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SHARED WATER INFORMATION IN AUSTRIA

KATHARINA LENZ

Legal Background

- Water Act (Federal legal gazette No. 215/1959 – in the current version) = legal Basis for water management in Austria
 - WISA §59: purpose, content, stakeholder
 - River Basin Management Plan §55h (RBMP)
 - Flood Risk Management Plan §55l (FRMP)
- Complemented by Ordinances e.g.
 - Emission Register
 - Water Quality monitoring
 - Water Quantity monitoring

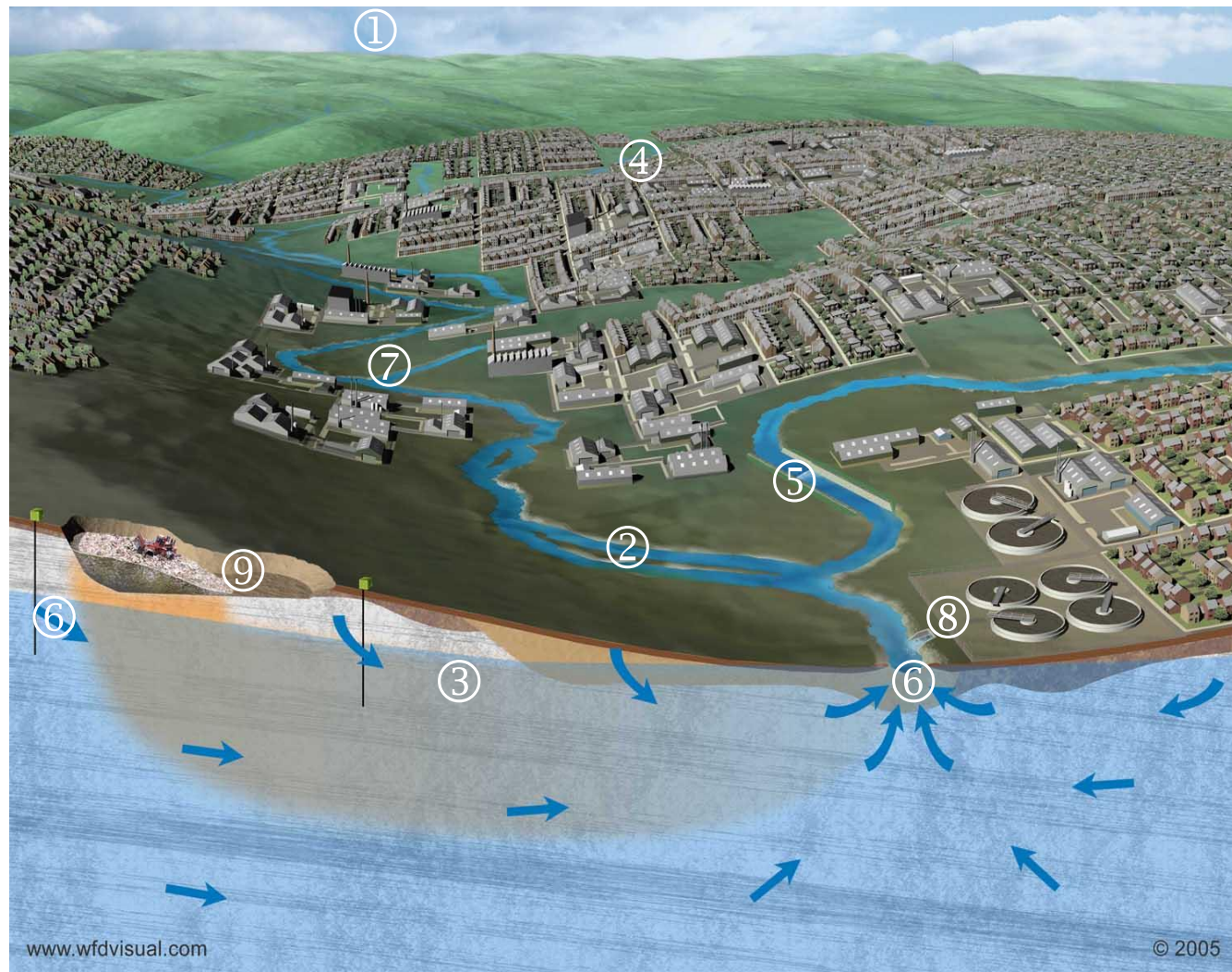
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What is the purpose of data management?

- Water assessment: characterisation of rivers, lakes, groundwater, riverbasins
- Water evaluation: e.g. water quality for status evaluation
- Water Foresighting: prediction of impacts
- Water related measures: planning and implementation
- Water Accountability: for water statistic, generation of SDGs
- Water education: information and education of the public

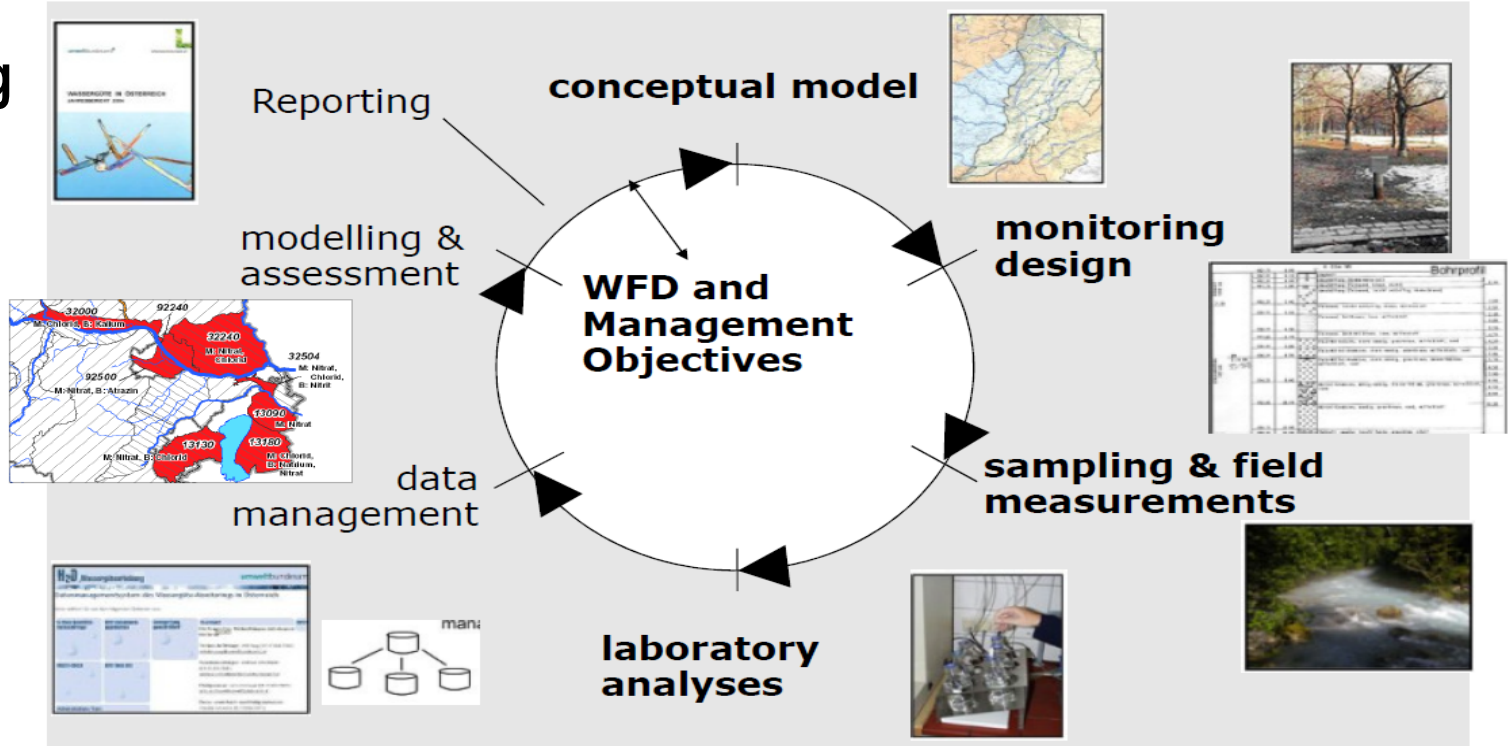
Types of water data

- ① Meteorological data: rainfall, humidity, temperature,...
- ② River Data: water level, discharge (low/medium/bankfull)
- ③ Groundwater data: water level, aquifer thickness, groundwater age
- ④ Water storage data: storage volume, storage inflow/outflow, offtakes,...
- ⑤ Water use data: water taken from rivers, groundwater and storages, water demand, available water,...
- ⑥ Water quality data: Electrical conductivity, temperature, pH, oxygen, biological quality elements, hydromorphological data,...
- ⑦ Water pollutant data: concentrations of plant protection products, Pharmaceuticals, heavy metals,...
- ⑧ Waste water data: discharge point, emission load,...
- ⑨ Water rights data: Water ownership, water permits,...

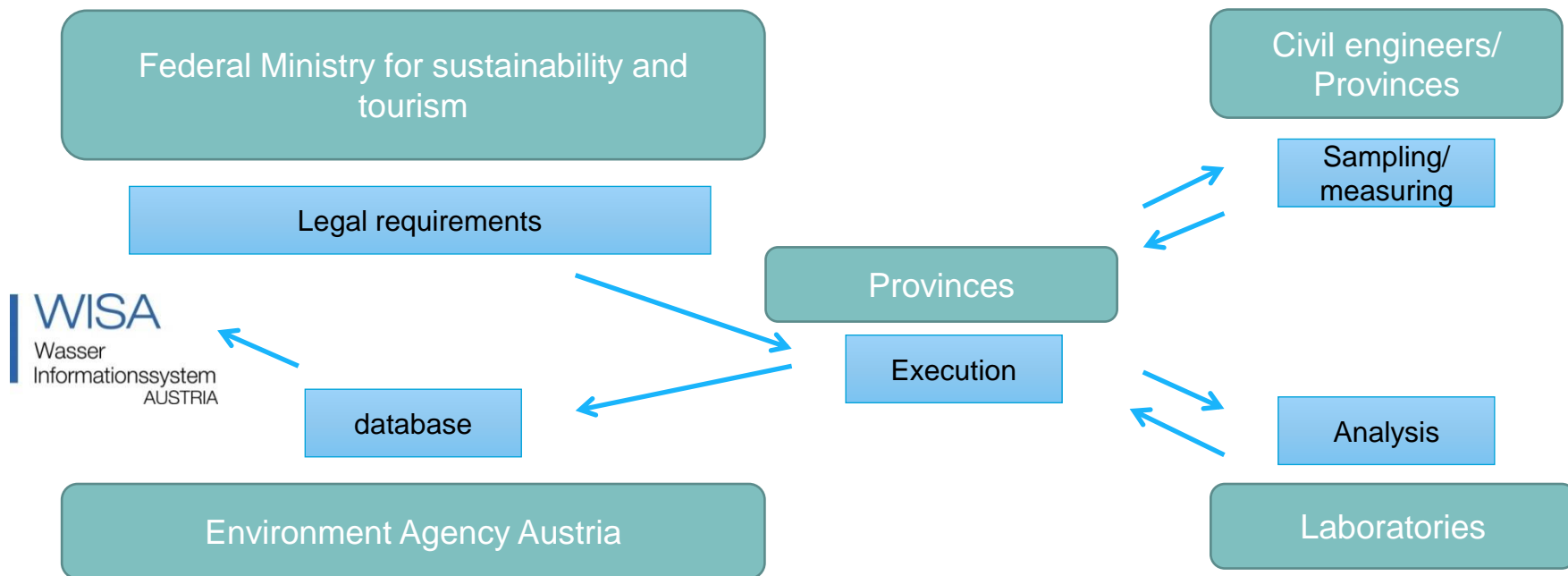


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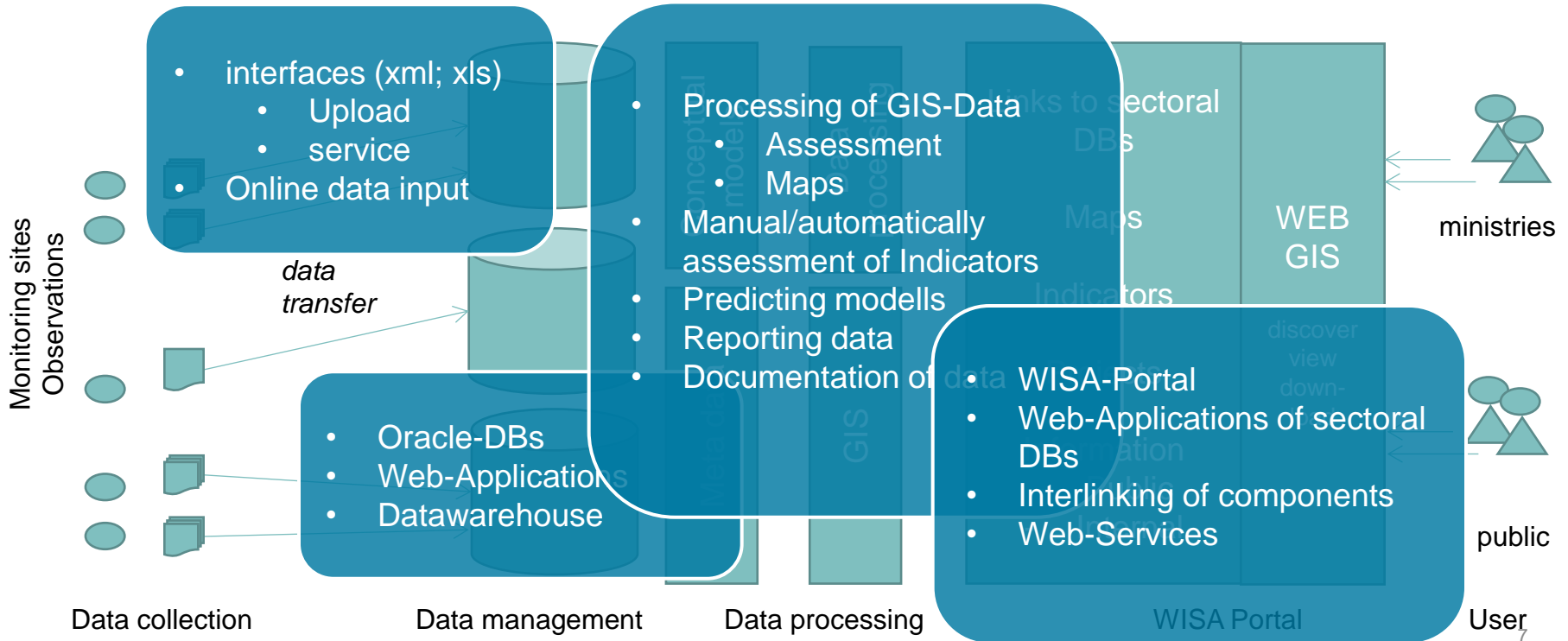
Monitoring cycle



Organisation & dataflow (generalized)

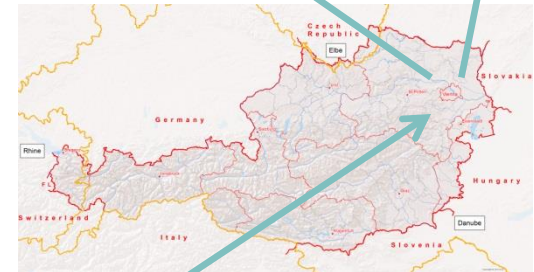


Concept of WISA



Levels of data exchange

- European Commission (European level)
 - Water Information System Europe (WISE)
 - State of environment (SOE)
 - Compliance check
 - Revision of European water policy
- International river basin commissions
 - Bilateral and transboundary coordination
- Federal State of Austria (National level)
 - National River Basin Plan (RBMP)
 - Water Information System Austria (WISA)
 - Reporting to EC/EEA
- 9 Provinces of Austria (Provincial level)
 - Have their own competencies according to the Water Act (data collection, permitting water rights)
 - Water information systems of the Provinces
 - Reporting to the Federal State



Austrian water data management – Provincial level

- Water Information Systems of the Provinces
 - Water cataster: Permission of water rights
 - Flood risk maps
 - Water Quality data (rivers, lakes, groundwater)
 - Drinking water
 - Water uses
- The systems are providing Information for the interested citizens and is used by the administration

<http://www.geoland.at/index.html>

The image shows a screenshot of the geoland.at website. The top navigation bar includes 'Home', 'Themes', 'Geodata', 'Provinces', 'INSPIRE', and 'About'. Below the navigation bar, there is a search bar with the text 'Where in Austria is...'. The main content area is titled 'Provinces' and features five colored buttons representing the provinces: Upper Austria (red), Lower Austria (blue), Salzburg (purple), Vienna (red), and Burgenland (yellow). Below the buttons, there is a text box stating 'Detailed information about the contact persons is available by clicking on the [button]'. The bottom part of the screenshot shows a map interface for 'SAGISonline | Wasser'. The map displays a detailed view of a water catchment area with various colored overlays representing different water management data. The interface includes a search bar, a legend, and a list of layers on the left side. The layers list includes 'Inhaltsverzeichnis', 'Profile HES3D', 'Wasser', 'Wasser-versorgung', 'Kraftnutzung', 'Abwasserentorgung', 'Gewässerbetriebsflächen', 'Flächabgrenzung', 'Schwallestrassen', 'Stautrecken', 'Uferdynamik', 'Sohldynamik', 'Detailwasserkörper', 'WRRL Zustände', 'NGP-Zustand', 'NGP-Zwischenziel', 'NGP-Zwischenziel', 'Wasserbauliche Maßna', and 'Massstellen'. The map is titled 'SAGISonline | Wasser' and includes a scale bar and a north arrow.

Austrian water data management – National level

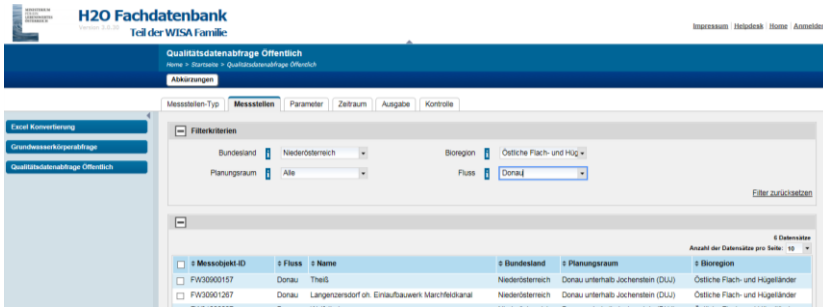
Water applications for Data Management and data assessment

- Water Quality Database (Web application & services)
- Biological data Database
 - Fish Database (Web application & services)
 - Benthos Database (Web application & services)
 - Makrophites Database (Web application & services)
- Austrian Water Graph (GIS)
- Spatial Data Infrastructure (SDI) Water
- Floods Database (Web application & services)
- Hydrographic Yearbook
- Datawarehouse Water

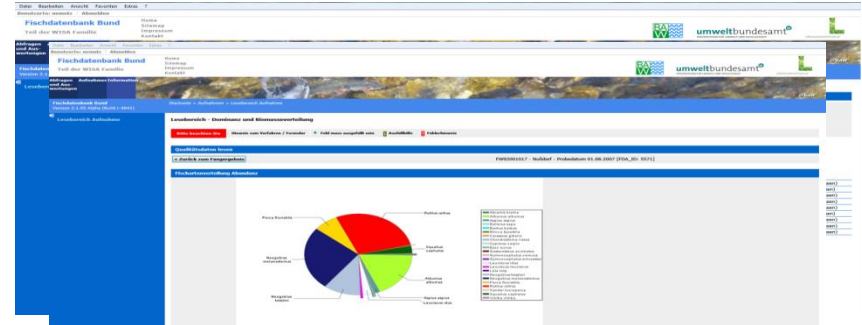
WISA – Portal for Data access and presentation

- Access to Water Applications via links
- Thematical information
- Web-GIS
 - National river basin Plans
 - National flood risk plans
 - Thematical interactive maps
- Information about Interfaces

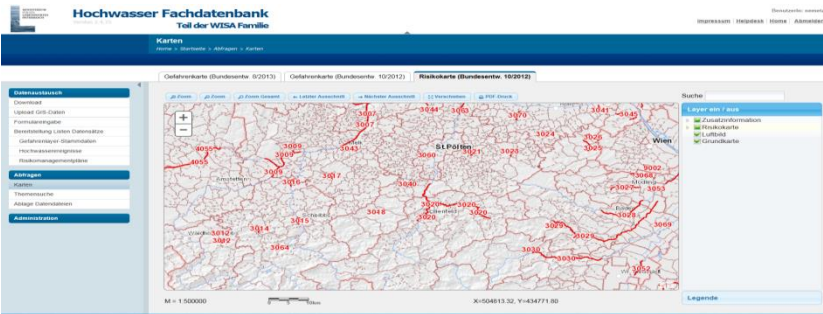
Water applications for Data Management and data assessment



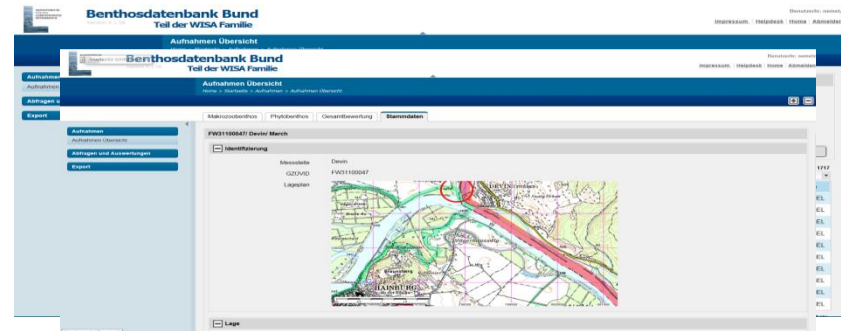
Waterquality Database



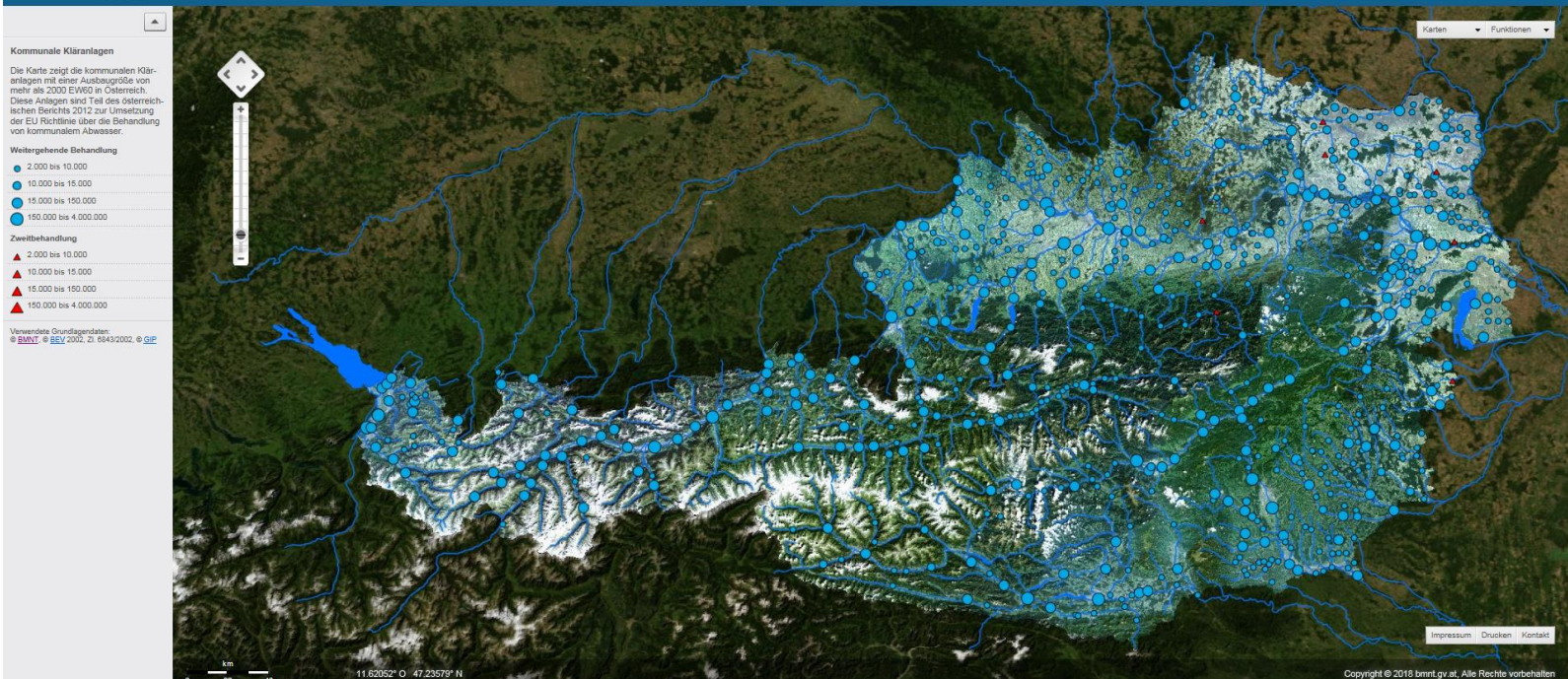
Federal Fish Database



Flood Database



Federal Benthos Database



EU data reporting – European level

- WISE was launched for public use as a web-based service on 22 March (World Water Day) 2007 providing a web-portal entry to water related information ranging from inland waters to marine. The web-portal is now grouped into sections for
 - EU water policies (directives, implementation reports and supporting activities..)
 - Data and themes (reported datasets, interactive maps, statistics, indicators,..)
 - Modelling (now - and forecasting services across Europe..)
 - Projects and research (inventory for links to recently completed and ongoing water related projects and research activities..)
- For users from EU institutions or other environmental administrations WISE provides input to thematic assessments in the context of EU water related policies. <https://www.eea.europa.eu/themes/water/dc>



Recommendations for water data management

- Data should be collected only once and kept where it can be maintained most effectively
- Share the data with many users and applications
- Use the water data for more purposes
- Establish common interfaces – combine data from different sources - harmonisation of data
- It should be possible for information collected at one level to be shared with all levels;
- detailed for thorough investigations, general for strategic purposes.
- Interlink your information systems together

Contact & Information

Department Surface Waters

Dr Katharina Lenz

Tel.: +43-(0)1-31304/3020

Katharina.lenz@umweltbundesamt.at



Umweltbundesamt
www.umweltbundesamt.at