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Concept of the Network

The need for renewable energies is undisputed. However, there is great potential to improve the efficiency, their cost structures and market acceptance through intelligent combination of **solar energy** with **surface geothermal energy** and integration with modern building and automation technologies.

The members of the network „Thermie“ want to tap the potential by cooperating in this NEMO project and creating innovative research and development ideas for the complete value chain from the planning of the buildings and energy system, geothermal drilling, production of geothermal probes, collectors, heat pumps, automation systems up to services such as installation, after-sales and marketing.

Vision

- The Geo and Solar Thermie will be a standard in the building of new homes, renovation of buildings and industry projects and a competitive alternative to systems using fossil or single energy sources.
- The European Geo and Solar Industry will be future key industry and international market leader for solutions of combined surface Geothermal and Solar heating and cooling.

Objectives

The objectives for the competence and technology platforms are still in development, but the following points are of particular importance:

- Development of an integrated comprehensive system Geo + Solar with open interfaces to other energy producing and consuming systems
- Improvement of the efficiency by intelligent connection and optimization of the partial systems. Improvement of COP (coefficient of performance) from actual 3-4 into the direction of 5 -6).
- Reduction of the ROI period (compared to systems using fossil energies) below 7 years
- Increase of acceptance in the market by simple calculation, simulation, installation and operation
- Adaption of existing norms to the state of today's and future technologies
- Cooperation and open exchange between network partners and marketing of Geo- and Solar Thermie as regenerative and economic form of energy.

Target Market and Customers

According to recent prognostics the participation of Solar/Geo Thermie at the final energy produced with renewable resources will increase from today approx. 11% to 28% in 2020 (figures for Germany *).

This will help to achieve the overall targets of CO2 carbon reduction and compensate the price increase of fossil energies.

Basic requirements are, however, the innovative improvement of the existing partial energy systems of buildings and their integration, the development of new and simple concepts to get the acceptance of these technologies by building owners, architects and installation companies and an improvement of the margins for the manufacturers.



Members

- Technical University Freiberg IKGB
- Fraunhofer IPM Freiburg
- University of Applied Science Erfurt
- Technical University Leipzig
- O.B. Bergsicherung Gera
- Böhm Solar Equipment GmbH
- Omeras GmbH
- Vaillant Group
- TÜV Rheinland GmbH
- GTG Geologisch Technische Gesellschaft
- driveXpert GmbH
- ITGA Suhl
- University of Applied Science Kempten
- Landmark Projecten
- B2B Evolution Ltd

Network Management

*If you are interested joining the network please
Please contact us for further information*



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(*) Prognosis: Bundesumweltministerium, Bundesverband Erneuerbare Energien, Prognos AG

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