

Forschung und Entwicklung mit
Unterstützung durch die EU
*Research and Development
supported by the EU*

Einführung / Introduction

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GeoTHERM
expo & congress

Horizon 2020 and Interreg

The European Union supports R&D through several programmes:

- Main tool for R&D are the consecutive framework programmes; currently FP 8 under the name “Horizon 2020” (running from 2014-2020)
- R&D can be supported also in other programmes and facilities, like Interreg, Regional Funds, Development Funds, etc.
- Preparations for the next framework, FP 9, are already under way for the years from 2021 on (no catchy name yet)



This project is funded by
the European Union

Stakeholder Input to R&D-Programmes

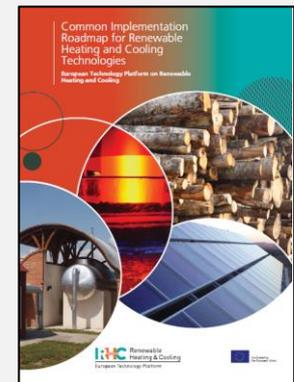
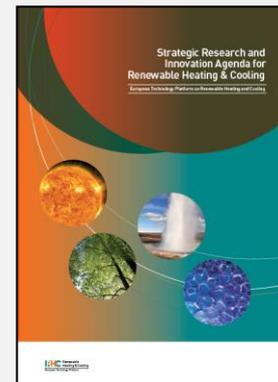
The European Technology Platforms (ETP – now ETIP) helped to collect and organise the input from academy, research institutions and industry to the work programme.

For shallow geothermal, the key input came from the platform on Renewable Heating and Cooling (RHC-ETIP)



Documents prepared by RHC-ETIP

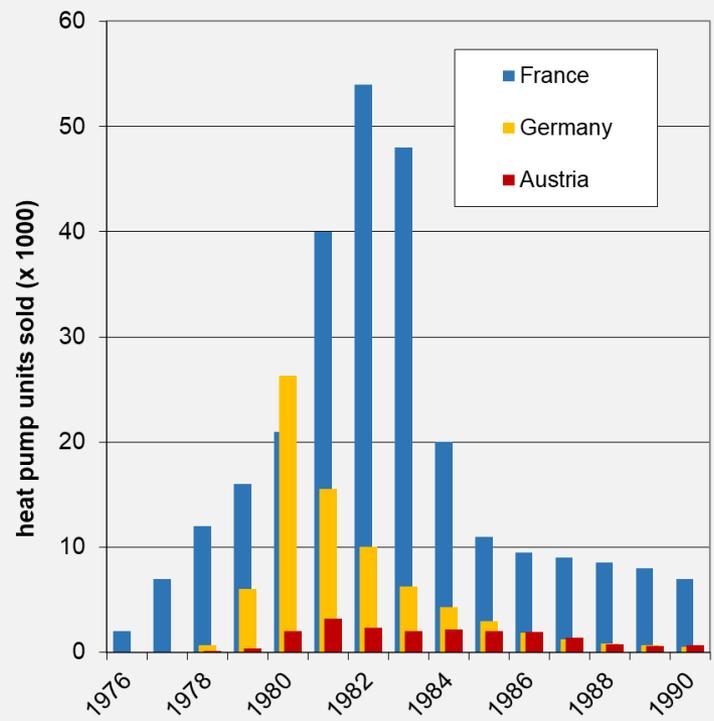
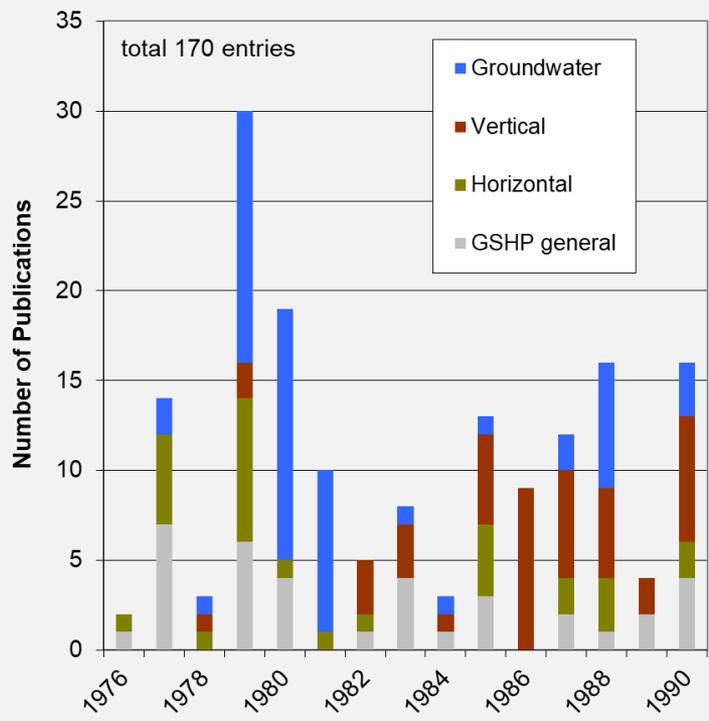
1. Common Vision (2011)
2. Strategic Research and Innovation Agenda (2013)
3. Common Implementation Roadmap (2014)



In addition, sectorial documents and updates

Innovation and Market in the 1980s

Number of Publications on GSHP (left) and sales of all heat pumps (right)

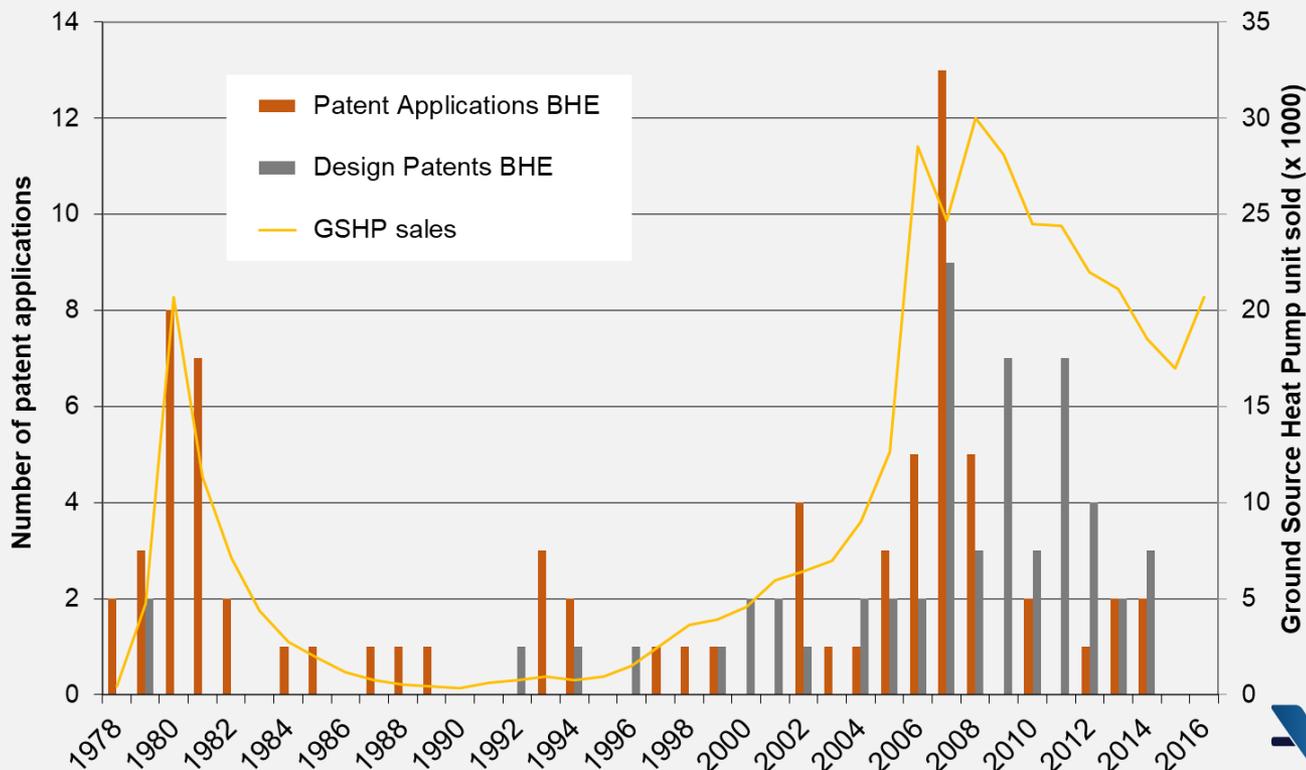


Highest number of publications before and after peak of sales (2nd oil price crises 1980-82)

Market-Driven Innovation

Patent applications for BHE compared to GSHP sales in Germany show a clear connection:

More sales, more interest in protection of intellectual property



Innovation and Education

Deployment of innovation requires the people to implement it in practice to be educated and trained.

Training in the shallow geothermal sector is available in several countries.

Coordination of shallow geothermal education on the European level is done by Geotrained



<http://geotrained.eu/>

Geotrained has member associations from 12 countries (currently, number slowly increasing)

Started in 2013 after the first curricula, training material and courses had been developed successfully in EU-project Geotrained 2008-2011

Content of this session



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Projects presented today:

- Horizon 2020
 - **CHEAP-GSHP** - Cheap and efficient application of reliable ground source heat exchangers and heat pumps
 - **GEOTeCH**: Geothermal Technology for economic Cooling and Heating
 - **GEOCOND**: Development of new materials for BHE pipes and grout
- Interreg
 - **GeoPLASMA-CE**: Developing new approaches for fostering the use of shallow geothermal systems in Central Europe, a midterm review of this Interreg Central Europe project
 - **GRETA**: Potential for shallow geothermal energy in the Alpine area