

From open data sources to transparent knowledge-based management and policy

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Data availability and accessibility - obstacles

- **Data producers and owners (governmental institutes and universities) do not make their environmental data freely available due to:**
 - **Defensiveness – 'we own the data, we do not give it to others'**
 - **Financial reasons – 'we charge full costs'**
 - **Technical reasons – 'access to our data bases is impossible or difficult'**
- **Potential solutions:**
 - **New national/international data policy: free data sharing**
 - **Agreements on national/international level**
 - **Platforms/Observatories for transnational access**

Benefits of free, easy access data

- **Base for new science and knowledge**
- **Facilitates the way towards knowledge-based societies**
- **Increases the transparency of water management and policy-making**
- **Increases environmental awareness**
- **Improves the comparability of primary data**

Case of Finland

- **Long-term monitoring data exists – hydrological data >100 years, water quality >50 years**
- **All data is quality controlled/quality assured by a set of measures (e.g.):**
 - Certified sampling personnel and methods,
 - Accredited laboratories
 - Standardized methods
 - Proficiency Testing
- **All data (also that produced by private companies) are stored in one central environmental data base**
- **User-friendly user interface has been developed**
 - Free access via Internet
 - Web browser based
 - GIS –related
 - Output in map, graph or table format
- **Applications taking use of national data:**
 - Real-time flood forecasts
 - Flood mapping are utilized in land management and spatial planning
 - Implementation of e.g. Water Framework Directive and related legislation

Integration of socio-economic and hydrological/water quality data

- **Better understanding of socio-economic impacts of water related issues, and effectiveness of policies, and better policy measures to mitigate/solve problems**
- **Calls for interdisciplinary research**
- **Integrated assessments that utilize possible data sources and research results**
- **Adaptive management relying on results above**