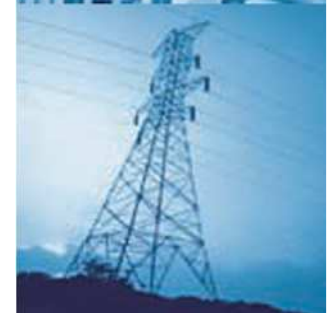




Integration of Geothermal Energy into Industrial Applications



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What and Where

Title : Integration of Geothermal Energy into Industrial Applications – IGEIA (duration : 30 months)

Objective : Help the development of geothermal heating and cooling into industrial sites

Geographical Coverage : Portugal, France, Germany, Sweden and Estonia.
Mediterranean/Temperate/Nordic climatic conditions.

Consortium : 5 Partners

BPR-Europe – FR (Coordinator)

UBeG – DE (Cobeneficiary)

Sweco – SE (Cobeneficiary)

Escola Superior de Tecnologia de Setubal – PT (Cobeneficiary)

EnPro – EE (Cobeneficiary)



BPR

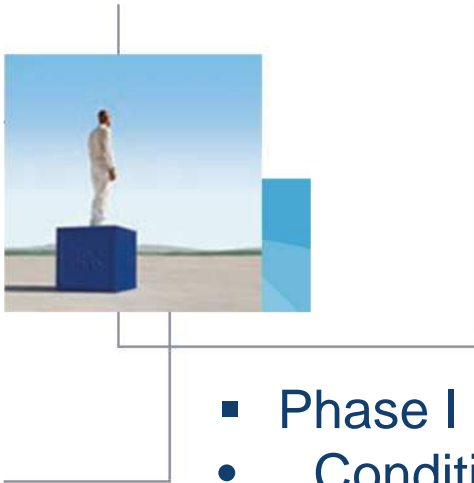
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Why, to Whom

- The industrial sector offers a very attractive target for geothermal use...but the number of applications in Europe is small
- A wide range of uses : supermarkets, food industry (dehydration, drying), shopping centre, manufacturer...
- Our target groups : The industry and Industrial Federations.
- All 5 partners are consulting engineering companies/institute, leader in the geothermal sector.
- The main barriers to the development of geothermal applications in industry are the lack of information about costs, technical description , examples...
- We want to show to the industry that a geothermal system is possible...and less expensive than conventional energy technologies.





How?

- Phase I : Geothermal potential and energy needs
 - Conditions and potential markets in France, Germany, Sweden, Portugal and Estonia
- Phase II : Financial and technical feasibility on 3 industrial sites : France, Germany and Sweden
 - Installation of a geothermal system
- Phase III : Customisation of a geothermal 'product'
 - Propose pay back periods : local, regional, european...
 - Replicate in Estonia and Portugal
- Phase IV : Communication and Dissemination
 - A European Conference and a Workshop in Portugal
 - Guides and Brochures
 - Articles in specialised press





Main lessons learnt

- The financial incentives can be granted to help an industrial in integrating geothermal energy into its applications. Being a solution with relatively high investment costs, it was crucial to inform key actors about the possibility to have their project financed and the way to apply for subsidies.
- Project meetings offer a great opportunity to discuss project management but also to share information about different techniques. Hence, this project offers a good opportunity to widespread the knowledge about geothermal applications also within design offices.
- The results for the Mediterranean climatic conditions showed that geothermal energy use is not profitable unless cooling and heating needs are present simultaneously. Consequently, the geothermal system would be designed to provide the site minimum needs.





What is important to communicate?

- Geothermal heating and cooling is a feasible energy alternative for the Industry, with economical advantages.
- Main Deliverables :
 - Market reports on the potential for geothermal applications in the 5 countries
 - Guide to apply to financial incentives for industrial geothermal applications
 - Report on the feasibility of geothermal technologies
 - Brochures on the advantages of geothermal energy for the industry

