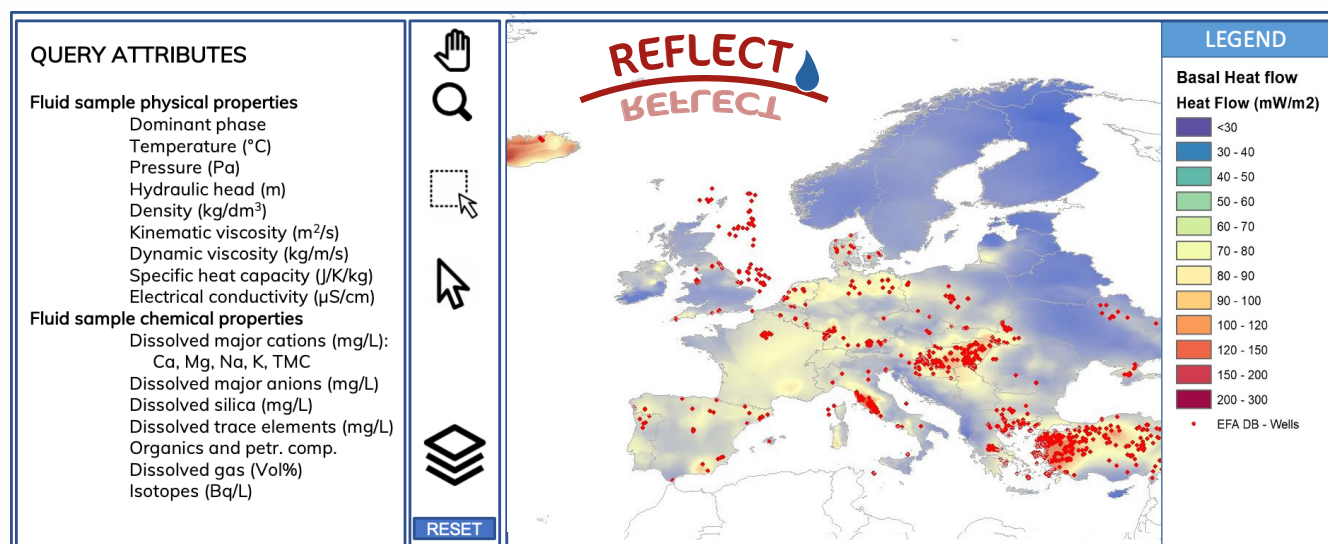


## REFLECT: Redefining geothermal fluid properties at extreme conditions

In the REFLECT project, geochemical and physical data of geothermal fluids are visualised through the European Fluid Atlas. **Fluid data** are collected from **21 European countries**. In the Atlas, the layers provide point feature information presented on a base map, including **geography, geology and depth range, as well as physical, chemical and microbial properties of fluids**. Data of wells, rocks and reservoirs are also available. The focus is on fluids used for electricity generation ( $> 100\text{ }^{\circ}\text{C}$ ), but data from heat projects are also included.

For the Atlas, a free and **open-source cross-platform** is used, in which the geographic information system provides the environment to view, edit and analyse geospatial data. The interface includes **query and filtering tools** to explore the database with a map based visualisation.



**Figure:** Location and query attributes of the 2400 wells where formerly existing well, fluid, rock and reservoir data have been collected.

With the Atlas, **operators can rapidly assess what kind of fluids might be expected at a certain location**, and thus have an improved view of the associated risks when installing a geothermal power plant. The compositional maps are developed into risk maps for the different operational issues in combination with numerical modelling. The Fluid Atlas can be later integrated into other databases, thus it can be an addition to already existing initiatives of geological data collection.

### Further information available on the Results Section of the REFLECT website

- Deliverable 3.1: [Report on the collection of data on geothermal fluids at a European level](#)
- Deliverable 3.2: [Data compilation by REFLECT partners](#)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n° 850626.

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