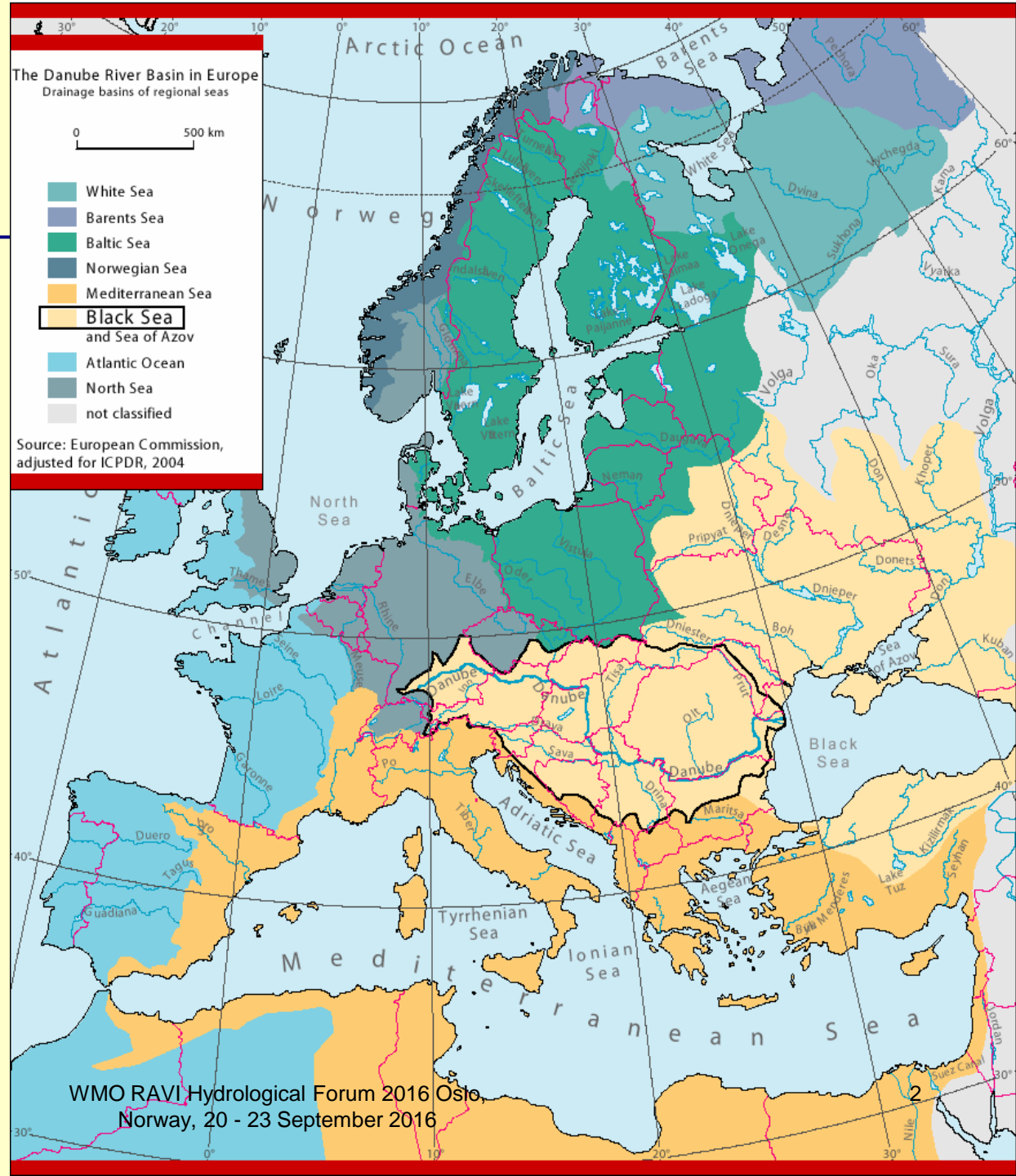


CO-OPERATION IN DANUBE RIVER BASIN - *THE ROLE OF SHMI*



SLOVENSKÝ HYDROMETEOROLOGICKÝ ÚSTAV

- Danube, the 2nd longest in Europe.
- 2857 km
- Flows across 10 European states
- River basin - 817 000 km²
- 1/11 of square of Europe
- 19 states



Danube – history of the co-operation

join countries, fishing, drive devices in a wide range of human activities, the source of water for irrigation, the production of electricity, facilitating navigation and transportation of goods in national and international scope.

- 1st principles of international navigation on the Danube, 1815, Vienna, 1954, Danube Commission,
- 70s of the 20th century gradually formation of Commission on transboundary rivers
- Regional co-operation in hydrology - the Danube countries in the frame of the International Hydrological Programme of UNESCO 1994,
- the Danube River Protection Convention -ICPDR

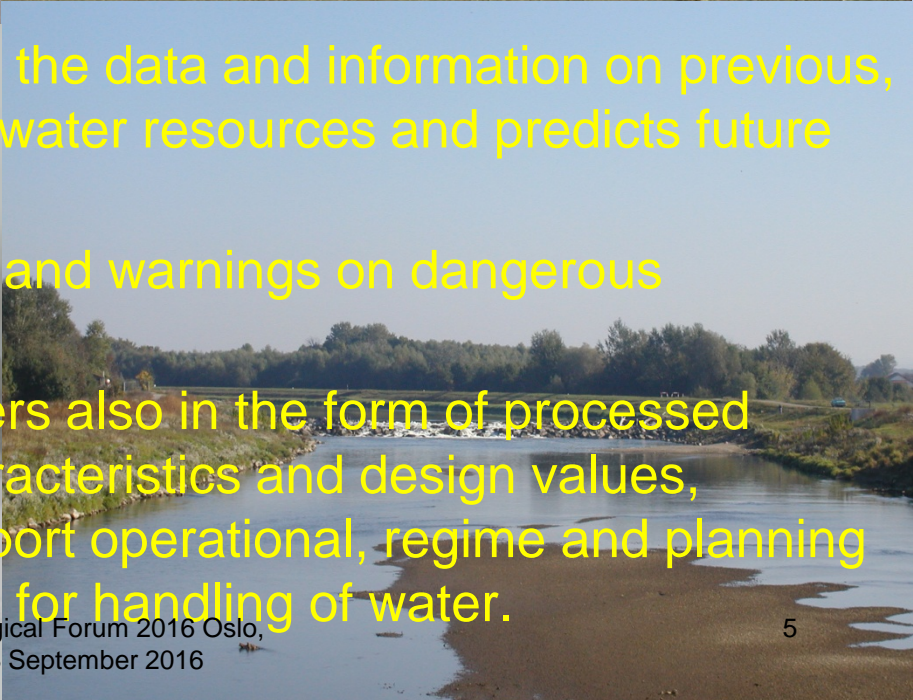
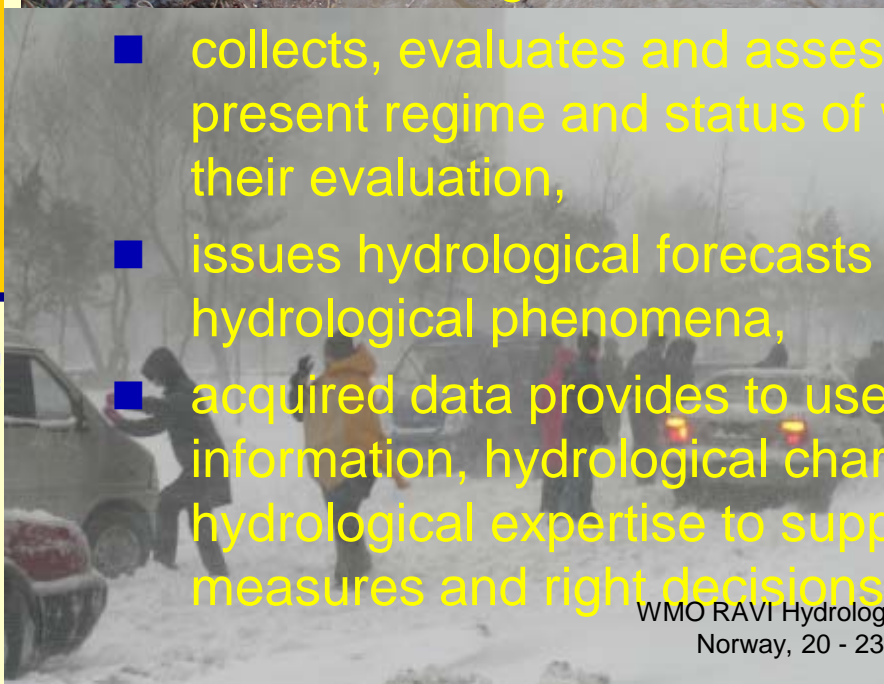
Danube - a symbol of integration

- Convention on Water, UNECE ,
- EC - implementation processes of EU Directive,
 - Water Framework Directive,
 - Flood Directive
 - Danube Strategy,

Danube and SHMI

SHMI as responsible body for **National Hydrological Service** provides:

- manages and operates the state hydrological network of water-gauging stations on surface streams and of monitoring objects of groundwater and springs in SR.
- provides the monitoring of hydrological parameters on surface streams and groundwater,
- collects, evaluates and assesses the data and information on previous, present regime and status of water resources and predicts future their evaluation,
- issues hydrological forecasts and warnings on dangerous hydrological phenomena,
- acquired data provides to users also in the form of processed information, hydrological characteristics and design values, hydrological expertise to support operational, regime and planning measures and right decisions for handling of water.



Danube Commission – general information (1)

- is an international intergovernmental organization established by the Convention regarding the regime of navigation on the Danube signed in Belgrade on 18 August 1948.
- The main objectives of the Danube Commission's activity are **to provide and develop free navigation on the Danube in accordance with interests** and sovereign rights of the Member States of the Belgrade Convention, as well as to strengthen and develop economic and cultural relations of the said states among themselves and with the other countries

Danube Commission – general information (2)

The Member States:

- Austria,
- Bulgaria,
- Hungary,
- Germany,
- Moldova,
- the Russian Federation,
- Romania,
- Serbia,
- Slovakia,
- Ukraine,
- Croatia.



WMO RAVI Hydrological Forum 2016 Oslo,
Norway, 20 + 23 September 2016

Danube Commission – primary duties

- Supervising the implementation of the international convention,
- Preparing a general plan of the main works called for in **the interest of navigation**.
- Establishing a **uniform system of traffic regulations** on the whole navigable portion of the Danube and, taking into account the specific conditions of various sections of the river,
- Unifying the regulations governing river, customs and sanitary inspection.
- Harmonizing regulations on inland navigation with the European Union and with the Central Commission for the Navigation on the Rhine.
- **Coordinating the activity of hydro-meteorological services on the Danube** and publishing short-term and long-term hydrologic forecasts for the river.
- Collecting statistical data on aspects of navigation on the Danube within the commission's competence.
- Publishing reference works, sailing directions, nautical charts and atlases for purposes of navigation.

Danube Commission – SHMI duties

- Annually data on water level, discharge, water temperature, ice phenomenon of previous year of selected monitoring sites on Danube River and data on precipitation and air temperature
- Database and Danube Report
- Participation on meetings (2 / year)

Danube and transboundary cooperation

- Bilateral agreements and Commissions (SK-A, SK – CZ, SK - H)
- Common measurements according approved plans,
- Data and metadata exchange, (Protocols, Rules),
- common reconciliation of monitored data and hydrological characteristics,
- Common water bodies
- Hydrological forecasting

ICPDR - International Commission for the Protection of the Danube River (1)

- the Danube River Protection Convention was signed on June 29 1994 in Sofia (Bulgaria) and came into force in 1998.
- an International Organization consisting of 14 cooperating states and the European Union.
- the major legal instrument for cooperation and trans-boundary water management in the Danube River Basin
- It aims to ensure that surface waters and groundwater within the Danube River Basin are managed and used sustainably and equitably (it means to deal not only with the Danube itself, but also with the whole Danube River Basin, which includes its tributaries and the ground water resources).

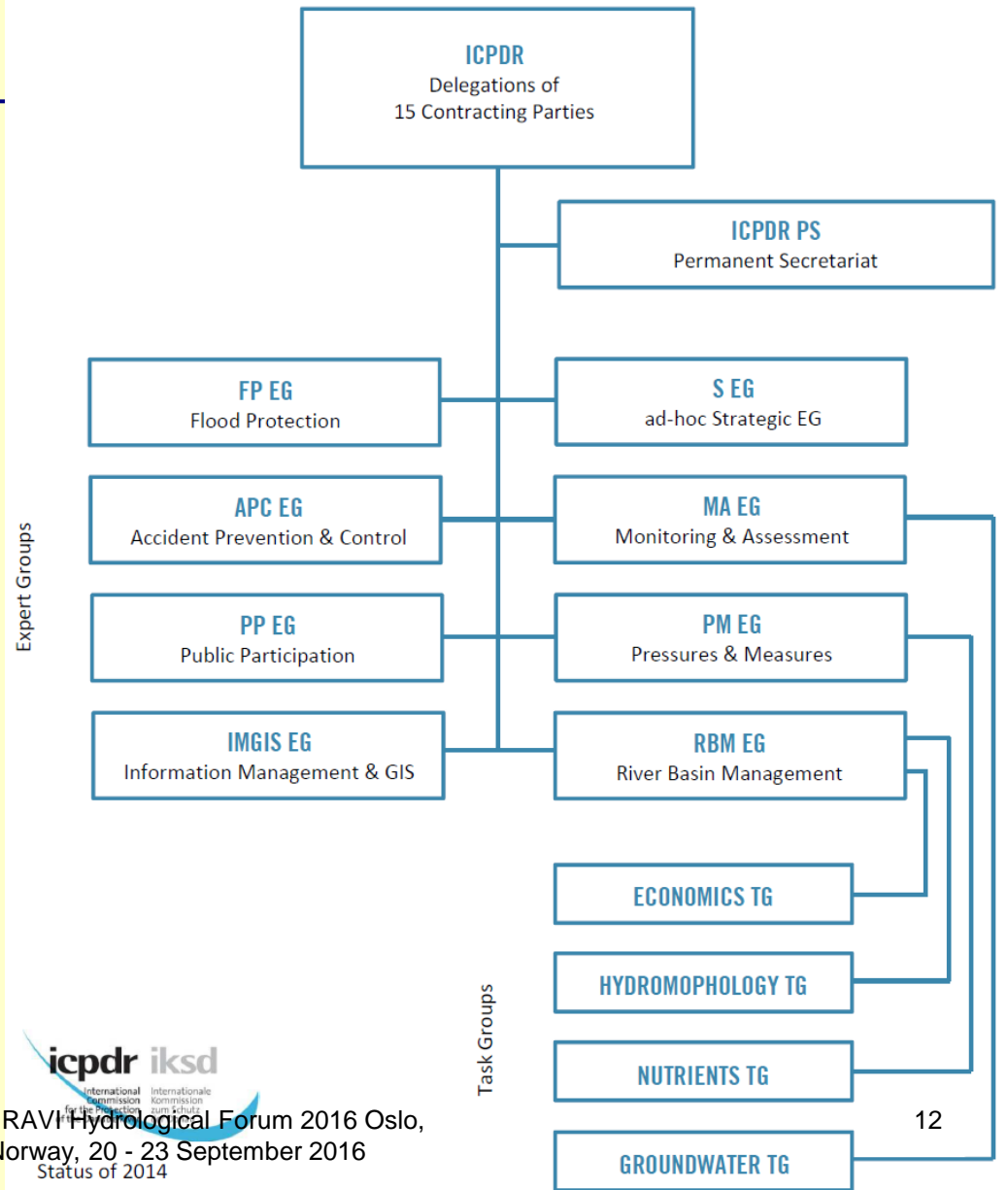
ICPDR (2)

Germany
 Austria
 Czech Republic
 Slovakia
 Hungary
 Slovenia
 Croatia
 Bosnia and Herzegovina
 Serbia
 Montenegro
 Romania
 Bulgaria
 Moldova
 Ukraine

SLOVENSKÝ HYDROMETEOROLOGICKÝ ÚSTAV
 SLOVAK HYDROMETEOROLOGICAL INSTITUTE



ORGANIGRAM OF THE INTERNATIONAL COMMISSION FOR THE PROTECTION OF THE DANUBE RIVER (ICPDR)



ICPDR monitoring network



*Surveillance Monitoring 2 provides an assessment of long-term trends of specific pollutants and of loads of substances transferred downstream the Danube.

ICPDR – SHMI duties

- Participation in EWGs and Task groups - processing the required documents and information
- provides monitoring data on the quantity and quality of the sampling sites in Slovakia, as part of an international monitoring network monitoring (TNMN) in the range according to the Monitoring Programme for the relevant year
- TNMN database management - recording, monitoring, archiving and processing of monitoring data quality and quantity sent by other countries
- Coordination and processing of international Danube yearbook on surface water quality

ICPDR – Annual report - TNMN

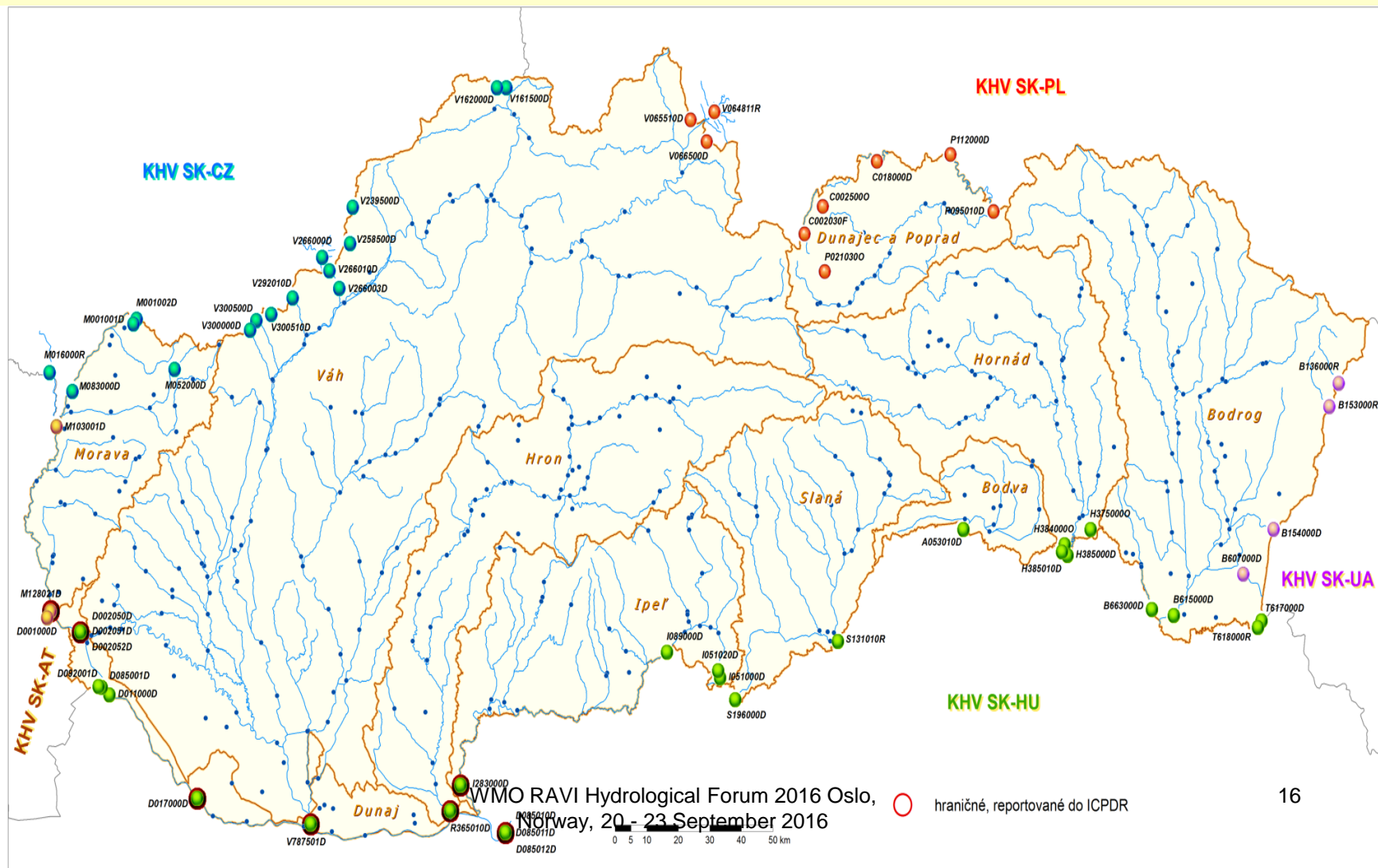
Water Quality in the Danube River Basin



TNMN – Yearbook

<http://www.icpdr.org/main/publications/tnmn-yearbooks>

Data and metadata exchange DC, ICPDR, bilateral





Thank for your attention

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