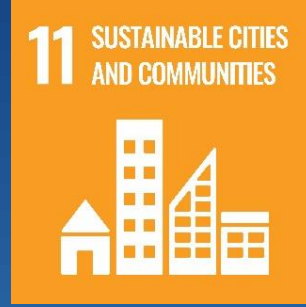




Geothermal Potential of Bavaria

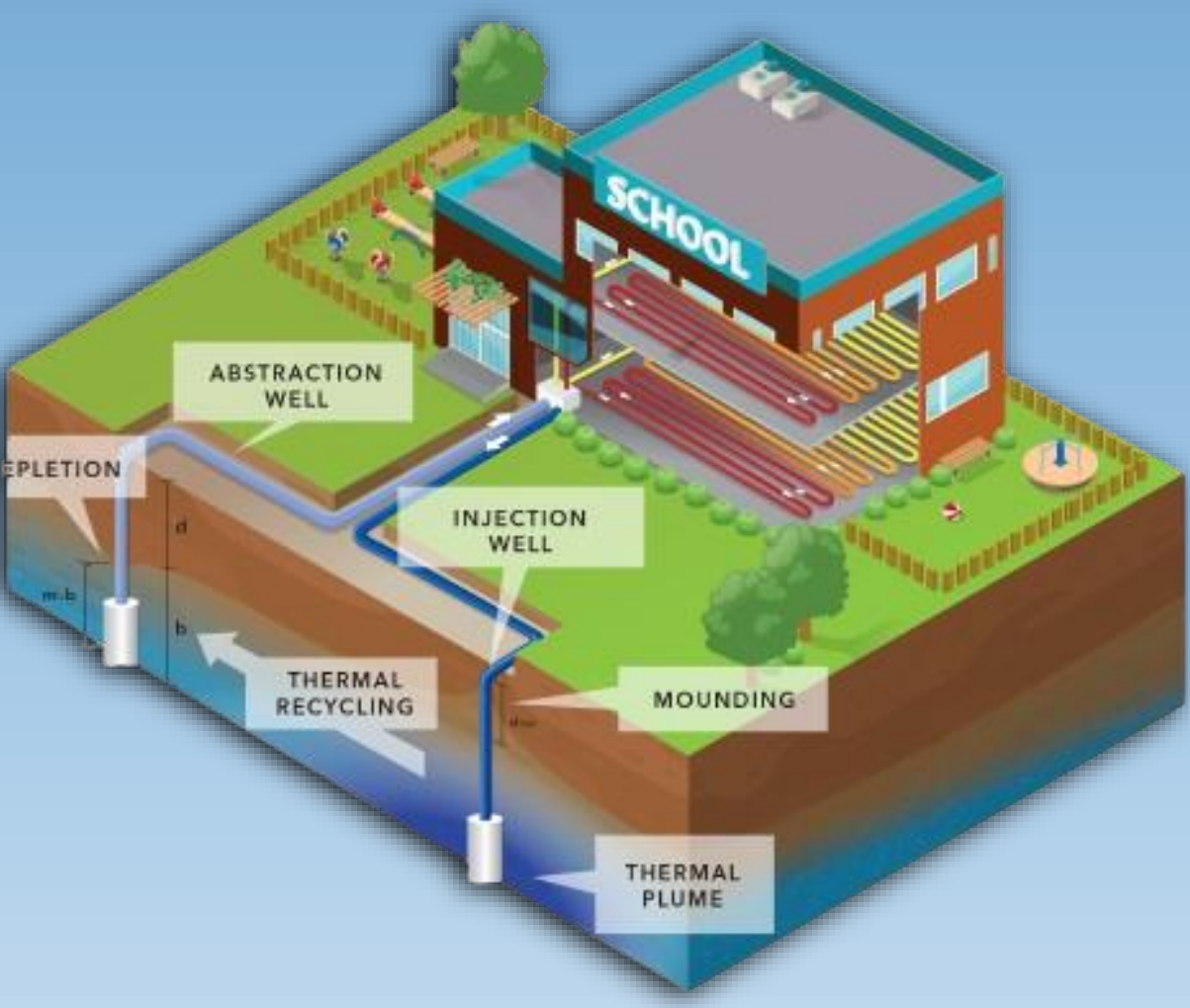


Chair of Hydrogeology
Geothermal Energy Group

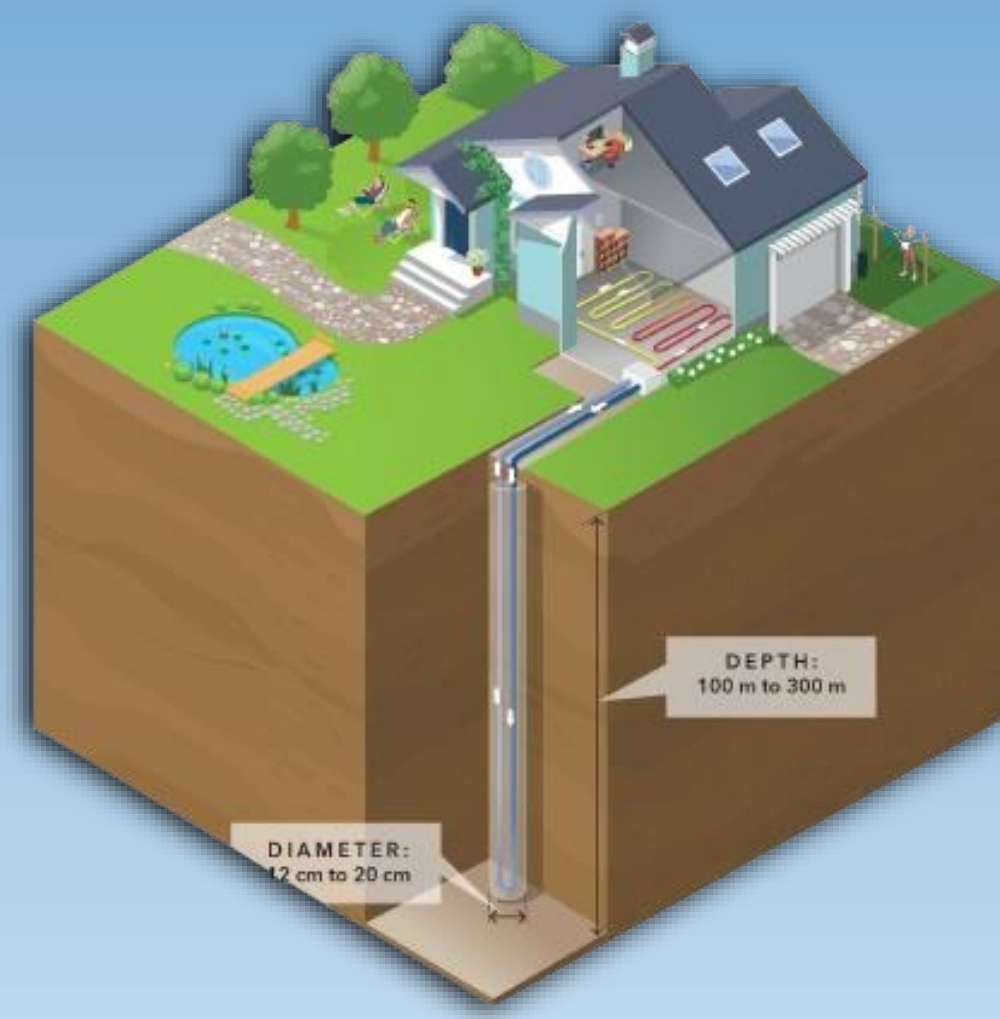


1 Geothermal Technologies

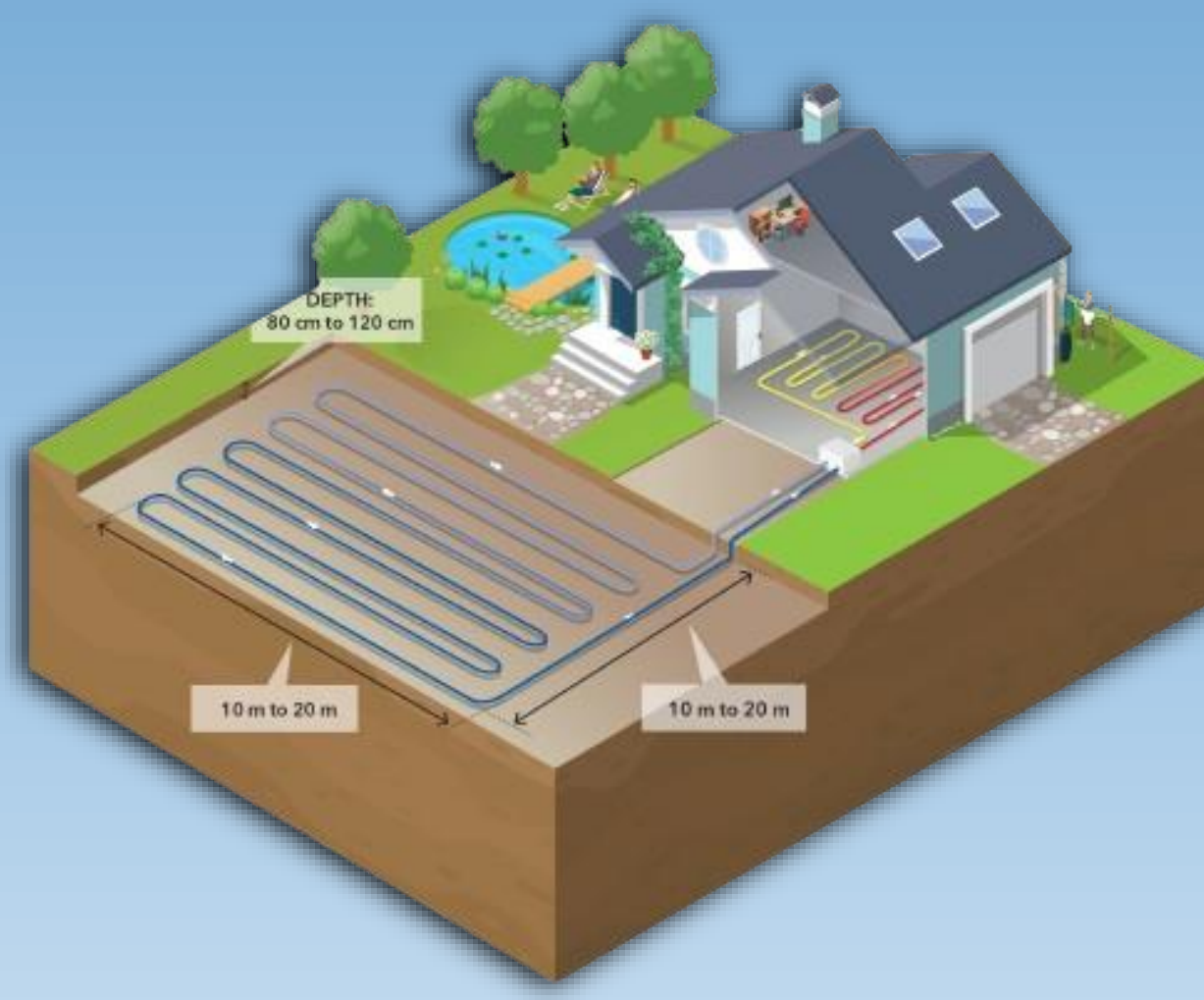
Shallow geothermal groundwater heat pump



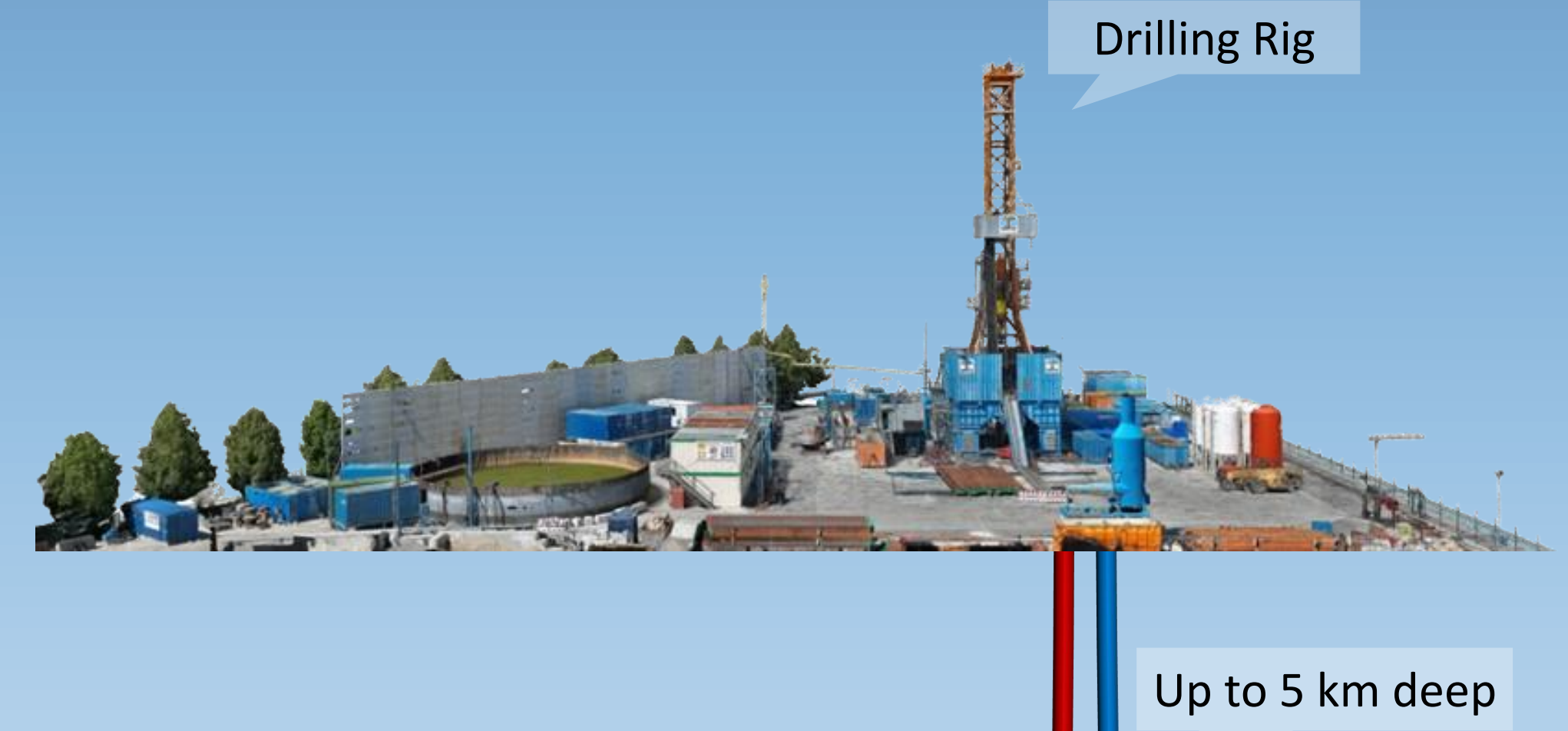
Borehole heat exchanger



Ground heat collector



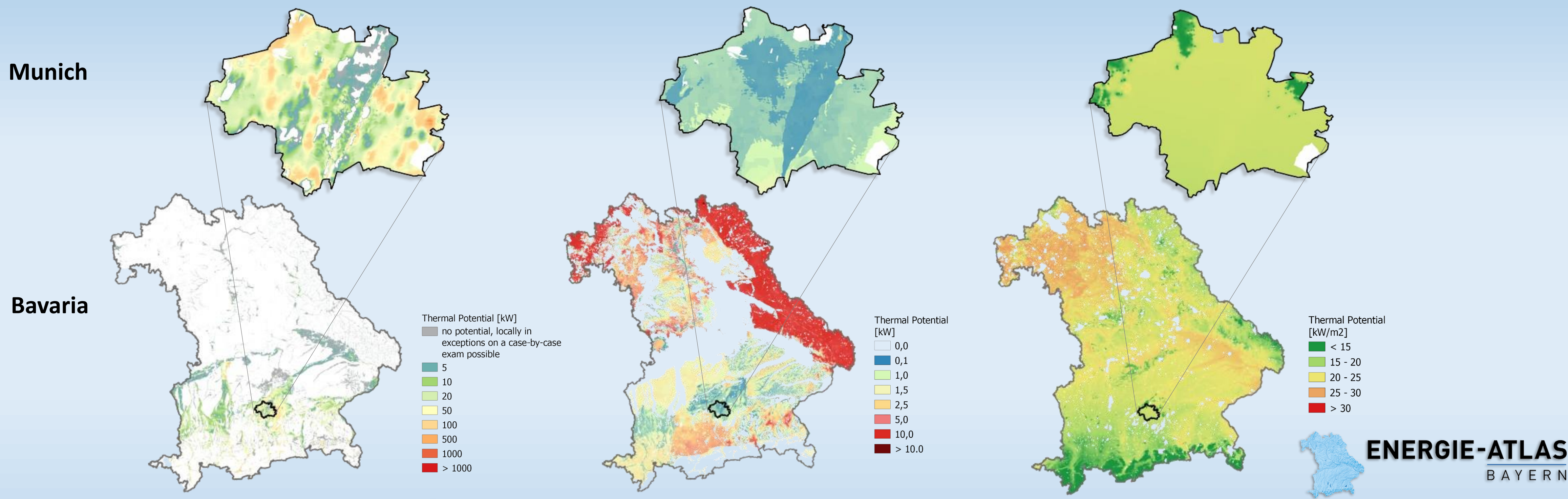
Deep geothermal wells



2 Shallow Geothermal Potential

Munich

Bavaria

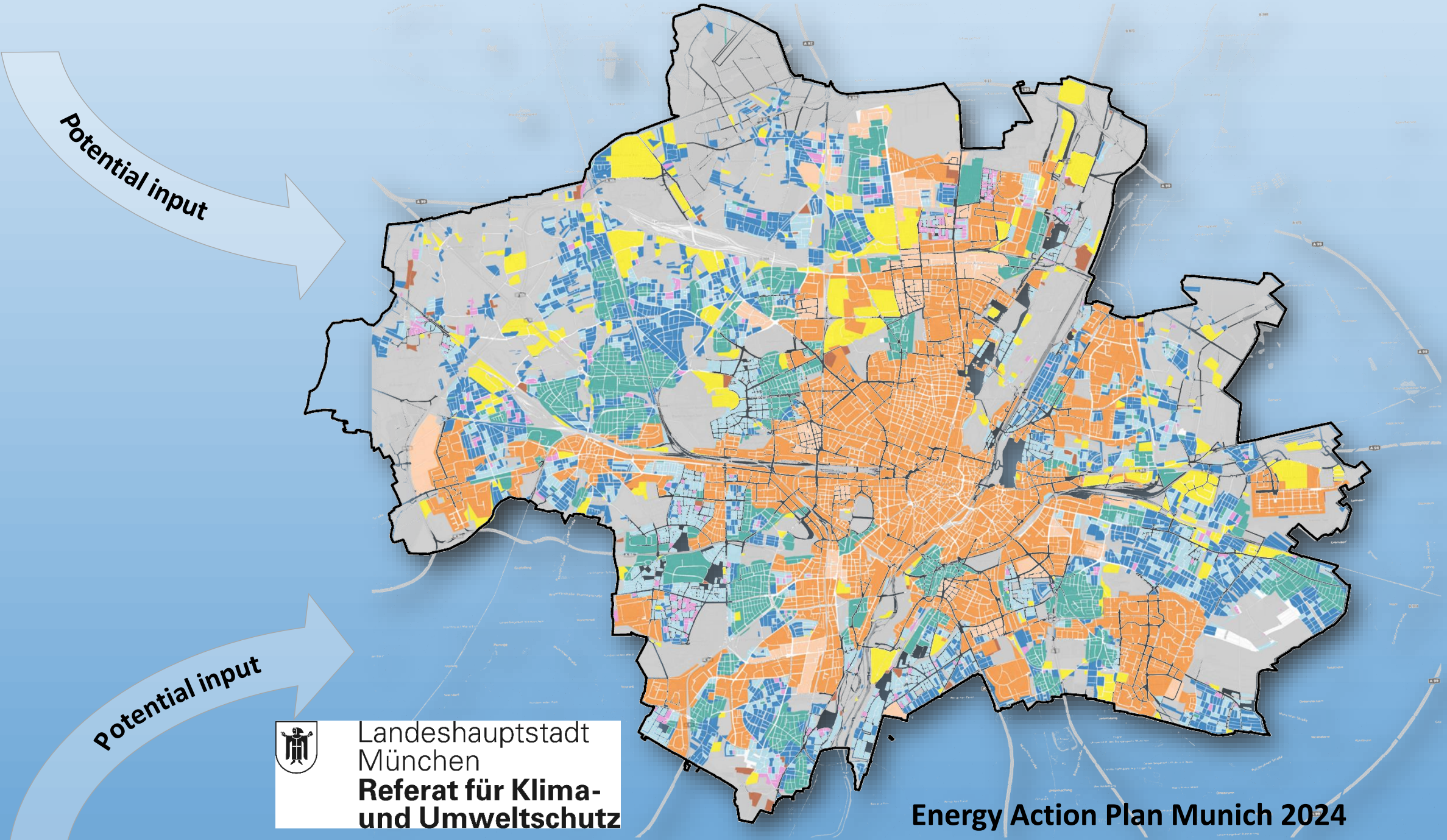


The **Geothermal Potential** describes the amount of energy on a regional scale, being available for each type of geothermal technology

- under the current technical state
- considering national and federal regulations

The **Energy Action Plan of Munich** is taking the available potentials as decision basis on the best technology for heat supply.

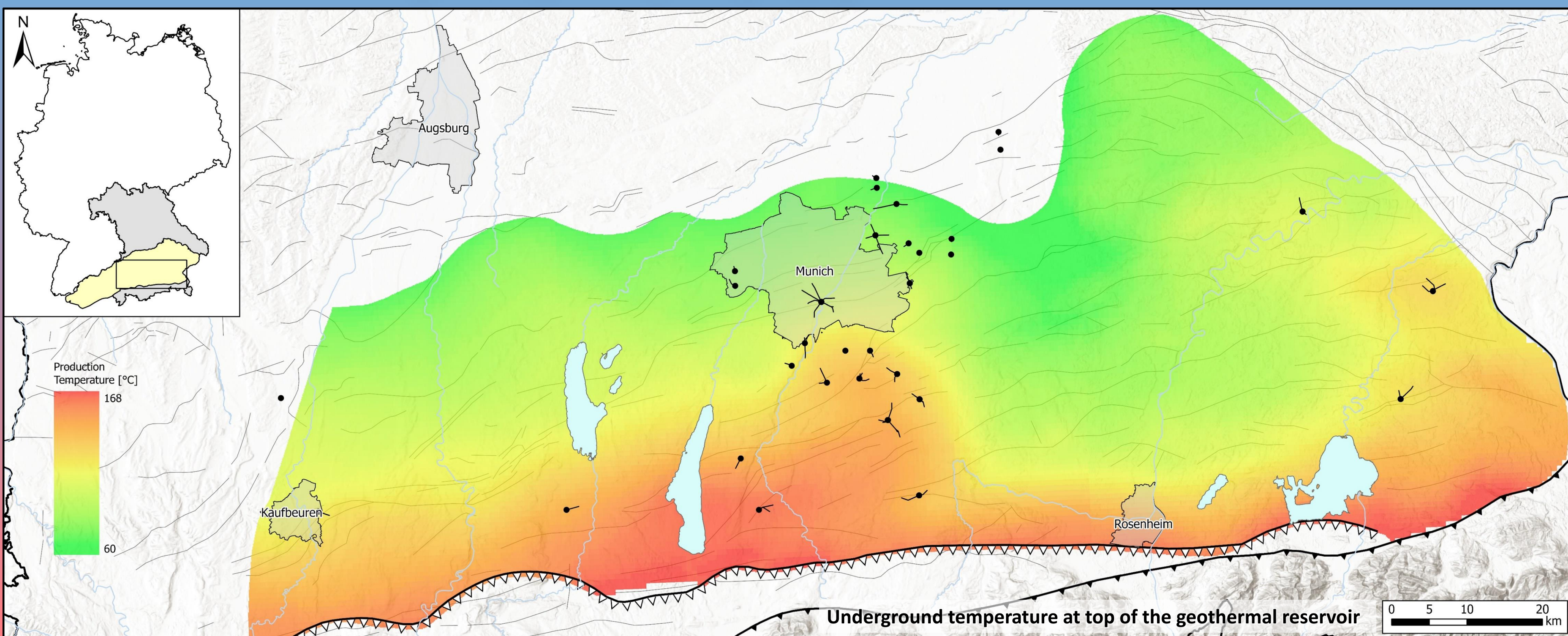
- District heating
- District heating from 2025
- Investigate for district heating
- Groundwater heat pump
- Ground heat collector
- Air heat pump
- Special use of industry
- Focus remediation



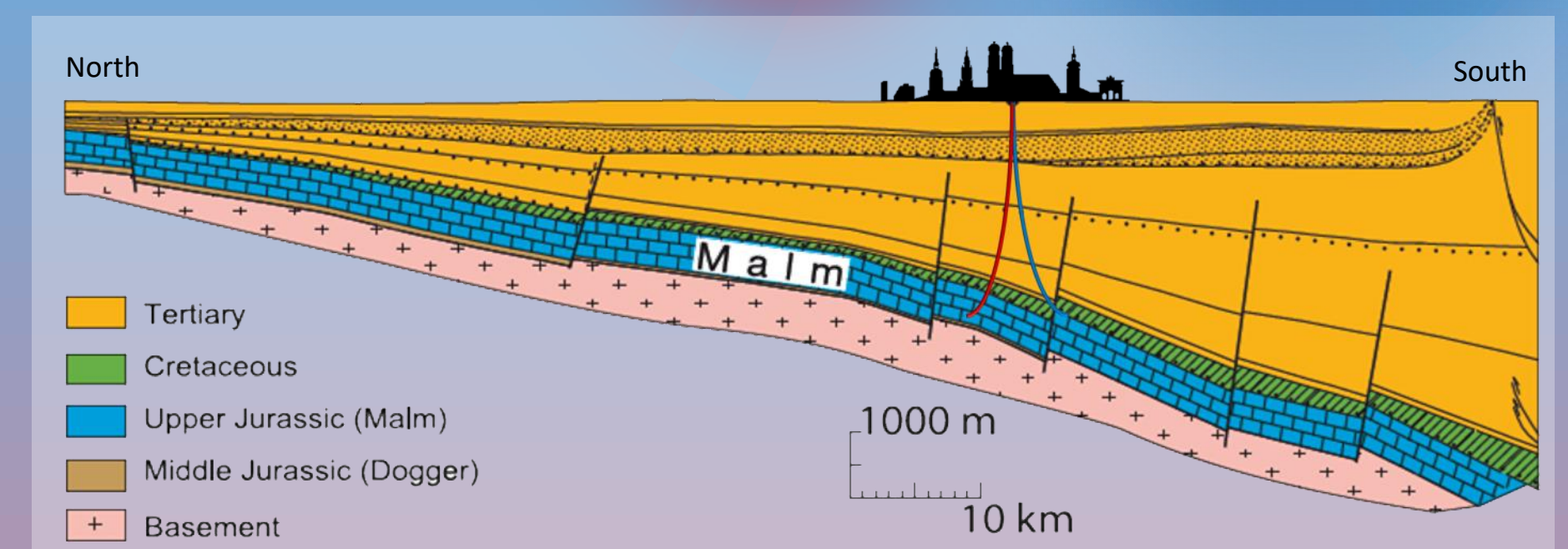
Landeshauptstadt München
Referat für Klima- und Umweltschutz

Energy Action Plan Munich 2024

3 Deep Geothermal Potential



Underground temperature at top of the geothermal reservoir

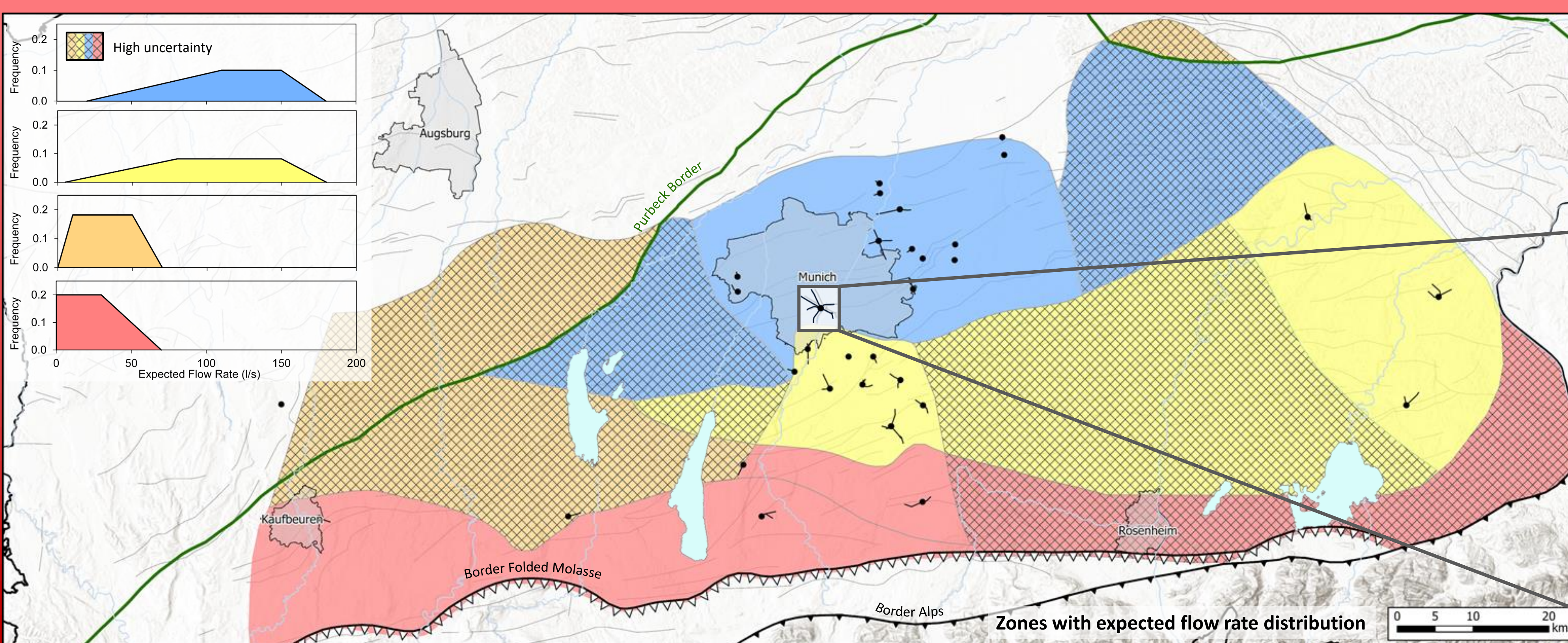


The Molasse Basin in Bavaria is one of the world's best-studied and monitored hydrogeothermal fields.

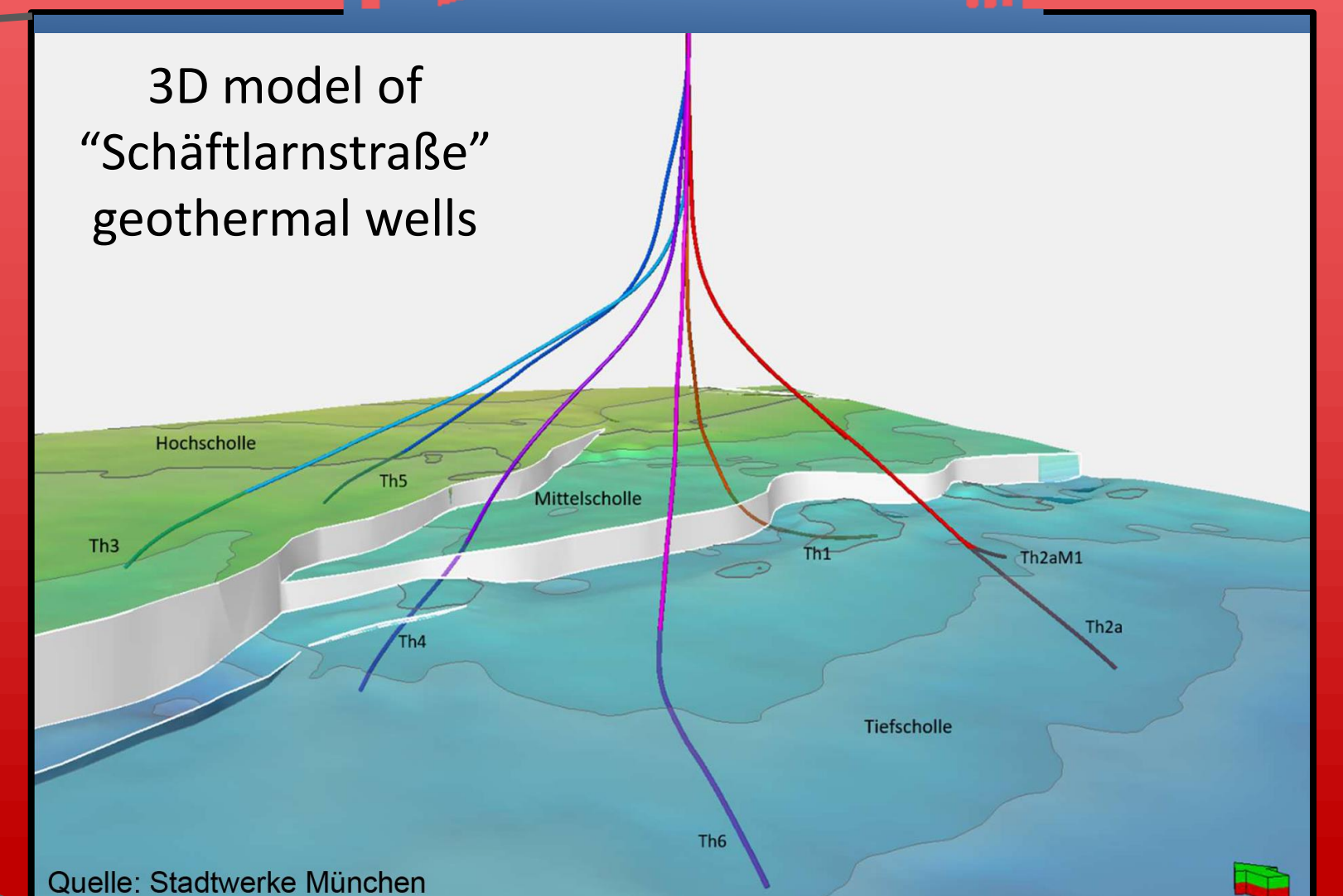
- over 120°C enables electricity production
- over 80°C suitable for district heating grids
- lower 80°C suitable for district heating with large-scale heat pumps

Estimated 40 % of the heat demand in Bavaria could be covered by deep hydrogeothermal energy.

Germany's largest geothermal plant, "Schäftlarnstraße" in Munich, delivers 50 MW thermal output for about 80 000 citizens.



Zones with expected flow rate distribution



3D model of "Schäftlarnstraße" geothermal wells

Quelle: Stadtwerke München