Carpathian Convention COP7

Tackling pollution in the Carpathian region

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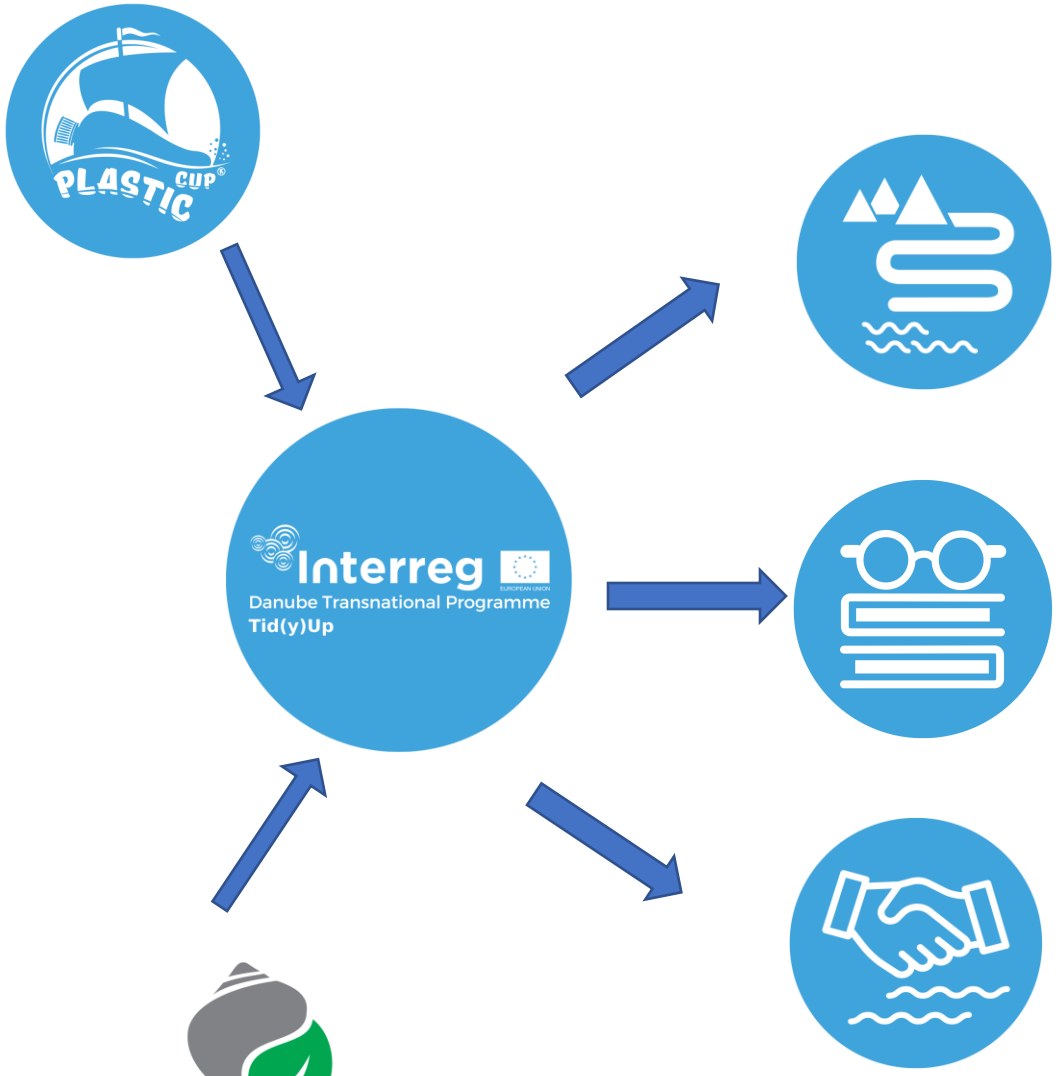
Hungarian Association of Environmental Enterprises

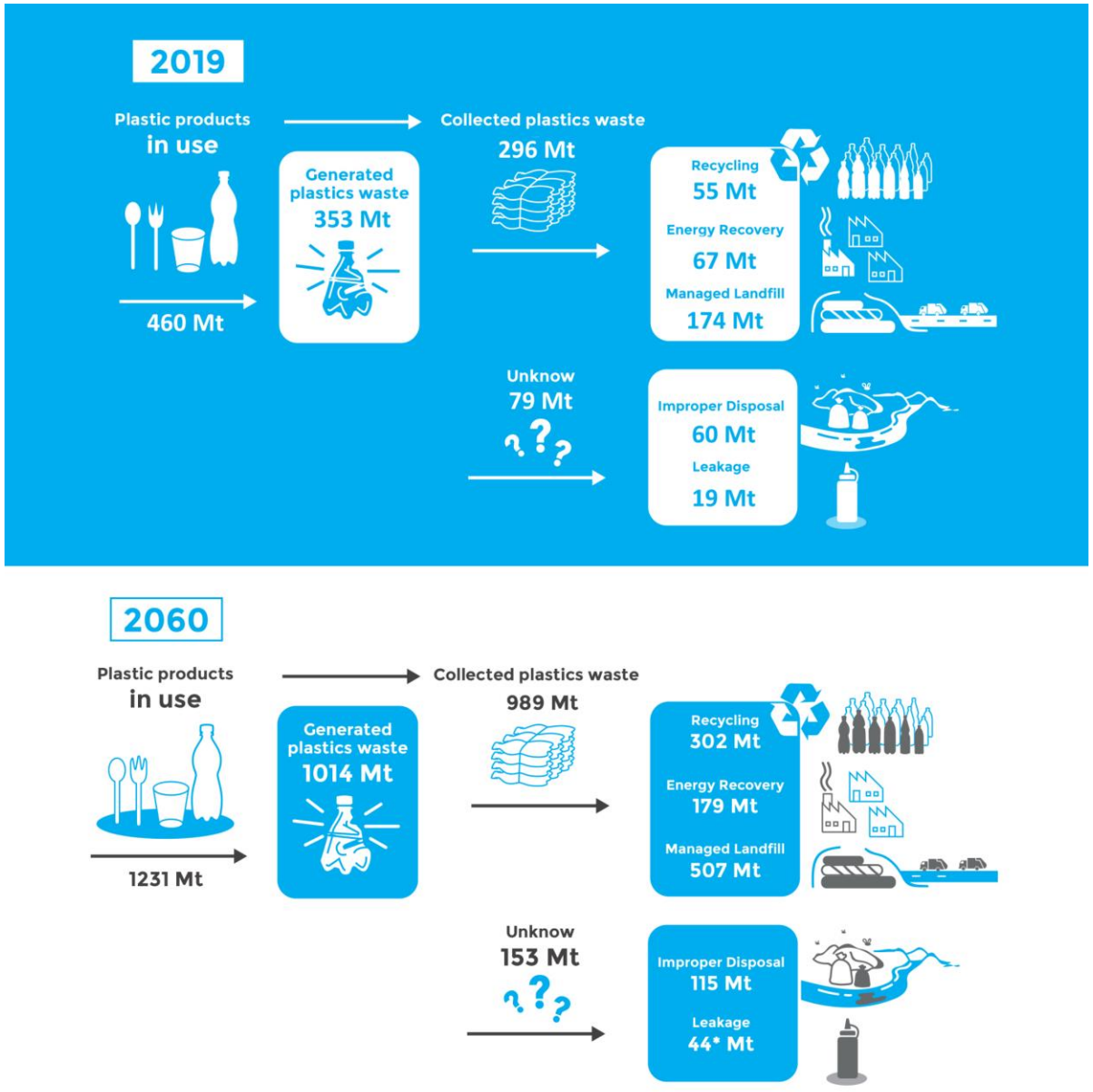


I. Waste situation and Plastic Math

II. Key findings and policy recommendations

III. Best practice in Transcarpathia

I. Waste situation and Plastic Math



Source: Global Plastics Outlook: Policy Scenarios to 2060 (OECD)

PLASTIC MATH

- Danube transporting about **1500 tons** of plastic per year into the Black Sea
- Tisza is responsible for **250 tons**/year (16%)
- Estimated amount of riverine litter in coastal acc. in Tisza basin: **1665 tons**
- Estimated unmanaged waste in Transcarpathia region: cca. **10.000 tons**/year
- Plastic Cup handles (PRC+CRC) around **70-100 tons**/year + prevent cca. **700 tons**/year with supporting MWM procedures (selective, reuse, education) in regions where waste collection is unresolved. Diverting waste from nature to circular economy is a notable achievement.

Pollution at source

Standing on Latorica river (UA) - 2022

Pollution on „road”

The 2017 plastic flood, combined with an unusually severe ice flood imported an unprecedented amount of riverine litter into the EU by the natural waterways of the Tisza River Basin.

Pollution after

500 rkm

Lowland countries like Hungary face **international river pollution** events on a regular basis. The Tisza cyanide disaster in 2000 from Romania (left, photo by Zsolt Czeglédi, MTI) and the Slana river pollution wave in 2022 from Slovakia (photo by Marton Mohos) were significant. Other transnational legacy pollution cases affected rivers like Torna, Marcal, Rába, Danube (red mud alumina plact accident), the Somes and the Tisza river (cyanide catastrophe).

II. Key findings and policy recommendations

Objectives of the Survey

- better understanding of the complexity of the pollution problem in the DRB
- foster changes in legislation to improve river water quality
- helpful input for ICPDR and the next update of the Danube River Basin MP

INSPECT: PP country's legislative background on environmental regulations

MAP: organisational structure of water & waste management organisations

HIGHLIGHT: possible inefficient regulatory practices

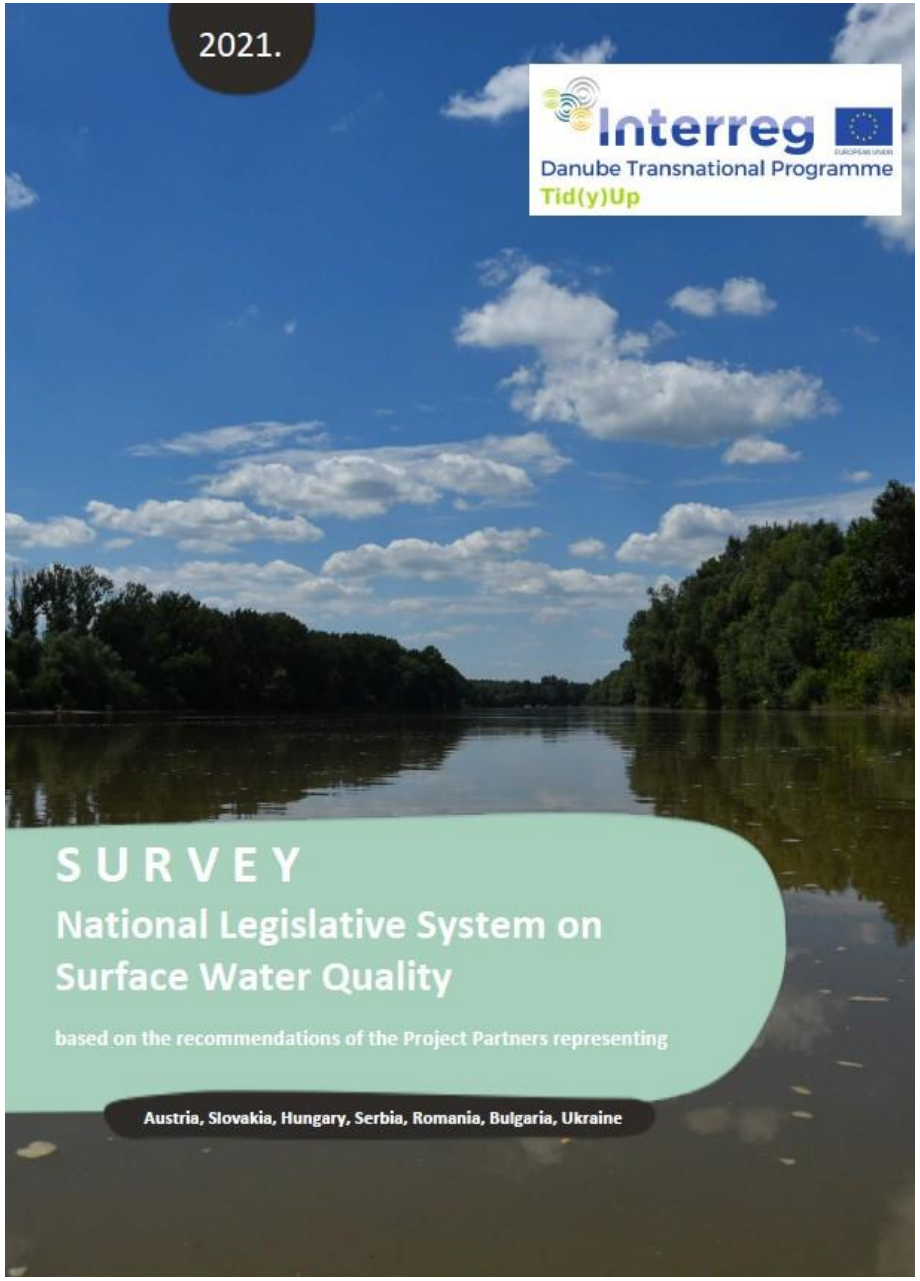
EXPLORE: competent organisations' decision mechanisms, existing „chains of command", network and cooperation

ASSESS: existing/missing industrial and communal waste collection systems

RESEARCH: legislative regulations reflecting the criminalisation level of public and industrial littering

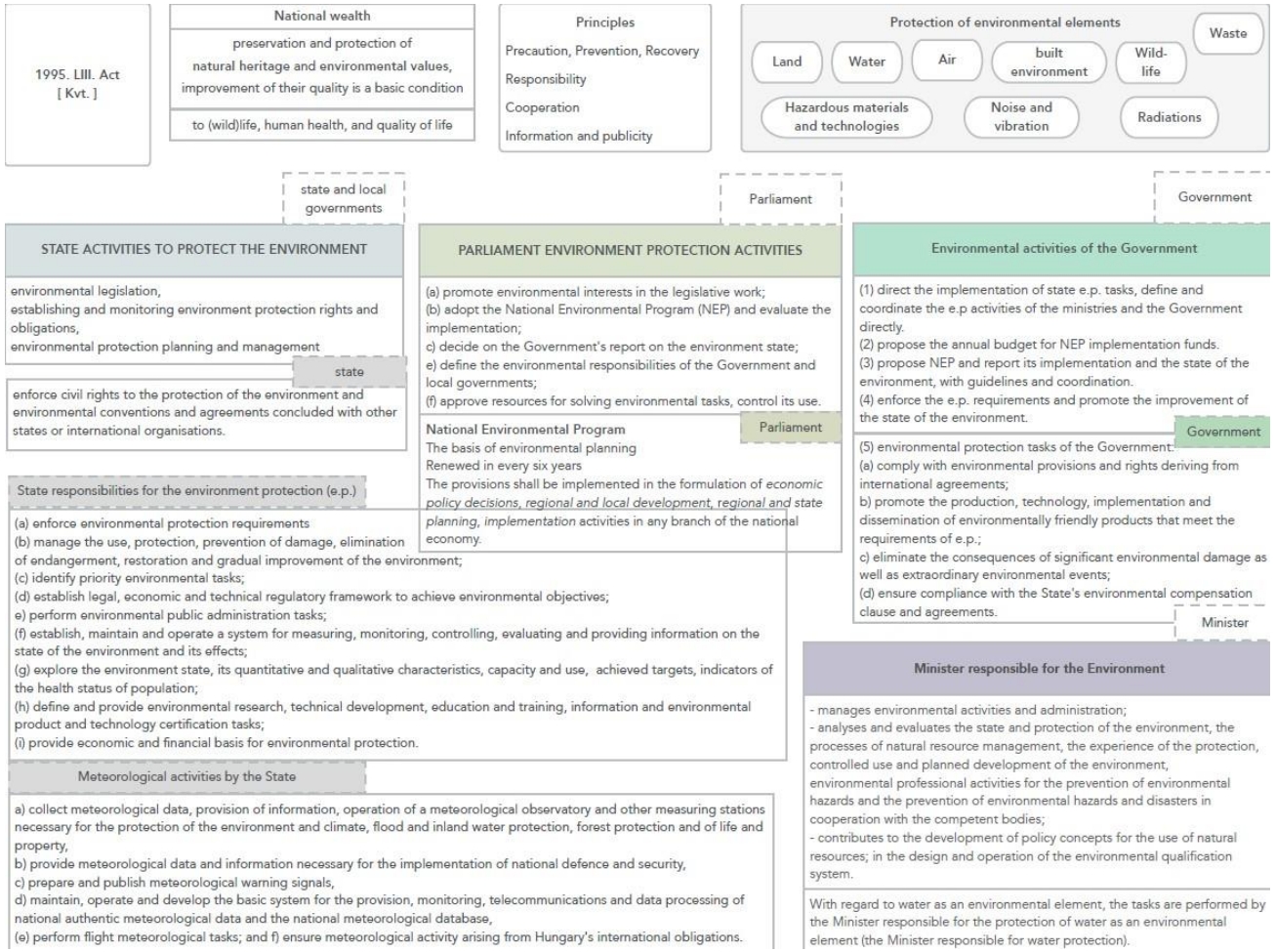
COLLECT: best practices listed for possible adoption and recommendations formulated for improvement

University of Life Sciences and Natural Resources, Vienna Österreich
Agency for the Support of Regional development Kosice Slovakia
ARR Transcarpathya Ukraine
Institute of Oceanology -BAS Bulgaria
Hungarian Association of Environmental Enterprises Hungary
Multisalva Association Romania
Faculty of Tehnical Sciences Novi Sad Serbia
General Diractorate of Water Management Hungary
Papilio Ukraine
Naturefilm.eu Society Hungary

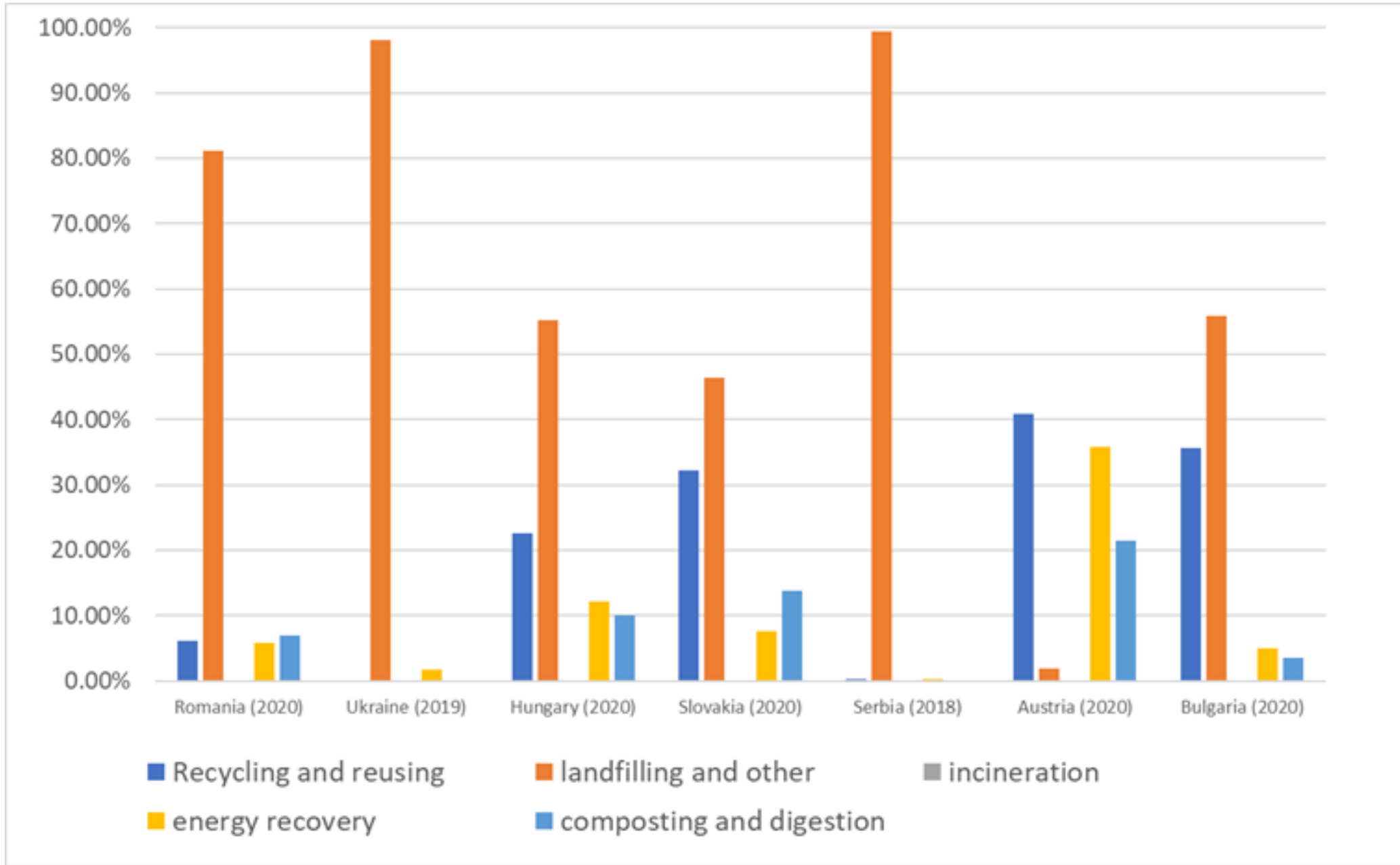


KEY FINDINGS OF THE SURVEY:

- **issue of plastic/municipal waste is not considered water pollution, as it does not affect the chemical status of water bodies**
- too complex institutional structures
- **lack of transnational cooperation**
- waste management vs water management -> symbiosis
- existing water management infrastructure: the opportunity to interact
- **weak civil sphere**
- knowledge transfer (AND USE) is crucial
- we can give valuable data, info and field experience for the ICPDR



Percentage distribution of waste processing methods in relation to the total amount of treated waste in the Tisza Countries (+AU, +BG)



COMPLEX

Problem

Solution

- harmonised actions
- transboundary cooperations
- standard measurements
- prevention is a priority
- sound waste management
- strictly enforced regulation
- awareness-raising

Policy Guidance on Tackling Riverine Plastic Pollution in the DRB

This document is primarily intended to:

- **provide** strategic and legislative recommendations to all levels of legislation
- **offer** guidance on reducing plastic pollution
- **raise** awareness among key actors
- **facilitate** harmonised actions of water management authorities/directorates, and encourage communities and decision-makers to organise transnational actions
- **assist** non-EU members with knowledge and technology transfer

ICPDR IKSD
International Commission for the Protection of the Danube River
Internationale Kommission zum Schutz der Donau

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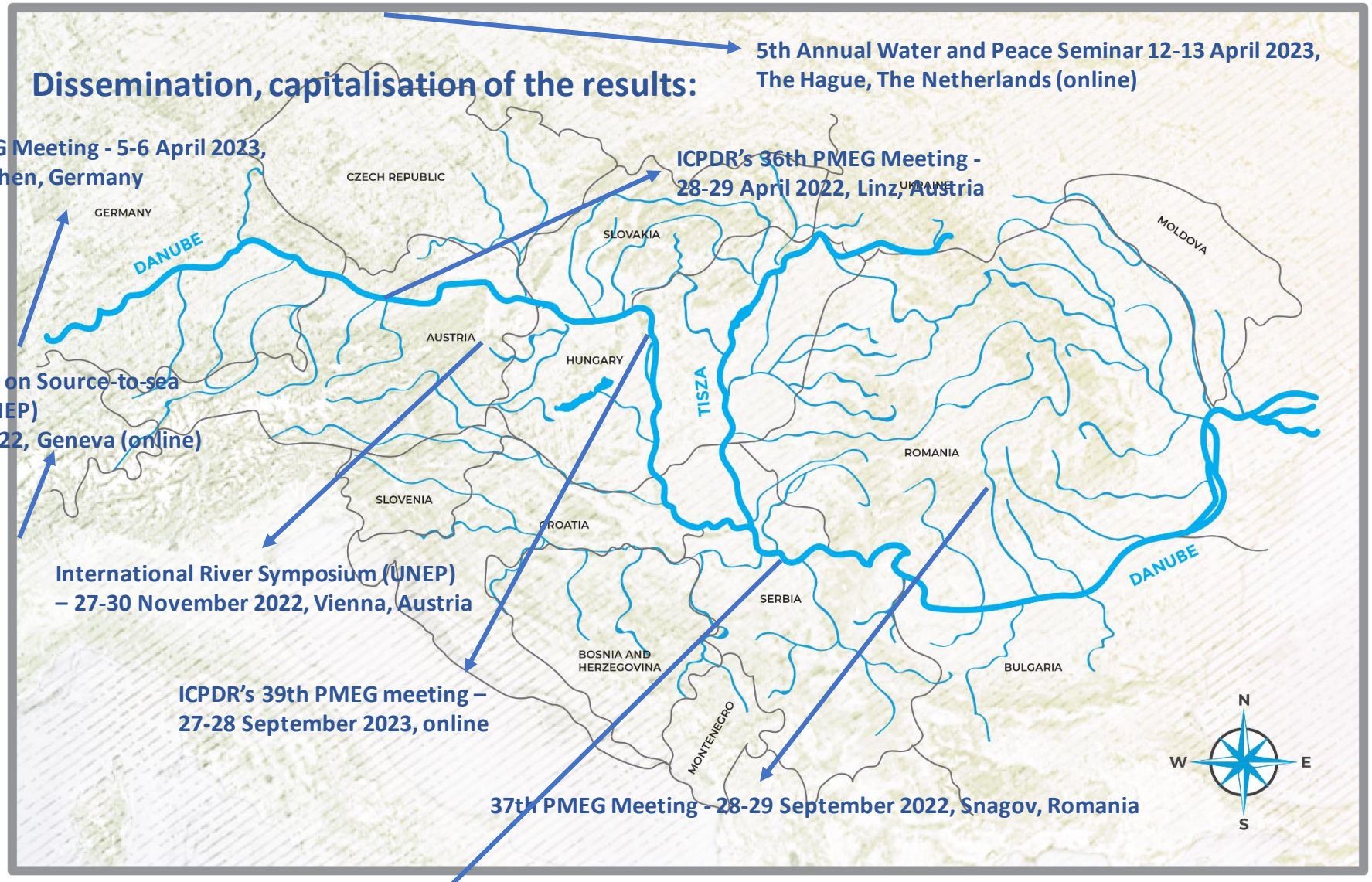
Dissemination, capitalisation of the results:



Next steps:

Finalisation
Publication
Dissemination

Carpathian Convention COP7, 11-13 October 2023, Belgrade, Serbia

Part A: Context
Part B: Strategy
Part C: Implementation

Part A: Context:

- Water Framework Directive
- River Basin Management Plans
- Danube River Protection Convention
- Danube Declaration
- EU Strategy for the Danube Region
- EU Green Deal
- Extended Producers Responsibility
- Intergovernmental Negotiating Committee
- Global Commitment
- Ocean Literacy Framework
- Zero Pollution Action Plan
- EU Taxonomy
- Corporate Social Responsibility Directive
- Waste Framework Directive
- European Plastic Strategy
- Directive on Single-Use Plastics
- Digital-Product-Passport
- Plastic Bags Directive
- Marine Litter Action Plans
- Ecodesign Directive

Part 2: Strategy

Waste management

Policy tools and recommendations

Regulatory tools:

- intergovernmental treaties
- enforcement infrastructure (licences, permits, standards, certifications)
- ecodesign: determines a product's lifecycle environmental impact (80%)
- regular review of legal regime to adapt (SUP)
- monitoring facility performances: Makkosjánosi (out of order since 2018)

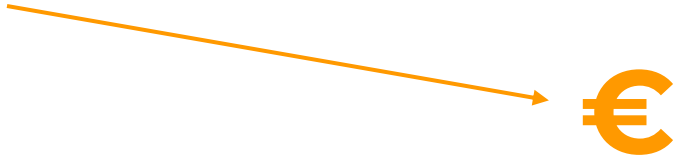
Part A: Context

Part B: Strategy

Part C: Implementation

Financial tools:

- environmental liability insurance
- state support and tenders: e.g. SUPERFUND (US)
- positive and negative incentives: taxes, fees, credits, refunds, bonds
- EU Taxonomy, ESG Directive



Service and infrastructure:

- sound waste management is a **critical prerequisite**
- expansion of collection infrastructure
- optimisation of Extended Producer Responsibility (EPR) and DRS

Capacity building:

- necessary skills, knowledge and resources (mentoring experts, NGOs, …)
- collaborations and partnerships among different sectors: symbiosis = shared capacities and services
- encourage and support eco-innovation start-ups (pool of knowledge, labour market supply - **green jobs**)
- **NGOs: filling capacity gaps**
- roundtable discussions and Co-Creation for Policy processes (CfPs)
    - **Tisza Roundtable**
    - periodic meetings became an international best practice
    - democratic advocacy
    - world café and opera; facilitators
    - policy and strategy co-creation with multiple stakeholders

Aquatic Plastic

Knowledge-based development for measuring prioritisation (country-by-country)

Water-management:

- water and waste-water networks are in poor conditions
- artificial overheads cuts (HU): the cuts have made the development and maintenance of water infrastructure impossible
- missing wastewater treatment

National waste management practices:

- Serbia: higher littering rates than recycling; wastewater dev
- Slovakia: illegal landfills → comprehensive legislation, enforcement; EPR
- Romania: river poll; progress in control through local government
- Ukraine: missing infrastructure, no law enforcement; appropriate legal framework
- Hungary: Reorg: licensor, EPR, DRS

Improper waste disposal:

- insufficient data due to lack of monitoring and control mechanisms

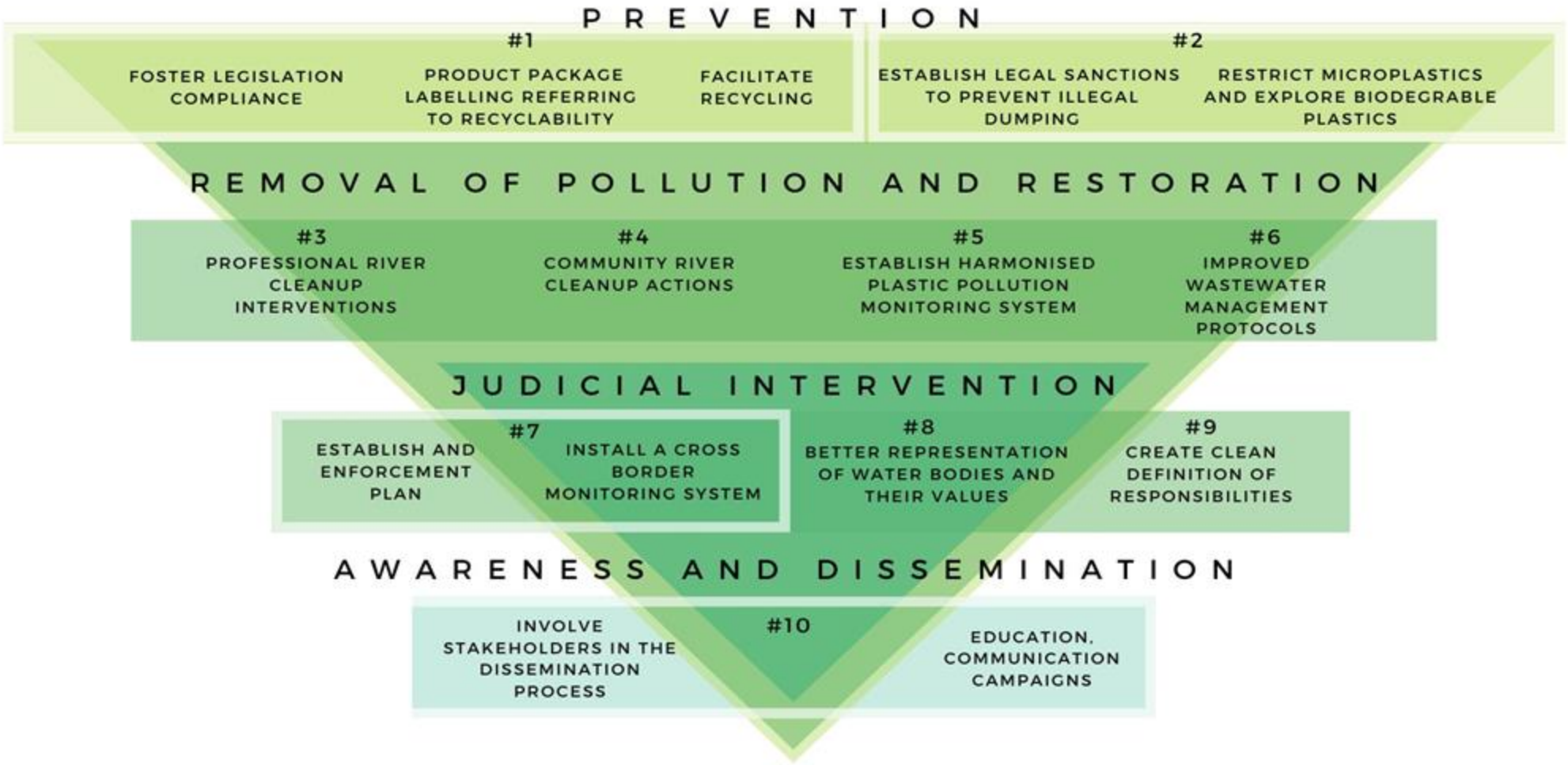
Organisational structure:

- too complex institutional structures
- no dedicated ministry for environment (HU)
- uncertainty about involvement and responsibilities
- weak NGOs: no capacity for advocacy or participating in European campaigns (EWWR, Zero Waste Day)

Monitoring Microplastics & Macroplastics:

- pollution map
- tagging and tracking
- retention potential (HPP)
- remote sensing

TOP 10 Recommendations



TOP10

Recommendations proposed regarding prevention

1. Foster compliance with existing legislation

- preventing the release of macro and microplastics into the environment (regarding (EU) 2019/904): develop plastic/other waste collection
- **standardisation of packaging should be a priority**
- setting additional requirements for product design (eco-design, reuse, right to repair)
- **stricter penalties AND ENFORCEMENT for improper disposal/littering (e.g. make police responsible to interact)**
- updating and improving sectoral policies to ban single-use plastics
- **implementing and introduce a deposit scheme for PET bottles (EPR-systems also) to meet the EU's 90% collection target by 2029 (without derogation)**
- **mandatory labelling of product packaging designating the type of plastic to promote selective collection and recycling**

Recommendations for Proper Treatment of Plastic Waste

2. Enhancing a legal framework for environmental violations

- sanction mechanisms and instruments to identify, sanction and prevent illegal landfills
- restricting the release of microplastics and exploring the use of biodegradable plastics in product segments where releases to the environment cannot be avoided.

3. Professional river cleanup interventions

- source: fundamental waste management problems
- **allocated budgets for interventions**
- mobile, versatile and temporary litter traps: considerate the environmental impact of the construction of permanent, large concrete structures. -it is recommended to carry out cost-benefit and environmental impact assessment before implementing physical barriers
- using existing water engineering structures (HPP)
- green jobs

4. Community River Cleanup actions

- reach a broad range of stakeholders and involve them in CRC
- highlighting the importance of CRC: its not a one-day-show…
- 743 coastal riverine litter accumulations, manage 300 tonnes, 60% recycled
- volunteering, mentoring, greenjobs

5. Establish a harmonised monitoring system for macro- and micro-pollution

- standardisation of definitions and sampling, testing and assessment procedures
- monitoring system for emitters
- shared and comparable data

6. Improved wastewater management protocols

- wastewater treatment plants: ensure reliable, safe disposal and proper treatment of wastewater
- using innovations, new technologies to remove and treat micro and macro-pollutants
- financial tools to implement plants in the Balkans

Recommendation regarding legal consequences

7. Cross-border monitoring and alert system

- enforcement plan and cross-border monitoring system (early warning system) for river water pollution (plastic, municipal, hazardous, etc.).
- existing: Ukrainian-Hungarian system, Missing: Romanian-Hungarian system

8. Legal representation of natural entities

- to ensure adequate legal protection, water bodies (rivers, large lakes) and their natural values need better representation: „Rights of the rivers"
- by granting legal status to water bodies, these natural values and resources could be represented before public authorities and their legal status could help to better enforce environmental protection: e.g. Whanganui River in New Zealand, Mar Menor Lagoon in Spain.

9. Defining the problem

- a clearer definition of responsibilities for the elimination of water pollution and the management of collected waste is essential. Who is responsible for collection, recycling or disposal? And who bears the costs?
- budgets and resources must be allocated to clean up pollution and manage waste.

Awareness-raising and dissemination

10. Environmental education programmes

Enhanced awareness-raising, education and communication campaigns involving stakeholders (decision makers, manufacturers, the general public, NGOs, etc.) and dissemination of methods, results and existing infrastructure (community compost points, reuse centers, repair network, recycling points, cleanups, etc).

Part C: Implementation

Policy making

- Austria: rapid and consistent implementation of EU law (Landfill Directive: expensive landfilling): 71% plastic incinerated, 28% recycling, 1% landfill (2015)
- Hungary: strict sanction system, no enforcement. Budget allocation for PRC and CRC. DRS start in 2024
- Slovakia: 2022: introducing Deposit Return System (DRS)
- Romania, Serbia, Hungary: DRS under preparation

Measure implementation

Cleanup actions and reuse/recycling

Awareness-raising, workshops and capacity-building events

- Austria: Waste Watchers are empowered to issue warnings and fines to violators, and they have been submitting reports to the Water Law Department since 2017.
- Slovakia: free, and open-source smartphone application TrashOut provides a platform for mapping illegal dumpsites. Since its launch in 2021, over 8,731 illegal sites have been reported through the app
- Romania: residents of 65 cities could ride public transport for free in exchange for waste in the "Romania Change PET" campaign, noteworthy initiative took place in September 2022.
- Tisza Roundtable

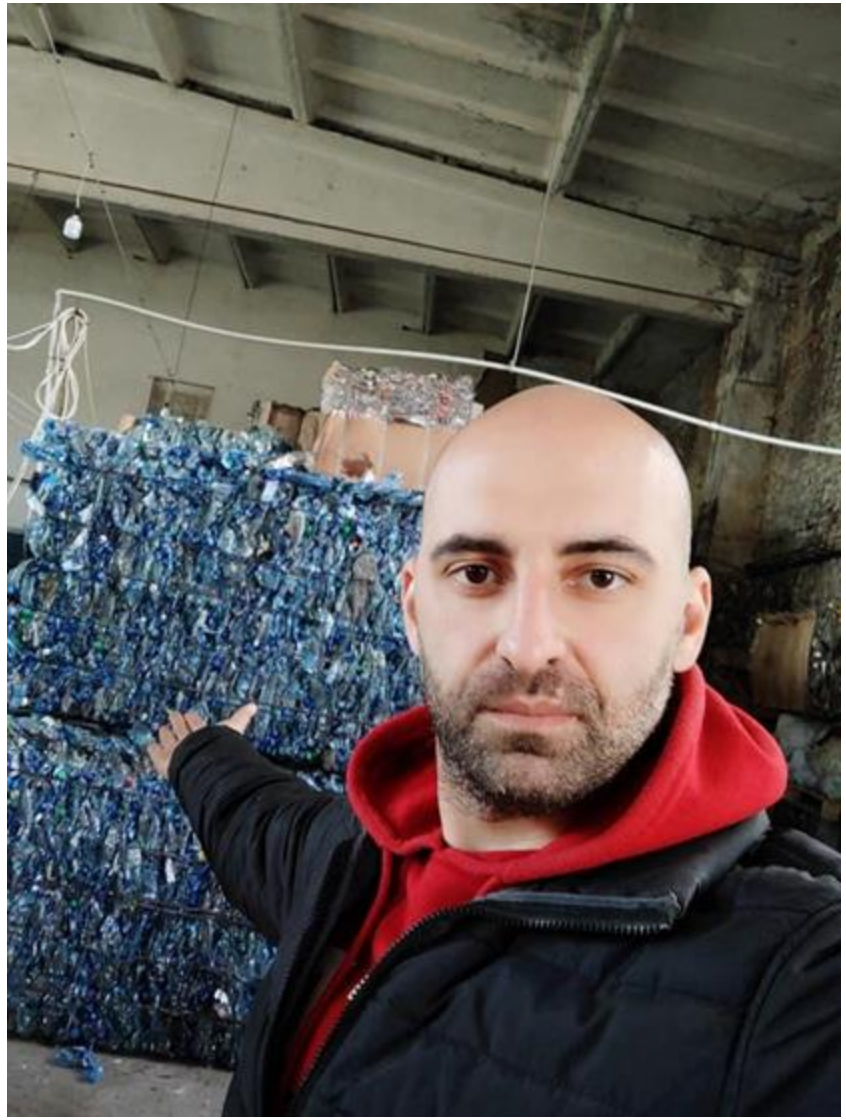
Follow-up activities

- The **Aquatic Plastic** submission under the Interreg programme builds upon the successful experience of Tid(y)Up.
- The **Styx Initiative** was a promising project application in the Horizon Europe programme. Its main strategic objectives were to prevent the formation of riverine litter accumulations through effective monitoring of macroplastics and microplastics in European rivers.
- The **RISK MP Project**, funded by the PIACI program is a 4-year research initiative led by WESSLING Hungary Ltd. The project, which began in 2021, aims to investigate microplastics in freshwater systems, with a focus on identifying sources of contamination from wastewater treatment plants and atmospheric deposition.
- The **DALIA (Danube Region Water Lighthouse Action)** project is a collaboration of 22 expert organisations. The project aims to bring an integrated DALIA tool to the DRB, which will be integrated into the Danube Mission Hub for better decision-making and to improve the restoration of fresh and transitional water ecosystems.
- **Plastic CUP** is a grassroots social innovation led by Plastic Cup Society, which organises annual international river cleanup events, team-building activities, and awareness-raising initiatives. The active involvement of volunteers has been instrumental in the success of the Plastic CUP initiative and the sustained motivation of regional communities.
- **River Lit(t)eracy** is a continuation of the 5 countries 1 river Erasmus+ project that was implemented in the Tisza River Basin. The project's goal is to adopt best practices from around the world, such as the Ocean Literacy principles, to educate and raise awareness among the public about river and plastic pollution.

III. Best practice in Transcarpathia

- 2022: The first year when prevention surpassed cleanups and end-of-pipe solutions
- tech-support is a gamechanger
- recovery fund, tax income
- population growth by 10-15%
- 400 companies settled

Win election with selection Turia Bystra (Turjasebes)



https://youtu.be/Tx1kSjq4OIQ

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CALL-ACTION

CALL-ACTION RESULTS 2022

TISZAI PET KUPA

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The **Call-Action** project, funded by Diageo company in 2022, aims to support separate waste collection and improve waste management in Transcarpathia, Ukraine. The 2-year initiative seeks to improve the living conditions of at least 120,000 people living along the Tisza by bringing tonnes of valuable separate waste back into the recycle loop and creating employment opportunities in the region. The project plans to collect, select, and manage at least 690 tonnes of waste during its lifetime, and in the first seven months, approximately 280 tonnes of waste were collected. The initiative has increased waste collection capacity in Uzhhorod and Beregovo, and in the next period, more waste collection points will be set up and installed in schools and community institutions, involving over 21 municipalities, 29 schools, and 61,800 residents and students.

In 2019, Coca-Cola Foundation began supporting the cleaning of the Tisza River, as they view reducing, collecting, and recycling packaging materials as a matter of great concern. The **Zero Waste Tisza Project** allowed them to expand their participation and spread their activities to other areas. Their financial support provides an opportunity for Plastic CUP and water authority experts to organise more frequent and diverse actions. Due to the project's remarkable success, the third phase of the Zero Waste Tisza Project will be launched at the beginning of 2023.

Thank you for your attention!

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Tid(y)Up - project co-funded by European Union funds (ERDF, IPA, ENI) with financial contribution from partner states and institutions #dtptidyup #interregtidyup interreg-danube.eu/tid-y-up