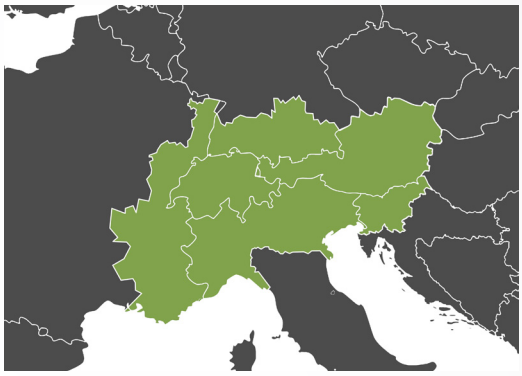
Near-surface Geothermal Resources in the Territory of the Alpine Space

All alpine regions are facing the same challenge: to meet and plan for an increasing energy demand and to reduce CO2 emissions by cutting fossil fuel consumption. With a constant temperature all year round below a depth of 10 m, the underground is a renewable energy source, that can provide heating in winter and cooling in summer for all communities in the alpine region. However, the opportunity to use this resource has not yet been properly highlighted. The GRETA project aims to demonstrate the potential of Near-surface Geothermal Energy (NSGE) in the alpine space and to share knowledge to encourage the integration of this technology into future energy plans in the area.



The alpine space area

GRETA Objectives & Solutions

IDENTIFY POTENTIAL

Identify Near-surface Geothermal Energy potential in the Alpine Space

Geothermal potential map to be used as a decision support tool for the integration of NSGE into policy instruments and for spatial planning of geothermal installations by public and private stakeholders.

EXCHANGE

Foster exchange of knowledge and best-practices on a transnational basis

Guidelines on NSGE country-specific regulations and best-practice with recommendations regarding harmonization.

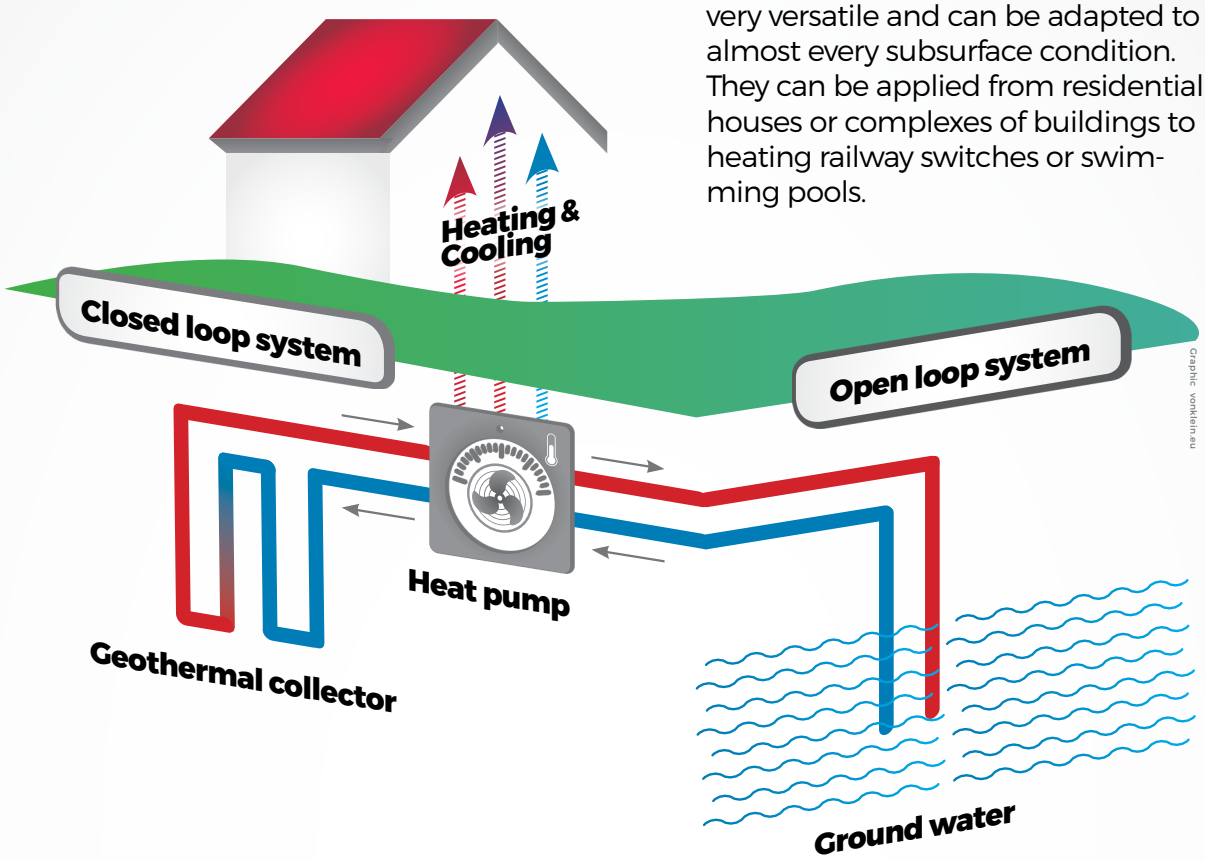
INTEGRATE

Integrate Near-surface Geothermal Energy into environmental policy instruments

Planning tools to anchor NSGE into policy instruments, such as energy plans and strategies, thus contributing to a growth of NSGE utilization.

The Technology

Shallow geothermal systems are very versatile and can be adapted to almost every subsurface condition. They can be applied from residential houses or complexes of buildings to heating railway switches or swimming pools.



NSGE in Europe

9,000 MW of installed capacity for NSGE (2014)
2,6 million tonnes of oil equivalent of renewable heat from NSGE (2014)
1,400,000 installed ground source heat pumps (2014)
41% of all European installed capacity for NSGE are located the alpine space (2015)

(Source: GeoTrainet Shallow Geothermal Market Analysis, Issue N°3, Jan-April 2016)

Get in touch!

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