

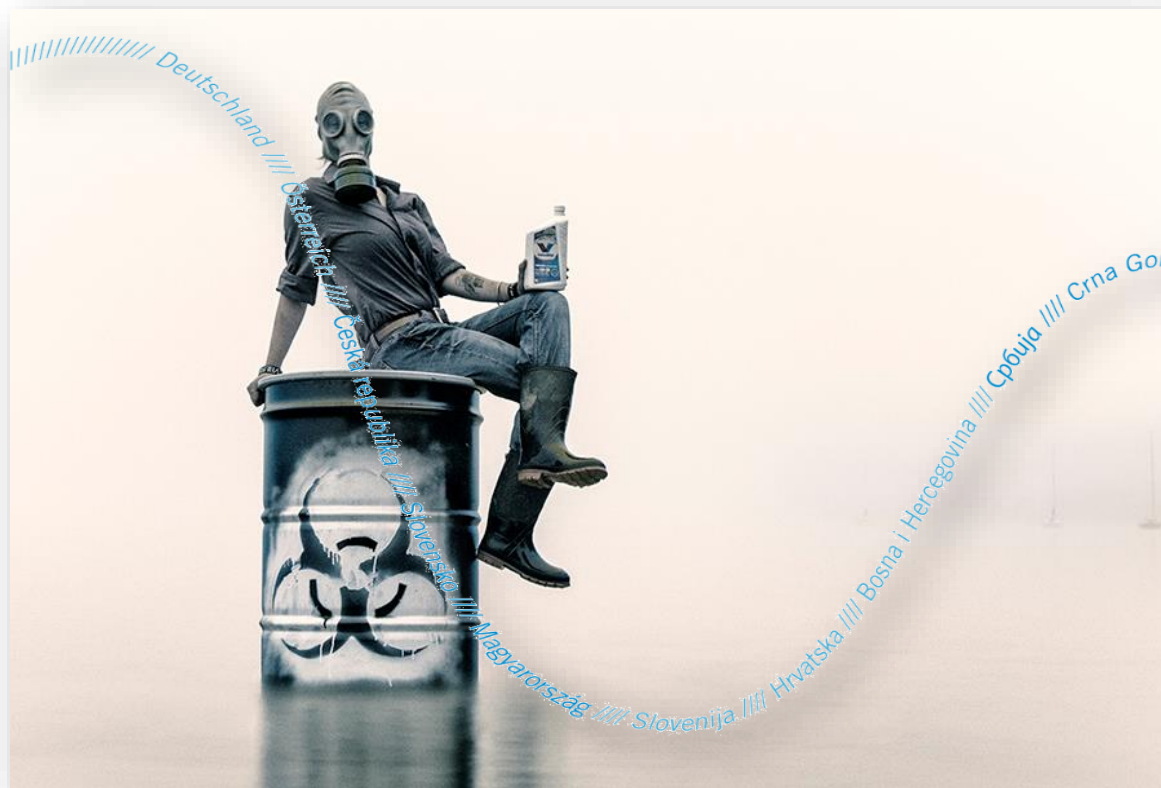
# Preventing Accidental Water Pollution in the Danube River Basin



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for the Protection  
of the Danube River

Internationale Kommission  
zum Schutz der Donau

## UNECE seminar on contingency planning, early warning and mitigation



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ICPDR

# Danube River Basin

ICPDR IKSD

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~~Most~~ **Large variety of natural factors in the world** economic conditions



# Role of the ICPDR

**ICPDR**: platform for **transboundary cooperation** on water management

Significant **knowledge gap** on potential sources





# Sad examples from the basin

**Baia Mare** gold mine (RO, 2000):  
**cyanide** spill polluting the  
Szamos and Tisza Rivers



Severe acute toxicity, 95% of living organism were killed, water supply problems, chronic toxicity via heavy metals

**Ajka** alumina plant (HU, 2010):  
**red mud** spill reaching surrounding  
land, agglomerations and creek



Acute harm via alkalinity (chemical burning), 10 victims, severe impacts on human health, livestock, soil, properties and infrastructure

- **Mandate** (DRPC): minimise **risk** and **consequences** of accidental pollution events by safety measures and crisis management
- **Platform**: Accident Prevention and Control Expert Group (**APC EG**)

## Accident prevention



## Early warning



# ICPDR pillars



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Thematic discussions

Trainings & projects

Cooperation

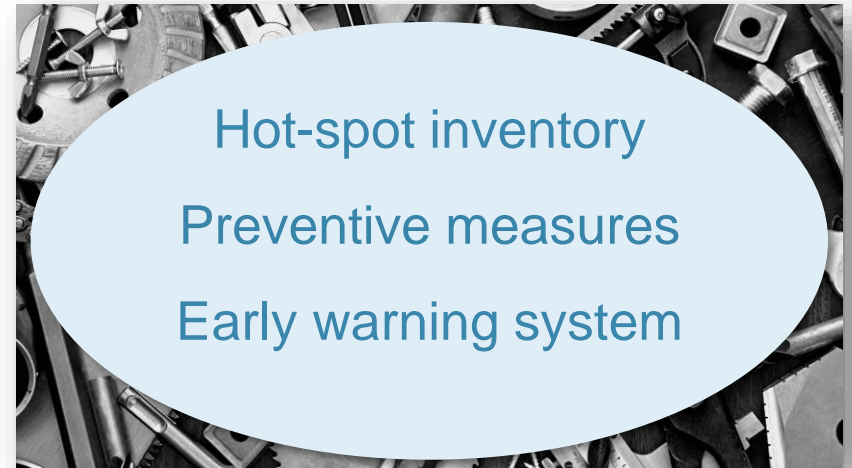


Awareness raising

Info for the public

Stakeholder orientation

## Platform for exchange



Hot-spot inventory

Preventive measures

Early warning system

## Tools and expertise

## Transparency and access



# Tools for water management: ICPDR IKSD

## Early warning

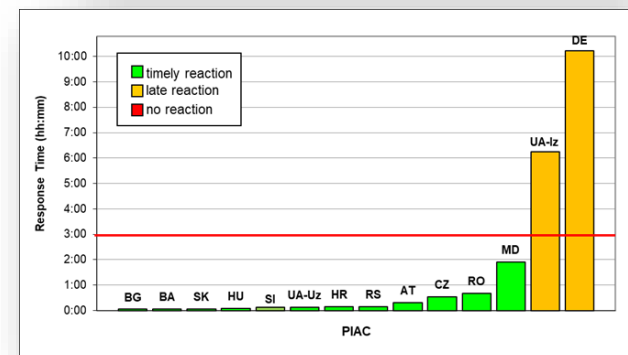
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# Accidental Emergency Warning System (AEWS)

- Web-based **communication system** for response to any transboundary emergency situations in the DRB rivers
- Activated if a **real risk of accidental pollution** exists or threshold levels of dangerous substances are **exceeded**
- **Warning message** to be sent out to the downstream countries according to predefined routing
- Time enough for quick **emergency safety** measures and actions
- Centrally **maintained** and upgraded, regular **trainings and tests**, low user requirements



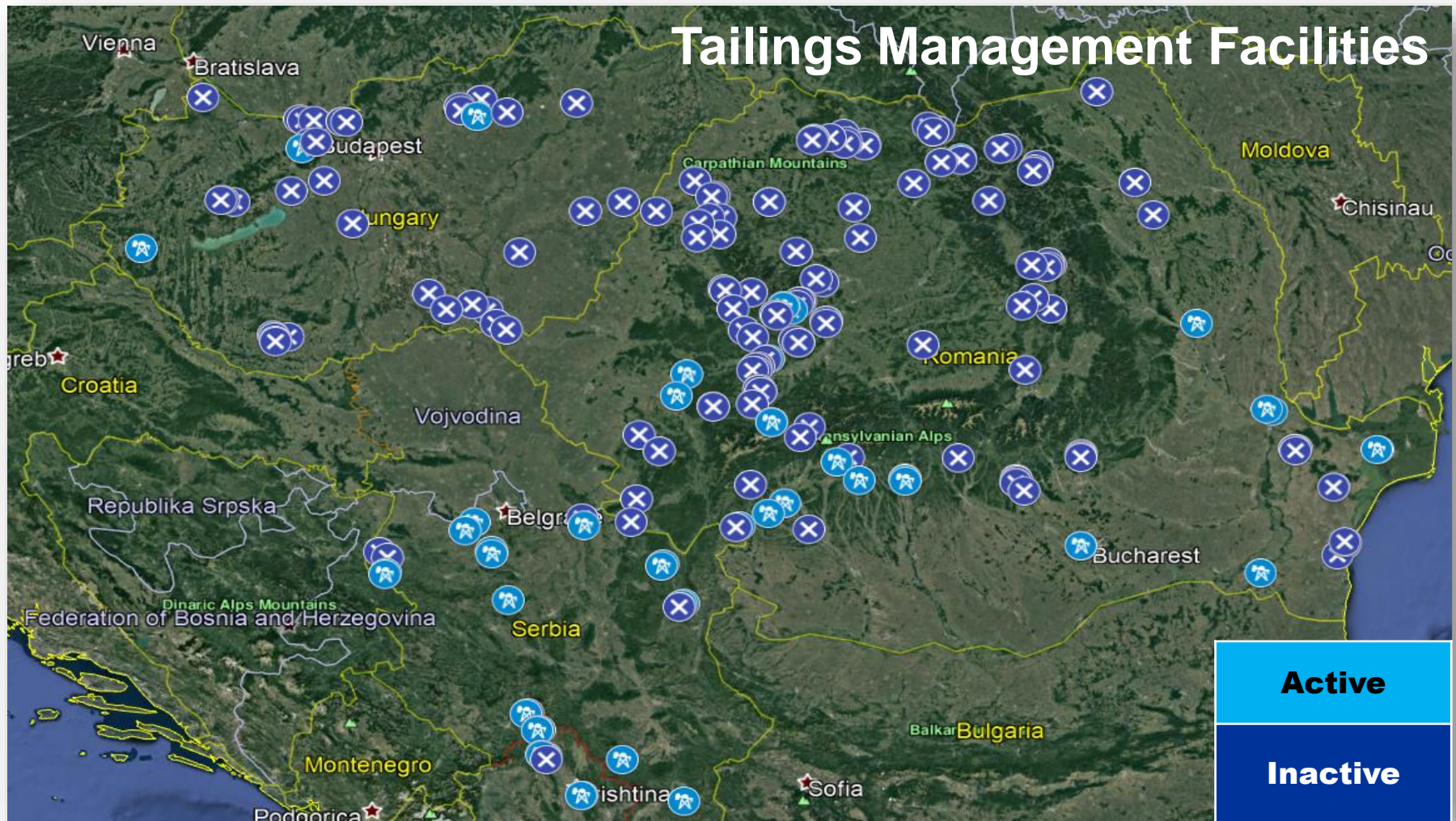


# Tools for water management: ICPDR IKSD

## Hot-spot inventories

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# Risk assessment methods

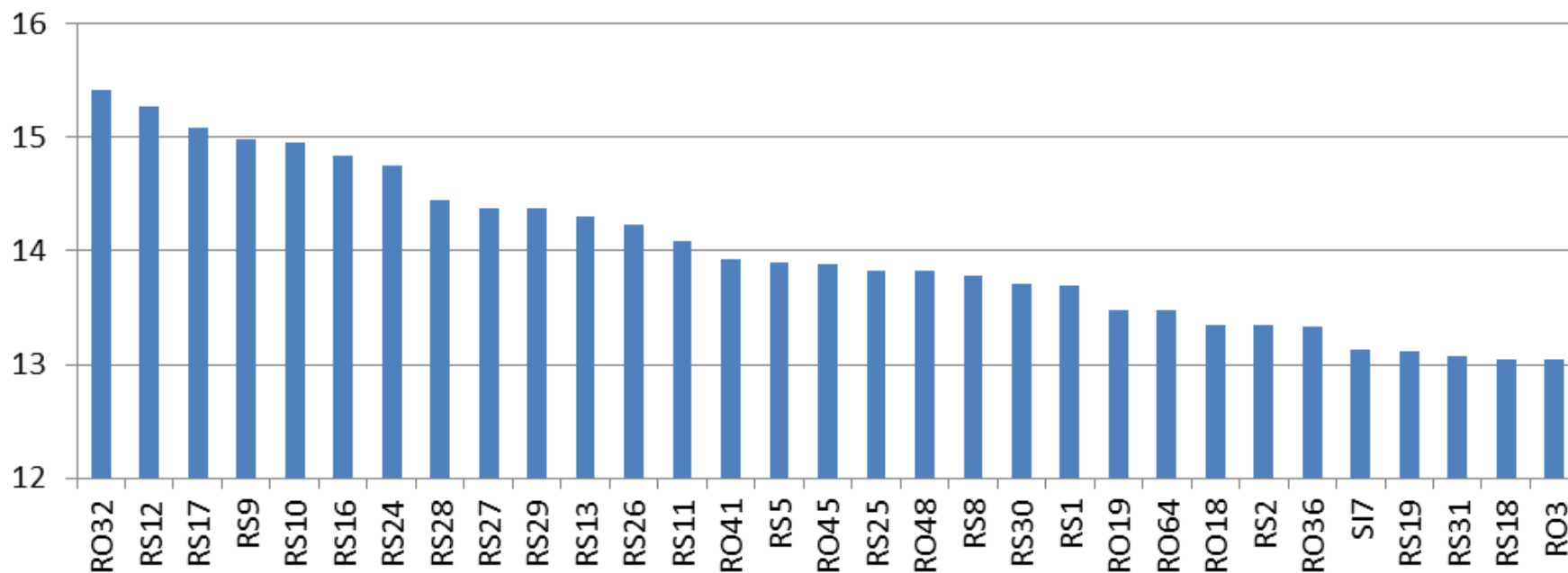
## Accident Hazard Sites



## Tailings Management Facilities



THI DRB (10% top hazardous TMFs)





# Tools for water management: ICPDR IKSD Measures

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- Identification of **priority industrial fields** in the Danube River Basin
- Promoting/adapting **checklists and catalogues of measures**
- Organising **seminars, trainings and projects** to support countries
- Key sectors of **high relevance**:
  - 1) Oil industry
  - 2) Chemical industry
  - 3) Tailings management facilities
  - 4) Contingency planning





# Demonstration TMF training course for the north-eastern DRB



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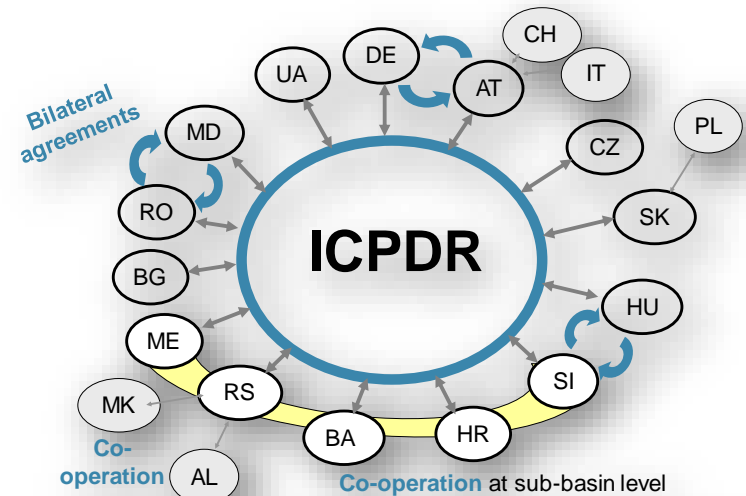
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- **Capacity building** for the north-eastern DRB countries by an international **training event**
- Deepening the **knowledge** of invited operators, inspectors and experts on TMF management
- Further enhancing and completing a previously developed detailed **checklist method**
- Integrating **land use planning** aspects (risk index)
- International **workshop** for the DRB countries, UNECE region and other river basin organizations
- Follow-up **national programs** (train the trainer approach)



# Contingency management in the DRB

- Contingency planning and crisis management: based on **bi- or multilateral cross-border agreements** in the Danube countries
- Cooperation, exchange and exercises proven to be **sufficient**
- ICPDR APC EG: platform for **regular information exchange** on bi- or trilateral contingency exercises carried out by neighboring countries
- Integration** of national existing approaches into the UNECE guidance recommended for the Danube countries



# Conclusions

- **Platform** for cooperation on accidental pollution related issues
- **Tools** for risk mitigation and early warning
- **Awareness** raising and orientation



- **Countries** need to get active and take actions!



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# Thank you for your attention!

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For more information please visit the ICPDR website:

<http://www.icpdr.org>



**YouTube**

