# ThermoMap: Area mapping of superficial geothermic resources by soil and groundwater data

Variations of temperature and heat flow in depth up to 10m are predominantly controlled by external variables like sun radiation and infiltration of rainfall and internal soil conditions like soil grain size, soil matter and mixture of soil substances, absorptive capacity, etc. These low depths can be exploited in terms of geothermal power usage with cost efficient, inexpensive methods with an amortisation of the invested budget in a relatively short time period. “ThermoMap“ will combine and analyse already existing data collections (geological, hydrogeological, geophysical and pedological geodata, climate, land use & land cover, solar insulation, slope and aspect (both as maps and as digital data)) to calculate a value for the geothermal potential in low depths on a large to medium scale. The analysis of the geodata will be performed in a GIS-environment with standardized methods, valid for the entire EU. These methods will be intensely tested, verified and finally documented in a manual for geodata processing and analysis as future standards. The resulting geothermal potential as a georeferenced information value will be integrated in a WebGIS with a server side and a geo-visualization and information front-end. ThermoMap will provide different user-groups with an interactive information tool running in a web browser. Private users may check the potential of their own parcels, community planning and administration authorities may test the geothermal potential of their entire administrative unit. Researchers, participating in ThermoMap, will have access to the entire geo-data pool. ThermoMap will be established for several participating EU member countries in a first step. Therefore each project partner will define a test-area in its country. The processing methods developed for the geodata in these test areas and the analysis standards developed in ThermoMap can later be adapted to the area of the entire EU and may provide a significant value for energy saving.

### Project ID card

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### Links

- ThermoMap website

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