webinars, sampling training sessions, elaboration of practical implementation of best monitoring practices.

O3.1 MicroDrink Board
O3.2 Decision-making support tool for microplastics
O3.3 Testing of DMST in drinking water obtained from karst water resources in Danube region
O3.4 Testing of DMST in drinking water obtained from intergranular water resources in Danube region
O3.5 Testing of DMST in drinking water obtained from surface/river bank filtration water resources in Danube region

→ **Result 3 – MicroDrink Board** – transboundary collaboration of experts sharing knowledge on microplastics in the water supply chain.

→ **Result 4 – Decision Making Support Tool for microplastics** will support decisions on microplastic monitoring strategies and help end users to estimate the extent of microplastic issues in water supply systems.

Harmonized sampling approach

Knowledge and experience gathered in SO1, and best practice proposed with harmonized sampling approach will be tested over the course of 1 year in 9 pilot actions. Drinking water (raw and treated) will be sampled in 4 campaigns to gather insights into the sources, occurrence & behavior of MP in 3 key clusters of drinking water resources: surface water/river bank filtration, intergranular, and karst resources - all vital components of the DRB.

An international joint sampling training session will be hosted by Eurofins in Hungary on October 9th, 2024. This session will bring together project partners and relevant stakeholders to share knowledge, experience, and best practices for MP sampling in drinking water.

International Joint sampling training session

Microplastics in drinking water workshop

10:30 – 14:00, 9th October 2024

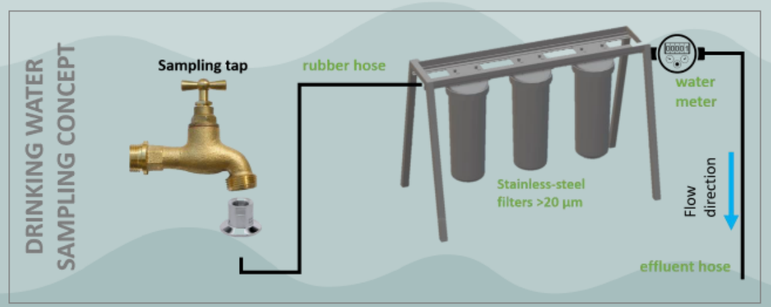
Venue: Székesfehérvár, Hungary

We cordially invite you to attend the sampling training workshop for microplastics in drinking water.

The event will be organized by the MicroDrink project team and led by Eurofins. It will serve as the foundation for future microplastics research within the project.

During the event we will demonstrate a microplastics sampling process compliant with the EU Drinking Water Directive 2020/2184 guidelines, filtering a minimum of 1000 L of water to concentrate particles down to 20 µm in size. We aim:

1) to **transfer sampling knowledge** to stakeholders and other interested parties and
2) to collect parallel reference samples and field blank samples that will be used as a way of **quality control among national labs** that will participate in the project during a one-year-long monitoring campaign.



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MicroDrink Survey on sampling methods and analysis of microplastics

Project MicroDrink has prepared a survey for experts on existing sampling procedures, laboratory instruments, analytical and detection methods of microplastic. By participating in this survey, you help us establish a deeper understanding of current practices and identify areas for improvement in the detection and analysis of microplastics.

By conducting these surveys, project MicroDrink hopes to gather diverse perspectives and knowledge that can inform our research, advocacy efforts, and potential issues related to microplastics. The findings from both surveys will be analyzed and synthesized to identify key trends, knowledge gaps, and areas for further investigation or action. Ultimately, the goal is to contribute to a better understanding of microplastic pollution and to establish best practices for mitigating its occurrence in drinking water resources.

MicroDrink Survey on policies, legislation and problems

Project MicroDrink prepared a survey on policies, legislation, problems and current practices in dealing with microplastics in drinking water in the Danube region as a way to gather insight from experts on microplastics, as well as the general public, on the current state of microplastics-related policies, research and awareness..

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MicroDrink Knowledge transfer webinars

Micro(knowledge) transfer webinar on general state of the art of MP in drinking water resources

Micro(knowledge) transfer webinars for sampling, laboratory instruments and analytical techniques

Will be organized by the end of 2024 and announced at MicroDrink official webpage.

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Thank you for your attention!

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