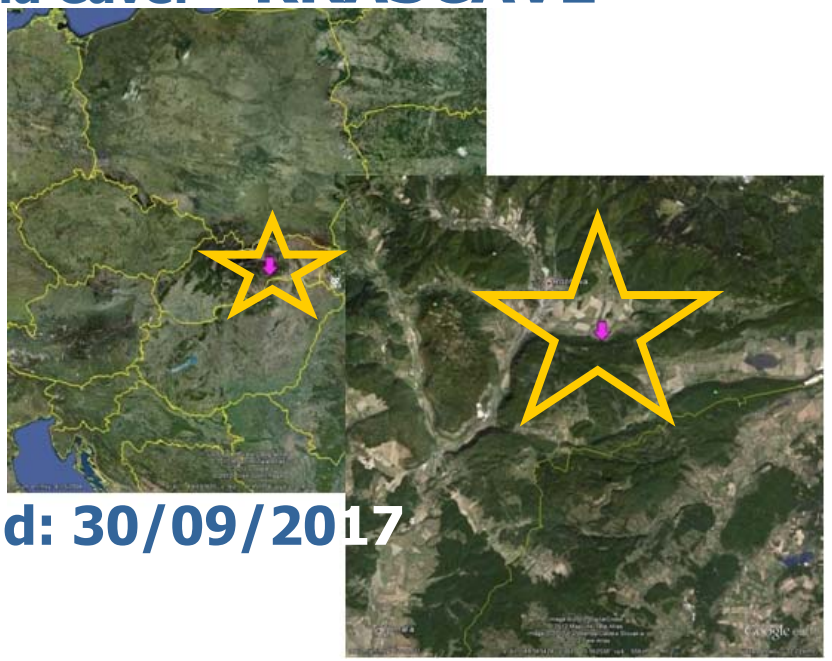
Implementation of Sustainable Groundwater Use in the Underground Karst System of the Krasnohorska jaskyna Cave: «KRASCAVE »

PROJECT LOCATION: SLOVAKIA



BUDGET INFO:

Total amount: 1,244,326 €

% EU Co-funding: 50 %

DURATION: Start: 01/10/2012 - End: 30/09/2017

PROJECT'S IMPLEMENTORS:

Coordinating Beneficiary: Statny geologicky ustav D.Stura Bratislava

Associated Beneficiary(ies): Katedra hydrogeologie PRIF UK Bratislava, OZ Speleoklub Minotaurus Roznava, OZ Envi Slovakia Bratislava

BACKGROUND and AIMS:

Clear statement of the problem(s) targeted:

To reduce the risk of contamination of drinking water source in the ecosystem of the Krásnohorská jaskyňa Cave, through the implementation of innovative activities and thus to contribute to meet the requirements of the Water Framework Directive (2000/60/EC) on the local level. To reduce the risk of damaging of fragile ecosystem, dependent on the groundwater quantity and quality in the neighbourhood of the Krásnohorská jaskyňa Cave and the Krásnohorská Dlhá Lúka municipality.

Improvement of environmental quality by securing of a high quality source of drinking water, increasing exploitable groundwater amounts, preservation of groundwater in the underground hydrologic system. Improvement of groundwater quality of may then naturally provide a positive impact on the adjacent protected area of the Slovak Karst

MAIN EU POLICY(IES) TARGETED:

Implementation of Water Framework Directive (WFD) on the local level in the specific conditions of karst geological formations with the occurrence of the unique karst structures included in the list of UNESCO heritage

MAIN ACTIVITIES:

(x) comprehensive assessment of individual components of the underground landscape, understanding of the interactions between biotic and abiotic parts of the underground landscape structure (water sampling, tracing tests, modeling of original functional interactions and prognosed development according to scenarios of possible and/or probable landscape developments in the site)

(x) prototype development and testing of facility securing drinking water supply source for the population of the village Krásnohorská Dlhá Lúka to prevent entry of polluted water into the intake and protection of end users of the water source

(x) delineation of environmentally sensitive sites ("hot spots") interacting on the ground surface of the underground landscape systems with anthropogenic activities

(x) development of rules to improve or maintain state enabling protection of original natural interaction between individual system components in the Krásnohorská jaskyňa Cave

EXPECTED RESULTS:

- **functional prototype of an installed device, providing protection for drinking water used for public supply of the population suffering from the effects of turbidity occasionally occurring in water**
- **increased public awareness (understanding the need to protect the local landscape of the underground system in various stages of cognitive detail by help of the output information from the project)**