This project is implemented throug the CENTRAL EUROPE Programme co-financed by the ERDF

CENTRAL EUROPE Project Transenergy

Transboundary assessment, dissemination and management of Hydrogeothermal Energy Resources of Slovenia, Austria, Hungary and Slovakia in the frame of the CENTRAL EUROPE project TRANSENERGY

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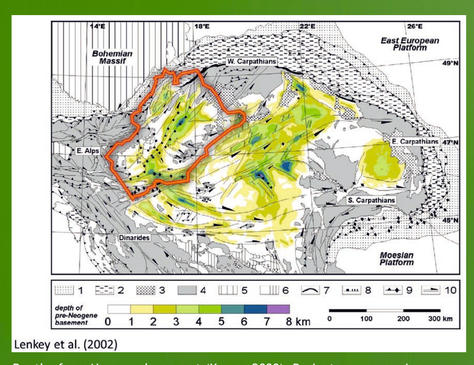
The aim of Project TRANSENERGY

The project „TRANSENERGY – Transboundary Geothermal Energy Resources of Slovenia, Austria, Hungary and Slovakia" aims to provide a common geothermal information system and implementation tools based on a firm geoscientific basis for enhanced and sustainable use of geothermal resources.

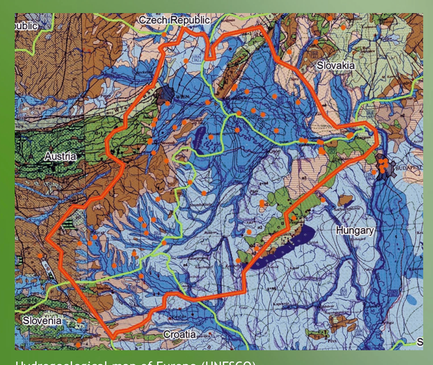
The project area

The project area is the western Pannonian region, which encloses the border region of Austria, Hungary, Slovakia and Slovenia, an area with a high geothermal potential due to the geotectonic position. Neogen extension of the lithosphere led to a high geothermal heat flow and resulted in the creation of deep Neogene basins which contain deep thermal water aquifers. Several thermal water aquifers appear also in the pre-Neogene basement.



Lenkey et al. (2002)

Depth of pre-Neogene basement (Kovac, 2000); Project area comprises several deep Neogene basins



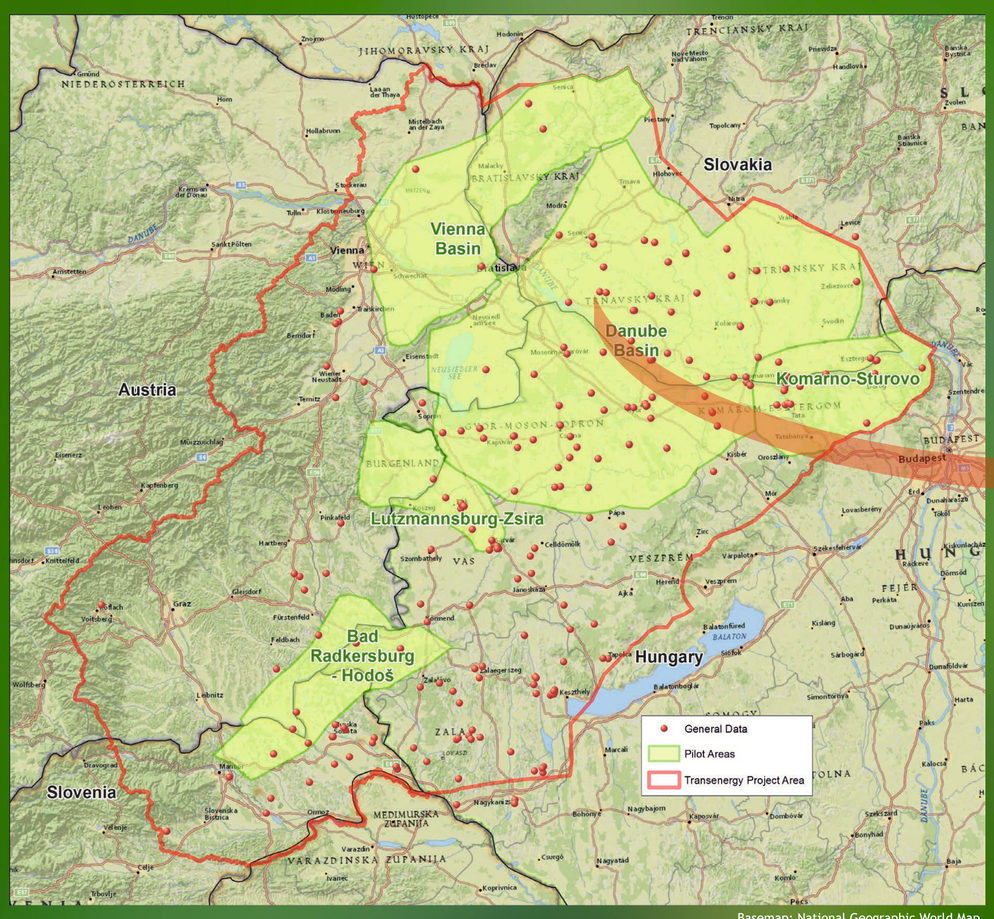
Hydrogeological map of Europe (UNESCO) - project area and locations of thermal spas

Project output

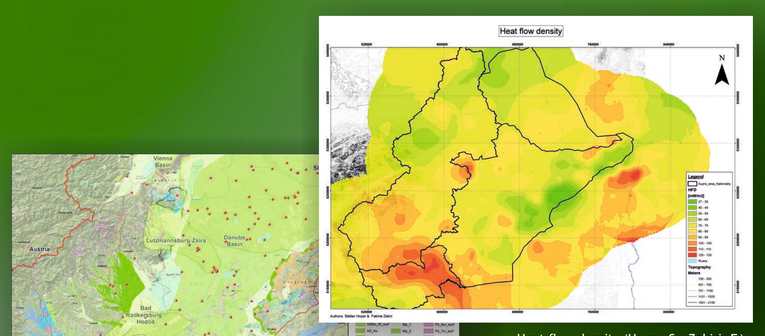
The project focuses on decision makers' and stakeholders' needs by providing a user friendly web-based decision supporting tool (an interactive web portal) as a main core output of the project. This transfers expert know-how about geothermal resources and sustainable reservoir management gained during project activity to users to get an overview and to make simple estimations on geothermal reserves within the project area for further utilization. This publicly accessible implementation tool will show all relevant information on the potential, vulnerability and sustainability of the geothermal system in the investigated transboundary regions.

Results of the project TRANSENERGY

Results of project TRANSENERGY are available from the website within Reports, Portable Document Formats, Presentations as well as individually selectable geographic Information, displayed in an ArcGIS.com viewer. 40 layers of data, grouped to five themes are the basis for the map examples showed below. Further development will include cross sections, geothermal potential maps, 3D-views of geothermal models and visibility enhancement.

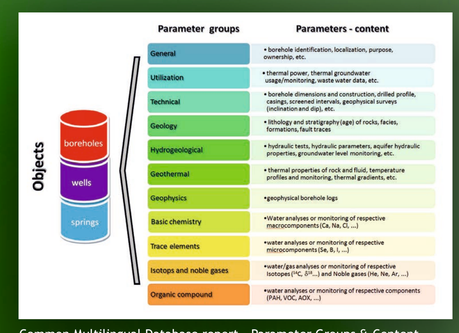


Basemap: National Geographic World Map

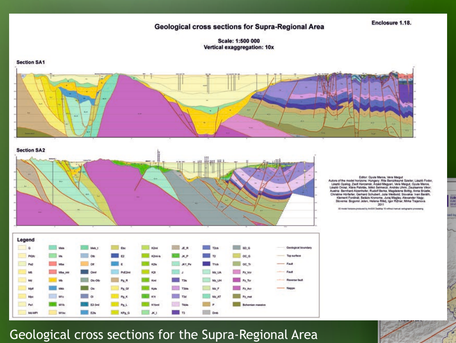


Heat flow density (Hoyer, S., Zekiri, F.)

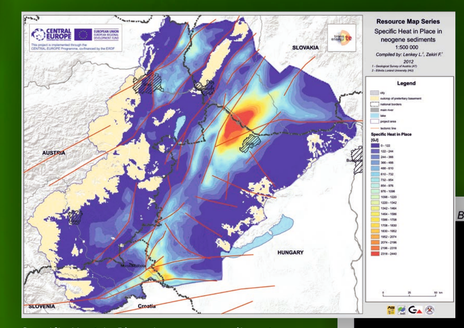
Base of Quaternary (Basemap: National Geographic World Map)



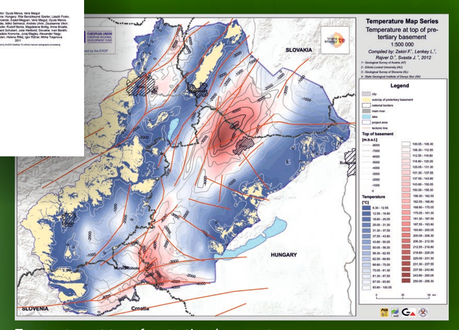
Common Multilingual Database report - Parameter Groups & Content (Mikita, S., Švasta, J., Černák, R., Bottlik, F., Orosz, L.)



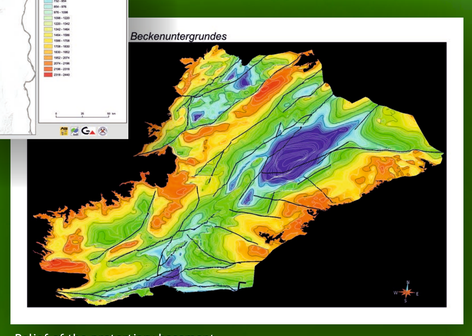
Geological cross sections for the Supra-Regional Area (Maros, G. et al.)



Specific Heat in Place in neogene sediments (Lenkey, L., Zekiri, F.)



Temperature at top of pretertiary basement (Zekiri, F., Lenkey, L., Rajver, D., Svasta, J.)



Relief of the pretertiary basement

http://transenergy-eu.geologie.ac.at/

Transenergy webmaps