

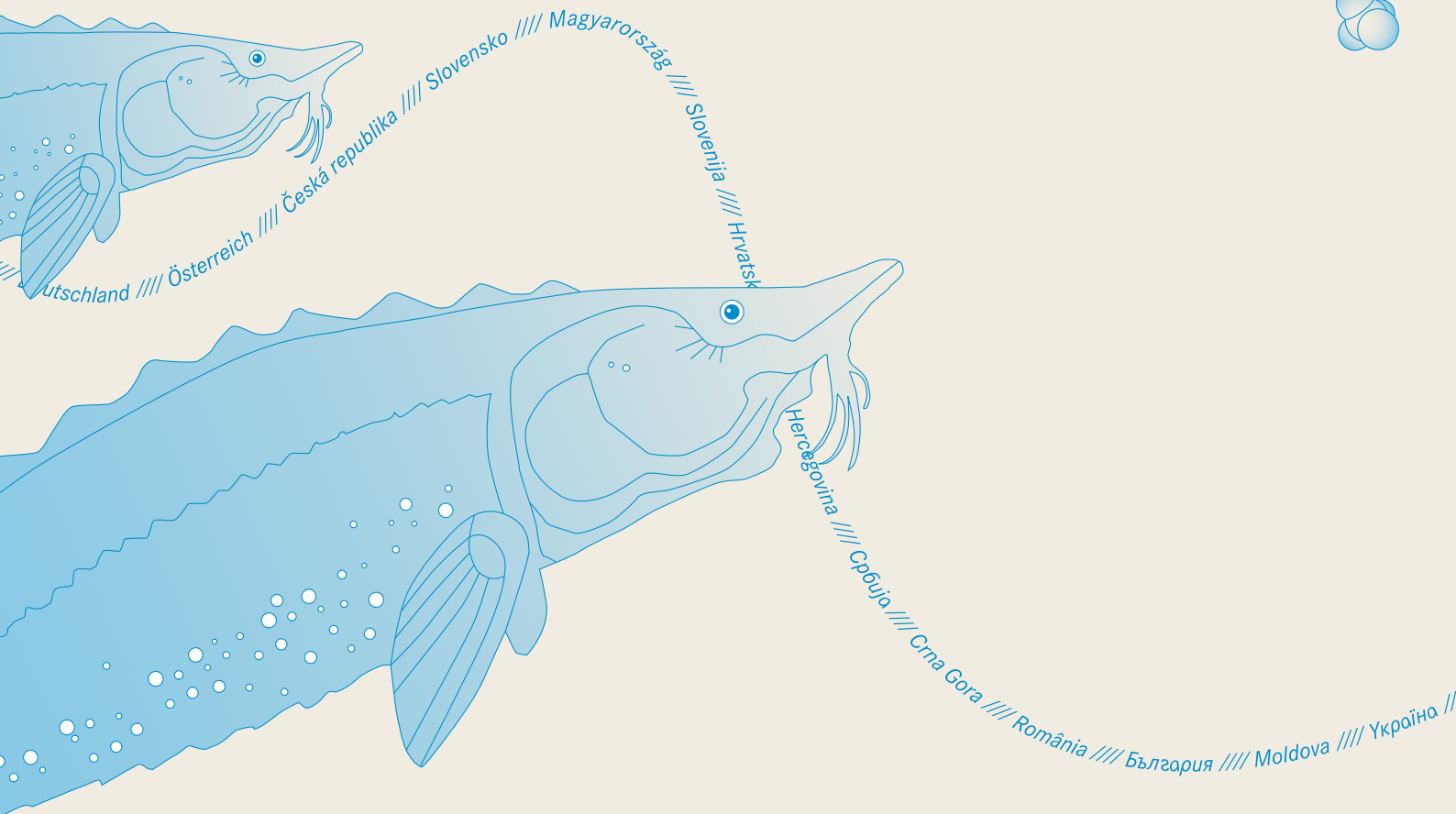
ICPDR IKSD

International Commission
for the Protection
of the Danube River

Internationale Kommission
zum Schutz der Donau

Shared waters – joint responsibilities

ICPDR Annual Report 2019







2019 celebrated the 25th anniversary of the signing of “The Convention on Co-operation for the Protection and Sustainable Use of the River Danube” (Danube River Protection Convention - June 29, 1994 in Sofia).

This occasion also represented a possibility to review and take stock of our joint activities in reaching the objectives of this special Danube River Basin cooperation. The Hungarian Presidency made special efforts to support highlighting the results thus far achieved in our shared river basin and contributed to increasing the visibility of the ICPDR. Reaching an even broader public means using all possible means of the media – including social media used by the younger generation as well.

Picking-up where a forward-looking German Presidency in 2018 left off, we continued to promote the basin-wide climate change adoption measures, took the next steps in the elaboration of the updates of both the Danube River Basin Management (DRBMP) and the Danube Flood Risk Management Plan (DFRMP), according to the requirements of the Water Framework (WFD) and Flood Directives (FD).

Droughts have been highlighted in the newly released and updated ICPDR Climate Change Adaptation Strategy as an important factor that is likely to occur more frequently and become more intense in years to come. This was the driving impetus behind the decision to include effects of climate change (drought, water scarcity, extreme hydrological phenomena and other impacts) as a Significant Water Management Issue (SWMI).

In order to prevent the elevation of water scarcity issues to the transboundary level, a Scoping Study on Water Balance for the Danube River Basin was also elaborated to initiate development of a basin wide water balance, which is in progress under the leadership of Hungary and Serbia.

One of the flagship ICPDR projects in 2019 was the implementation of the long-awaited fourth Joint Danube Survey (JDS4), a unique scientific exercise also focusing on newer challenges, such as micro-plastics, and carried out in an updated form, different from previous Joint Danube Surveys.

JDS4 was officially launched at the Standing Working Group meeting held in Budapest. The event took place on the Margaret Island in the city, held as an open media event back to back with Danube Day, on June 29.

We made efforts to continue an important inter-sectoral cooperation with the agriculture sector too. In November 2019 we organised a workshop in Budapest where the draft Guidance Document on Sustainable Agriculture was discussed with the active participation of the agricultural sector – it remains currently under finalisation.

Sub-basin activities have particular significance to us here in Hungary give the importance of the Tisza River Basin cooperation, shared by 5 countries. Based on the results of the JOINTISZA project – carried out under the auspices of the ICPDR’s Tisza Group – a ministerial meeting of the Tisza countries was organised in 26 September 2019, where a new Memorandum of Understanding was signed “For strengthening Tisza River Basin cooperation towards the implementation of the updated Integrated River Basin Management Plan for the Tisza River Basin supporting the sustainable development of the region.

We hope that our joint efforts in 2019 have contributed towards reaching an even cleaner, healthier and safer Danube River Basin with the excellent support of the ICPDR Secretariat and all Contracting Parties, partner organisations, observers and all other stakeholders.

I wish the incoming 2020 Moldovan Presidency every success in continuing the coordinated actions towards finalisation of the DRBMP and DFRMP Updates 2021, and the implementation of the Programme of Measures.



Péter Kovács

ICPDR President 2019

ICPDR highlights in 2019

The activities throughout 2019 represent major progress in the overarching vision of the ICPDR. The major monitoring actions which took place for JDS4, plus further preparations for the DRBMP and DFRMP Updates in 2021, were the highest priorities.

The following highlights are just a few from the multitude of initiatives executed by the ICPDR in the Danube River Basin in 2019:

- Primary monitoring activities for [JDS4](#) (the fourth Joint Danube Survey) began on 29th June 2019. A new approach was taken in 2019, including ground-breaking methodologies for [eDNA monitoring](#), [target and non-target screening of Danube River Basin Specific Pollutants](#), [antibiotic resistance](#), microplastics analysis, and more. The survey is acknowledged as a colossal and ground-breaking effort, coordinated internationally through the Danube River Basin.
- Preparations for data collection ahead of the [DRBMP & DFRMP Updates 2021](#) were also vital to all Task Groups and Expert Groups of the ICPDR in 2019. The forthcoming updates to the Danube River Basin Management Plan and Danube Flood Risk Management Plan included discussions on expanding the list of [Significant Water Management Issues](#) (SWMIs) in the Danube River Basin District, along with mapping preparations.
- Coordination of the sturgeon issue took a bold step forward in 2019, with the initiation of the [We Pass](#) project, working towards a feasibility study on river pass solutions for migratory fish at the Iron Gates on the Serbian/Romanian border section of the Danube. The project kicked off and held its first stakeholder workshop in 2019.
- The PM EG's [initiative on wastewater management in the Danube River Basin \(DRB\)](#) – aiming at facilitating activities on capacity development in wastewater management – took flight in 2019 and successfully accomplished a [wastewater treatment plant \(WWTP\) sampling campaign](#) within the framework of JDS4 (the fourth Joint Danube Survey) at the end of August 2019.
- Major preparations for [reporting on JDS4](#) also began shortly after the launch of monitoring, led by the MA EG, with the Table of Contents for the JDS4 Scientific Report already prepared by the Secretariat, and negotiated with the corresponding authors. A writing workshop has been planned for 2020.



We Pass Launch

The We Pass project – facilitating fish migration and conservation at the Iron Gates – kicked-off in Kladovo, Serbia. The meeting was organized by the ICPDR. 30 participants, project partners, stakeholders, as well as representatives of the Đerdap Hydroelectric Power Station and an interested public discussed the aims, perspectives and desired outputs of the project.



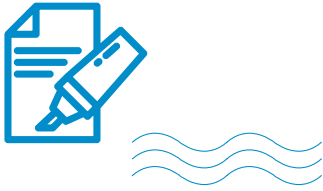
Danube Day 2019

The 16th edition of Danube Day took place in 2019, with events held throughout the Basin – for the first time in Montenegro too. International youth arts competition Danube Art Master also took place, with three equal winners chosen from newly introduced categories, including poetry, song, and performance.



JDS4 kick off in Budapest

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- In 2019, the APC EG once more tested and maintained a variety of **updates to the Danube AEWS**. Including adoption of the updated **AEWS Operations Manual**, plus essential agreement on “radioactivity in water”.
- In the second year of the ICPDR’s **social media campaign**, a new ‘country takeover’ programme was planned, to increase focus on ICPDR members themselves.

The ICPDR also provided participation and partnership in important activities and events both throughout the DRB and across the world.

- The **Black Sea Commission (BSC)** submitted its Annual summary report to the ICPDR in November 2019, (for 2017/18) showing that “the state of the marine and coastal environment in 2018 confirms the general trend of slight improvement of the monitored parameters.”
- The **JOINTISZA** Project took the lead once more in the Tisza River Basin in 2019, with the ICPDR **Tisza Group** reaching out to the PP EG for assistance in disseminating information on Tisza River successes and progress in 2020.

25 Years ICPDR event Budapest

The ICPDR celebrated its 25th anniversary at the Budapest Water Summit. A quarter-of-a-century after 11 Danube Riparian states signed the Convention on Cooperation for the Protection and Sustainable Use of the Danube River (Danube River Protection Convention) in June, 1994 in Sofia, Bulgaria, the President, Executive Secretary, and more cut a cake to mark the milestone.



Danube Art Master ceremony at Budapest Water Summit

In a vintage year for young creativity in the Danube River Basin, the judges of the Danube Art Master competition found it especially challenging to pick a winner. Therefore, in 2019 there are three equal winners in the overall artwork category – from schools in Austria, Croatia, and Serbia – plus one winner for the video category from Croatia. The award ceremony took place at the Budapest Water Summit in October.



Agriculture Workshop Budapest

The first “International Workshop on Water and Agriculture in the Danube River Basin” was held in November 2019 in Budapest. Co-organised by the ICPDR together with the Hungarian Ministries of Interior and Agriculture, plus the Danube Strategy Priority Area 4. The main objective of the workshop was to bring together experts and stakeholders from the water and agriculture sectors to discuss needs and challenges, plus sectorial policies.



The Standard for River Basin Organisations: operational and institutional framework

Since starting its activities in 1998, the International Commission for the Protection of the Danube River has brought representatives from the highest ministerial levels in its members together with a variety of stakeholders from scientific and technical experts to members of civil society. Together, the ICPDR and its partners are showing the way forward for the Danube River Basin towards an improved future.

Comprising as it does the largest international body of river basin management experts in Europe, the mission of the International Commission for the Protection of the Danube River (ICPDR) is to formulate, facilitate and promote sustainable forms of river and water management to benefit all citizens of the Danube River Basin.

Structure of the ICPDR

The signing of the [Danube River Protection Convention \(DRPC\)](#) in 1994 – which went on to establish the ICPDR fully in 1998 – saw the ICPDR’s [15 Contracting Parties](#) commit to implementing the goals of the convention. Austria, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Germany, Hungary, Moldova, Montenegro, Romania, Serbia, Slovakia, Slovenia, Ukraine and the European Commission all work together within the framework of the ICPDR to coordinate on water management issues, and agree on legal, administrative and technical measures to maintain and improve the status of the Danube River Basin’s interconnected waters.

The ICPDR’s operations are steered by two groups: The [Ordinary Meeting Group](#) establishes policy and strategy, while the [Standing Working Group](#) provides a guidance framework and prepares key decisions. Besides, a range of Expert and Task Groups and stakeholder representatives form the scientific and technical basis behind all ICPDR work.

The ICPDR’s [8 Expert Groups \(EG\)](#) form a vital part of its structure. They address various requirements specified by the DRPC, the [EU Water Framework Directive \(WFD\)](#) and the [EU Floods Directive \(FD\)](#).

The Expert Groups are:

- River Basin Management Expert Group (RBM EG)
- Monitoring and Assessment Expert Group (MA EG)
- Pressures and Measures Expert Group (PM EG)
- Flood Protection Expert Group (FP EG)
- Accident Prevention and Control Expert Group (APC EG)
- Information Management and GIS Expert Group (IMGIS EG)
- Public Participation Expert Group (PP EG)
- Strategic Expert Group (S EG)

List of Expert Group Chairpersons

Group Name	Name	Nominated by	Organisation
RBM EG	Jane Korck	Germany	Bavarian State Ministry for Environment and Consumer Protection
RBM EG	Daniela Buzica	European Union	European Union
MA EG	Franz Wagner	Austria	Bundesministerium für Landwirtschaft, Regionen und Tourismus
PM EG	Elena Tuchiu	Romania	Romanian Waters – National Administration
FP EG	Clemens Neuhold	Austria	Bundesministerium für Landwirtschaft, Regionen und Tourismus
APC EG	Yurii Nabyvanets	Ukraine	Ukrainian Research Hydrometeorological Institute
APC EG	Janez Polajnar	Slovenia	Environmental Agency of the Republic of Slovenia
IMGIS EG	Dragana Ninkovic	Serbia	Institute for the Development of Water Resources - “Jaroslav Cerni”
PP EG	Susanne Brandstetter	Austria	Federal Ministry of Agriculture, Forestry, Environment and Water Management – Department IV – “Water”
S EG	Knut Beyer	Germany	Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety



An additional 4 **Task Groups (TG)** were established comprising delegates from pre-existing expert bodies along with additional experts and specialists. These professionals are called upon for specific insights for particular tasks. Task groups have been formed to deal with key issues concerning hydromorphology, economics, groundwater management and nutrients.

The Task Groups are:

- Hydromorphology Task Group (HYMO TG)
- Economics Task Group (ECON TG)
- Groundwater Task Group (GW TG)
- Nutrient Task Group (N TG)

List of Task Group Chairpersons

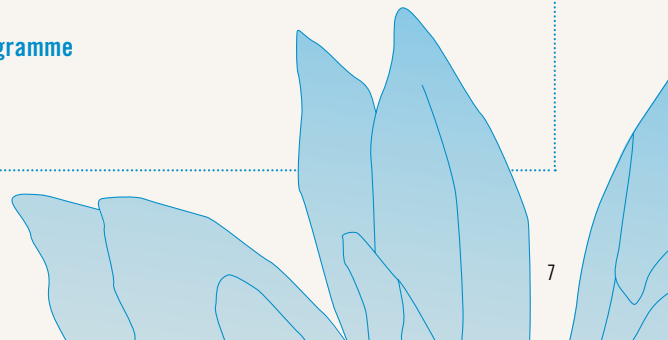
Group Name	Name	Nominated by	Organisation
HYMO TG	Petra Repnik Mah	Slovenia	Slovenian Water Agency
ECON TG	Cristian Rusu	Romania	Romanian Waters – National Administration
GW TG	Andreas Scheidleder	Austria	Umweltbundesamt GmbH – Federal Environment Agency Austria
N TG	Franz Überwimmer	Austria	Office of the Upper Austrian Government

ICPDR Observers

Protecting and preserving the environment is a community responsibility, and thus active public involvement is a core principle when it comes to sustainable water management.

The following 24 organisations have taken the opportunity to become ICPDR observers:

Black Sea Commission	European Anglers Alliance (EAA)	International Sava River Basin Commission (ISRBC)
Carpathian Convention	European Barge Union (EBU)	RAMSAR Convention on Wetlands
Central Dredging Association (CEDA)	European Water Association (EWA)	Regional Environmental Center for Central and Eastern Europe (REC)
Danube Civil Society Forum (DCSF)	Friends of Nature International (NFI)	VGB PowerTech e.V.
Danube Commission (DC)	Global Water Partnership (GWP/CEE)	viadonau
Danube Competence Center (DCC)	International Association for Danube Research (IAD)	World Wide Fund for Nature – Central and Eastern Europe (WWF-CEE)
Danube Environmental Forum (DEF)	International Association of Water Service Companies in the Danube River Catchment Area (IAWD)	
Danubeparks	International Hydrological Programme of UNESCO (IHP/Danube)	
Danube Sturgeon Task Force (DSTF)		
Danube Tourist Commission (DIE DONAU)		



River Basin Management: Securing the Danube's sustainable future

The **River Basin Management Expert Group (RBM EG)** is responsible for development activities and implementation of the Danube River Basin Management Plan (DRBMP). Furthermore, the **Hydromorphology Task Group** and **Economics Task Group** both report to the RBM EG.

During 2019, the RBM EG made vital steps forward towards its long-term sustainability goals for the Danube River Basin and made revisions and updates to a variety of key documents and plans. Preparations continued for the Danube River Basin Management Plan Update 2021, and a revised version of the SWMI Report 2019 was drafted. Another major change came in the form of the resignation of Mr Knut Beyer's as RBM EG co-chairperson, and the election of his successor, Ms Jane Korck.

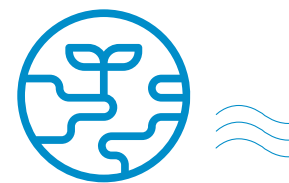
Following the announcement that Mr Knut Beyer will resign from his post as co-chairperson of the RBM EG – due to his upcoming retirement – ICPDR Heads of Delegation were asked in May 2019 to nominate new candidates. Ms [Jane Korck](#) (Bavarian Environment Ministry) was subsequently unanimously elected to the post during RBM-50 in October 2019.

Taking into account comments from members of the RBM EG the updated report on [Significant Water Management Issues](#) (SWMIs) was a key report discussed during RBM-50 for adoption at the OM-22 in December 2019. This included a proposal for a fifth SWMI – Effects of climate change (drought, water scarcity, extreme hydrological phenomena and other impacts)” – later adopted by the ICPDR at OM-22.

A revised version of the [Danube River Basin Management Plan \(DRBMP\) Update 2021](#) was discussed during RBM-50, with DanubeGIS reporting templates to collect the relevant data for the DRBMP Update 2021. The timelines for the data collection and assessment of first results were also discussed in all relevant EGs and TGs.

Project documents for the [GEF Danube River Basin Hydromorphology and River Restoration \(DYNA\) Project](#), along with a request for endorsement were sent to the GEF Secretariat in August 2019 for assessment. An ICPDR project manager position was also announced on the ICPDR webpage.

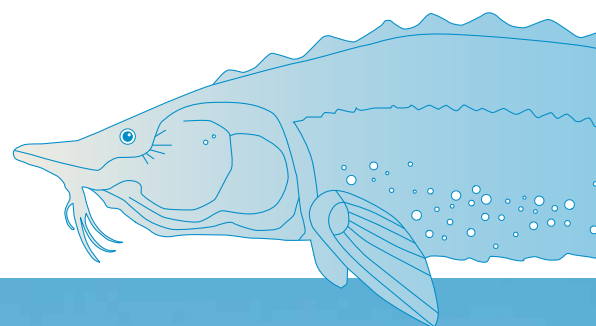
[Coordination of the Sturgeon Issue](#) continued to guide several activities in 2019. Having started in November 2018, the Feasibility Study analysing options for fish migration at Iron Gate I & II ([We Pass](#)) – with the ICPDR as coordinator and the Danube Delta National Institute for Research and Development (Romania) and the Institute for Water Resources Development Jaroslav Černi (Serbia) as co-applicants – saw an addendum to extend activities and involve a third co-applicant (CDM Smith) signed in May 2019. The project's [Kick-Off Meeting](#), back-to-back with the second [Project Steering Committee Meeting](#), was held from 9th to 10th April 2019 in Kladovo, Serbia, with the third Steering Committee Meeting held on 10th October 2019 in Vienna, and a stakeholder workshop in Vienna on 12th December. The grant enables the ICPDR to kick-off the most urgent activities outlined in the Terms of Reference of the Feasibility Study to reduce the obstacles caused by the Iron Gates.



Furthermore, Austria made a commitment to finance an **ex-situ feasibility** study for sturgeons in the upstream Danube with a grant including the identification of potential locations for the “ex situ facility” in Austria/Slovakia/Hungary. Due to the high level of expertise in this field, the Austrian University of Natural Resources and Life Sciences’ (BOKU) Institute for Hydrobiology and Aquatic Ecosystem Management was contracted for this study.

The scoping study on knowledge base and overall concept of the project on hydrological modelling including **water balance** for the Danube River Basin was made available for discussion.

The **Guiding Principles on Sustainable Hydropower Development** are available in Bosnian, Croatian, Czech, German, Slovak, Slovene and Ukrainian, downloadable via www.icpdr.org/main/activities-projects/hydropower. A draft of the study, “Social and economic drivers for hydropower development in Danube countries”, was also made available. An ICPDR Hydropower Workshop was also tentatively proposed for March 2020 in Vienna.



Pressures and Measures: Assessing New Challenges and Targeting Priorities

Updating our understanding of the many pollution-related pressures upon the environment of the Danube River Basin is essential to achieving long-term sustainable development – as is assessing the efficacy of proposed alleviating measures.

For the PM EG in 2019, continued data collection ahead of the 2021 update to the DRBMP was a priority task. A new initiative on wastewater management in the DRB, plus a wastewater treatment plant sampling campaign embedded into JDS4 also put wastewater management at the top of the agenda. The Nutrient Task Group focused on sustainability in agriculture, working on a key guidance document and co-hosting a workshop on the subject in Budapest.

The PM EG provided significant contribution to the development of the report [Interim Overview: Significant Water Management Issues \(SWMIs\) in the Danube River Basin District – Update 2019](#). The PM EG was responsible for the development of the respective chapters focusing on three pollution-related SWMIs. The text was pre-drafted based on the findings of the [2nd DRBM Plan](#) and the [2018 Interim Report on the Implementation of the Joint Program of Measures](#) – but it also took into account the outcomes of DRB-relevant projects and activities (e.g. on wastewater, agriculture, hazardous substances). The chapters also provide an outlook to the DRBM Plan Update 2021 and highlight the needs and necessary actions towards achieving the goals of the WFD and the DRB management objectives.

In relation to data collection for the [2021 Update to the Danube River Basin Management Plan](#), the PM EG started its data collection process in Autumn 2019 in order to get sufficient information for the draft plan to be developed in Autumn 2020.

The PM EG discussed the technical details of the urban wastewater (UWW) and industrial wastewater (PRTR) templates, their parameters and the potential obstacles for data collection. In Autumn, the final templates were elaborated to be used for data collection and provision afterwards. Moreover, the objectives and data demand of the updated MONERIS model application for quantifying nutrient emissions were discussed that will be started in 2020.

The PM EG launched an [initiative on wastewater management in the Danube River Basin \(DRB\)](#) in 2017, aimed at facilitating activities on capacity development in wastewater management, and trying to bring together different institutions towards better wastewater management within the framework of compliance with all relevant EU Directives. In 2019, the PM EG discussed the status of the wastewater initiative, in particular the potential activities to be carried out in cooperation with the World Bank to support the Danube countries. Within its 3rd phase, the Danube Water Program (jointly run by the World Bank and the IAWD) that has extended the scope of its capacity building program called [Danube Learning Partnership \(D-LeaP\)](#) to the wastewater utilities, offered support to and cooperation with the ICPDR on certain wastewater management aspects. The ICPDR – in cooperation with the World Bank – intends to support national and local administrations in enhancing their skills needed to properly finance and manage wastewater infrastructure. The PM EG discussed the needs of the national and local administration and ideas for the ICPDR to support Danube countries to achieve better wastewater management. The PM EG agreed that capacity building on development & implementation of wastewater projects, financing & management of wastewater infrastructure and UWWTD implementation could be useful for the local and national administration of the Danube countries. These ideas will be further discussed with the World Bank and the IAWD and will be considered as potential activities for the wastewater strategy.



The ICPDR with support of the PM EG successfully accomplished a [wastewater treatment plant \(WWTP\) sampling campaign](#) within the framework of JDS4 at the end of August 2019. This campaign is complementary to that of the [SOLUTIONS](#) project conducted in 2017 and aimed to deliver added values on narrowing knowledge gaps on hazardous substances emissions released from WWTPs. In total, 11 WWTPs were sampled (one site in each country). Sampling was done at both the influent and effluent allowing first estimates on treatment efficiency of the WWTPs for certain emerging substances. The samples will be analysed for a large range of organic target parameters, a set of heavy metals and general parameters. Sample analyses and assessments will be carried out by spring 2020, after that a respective chapter for the JDS4 report will be drafted for publication in 2021.

Experts from the Vienna University of Technology (TU-Wien, Austria) presented the main objectives, concept, work packages and status of the proposed [DANUBE HAZARD m³c](#) project to the PM EG. The project would focus on monitoring, modelling and managing hazardous substances pollution, including capacity building. In total, 12 partners (including the ICPDR) and 13 associated partners joined the project consortium, covering the entire basin. While the project successfully passed the first application round of the 3rd call of the Danube Transnational Programme, improvements had to be made before the next round of submission in November. If the project is selected for funding, the project will start in summer 2020 and will end by the end of 2022.

The [Nutrient Task Group \(NTG\)](#) put sustainable agriculture at the forefront of its activities in 2019, reaching “considerable agreement” on a draft [Guidance Document on Sustainable Agriculture](#). Additions included: best-case examples and a summary on CAP-RBM synergies, clearer explanation on the Common Agricultural Policy (CAP) Strategic Plan design process heading towards post-2020 (Farm Sustainability Tools, enhanced cross-compliance, eco-schemes, strengthening innovation, etc.) and drought management aspects. The NTG experts provided additional written comments to the updated draft document in autumn 2019, which will be taken into account when the updated draft guidance document is finalized. The work on this guidance document is being sped up in order to ensure that Danube countries could make use of the guidance when designing their national CAP Strategic Plans. The focus of the guidance should thus be strongly related to the CAP-reform process.

In cooperation with the Hungarian Ministry of Interior, Hungarian Ministry of Agriculture and the EUSDR PA4, the NTG, organized a Danube basin-wide [workshop on water and agriculture](#) on 6–7 November in Budapest (hosted by the Hungarian Ministry of Agriculture). The main objectives of the workshop were to bring together experts and stakeholders from the water and agriculture sector to discuss the needs and challenges of both sectors, to share ideas and thoughts on better alignment of the two sectorial policies, to exchange good examples and experiences on sustainable agricultural practices and to provide input for the finalization of the guidance document. Around 70 participants from 8 countries, the EC and several international organizations attended the workshop. The outcomes of the event have been summarized in a workshop summary report.

Monitoring and Assessment: Quantifying problems... and evaluating progress



Continual assessment of waters in the Danube River Basin ensures our water is fit for consumption, and helps develop actions to enhance its biological, chemical, qualitative and quantitative statuses.



The Monitoring and Assessment Expert Group (MA EG) is responsible for water quality and assessment issues including the Joint Danube Survey (JDS). Its scope also covers the operations of the Trans-National Monitoring Network (TNMN) and the Analytical Quality Control (AQC) programme. Top priority for 2019 was the colossal operations for JDS4, coordinated throughout the DRB.

Primary [JDS4](#) monitoring activities began on 29th June 2019, with the official project launch in Budapest and the debriefing for the [JDS4 sampling campaign](#) taking place at 6th JDS4 Biology Core Group meeting and the 30th MA EG meeting, focusing on reviewing actions taken during JDS4 sampling – with special attention given to the new JDS4 concept, as well as addressing problems encountered and lessons learned. Due to the flexible setup of JDS4, several technical activities already started prior to the official launch, including monitoring of phytoplankton; transport of sampling devices and training for microplastics monitoring; and installation of passive samplers.

The [new JDS4 concept](#) was overall positively received, this new approach seen as successful in terms of national and international exchange of experiences, and in the harmonisation of sampling methods. The new approach was also reported to have created stronger national activities and engagement from concerned authorities and staff. One key concern was raised regarding the homogeneity of JDS4 biological data collected by different teams: the MA EG pointed out that a slight decrease in data homogeneity might be expected, however for the ICPDR, the international harmonisation aspect is very important and this can be achieved primarily by concerted actions such as JDS4.

The Table of Contents for the JDS4 Scientific Report has already been prepared by the Secretariat and agreed with the corresponding authors. It was planned to organize a JDS4 report-writing workshop in March 2020, at which draft chapters would be presented and discussed by the authors.

Preparations for data collection ahead of the [DRBPM Update 2021](#) were also vital in 2019. The MA EG suggested adding a short sub-chapter on “Microplastics” to the relevant DRBMP Chapter (2.1.5, “Other issues”) aiming to document that the ICPDR is dealing with this topic. The MA EG also agreed that the relevant conclusions from the MA EG paper “Review of impacts of climate change on surface water temperature and quality in the Danube River Basin” will be referred to in the newly suggested DRBMP chapter.

The MA EG also approved the [TNMN Yearbook 2017](#) prepared by Slovakia. The 2018 data on loads at Reni was produced and submitted to the Black Sea Commission.

The [GW TG](#) expanded the number of the transboundary groundwater bodies of basin-wide importance addressed in ICPDR river basin management planning. The new SK/HU transboundary GWB-12 on Ipel/Ipoly was adopted by the ICPDR. Data on the transboundary groundwater bodies of basin-wide importance for [DRBPM Update 2021](#) were being collected.

The [GW TG](#) also organised groundwater monitoring in JDS4: groundwater samples have been collected as planned and transported to the analytical laboratories.



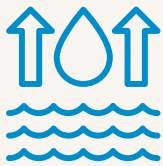
Accident Prevention and Control: Mitigating risk and responding to water emergencies

Maintaining the rapid response of the ICPDR Accident Emergency Warning System (AEWS), identification of risk sites and mitigating actions, along with plans for cross-border emergency actions guarantee a cleaner and safer environment for the Danube.

The work of the Accident Prevention and Control Expert Group (APC EG) involves testing and maintaining the Danube Accident and Emergency Warning System (Danube AEWS) and updating inventories of accident hazard sites (AHS) and contaminated sites (CS). The focus of activities in 2019 was on the continued improvement of transboundary accident warning systems, along with similar measures taken to assess TMF hazard levels in the DRB.

The APC EG discussed and adopted a variety of regular system and minor security [updates to the Danube AEWS](#) in 2019. The APC EG reiterated that an alert should be triggered whenever there exists a chance that the pollution caused by an accident could have adverse transboundary impacts even though the calculated threshold values would not be exceeded. The ICPDR adopted the [AEWS Operations Manual 2019](#). This updated Operations Manual included agreement that information on “radioactivity in water” accidents should be communicated via the Danube AEWS using the Substance Category “Others” and the description “radioactivity” or similar.





The ICPDR Secretariat initiated the test of the Danube Accident Emergency Warning System (AEWS) on 5th November 2019, with the main objective of testing the functionality of the system, 24/7 operability of PIACs and basic usage of the system. The test confirmed that the system itself is working as expected without problems from a technical point of view, with 13 PIACs reacting within the 3 hours required response time. The next comprehensive multinational test was planned to be carried out in April 2020 directly at the next APC EG meeting.

In spring 2019, the APC EG decided to further amend and fine-tune the basin-wide inventory of [Accident Hazard Sites](#) (AHS, formerly called ARS), utilizing a harmonized selection criterion to be used throughout the basin. According to these criteria, all SEVESO sites or UNECE sites (for non-EU Member States if SEVESO sites are not defined yet) should be reported in the national territory. Countries have also been asked to revise and complete respective national AHS inventories where necessary, with 8 countries managing to fully update their national inventory and upload it to DanubeGIS by November 2019. Other countries are still collecting information on the SEVESO sites and assessing their water hazards.

The APC EG, in cooperation with the PP EG, elaborated and illustrated an amended [draft technical report and a draft brochure on accident prevention and control](#), aiming for both reports to be finalized and published in 2020. The former will be a more appealing technical report in simple language with eye-catching illustrations (e.g. photos, graphs and maps); while the latter is a short leaflet for dissemination and awareness raising aimed at the public and highlighting ICPDR activities in the field of accident prevention and control.

The APC EG continued activity on developing a basin-wide inventory on [Tailings Management Facilities \(TMFs\)](#), which pose a high hazard of accidental pollution in many parts of the DRB. Basic data for the initial assessments were only collected from open access data sources, thus the compiled database and the related assessments are considered as preliminary information. Data need to be revised and approved by the Danube countries, and they should be improved where necessary based on official national information. As November 2019, only 3 countries managed to upload the national templates whereas in other countries the work is still in progress (note that the TMF issue is not relevant in DE, AT, UA, MD and HR). Once all national data are approved, an ICPDR report will be developed on the TMF hazard assessment. The TMF database will be kept as a living system where any further updates will be possible through DanubeGIS.

In addition to the hazard assessment, the APC EG also decided to support [capacity development](#) in the realm of [TMFs](#). The [Danube TMF Project](#), officially launched in March 2019, is aiming at contributing to narrowing the knowledge gaps and to raise awareness on TMFs and their hazards in the DRB, ensuring to respect a common set of minimum standards and safety requirements in the DRB and strengthening the technical and management capacity at the concerned facilities and responsible authorities. A regional demonstration training event on a checklist methodology for assessing TMFs was organized on 1–3 October 2019 in Cluj, Romania. The project will be finalized in 2020 with an objective of providing technical tools for the Danube countries on assessing hazard and risk of a number of TMFs and to evaluate the safety conditions of individual TMFs. Moreover, the project will deliver recommendations for policy making on sustainable TMF management in the DRB.

Sustainable flood protection throughout the Danube River Basin

Both the ICPDR's Action Programme for Sustainable Flood Protection and its Danube Flood Risk Management Plan encourage movement away from merely defensive actions against hazards, and towards proactive, sustainable, and dynamic flood risk management.

The task of the Flood Protection Expert Group (FP EG) is to assess, map, manage and mitigate flood risks, and it forms the foundation for integrated basin-wide flood protection in the Danube River Basin. 2019 was dominated by continued work on updating the flood hazard and flood risk maps prepared in the 1st flood risk management cycle and on the DFRMP Update due in 2021.

A variety of work throughout 2019 was aimed at elaborating preparations for contributions to the forthcoming [Danube Flood Risk Management Plan \(DFRMP\) Update 2021](#). The cooperation between EUSDR PA5 and the ICPDR prepared and developed supportive projects for the DFRMP Update 2021. The FP EG discussed the first draft of the DFRMP's *Table of Contents* (presented at OM-21) and revised it.

A discussion paper on risks and opportunities for applying flood risk measures under the [Water Framework Directive](#) was under preparation by the FP EG in cooperation with the HYMO TG, relating to the implementation of FD and WFD requirements.



The implementation of FD and WFD requires a coordinated approach however, and a key issue is the coordination of measures in order to gain synergies for flood risk management and towards the achievement of good ecological status. This discussion paper thus aimed to increase awareness among Danube countries on linkages between the two directives and was subject to continued revision between the HYMO and FP EG throughout 2019. The upgraded version was submitted to the HYMO TG for final commenting in November 2019.

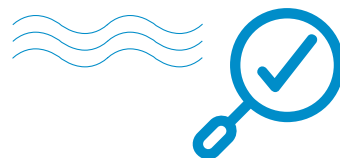


A new [Danube Hydrological Information System \(DanubeHIS\)](#), which was under development, aims to display data on the water level, discharge, water temperature and precipitation for the Danube and its major tributaries. The scope of the DanubeHIS is providing Danube basin-wide basic hydrological and meteorological near-real-time data in a standardized format, and, if possible, the validated long-term data series, for flood risk management or for any water-related scientific activities in the DRB. The development of the system is supported by the DAREFFORT project. To date, developing the data collection platform for DanubeHIS has gone well and according to the plan, with the testing phase expected to start in autumn 2020. A respective policy document was being developed by the Secretariat.

The process of reviewing/updating [flood hazard and flood risk maps](#) (in accordance with *FD Article 14 (2)*) continued in 2019, the FP EG agreeing to prepare a similar set of flood risk maps, based on modified map layouts from the first cycle, and to add a map of affected UNESCO cultural heritage sites. In 2018, the Secretariat and members of the IMGIS EG already reviewed the existing data templates and prepared a respective new template for a map covering UNESCO heritage.

At the FPEG-36 in October 2019, the FP EG approved the [Preliminary Flood Risk Assessment \(PFRA\) report](#) and the [Areas of Potentially Significant Flood Risk \(APSFR\) map](#).

/// Moldova /// Україна /// Deutschland /// Österreich /// Česká republika /// Slovensko



Geographical Information Systems: mapping out a bright future for the Danube

Developing measures that address basin-wide problems relies on up-to-date and detailed spatial-related information, enabling different scenarios to be modelled and evaluated.



The Information Management and Geographical Information System Expert Group (IMGIS EG) plays a vital role in conceptualising, informing, presenting and supporting the tasks of the ICPDR. It's responsible for the development and maintenance of datasets, maps and online systems, such as ICPDR DanubeGIS. GIS maps provide a detailed picture of the state of the basin, its utilisation and management, thereby presenting the spatial context for analysis of future water management scenarios and pinpointing areas with optimal potential.

At the core of the IMGIS EG's activities in 2019 were ongoing preparations for the [2021 DRBMP/DFRMP Updates](#). DanubeGIS templates have been reviewed and discussed in all of the EGs and TGs. Among other changes that were implemented in the templates, following the discussion on reporting of impoundments and small lakes in the DRBMP, the IMGIS EG introduced a specific new attribute in the DanubeGIS [river segments template](#) to indicate virtual river segments on small natural lake water bodies, which are located between regular river water bodies.

Input from the [IMGIS EG](#) facilitated data collection for the PFRA Report update in the second Floods Directive cycle. The Secretariat prepared an updated APSFR map, based on the revised data submitted by the countries to the DanubeGIS. Related to Flood Hazard and Risk maps, the FP EG agreed to use the same map layouts and data templates as in the first FD cycle. The previously used Excel template for Flood Risk data was adapted and integrated into DanubeGIS. Additionally, a new template for cultural heritage sites (only UNESCO sites) was implemented in the DanubeGIS.

New to the substantial [JDS4 data collection](#) in 2019, a data collection portal (<https://jds4.icpdr.org>) was used to collect sampling data and photos in the field using either a mobile application, web form or an Excel template. Further templates for biological quality elements, physico-chemical parameters were made available, and the portal presented interactive maps of the JDS4 main sites, samples and first results of analysis for all involved experts. There is also a separate section with tools for the HYMO TG to report on changes for the 10km segments previously assessed in JDS3.

The Policy document for the future [DanubeHIS](#) data exchange was further discussed in the FP EG and IMGIS EG. This document is quite important to ensure long-term data sharing by all of the data providers from the ICPDR countries, for which it is necessary to precisely describe their obligations and rights. The close coordination between ICPDR and the national hydrometeorological services is a crucial prerequisite for the efficient future DanubeHIS system development and use. It is expected that the standardised hydrometeorological data exchange will be implemented by the first half of 2021.

The [JOINTISZA project](#), where ICPDR was involved as a project partner, was successfully completed – updating the Integrated Tisza River Basin Management Plan (ITRBMP) as a key output. The ICPDR provided usage of DanubeGIS for data collection and processing, and the update will also be an important input to the next Danube River Basin Management Plan 2021 Update. The IMGIS EG is following ongoing projects where the ICPDR is an associated project partner, and which have potential DanubeGIS usage – including the [DanubeSediment project](#), [DanubeFLOODPLAIN project](#) and the [MEASURES project](#).

Promoting public participation throughout the Danube River Basin

Publicising information about the Danube River basin and encouraging involvement is central to the activities of the ICPDR. Actions spread messages about sustainable development, environmental conservation, Danube solidarity and good practices throughout the region.

The Public Participation Expert Group (PP EG) breached new ground in promoting ICPDR activities via an ever-growing array of channels. JDS4 was a key focus of communications throughout 2019, in addition to regular activities and initial preparations for public consultation of the DRBMP & DFRMP Updates in 2021.

PP EG activities regarding JDS4 were coordinated via two key documents: the [JDS4 Communication Strategy](#) and the [JDS4 PP EG Work Aid document](#). A wrap-up document was also compiled to report on the various communication activities that took place throughout the Danube Basin, provided by all communication contact points. The JDS4 website (www.danubesurvey.org) was well visited during the production's lifecycle thus far, providing press clippings in the different local languages alongside some insights into field operations. Social media also provided a key platform for JDS4 communications, engaging the public directly and documenting the hard work of field operatives. Several articles were also published in the ICPDR in-house magazine, [Danube Watch](#), with JDS4 even positioned as the central focus of Danube Watch Issue 2/2019.

The second year of [social media activity](#) by the ICPDR saw the start of a monthly country takeover: representatives from one member 'take over' ICPDR social media accounts for one week per month, for a period of 15 months, where mainly country-specific content will be published on the ICPDR's social media channels (Facebook, Twitter, LinkedIn and Instagram). RAFFEINER REPUTATION continued to provide social media consultancy services during the year.

[Danube Day 2019](#) was the 16th event of its kind, with festivities taking place in Ukraine, Slovakia, Serbia, Romania, Moldova, Hungary, Germany, Croatia, Bulgaria, and for the first time in Montenegro. Slovenia, the Czech Republic, Bosnia-Herzegovina and Austria celebrated in June and many of the country events extended into July. Danube Day 2020 is already in the planning phase. The proposal is currently to go with the slogan, 'Discover Danube' in order to link it to the momentum of JDS4. The colour scheme proposed is either ocean green, or turquoise.

Participants from 12 countries contributed to [Danube Art Master \(DAM\)](#): Austria, Bosnia-Herzegovina, Bulgaria, Croatia, Germany, Hungary, Moldova, Serbia, Slovakia, Slovenia, Romania and Ukraine. Some new categories were introduced to the youth art competition in 2019 too, including poetry, song, and performance, while social media (notably Instagram) was utilized to improve promotion. Precarious funding for 2019 was secured with the help of the Hungarian Presidency and a drive to secure funds for 2020 is currently underway.

The Participation Schedule for public consultation on the DRBMP & DFRMP Updates 2021 were endorsed by the ICPDR in 2018, including a news piece regarding the upcoming consultation process on the ICPDR website and in print ([Danube Watch 3/2018](#)). A first (somewhat early) comment related to the DRBMP update was received, and replied to, in the form of a letter from Mr. Gerhard Nagl at the DEF. A stakeholder Consultation Workshop on the draft 3rd DRBMP and the draft 2nd DFRMP is proposed in the first half of 2021 in cooperation with the RBM EG and the FP EG and other relevant EGs.



Partnership and cooperation: river basin planning in the sub-basins

Forging strong, successful partnerships at the local, national and international levels continues to make the work of the ICPDR a model for the rest of the world.



The ICPDR supports the development of sub-basin programmes within the DRB along with partnerships with neighbouring regions. Such cooperation is vital for sustainable integrated river basin management (RBM) in the Danube region. As an acknowledged global leader in RBM, it has particular expertise in fostering international cooperation.

Sava River Basin (SRB)

Throughout 2019, the Executive Director of the ISRBC, Mr. Dragan Zeljko, undertook a broad review of Sava River Basin Commission activities. Emphasis was placed upon updating the following key areas:

- Sava river basin management;
- Sava flood risk management;
- Data and information exchange;
- Navigation development;
- Cross-cutting and development issues;
- Public participation;
- Selected meetings and events.

Furthermore, the commission also reported on future infrastructure projects in the region, explaining how they are being dealt with under the SRBMP and addressing this issue of impacts upon biodiversity in the Sava River Basin. The ICPDR President also attested to a great experience at the Sava Day celebrations in 2019. He highlighted the great educational program the ISRBC prepared for the young generation at the event.

Tisza River Basin (TRB)

Activities pertaining to the JOINTISZA Project remained the focus of the Tisza River Basin in 2019. The key objective of the project is to strengthen cooperation between river basin management planning and flood risk prevention to enhance the status of the waters of the Tisza River Basin. The aim to elaborate the updated (second) Integrated Tisza River Basin Management Plan including Joint Programme of Measures,

along with the project generally, was finalised on 30 September 2019. In order to increase the visibility of the ITRBMP Update, the ICPDR Tisza Group also began to seek the cooperation and support of the ICPDR PP EG in 2019, firstly with a production of a Tisza leaflet (due in the near future) and with disseminating the JOINTISZA project results as widely as possible.

EU Strategy for the Danube Region (EUSDR)

In 2019, the presidency of the EUSDR (EU Strategy for the Danube Region) sat with Romania, with the 8th Annual forum taking place in Bucharest. During 2019, the overall Action Plan of the EUSDR was revised, including planned actions of PA1a (Navigation), along with further updates for Priority Areas 4 and 6. Once again, the ICPDR members expressed their focus on PA 4 & PA 6, as major driving factors contributing to the achievement of “Good Ecological Status” and “Favourable Conservation Status” throughout their shared river basin.

Cooperation with the Black Sea Commission

In November 2019, the Black Sea Commission (BSC) submitted its 2017/18 Annual summary report to the ICPDR, showing data in selected stations from Romania and Ukraine reflecting the effect of the Danube loads on the marine ecosystem. While there were no general conclusions presented for the Ukrainian part of the report, the Romanian report states that: “The state and evolution trends of the Romanian marine and coastal environment were monitored in 2018 from the physical, chemical and biological point of view, compared to the reference period of the 1960s and more recent data. The state of the marine and coastal environment in 2018 confirms the general trend of slight improvement of the monitored parameters.”

At the 22nd Ordinary Meeting, Slovenia reported on the conference of the Barcelona Convention regarding the ICPDR’s activities towards minimising the knock-on impacts from the region on the Black Sea. DEF also emphasised that the Black Sea (like the Danube River Basin) is an important ecosystem for sturgeons, and the Executive Secretary reacted that sturgeon issues are included in the recovery program for the Black Sea.

Regular Budget and Financial Contribution



Regular Budget for the Financial Year 2019

Three independent auditors, appointed by the Contracting Parties have to audit the consolidated financial statement including the accounting records of the ICPDR for the respective financial year.

The Audit Team must certify that the Statement of Accounts is correct, and the contents, structure and details are in accordance with ICPDR rules and regulations and accounting principles assuring transparency of financial management. Due to the Covid-19 measures, the planned audit for the financial year from 1 January to 31 December 2019 had to be postponed until 2021.

Contributions – Financial Year 2019

Contracting Party	Contribution in %	Contribution in EUR	Actual payment in EUR
Austria	8.37	98,545.57	98,545.57
Bosnia & Herzegovina	4.62	54,394.33	54,394.33
Bulgaria	8.37	98,545.57	98,545.57
Croatia	8.37	98,545.57	98,545.57
Czech Republic	8.37	98,545.57	98,545.57
Germany	8.37	98,545.57	98,545.57
Hungary	8.37	98,545.57	98,545.57
Moldova	1.30	15,305.76	15,305.76
Montenegro	3.26	38,382.14	38,382.14
Romania	8.37	98,545.57	98,545.57
Serbia	8.37	98,545.57	98,545.57
Slovakia	8.37	98,545.57	98,545.57
Slovenia	8.37	98,545.57	98,545.57
Ukraine	4.62	54,394.33	54,394.33
European Union	2.50	29,434.15	29,434.15
Total	100.00	1,177,366.41	1,177,366.41

Expenditure – Financial Year 2019

Budget Line	Approved Budget in EUR	Expenditure in EUR	Balance in EUR
1. Staff	762,500.00	724,252.41	38,247.59
2. Office Running	128,000.00	124,584.57	3,415.43
3. Publications	75,000.00	60,119.97	14,880.03
4. Travel & Meetings	66,000.00	50,059.12	15,940.88
5. Services	145,866.41	145,226.86	639.55
Total	1,177,366.41	1,104,242.93	73,123.48

Contracting Parties and Heads of Delegations

Austria

Karl Schwaiger
until 21 May 2019,
from 21 May 2019
Günter Liebel,
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www.bmnt.gov.at

Bosnia and Herzegovina

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Ministry of Foreign Trade
and Economic Relations
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Bulgaria

Atanaska Nikolova
until 22 February 2019,
from 22 Feb 2019
Krasimir Zhivkov,
Ministry of Environment
and Water
www.moew.government.bg

Croatia

Elizabeta Kos,
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and Energy
www.mzoip.hr

Czech Republic

Lukáš Záruba,
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Germany

Heide Jekel,
Federal Ministry for the
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Moldova

Ion Lică,
until 8 May 2019,
from 8 May 2019
Radu Cazacu,
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Republic of Serbia

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Ministry of Agriculture, Forestry
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Romania

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Vladimír Novák,
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www.minzp.sk

Slovenia

Mitja Bricelj,
Ministry of the Environment
and Spatial Planning
www.mop.gov.si

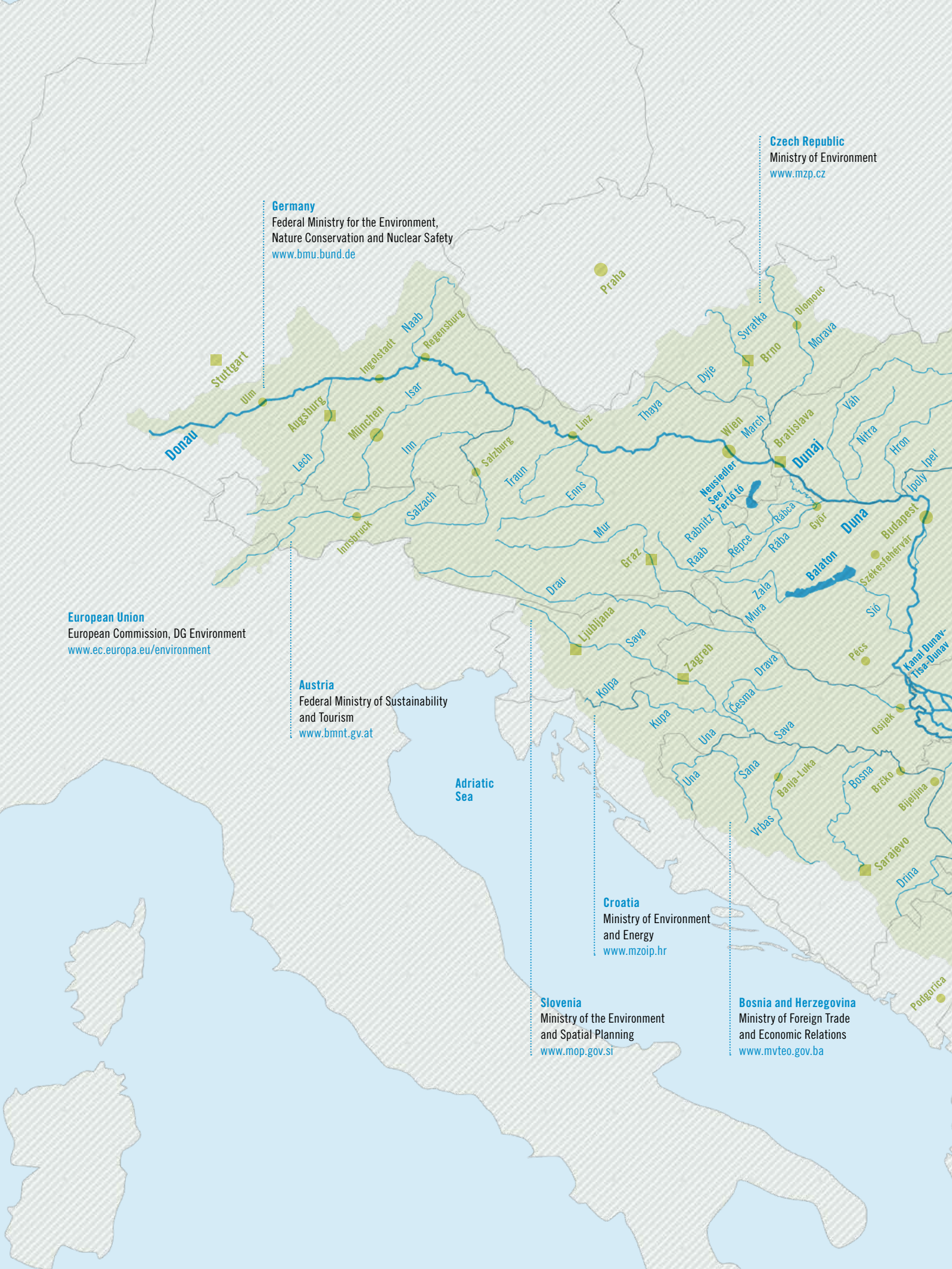
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Ministry of Ecology
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www.menr.gov.ua

European Union

Bettina Doeser,
European Commission,
DG Environment
www.ec.europa.eu/environment

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Germany
Federal Ministry for the Environment,
Nature Conservation and Nuclear Safety
www.bmu.bund.de

Czech Republic
Ministry of Environment
www.mzp.cz

European Union
European Commission, DG Environment
www.ec.europa.eu/environment

Austria
Federal Ministry of Sustainability
and Tourism
www.bmnt.gv.at

Croatia
Ministry of Environment
and Energy
www.mzoip.hr

Slovenia
Ministry of the Environment
and Spatial Planning
www.mop.gov.si

Bosnia and Herzegovina
Ministry of Foreign Trade
and Economic Relations
www.mvteo.gov.ba

Adriatic
Sea

Slovakia

Ministry of Environment
www.minzp.sk

Romania

Ministry of Waters and Forests
www.mmediu.ro

Hungary

Ministry of Interior
www.kormany.hu/hu/belugyminiszterium

Ukraine

Ministry of Ecology and Natural Resources
www.menr.gov.ua

Moldova

Waters of Moldova
www.mediu.gov.md



Montenegro

Ministry of Agriculture and Rural Development
www.mpr.gov.me

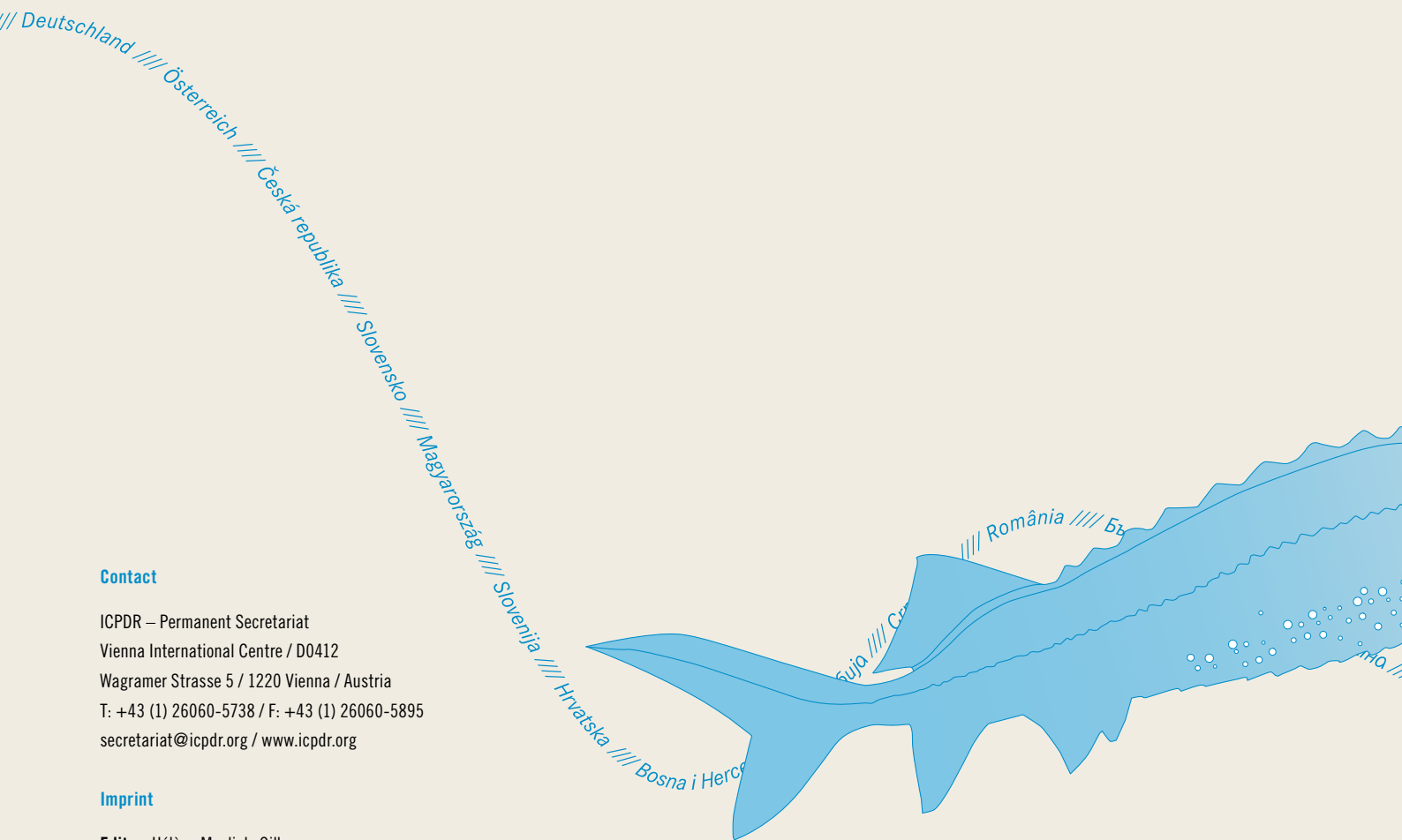
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Imprint

Editor: Hélène Masliah-Gilkarov

Text: Tristan Bath

Layout: Barbara Jaumann

Photos: page 2, 9: Pexels/Ana-Maria, page 3, 4, 5: ICPDR,
page 7: Unsplash/Zdenek Machacek, page 13: Pexels/Harrison Haines,
page 15: Pixabay/Imaresz, page 16: Pexels/Nicole Avagliano.

Print: Printed on Munken Lynx, 100% TCF, FCS,
awarded with the Nordic swan

