



## VITUKI

VITUKI was founded in 1952 on the basis of the Hydrologic Institute to perform for the Hungarian Water Management both basic and applied research, as well as studies related to the development, conservation and sound management of water resources of the country. Supported by hydraulic, hydro chemical etc. laboratories; equipment, instrumentation and computer facilities, VITUKI has emerged as one of the most complex water-oriented full-service professional organizations in the region. At present, there are about 80 highly qualified specialists on the staff, out of the total 230 employees, including civil, chemical, electrical, mechanical engineers, geologists, biologists, mathematicians, and geophysicists.

VITUKI is the reference center of WHO and WMO concerning water quality and hydrology, respectively, one of the founding members of International Association of Hydraulics Research (IAHR) and focal point for the International Association for Hydrological Sciences (IAHS). Hydrologists of the Institute elaborated numerous national projects related to hydrological forecasting also participated in international projects of the European Union, WMO and the Danube countries. The Institution played a key role in the investigation of high floods in the period of 1998-2001 in the Tisza Basin with special emphasis on flood forecasting and flood inundation studies. Drought studies in central Hungary and investigation of the hydrological drought in the Balaton catchment 2000-2003.

### **The project will essentially be implemented by:**

- Dr. Gábor Bálint: Civil Engineer, PhD in Hydrology and water management. Position: Head of the Hydrological Forecasting Unit, Senior Research Associate. Role: Project responsible at VITUKI. G. Balint has been working as forecaster and flood hydrologist more than two decades. He has an important experience in the processing of real time hydrological information and also in the use of hydrological data and forecast for flood-related decision making and operation of hydraulic structures. He took part in the elaboration of the VITUKI-OVSZ modelling system and in the analysis and simulation studies of climate change impact and extreme flood events in the Danube Basin.
- Dr. Balázs Gauzer: Civil Engineer, Dr Techn. in Hydrology and water management Role: Testing of hydrological forecasting models, flood simulation, developing and operating hydrological software.
- Dr. Károly Konecsny: Geographer, PhD in Hydrology. He has an important experience in analysing flood related information and also in drought studies.
- Dr. Zsolt Mattányi: Geographer, PhD in Physical Geography. He is experienced in GIS tool application, analysing hydrometeorological and river network related information and also in

economic impact studies.

- Dr. István Zsuffa: Civil Engineer, PhD in Hydrology and water management. Budapest Technical University, Wageningen Agricultural University. His research field covers hydrology, hydrodynamics, ecology and operational research. His special interest is wetland management.

## **Finished projects:**

EFFS; FLOODRISK-Hungary; The Tisza River Project: Real-life scale Integrated catchment model for supporting water- and environmental management decisions (FP5).; Harmoni-CA Harmonised Modelling Tools for Integrated River Basin Management (FP5); HarmoniQuA Harmonising Quality Assurance in model based catchment and river basin management (FP5); NÉS\_Baseline information Ongoing projects: PREVIEW, CLAVIER, CLIMATE-WATER

## **Role in the project:**

VITUKI will contribute to two Work Packages, namely WP4 “Catchment hydrological models”, where it will carry out data collection for the SVAT model and will participate in the calibration and validation of the model for (parts of) the Danube Basin (Tasks 4.1 and 4.2 consequently); WP5 “Impact on selected Societal Benefit Areas”, where contribution to flood early warning is expected (part of Task 5.6) analysis of planned and existing transboundary cooperation and international schemes is foreseen together with application of accessible remote sensing products for the given purpose.