Interreg
Danube Transnational Programme

Programme co-funded by European Union funds (ERDF, IPA, ENI)

Newsletter

Danube Hazard m³c

Project progress in the period of January to June 2022

Contents

❖ Preface

Dear readers,

The last time we wrote you, we were thinking that time flies, as the half-time of our Danube Hazard m³c adventure was around the corner. Now, looking at the calendar, we realize that we are nearly on the final straight. A lot has happened in the last months. And a lot will still be happening in the ones to come. The first outcomes show us, however, that it was really worth the effort. Learning, accumulating experience and expertise in various fields linked to management of hazardous pollution in such an international river basin as the Danube River Basin, was very fruitful. Sharing the knowledge and lessons learnt with various concerned audiences also showed as highly valuable experience. And as already said, still much more is to come….

With this newsletter, we would like to bring you closer to a few selected activities from the past months with the hope, you encounter them interesting and useful. We also want to awaken your curiosity to join us in the ***Danube Hazard m3c final events****, the* ***final conference*** *and the* ***international workshop on management of HS pollution****, which will take place at the end of November in Vienna, in* ***the frame of the International River Symposium*** *(https://riversymposium.com/). You will find more information on these events at the end of this newsletter.*

To give you a small appetizer, we want to guide you today through our monitoring campaigns of hazardous substances in several environmental compartments, which were conducted in our seven pilot stations, namely in Wulka and Ybbs catchments in Austria, Koppány and Upper Zagyva catchments in Hungary, Someșul Mic River and Vișeu River catchments in Romania and Vit River catchment in Bulgaria. We will show you also some preliminary results. The analysis of samples collected there is carried out in three chosen laboratories, and the evaluation of the results has already started. Thus, we will also invite you for a visit to one of them, the laboratory of the Department of Environmental Sciences of the project partner Jožef Stefan Institute in Ljubljana, Slovenia and the work they carry out. Simultaneously, in the last months, the preparation of the modelling activities for the seven pilot catchments and the collection of input data for the MoRE emission model has been conducted. For the results of this activity, you will still have to wait a bit, but what we can show you already now, is the landscape of the national and EU regulations and their critical comparison, with the focus on the similarities and differences identified, both in the legal context and its implementation in the project partners' countries.

Last but not least, we want to invite you to see the more "human" and social face of the project, the meetings we participated in, the events we attended and the trainings, which have been organized so far to share the knowledge with the external world. And as mentioned at the beginning, more of those events are to come, so please read carefully to the end. We hope to meet you in one of them.

Kind regards

Renata Kaps

❖ Pilot region monitoring campaign *(by Nikolaus Weber, TU Wien, Austria)*

In the past 1,5 years, the DHm³c project partners carried out a very ambitious monitoring campaign in seven pilot regions across four Danube river countries. Not only to establish the up-to-date status on micro pollutant (MP) levels across the Danube basin but also to fill in severe data gaps for the further modelling planned in the project on a bigger scale.

Several compartments are monitored within the pilot regions to get MP concentrations for different pathways. River online monitoring stations collect continuous sensor data on water quality. Autosampler devices take samples during high-flow events. Weekly manual grab samples during low-flow conditions are mixed to form 8-week composite samples to represent the base flow condition. In some pilot regions, additional Philipps-sampler collect SPM (suspended particulate matter) samples for particle-bound MP concentrations. 1-week composite samples from waste water treatment plants (WWTP) and sewer overflows reflect the point sources and four composite samples from atmospheric deposition stations the seasonal variability of diffuse emissions through air & rain. Soil samples from different land-uses represent the diffuse soil erosion pathway.

The first challenge in this activity was to select the pilot regions that best represent the variability of the Danube River Basin. After in depth analysis, seven pilot regions were selected and monitored for a one-year period. A joint standard operating procedure (SOP) was developed and implemented, covering aspects from the bottle selection over bottle cleaning to samples handling,

Figure 1: Compartments of the DHm³c monitoring campaign. Top: WWTP out- & inflow, amt. Station, Philipps-sampler. Bottom: low-flow grap sample, soil sample and online station after high-flow event

shipping and lab analysis). The SOP was crucial for the project as it ensured the same quality standards across all pilot regions and therefore comparable results.

Nevertheless, the SOP had to be modified during the monitoring campaign several times due to unforeseen events, like for instance glass breaks or precipitation due to storage method, to name just a few challenges.

In Winter 2020, the partners started preparing monitoring stations in their pilot regions. Due to the ongoing COVID-19 pandemic, there were supply difficulties for Autosampler stations, and the restrictions have made the construction work very difficult. Nevertheless, in Spring 2021, all stations were running, and the first samples were collected.

The biggest challenge from the author's point of view was the summer storm period, where many high-flow events happened. It was very challenging to manage logistic and personal resources for sample collection, composite creation, bottle cleaning and refill of the autosampler devices so they are ready for the next events. Some pictures of those steps can be seen here.

By June 2022, several compartments monitoring could be finished, namely for low-flow, soil, atmospheric deposition and WWTP sampling.

The monitoring campaign for SPM and high-flow samples is still ongoing, and the last samples will be delivered to the labs by August 2022.

The whole monitoring campaign was very challenging and could only be accomplished due to the enormous efforts of all project partners.

Figure 2: After each high-flow event the station had to be cleaned, samples picked up and mixed to form composite-samples, then distributed to the different lab bottles and then send to the laboratory for analysis.

❖ Monitoring – first results from laboratory measurements *(by Máté Kardos, BME, Hungary)*

A preliminary evaluation of the lab measurement results was conducted. As expected, mining drainages have high concentrations of heavy metals but no pharmaceutical residues or pesticides at all. The contribution of atmospheric deposition is relatively important for Cd, Cu, Hg, Zn and the investigated pesticides. Wastewater treatment has its effects: wastewater effluents had lower or equal concentrations for all substances than plant influents. Also no surprise: no pesticides were detected in wastewaters. However, further investigation is needed to reveal the reason why (or where) high flow events had higher concentrations of diclofenac than low-flow events.

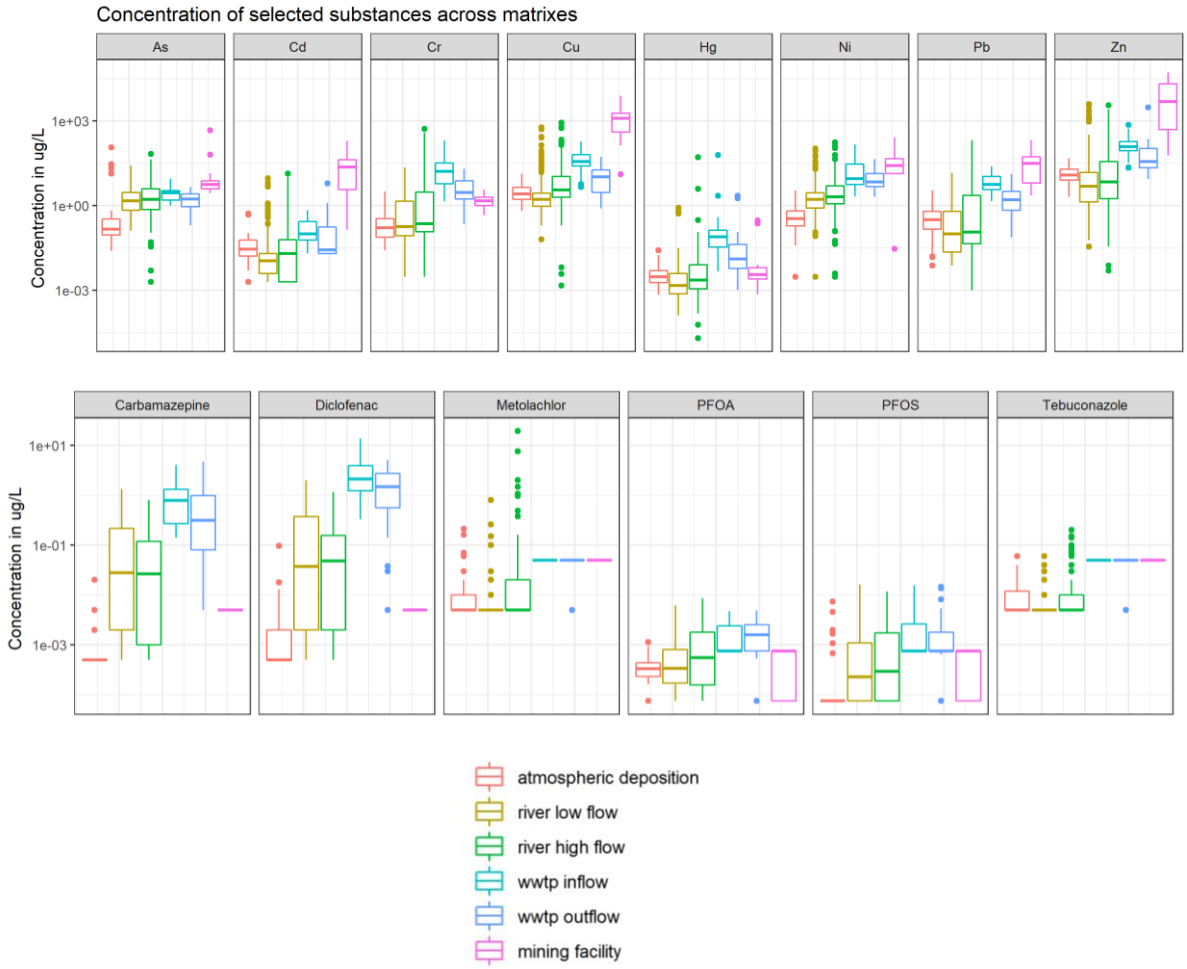


Figure 3: First laboratory results

❖ From sampling to the analysis of the potentially toxic elements in river waters *(by Radmila Milačič, Katarina Marković and Janez Ščančar, JSI, Slovenia)*

Beside organic micropollutants, the Danube Hazard m³c project sets an important focus on occurrence and fate of potentially toxic elements (PTEs). Cd, Pb, Cu, Zn, Ni, Cr and As are measured in the samples collected in the seven pilot regions by the laboratories of the Department of Environmental Sciences of the project partner Jožef Stefan Institute, Ljubljana, Slovenia. Hg is measured only in the whole water samples due to the problems related to the potential losses of the volatile Hg^0 during the filtering of samples. Therefore, Hg results are not included in this report.

With respect to rivers, the project aims at optimizing the relationship between resources invested in the monitoring and information obtained out of the analyses. Specifically, this means that we analyse targeted samples at different flow conditions and that we work with composite samples to cover temporal variability with a limited number of samples. Sampling is performed under low and middle water levels on a weekly basis and the eight samples collected over two months are mixed into a composite sample. Sampling at high-flow events is designed in a way to cover the whole events in a flow proportional manner, where possible.

For the determination of the soluble PTEs concentrations, samples are filtered and acidified before the analysis. For total concentrations of PTEs, samples are acidified and before analysis decomposed using microwave-assisted digestion. Concentrations of PTEs are then determined by inductively coupled plasma mass spectrometry (ICP-MS).

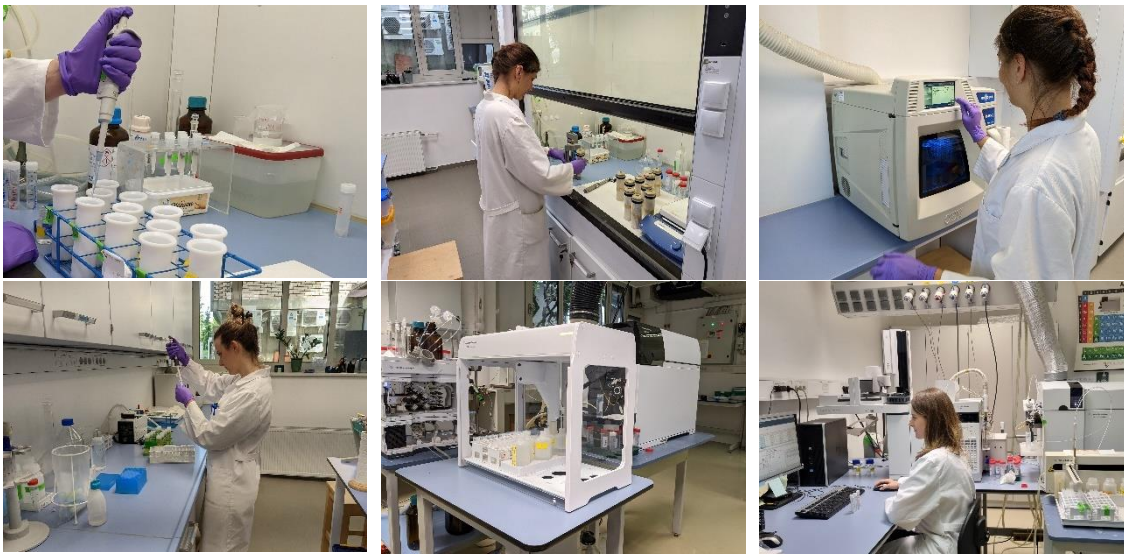


Figure 4: Sample preparation and measurement of elemental concentrations by ICP-MS (photos S. Marković)

Influence of water hardness on the behaviour of PTEs in river water during storage

For the determination of the dissolved PTEs concentrations, sub-samples forming a composite sample were frozen at – 20 °C and kept frozen until the analysis. Before PTEs analysis, the composite samples were thawed, filtered through 0.45 µm nitrocellulose membrane filter and acidified with nitric acid (pH 2). In some of the first samples handled according to this procedure, after thawing, a tiny precipitate of $CaCO_3$ was observed due to high hardness of the river waters collected (carbonates contents 226 ± 46 mg/L CaO).

In order to find out whether PTEs are also co-precipitated with $CaCO_3$, samples were filtered and acidified on site and frozen to build a composite sample. The acidification of sample before freezing prevented precipitation of $CaCO_3$. After thawing, concentrations of PTEs in samples obtained by two sampling protocols were determined by ICP-MS. The same sampling strategy was applied to event-driven samples, which were also frozen for two months and analysed along with samples taken during low water flow conditions.

The results of 30 samples analysed (taken at Zagyva and Koppány pilot regions in Hungary) by the two sampling protocols revealed that Cd, Pb, Cr and Zn, which form insoluble carbonates, were mostly co-precipitated with $CaCO_3$, if samples were not acidified before freezing. The extent of co-precipitation was significantly lower for As, Ni and Cu, which form moderately soluble carbonates. The representative results for Zn and Cu (low water levels) are shown in Figure 5.

Our study demonstrated that in river water samples with high carbonate content, thawing of frozen samples can initiate the precipitation of $CaCO_3$ and consequently co-precipitation of elements which form sparingly soluble carbonates. This phenomenon should be considered during the preparation of sampling protocols to avoid underestimation of the real concentrations in the environment. For the dissolved element content, samples need to be filtered and acidified before freezing.

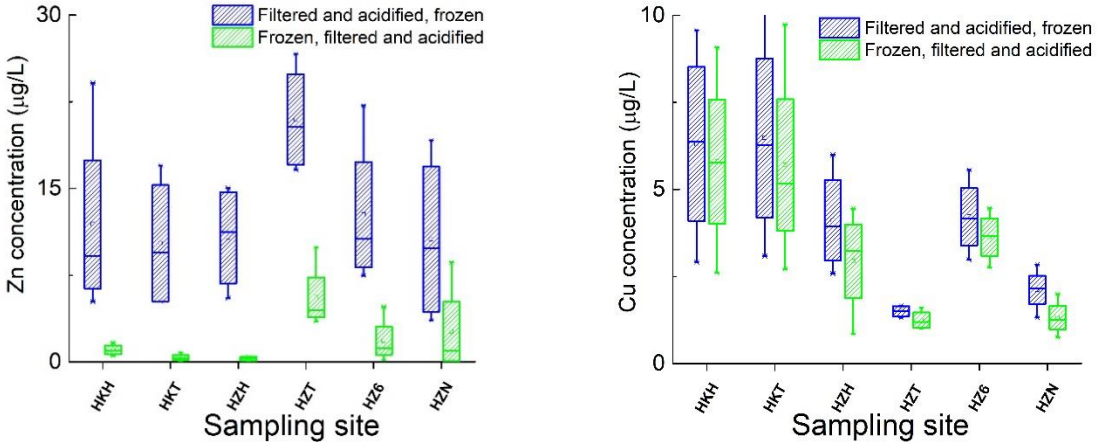


Figure 5: Concentrations of Zn and Cu in river waters obtained by the two sampling protocols

Results of PTEs analyses under low and high-water levels

Analysis of the total and dissolved PTEs concentrations under low and high-water levels at 20 sampling sites in seen pilot regions were performed applying the above described analytical procedures. An example for the analysis of Zn in the samples collected at the Zagyva and Koppány pilot regions is presented in Figure 6.

Results show that Zn is bound mainly to the particulate matter. Zn concentrations at low water levels do not differ significantly between the total and dissolved fraction, while at high water levels these differences are meaningful. Concentrations of total Zn are significantly higher at high than at low water levels. Due to high dilution of the dissolved Zn concentrations (high water volume), concentrations of the dissolved fraction at high water levels are in general lower than the dissolved Zn concentrations at low water levels. Similar phenomena were observed for all PTEs analysed. The concentrations of PTEs in river waters studied in general do not represent environmental hazard. Exception are extremely high Zn and Cu concentrations at sampling site Viseu Cisla in Romania. The total Zn concentrations at low water levels here ranged from 1400 to 4000 µg/L, while at high water levels from 800 to 3600 µg/L. For Cu the concentrations found at low water levels were between 60 and 270 µg/L, and at high water levels between 220 and 870 µg/L. These high Zn and Cu concentrations are related to the mining activities in the area.

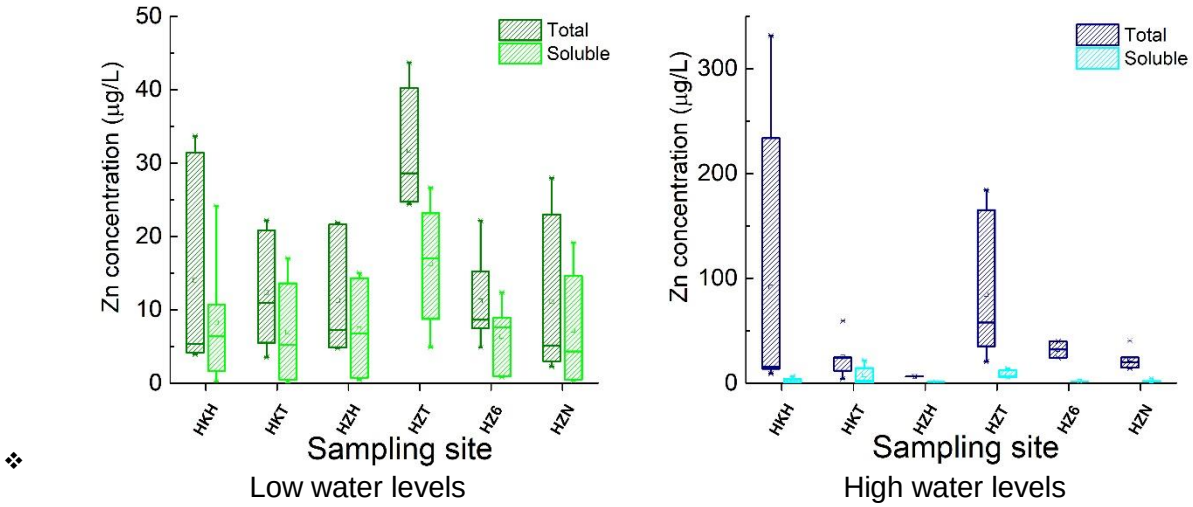
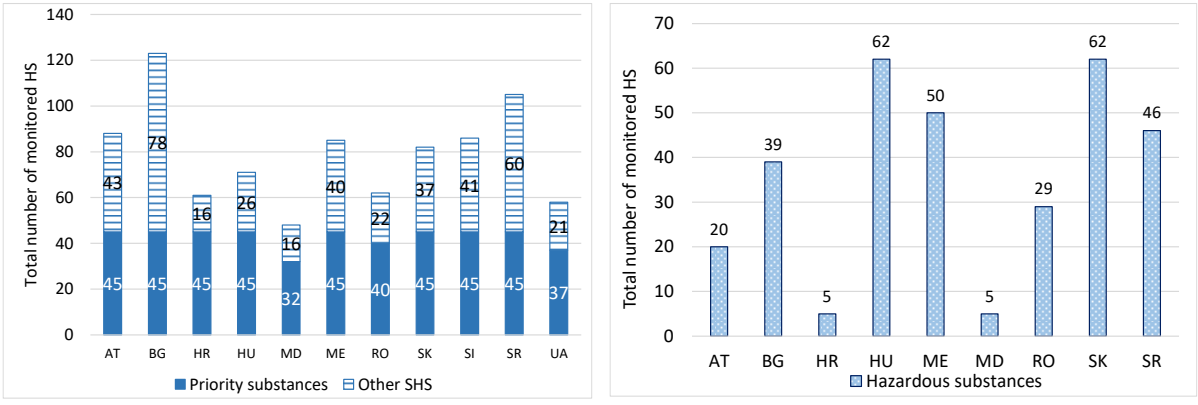


Figure 6: Total and dissolved concentrations of Zn in river waters of the Zagyva and Koppány pilot regions under low and high-water levels

❖ A critical review of the national policies *(by Galina Dimova, BWA, Bulgaria)*

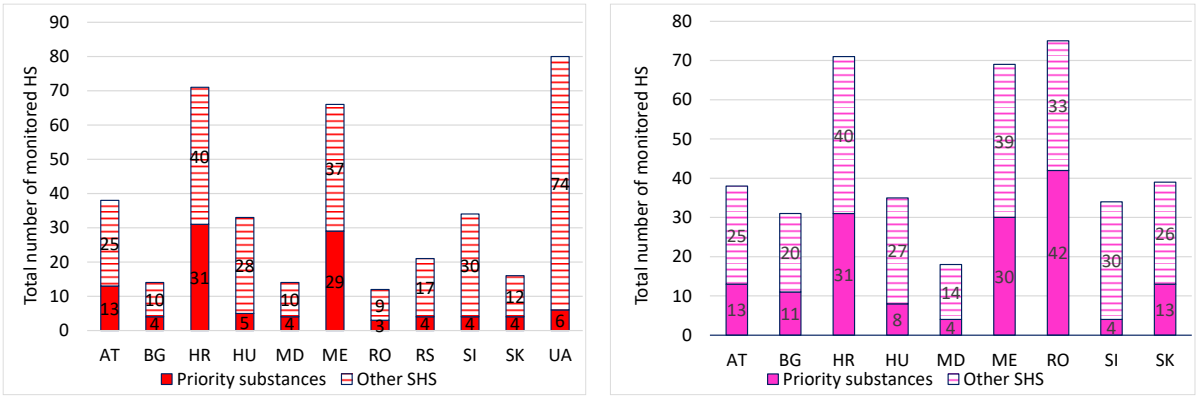
In this activity the existing national policies in eleven countries for management of water pollution by hazardous substances have been analysed, namely of Austria, Bulgaria, Croatia, Hungary, Moldova, Montenegro, Romania, Serbia, Slovenia, Slovakia and Ukraine. These countries cover over 85% of the territory of the Danube River Basin and about 80% of the population in the basin.

The analysis focused on several key policy issues, e.g. harmonization of the Danube River Basin countries' policies with the EU legislative water framework, monitoring and control of the hazardous substances in point source emitters (industries and urban wastewater discharges) and in diffuse emitters focusing on the application of plant protection products in agriculture. Analytical methods used and their respective limits of quantification (LOQ) for the priority substances were also analyzed, as well as some commonly monitored other specific hazardous substances (SHS). Concise but comprehensive information is provided about the existing national registers and databases, with links where they can be either accessed or specific information received. The developed inventories of priority substances emissions, discharges and losses were also reviewed. Some of the most interesting results are presented in Figures 7 and 8.



Surface waters *Ground waters*

Figure 7. Total number of monitored hazardous substances in natural waters



In industrial discharges into sewer network *In industrial discharges into surface water bodies*

Figure 8: Total number of monitored priority and other specific hazardous substances

Based on the analyses of the collected data, the following recommendations for the policy improvement are drawn:

- Need for enhancement of the relevant EU legislation, in particular to overcome the current fragmented approach and provision of specific rules for control of hazardous substances in urban wastewater discharges.
- Need for higher level of harmonization among the Danube River Basin countries concerning:
  - the regulatory control of specific non-priority hazardous substances and the respective environment quality standards for water bodies,
  - the number of hazardous substances and the respective emission standards for industrial wastewater discharges,
  - the monitoring of hazardous substances in the wastewater treatment plants (WWTPs') discharges and evaluation of the contribution of combined sewer overflows,
  - setting of the pollution fees for the discharge of hazardous substances,
  - harmonization regarding the use of analytical methods for the analysis of hazardous substances.
- Improvement of the inventory process towards enhancing the quality of the self-monitored data; application of the pathway-oriented approach for estimation of diffuse emissions; harmonization of data series for transboundary sub-basins and consideration of the accumulation of hazardous substances in sediment and biota.
- Improving the format and public accessibility of the existing data basis.

❖ Project's get together in Zamárdi, Hungary *(by BME team, Hungary)*

To discuss on the progress of the work done, the project partners met physically (and for those who could not travel, through virtual mode) in Zamárdi, next to Lake Balaton, in the frame of the fourth project meeting. In addition to discussing the results and remaining tasks of the project, an important topic of the meeting was the preparation of promotional materials, among others the image film and planning of the capacity building activities, mentioned more in detail later.

During the field trip, participants visited the monitoring stations located in the Koppány catchment.

Figure 9: Participants of the Danube Hazard m3c 4th partner meeting Zamárdi, Photo: N. Weber

Figure 10: Excursion to the Koppány catchment: visiting the online monitoring station in Törökkoppány. Photo: A. Clement

❖ At the Micropol & Ecohazard Conference in Santiago de Compostela, Spain *(by Máté Kardos, BME, Hungary)*

To enhance the visibility of the project, the Danube Hazard m³c team contributed with three presentations and a poster to the 12th Micropol & Ecohazard conference held in Santiago de Compostela, Spain, between the 6-10 June. One talk presented the results of the policy review, while three other contributions touched different aspects of the monitoring task. We prepared a poster presenting the easy-to-prepare and handle atmospheric deposition sampling devices installed in the Wulka catchment, a presentation summarizing the lessons we learned during the monitoring activities and another presentation demonstrating the first lab measurement results. There was high interest in the project activities and several participants of the conference showed a willingness to participate in upcoming project events (international trainings, open session of the final conference).

The short presentation titled *Monitoring of hazardous substances for inventorying emissions into rivers in the Danube basin: Results from a concerted monitoring approach* was chosen to be the "best short presentation of the day".

Figure 11: Participation at the 12th Micropol and Ecohazard Conference (from left to right: N. Weber, R. Kaps & M. Kardos; missing from the photo: G. Dimova and S. Kittlaus).

❖ Capacity building activities *(by NARW team, Romania)*

During the first half of 2022 numerous activities were developed with the objective of capacity-building based on the outcomes and lessons learnt from the project. Among them were the national trainings focused on monitoring and inventorying, and the transnational training addressing the subject of modelling.

A special Task Force has been set up to facilitate the development of the training materials. Five topics dealing with monitoring and inventorying of hazardous substances pollution were chosen for these events:

- Hazardous substances aspects of water quality monitoring and inventorying of pollution sources and pathways
- Monitoring of the hazardous substances
- Technical aspects of HSs sampling and measuring
- Contribution of the results of our DHm3c monitoring to the inventory of hazardous substance pollution
- Modelling of Hazardous Substances

The main purpose of the national training courses is to improve the knowledge and skills of experts working in the field of water management, to improve knowledge on established and innovative smart monitoring strategies for the effective assessment of concentrations and loads through different emissions pathways and in rivers, as well as for assessment of the chemical status of water bodies and to develop harmonized inventories for hazardous substances emissions, according to the Water Framework Directive (WFD).

Currently, the national training courses are ongoing and after these events, all organizing partners will develop a short report about best practices and feedback from the participants, which will be available to stakeholders.

Beside the national events, also planning for the transnational training on modelling started in this period. Seven topics focused on concepts of modelling of hazardous substances emissions were selected by the Task Force:

- Emission modelling on catchment scale as a tool to support hazardous substances management
- MoRE model
- SOLUTIONS model
- SOLUTIONS: Hands-on workshop
- Results of MoRE and SOLUTIONS
- Parallel Hands-on workshops
- MoRE vs. SOLUTIONS or MORE and SOLUTIONS?

There will be in total three transnational events organized:

- in Vienna from 4- 5 October 2022,
- in Budapest from 6-7 October 2022,
- and in Bucharest from 13-14 October 2022.

The trainings should enable not only the dissemination of the project results but also support discussions of national experts working in the area of hazardous substances management in surface waters.

All three events will have identical content and will be held in English. A join invitation was distributed to the potential participants and registered project stakeholders, to allow them to choose the preferred location and date. Shall you wish to receive more information, please contact us using the danubehazard@tuwien.ac.at email address.

❖ National workshop on monitoring and inventorying of hazardous substances pollution in Slovenia *(by Radmila Milačič, David Kocman and Vanja Usenik, JSI, Slovenia)*

One of the national workshops on monitoring and inventorying of hazardous substances (HS) pollution took place on June 21st and 22nd, 2022 in Slovenia in the premises of the Department of Environmental Sciences, Jožef Stefan Institute (JSI), Ljubljana. 50 participants attended the event, 20 in person and 30 on-line. Of them, 28 were external participants from 14 organizations, agencies and national laboratories conducting monitoring, and 22 from the JSI, hosting the event. After Radmila Milačič from JSI introduced the Danube Hazard m3c (DH) project, Melita Velikonja-Martinčič from the Slovenian Environment Agency presented the monitoring of the surface and ground waters in Slovenia and ecological status of the water bodies. Due to intensive agricultural activities, in the North-Eastern part of Slovenia, ground waters from this area are highly polluted with nitrates and some pesticides. Bad ecological status is observed also as a consequence of past activities in abandoned zinc and lead mine, in the area of the River Meža (Northern Slovenia). Otherwise, the ecological status of the surface and ground waters in Slovenia is in general good. Marjeta Stražar from the Wastewater treatment plant (WWTP) Domžale-Kamnik, the 4th biggest one in Slovenia, presented the activities in modernization of the WWTP, applying the most advanced technology of cleaning of wastewaters in Slovenia. She also provided parameters, which are measured within the regular monitoring. In the lecture that followed, David Kocman from JSI presented the collection of data on pollutants monitored in Slovenia (about 240000 data), which were introduced into the national database and incorporated into the DH database. He also explained the basic principles of modelling and common models used, and how the data collected, which are public available, can be also implemented for modelling in Slovenia. Then Radmila Milačič presented the sample collection and storage within the Danube Hazard Project, explained the purpose of collection of the composite water samples and showed some examples of standard operation procedures. Her lecture continued with the presentation of the preliminary results and observed phenomena on sample preparation and storage within the DH project. Finally, Janja Vidmar from JSI talked about the preliminary results on the analysis of metal nanoparticles in river water at selected sampling sites from the pilot regions of the DH projects.

After the lectures, an intense and interesting discussion developed on the topic presented. There were questions about micro and nano plastics in wastewaters and sewage sludge, available analytical methods for these new emerging pollutants, how to use the collected data for modelling of pollutants at WWTPs in Slovenia, what are future challenges in WWTPs for even more effective cleaning of wastewaters, why acidification and freezing of water samples is necessary to ensure at least two months stability of potentially toxic elements, how to overcome the problems of sample storage and sample stability of organic

pollutants. The on-line participants congratulated the lecturers and asked for the workshop presentations, which have been delivered by the organizer. We have concluded that after the workshop we better know each other, we know more about the work on monitoring and research in Slovenia and where to find information. On the second day, a visit to WWTP Domžale-Kamnik took place, where we saw all stages of the cleaning process and the release of the cleaned water to the nearby river Kamniška Bistrica. The participants rated the workshop as very successful.

Figure 12: A few snapshots from the workshop (photos R. Jaćimović)

❖ National workshop on monitoring and inventorying of hazardous substances pollution in Bulgaria *(by BWA team, Bulgaria)*

Another national training on the monitoring and inventorying of hazardous substances (HS) pollution took place on June 22nd and 23rd, 2022 in Bulgaria. The Ribaritsa village was chosen for the place of the invent since it is situated in the pilot basin of Vit River thus allowing BWA to attract more local experts and to make a demonstration. The training was attended by over 30 experts from various institutions, e.g. the regional inspectorates for environment and water, the water basin directorates, municipalities, water supply and sanitation (WSS) utilities, and others.

The three lecturers: Galina Dimova, Radoslav Tonev and Irina Ribarova presented the topics of the course. The audience was acquainted with the scope and objectives of the project, the EU and national regulatory policies concerning the management of hazardous substances in water, the key aspects of the inventory of pollution sources and pathways; the monitoring of the hazardous substances as well as the technical aspects of sampling and analytical measuring; the contribution of the results of our Danube Hazard m³c monitoring to the inventory of hazardous substance pollution and last but not least the modeling of the hazardous substances as an innovative approach for a better understanding of their occurrence in waters. There was an interesting discussion with the audience concerning the monitoring practices, the difficulties of the on-line sampling and the inventory of hazardous substances.

The participants also visited the monitoring point at Teteven, Beli Vit River, which is within the Vit River pilot basin and observed a demonstration of the sampling procedure and the operation of the installed online sensors for water level, turbidity and temperature. Eng. Tonev gave very interesting information concerning the on-line measurement and the data transfer in real-time to BWA's platform and the data archiving on a physical server. There were several questions regarding the possibility for additional parameters that can

be measured, as well as the continuity of the data transfer which BWA's team answered on the spot.

As a direct outcome of the training an article was published in BWA's website shortly after the event with more pictures and all presentations. The attended experts were unanimous that the quality of the information was at top level and more people that couldn't be on the spot would benefit from the shared materials.

A few snapshots from the training you can see on the attached pictures.

Figure 13: A few snapshots from the workshop

❖ Brief Information on the Danube Transnational Programme

The Danube Transnational Programme is a financing instrument of the European Territorial Cooperation (ETC), better known as Interreg. ETC is one of the goals of the European Union cohesion policy and provides a framework for the implementation of joint actions and policy exchanges between national, regional and local actors from different Member States.

The Danube Transnational Programme[1] (DTP) promotes economic, social and territorial cohesion in the Danube Region through policy integration in selected fields. In order to achieve a higher degree of territorial integration of the very heterogeneous Danube region, the transnational cooperation programme acts as a policy driver and pioneer to tackle common challenges and needs in specific policy fields where transnational cooperation is expected to deliver tangible results. Considering its geographical coverage, this highly complex programme provides a political dimension to transnational cooperation which is unique in Europe, successfully facing challenges such as ensuring good mechanisms to contract partners who receive funding from different EU instruments.

The Danube Transnational Programme finances projects for the development and practical implementation of policy frameworks, tools and services and concrete small-scale pilot investments. Strong complementarities with the broader EU Strategy for the Danube Region (EUSDR) are sought. The Danube Transnational Programme defines itself as a "financing instrument with a specific scope and an independent decision-making body. It supports the policy integration in the Danube area … below the EU-level ... and above the national level in specific fields of action."[2]

The DTP cooperation is structured across four priority axes:

- Innovative and socially responsible Danube region
- Environment and culture responsible Danube region – the priority axis that includes the DanubeSediment and Danube Hazard m3c projects
- Better connected and energy responsible Danube region and
- Well-governed Danube region.

For more information on the European Territorial Cooperation (ETC):
http://ec.europa.eu/regional_policy/de/policy/cooperation/european-territorial/

For more information on the Danube Transnational Programme:
http://www.interreg-danube.eu/

[1] The programme area covers nine Member States (Austria, Bulgaria, Croatia, Czech Republic, Hungary, the states of Baden-Württemberg and Bayern in Germany, Romania, Slovakia and Slovenia) and five non-EU Member States (Bosnia and Herzegovina, Moldova, Montenegro, Serbia and 4 provinces of Ukraine).

[2] See the DTP cooperation programme, pg. 4: http://www.interreg-danube.eu/uploads/media/default/0001/08/81e933247b2bb1449c467f4cd1bd55cf0e734948.pdf

❖ Events

PROJECT EVENTS DURING PERIOD #4 (01.01.2022 – 30.06.2022):

- 4th Project Partner Meeting, hybrid, 05 – 06.05.2022
- 4th Steering Committee Meeting, 05.05.2022
- National workshops on monitoring and inventorying of hazardous substances pollution:
  - Vienna, Austria – 31.05.2022 – 01.06.2022
  - Balatonszárszó, Hungary – 01 – 02.06.2022
  - Zagreb, Croatia – 02 – 03.06.2022
  - Podgorica, Montenegro – 8 – 9.06.2022
  - Ljubljana, Slovenia – 21 – 22.06.2022
  - Ribaritsa, Bulgaria – 23 – 24.06.2022

UPCOMING EVENTS

- **National workshop on monitoring and inventorying of hazardous substances pollution**:
  - Colibița, Bistrita Nasaud county, Romania, 7 – 8.07.2022
  - Bratislava, Slovakia, 12 – 13.09.2022
- **Transnational trainings on hazardous substances emission modelling and scenario evaluation**, three locations:
  - Vienna, Austria – 4.10.2022 – 5.10.2022
  - Budapest, Hungary – 6.10.2022 – 7.10.2022
  - Bucharest, Romania – 13.10.2022 – 14.10.2022

  For more information, see: https://www.interreg-danube.eu/approved-projects/danube-hazard-m3c/news
- **International final conference** (hybrid) and **International workshop on management of hazardous substances pollution** – Vienna, Austria, 30.11.2022, organized in the frame of the International River Symposium (for more information on this symposium, please see: https://riversymposium.com/).
- **Final Project Partner Meeting**, Vienna, Austria, 01.12.2022
- **Final Steering Committee Meeting**, Vienna, Austria, 01.12.2022
- **Final Advisory Board Meeting**, Vienna, Austria, 01.12.2022

❖ Interesting links

- Download our project **Poster** and our initial **leaflet** (in 8 national project languages)
- Find photos from projects events and meetings in the **Gallery**
- Guidance documents and technical reports that assist stakeholders in implementing the WFD can be found on the **EU Commission website**
- You may also check out the sites of our partner project: **"The SOLUTIONS EU FP7 project about emerging chemicals in water resources management: lessons learnt and questions remaining"**

THIS NEWSLETTER WAS COORDINATED BY (based on PPs contributions):

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