PLUSK – the common Polish – Slovak web portal of international system of information exchange

Regionalny Zarząd Gospodarki Wodnej w Krakowie
www.krakow.rzgw.gov.pl

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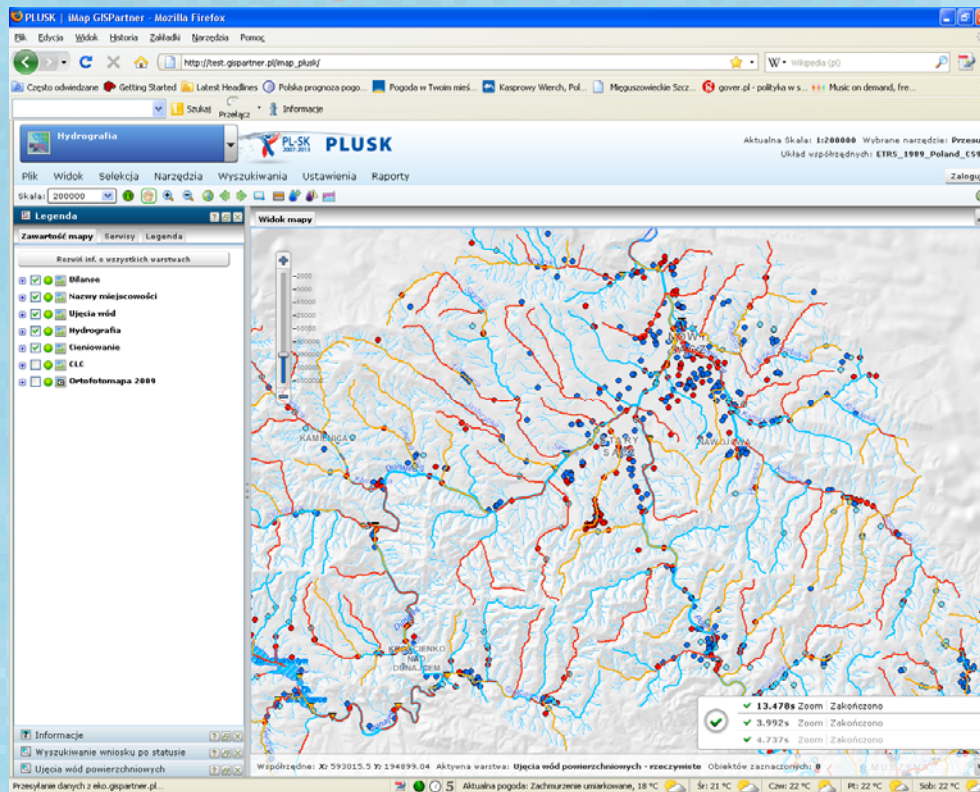
PROJECT INFORMATION

The Project named „The development of PLUSK System for common Polish – Slovak boundary waters for the Water Framework Directive and Flood Directive" (short name: System of information exchange **PLUSK**), is being developed jointly by the Regional Water Management Board in Krakow (Lead Partner) and Slovak Water Management Enterprise, State Enterprise in Bańska Szczawnica (Project Partner).

Project is co–financed by the European Union from the European Regional Development Fund within the Cross-border Cooperation Programme Republic of Poland – Slovak Republic 2007 – 2013.
Priority 1: Development of cross-border infrastructure
The total value of the Project is Euro 1 921 082.

The Project implementation started in July 2009, the work is scheduled to end in September 2011.

REGIONAL WATER MANAGEMENT BOARD IN KRAKÓW

- The Regional Water Management Board in Krakow (RZGW), one of seven RZGW in Poland is a state budgetary unit subordinate to the President of the National Water Management Authority, established for performance of tasks concerning water management under the act of 18 July 2001- Water Law,

- The RZGW in Krakow covers south-eastern Poland with nearly the entire Upper Vistula river basin and parts of the Strwiąż (Dniester basin) and the Czarna Orawa (Danube basin) sub-basins belonging to the Black Sea catchment area within the Polish national border,

- The RZGW in Krakow area of activity covers 43,700 sq. km.
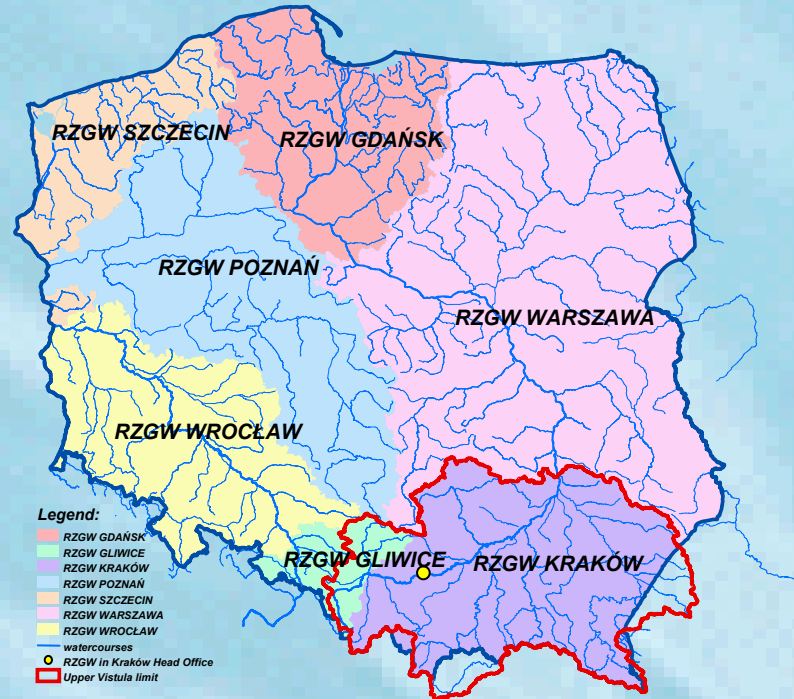
Slovenský Vodohospodársky Podnik š.p.

Slovak Water Management Enterprise in Bańska Szczawnica
is a State Enterprise, established in 1997.

One of the main tasks is to carry out the measures that are related to boundary waters management and actions resulting from separate agreements on transboundary waters.

The Agreement between
the Government of the Republic of
Poland and the Government of the
Slovak Republic concerning water
management on boundary waters was
signed in Warsaw on 14 May 1997,
obligates the parties to furnish
information about environment and water
resources and the mutual information
about intentions and plans for
development of water management on
boundary waters as well as to agree
terms and conditions of use and
protection of waters.

ORGANIZAČNÉ USPORIADANIE SVP, š.p.
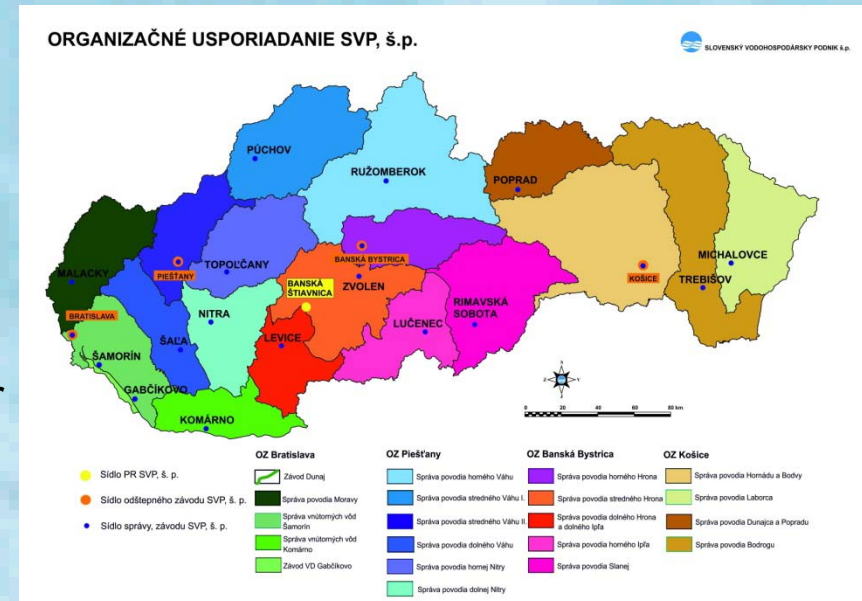
PROJECT INFORMATION

Project area covers Polish–Slovak transboundary river catchments determined by hydrographic borders, i.e. Poprad and Dunajec river catchments (up to Rożnów and Czchów reservoirs) and Orawa river catchment up to its estuary to Wag river. The Project area amounts to 6 740 square kilometres

PROJECT INFORMATION

The Project is oriented on implementation of an integrated water policy for international river basin districts and aims to create a system of exchange, processing and sharing of spatial information about the environment and the database on the Polish–Slovak transboundary catchments.

The Project will be developed using up-to-date tools in water management planning, such as analytical models, the database working with GIS spatial analysis tools that allow for the development of consistent administration of planning documents dealing with water management on both sides of the border.

The PLUSK System will function as web portal (geoportal), utilizing webmapping, which is interactive maps presentation in Internet application software.

GIS

PROJECT INFORMATION

The expected result would be to improve the availability of information about the status of waters, including removing barriers resulting from the state border and increasing responsibility for decisions relating to the forming of the aquatic environment and way of water use.

The Project target group are policy – making institutions on environmental protection, institutions responsible for economic and social development, institutions responsible for crisis management, research units, pro–environmental organizations, water users and the public.

The Portal will process, present and make accessible environmental information and results of the planning realized within implementation of Water Framework Directive and Flood Directive to institutions directly associated with planning in water management.

GIS

THE PLUSK SYSTEM CONCEPTION

The architecture of the PLUSK System is presented below, where data storage layer will be realized using Oracle Database Standard Edition 11g database management system. The spatial data will be registered in database in ESRI format, which is compatible with standard which providing support for data types and functions using SQL (Structured Query Language).

Data processing layer will provide basic mechanisms of spatial data processing, including data replication, map website publication and water management balance analyses.
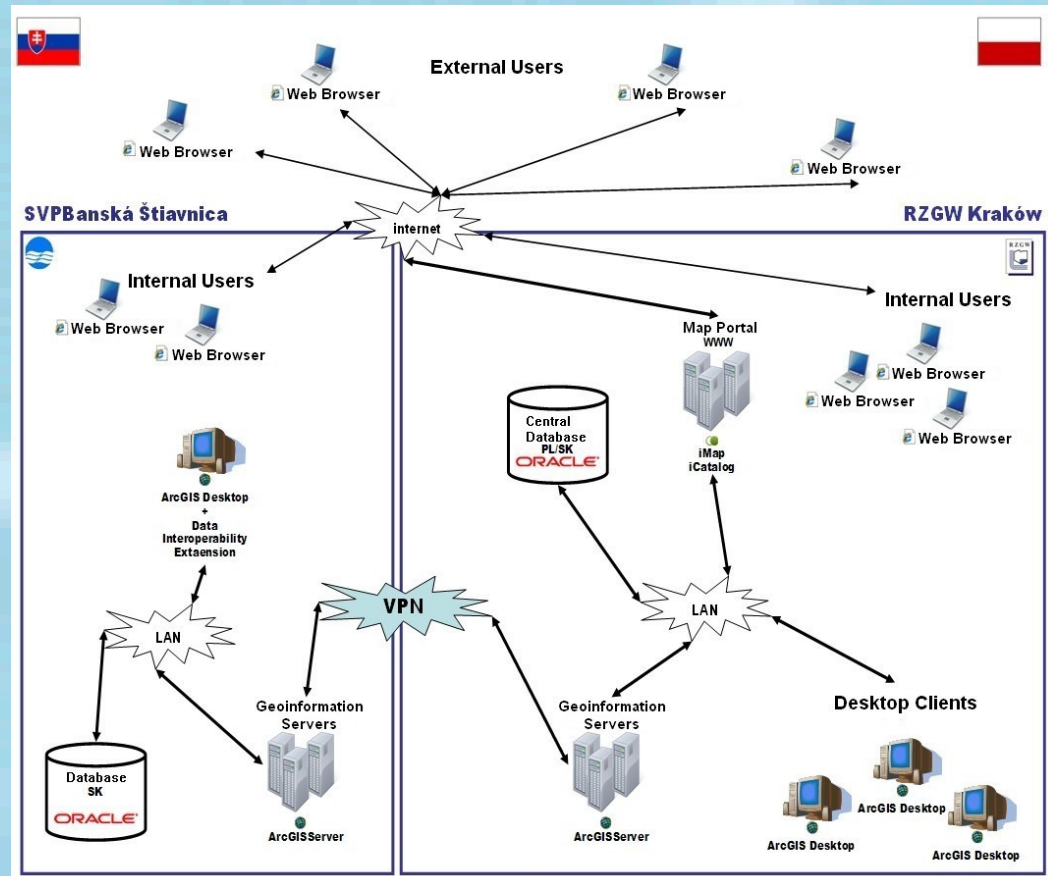
THE PLUSK SYSTEM CONCEPTION

Database structure
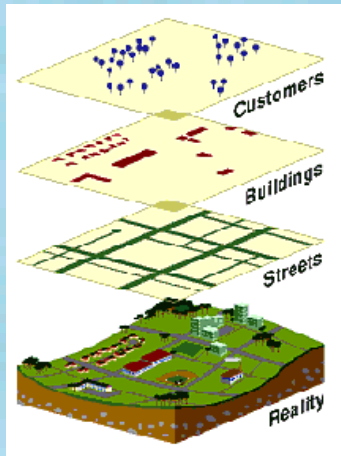
In the PLUSK System the following logical architecture layers were distinguished:

I.   Data supply layer
II. Data modelling layer
III. Presentation layer
IV. Data processing layer

Groups of spatial data	Feature Class Name
Administration	Community Project area States Districts Competent authorities Voivodeships
Hydrography	Watercourses Watercourses administration Watercourses non–distinguished Watercourses sections ...
Pressures	Agglomerations Transverse structures Waterways Hydropower plants …
Monitoring	Monitoring of groundwater quantity Monitoring of surface water quantity Monitoring of groundwater quality Monitoring of surface water quality
Protected areas	Terrestrial ecosystems and wetlands directly depending on water Natura2000 (SPAs) Natura2000 (SACs) Protected areas – recreation …..
The other	Soils 1 : 100 000 Soils 1 : 500 000 Land cover

WATER MANAGEMENT BALANCE

 Analyses of balancing water resources in the catchment of the Dunajec river will illustrate the current and prospective state of use of water resources.

Designed as a tool in the mathematical model will allow to carry out a variant water use analyses and making this instrument available for the decision – making authorities to issue administrative decisions allowing the use of water.

WATER MANAGEMENT BALANCE

The results of analyses performed by using the analytical tool will be displayed in a map window of the web application. The results of adding, deleting, modifying existing users of water and converting of real balances, quantitative and qualitative balance simulation variants, and indirect activities serving this purpose will be shown on the map.
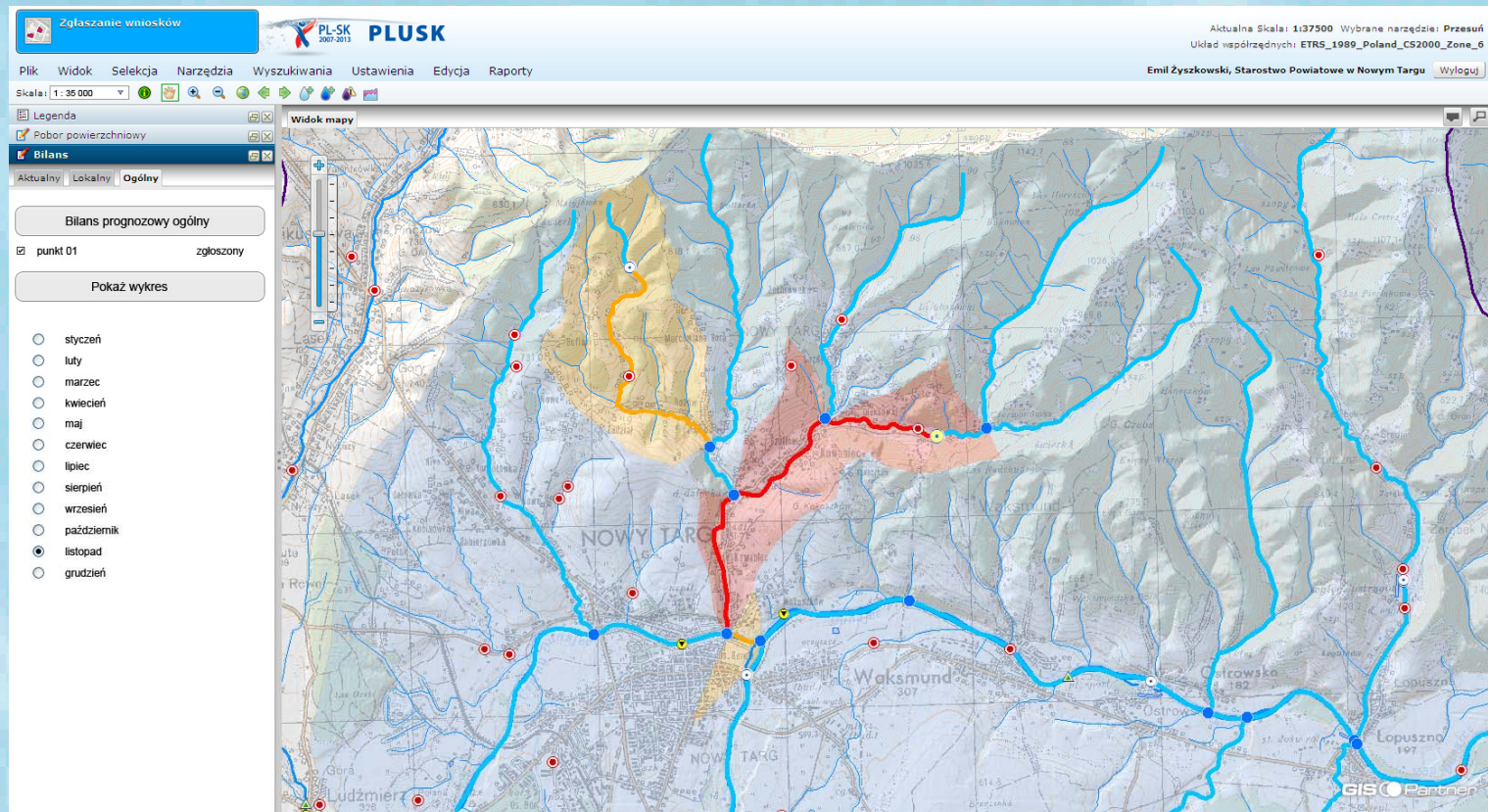
Detailed information about the Project is available on the website:

www.plusk.eu
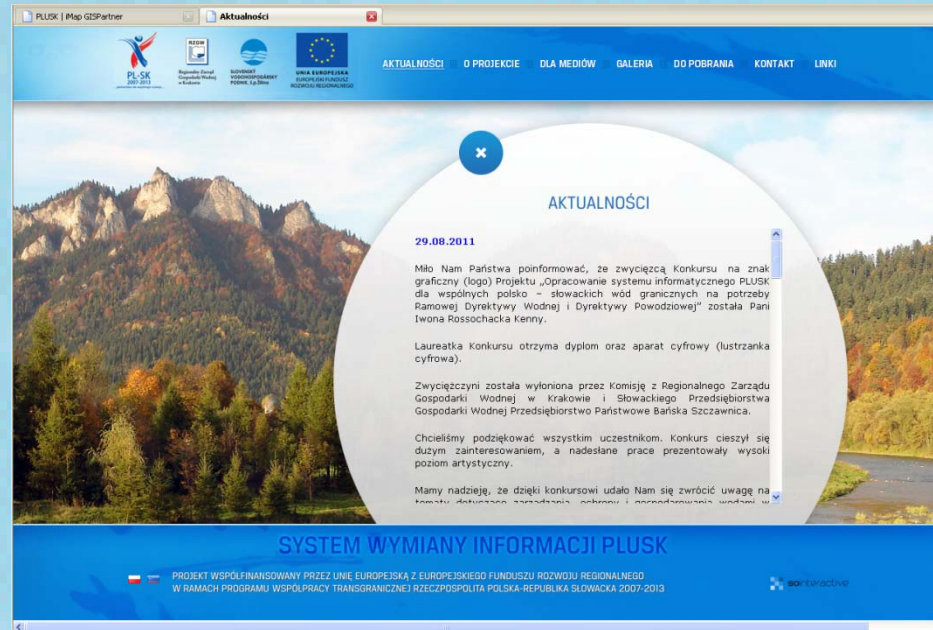
THANK YOU FOR YOUR ATTENTION

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