



## **Newsletter 01**

# MicroDrink

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





## **MOTIVATION**

Within the Interreg Danube Region programme 2nd call for proposals and Programme priority: A greener, low-carbon Danube Region, 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, the project MicroDrink (Capacity building for management and governance of MICROplastics in DRINKing water resources of Danube Region) has been approved.

Microplastics (MP) are becoming pollutant of concern, as each year 75.000–300.000 t are released in Europe's environment. Most recent environmental MP risk is related to Covid-19 and disposal of surgical masks, an overlooked pollution source. According to Joint Danube Survey 4 (JDS4) conducted in 2019, which established a baseline of MP occurrence in the Danube River Basin (DRB), MP was found along the whole Danube, its major tributaries and in aquatic organisms, with polyethylene being the most abundant component usually used in plastic bottles and packaging. In contrast to well researched seawater, occurrence and detrimental effects of MP in surface water and groundwater especially those used for drinking water supply of DRB region remain largely unexplored territory. Lack of integrated MP management in water environment is currently one of crucial challenges that DRB countries need to adequately address. Effective monitoring tools, as well as improved and integrated policies to mitigate MP emission and reduce pollution are urgently needed.

MP continuously flows in Danube River reaching the Black sea with daily plastic litter load of 4.2 t, and such pollution knows no administrative boundaries.



## **MOTIVATION**

MicroDrink is a follow-up of the project boDEREC-CE which has been focused on emerging contaminants in drinking water, recognized MP pollution as a common DRB challenge that can only be tackled with strong transboundary cooperation.

The European Commission aims to find an analytical methodology for microplastics in drinking water, in order to carry out a complete risk assessment by 2029. Precondition for this is elaboration and acceptance of harmonised sampling and analytical methods. This is where MicroDrink steps in, by supporting cross-border and cross-sector cooperation, exchange of knowledge and experience regarding MP sampling, analysis, monitoring and risk assessment in DRB drinking water resources. MicroDrink aims to make Danube region more resilient to MP pollution by closing the knowledge gaps regarding MP through open online MicroDrink knowledge base offering comprehensive review of MP sampling methods, laboratory instruments and analytical techniques, establishing and maintain synergies with past and current EU projects dealing with DRB water management and protection, engaging relevant national and transnational stakeholders via targeted meetings, workshops and events. MicroDrink's innovative approach is implementation of MP approach harmonized at EU and non-EU level, tested in designated transboundary pilot sites where MP will be monitored in 9 pilot actions equally distributed in 3 clusters (karst, intergranular, surface/river bank filtration) representative of the vast majority of DRB drinking water resource types. Investigations will be conducted in 9 pilot areas in 8 countries (Austria, Bosnia and Herzegovina, Czech Republic, Croatia, Hungary, Germany, Slovenia and Serbia).





## **MOTIVATION**

MicroDrink will, during 30 months of its duration, strive to enhance capacity building and governance at different levels for management and prevention of MP pollution in DRB.

MicroDrink will jointly collect, valorize and extend existing knowledge on sampling, analysis, mitigation and prevention of MP in drinking water environment and develop tools to strengthen policy and decision makers' knowledge and ensure their collaboration with practitioners and scientific community.

The project outputs and results will build sound foundation for future activities in DRB aimed at assessing MP related risks, hazards and impacts on environment and human health. MicroDrink's transboundary and cross-sector collaboration in EU and non-EU countries will foster active engagement of all key actors across DRB, preparing them for efficient implementation or adaptation of EU Drinking Water Directive, increasing the resilience of water supply systems against MP by providing the water supplier with a decision-making support tool for selecting optimal measures and choosing adequate actions towards mitigation of MP.





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## **FACTS & FIGURES**

# MicroDrink

**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



11 PP  
Project partners



19 ASP  
associated strategic  
partners



9 Pilot areas

**2.351.480 €**

Project budget

**1.881.184 €**

Interreg funds

**1/2024-6/2026**

Project duration

This project is supported by the Interreg Danube Region Programme co-funded by the European Union.



<https://interreg-danube.eu/projects/microdrink>

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/MicroDrinkDRP



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MicroDrink



Instagram profile  
@interreg\_drp\_microdrink



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





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## FACTS & FIGURES



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List of PPs in MicroDrink project

- |  |   |  |  |
|--|---|--|--|
| <b>Legend</b><br><ul style="list-style-type: none"> <li>● Project Partner (PP)</li> <li> Watershed of the Danube river</li> <li> MicroDrink Partner</li> </ul> | 1. Croatian Geological Survey   | 6. Environment Agency Austria                            | 10. Institute for Public Health of the Federation Bosnia and Herzegovina |
|  | 2. Institute of Public Health Zadar   | 7. T. G. Masaryk Water Research Institute                | 11. Public Utility Service Company "Drugi oktobar" Vrsac                 |
|  | 3. University of Ljubljana  | 8. Eurofins Analytical Services Hungary Kft              | 12. Friedrich-Alexander Universität Erlangen-Nürnberg                    |
|  | 4. Public company Kovod Postojna, water supply, sewerage, a limited liability company, Postojna | 9. University of Belgrade, Faculty of Mining and Geology |  |



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## **PROJECT PARTNERS**



**Croatian Geological Survey,**  
<https://www.hgi-cgs.hr/>



**Institute of Public Health Zadar,**  
<https://www.zjz-zadar.hr/>



**University of Ljubljana,**  
<https://www.uni-lj.si/en>



**Public company Kovod Postojna,  
water supply, sewerage, a limited  
liability company, Postojna,**  
<https://www.kovodpostojna.si/>



**Environment Agency Austria,**  
<https://www.umweltbundesamt.at/>



**T. G. Masaryk Water Research  
Institute, <https://www.vuv.cz/>**



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## **PROJECT PARTNERS**



**Eurofins Analytical Services  
Hungary Kft,**

<https://www.eurofins.hu/hu/analytical-services-hungary-en/>



**University of Belgrade, Faculty of  
Mining and Geology,**

<https://rgf.bg.ac.rs/>



**Institute for Public Health of the  
Federation Bosnia and  
Herzegovina,**

<https://www.zzjzfbih.ba/>



**Public Utility Service Company  
"Drugi oktobar" Vršac,**

<https://oktobar.co.rs/>



**Friedrich-Alexander-Universität  
Erlangen-Nürnberg**

**Friedrich-Alexander-Universität  
Erlangen-Nürnberg,**

<https://www.fau.eu/>



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## **PROJECT WORK PLAN**

MicroDrink's main objective is to enhance capacity building and governance at different levels for management and prevention of 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 in drinking water environment 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. PPs will obtain info on occurrence of microplastics 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 Drinking Water Directive.

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

Develop methodological approaches to microplastics management and governance at all levels. MicroDrink board and Decision Making Support Tool engages policymakers at local, regional and national levels, ensuring lasting impact beyond project and effective implementation of EU Drinking Water Directive.

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## **PROJECT OUTPUTS**

### **Output 1**

- **O 1.1** Microplastics approach harmonized at EU and non-EU level

### **Output 2**

- **O 2.1** Microplastics in drinking water obtained from karst water resources in Danube region
- **O 2.1** Microplastics in drinking water obtained from karst water resources in Danube region
- **O 2.3** Microplastics in drinking water obtained from surface/river bank filtration water resources in Danube

### **Output 3**

- **O 3.1** MicroDrink Board
- **O 3.2** Decision-making support tool (DMST) 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

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## PROJECT RESULTS

### 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.

### Result 2

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

### 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.



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## FIND OUT MORE

### Lead Partner

Croatian Geological Survey

[microdrink@hgi-cgs.hr](mailto:microdrink@hgi-cgs.hr)

### Communication Manager

University of Belgrade, Faculty of  
Mining and Geology

[microdrink.cm@rgf.bg.ac.rs](mailto:microdrink.cm@rgf.bg.ac.rs)

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