# GeoDH

## Newsletter, Issue 1, December 2012

### Did you know?

**In Iceland, in November 1930 the first geothermal DH system in Reykjavik was installed via a 3km long pipe. Over the following decades, geothermal district heating became widespread, as a result of local initiatives. After the oil shocks of 1973 and 1974, GeoDH became even more important for Iceland. The larger scale demands of energy production, along advances in drilling and equipment meant deeper wells, higher temperatures and more sophisticated technology. Currently, well over 90% of Icelandic homes are heated by geothermal energy, the highest percentage in the world.**

### Inside this issue:



## Overview of the GeoDH Project

The 30 month long Geo-DH project, supported by the Intelligent Energy Europe initiative of the European Commission, was kicked off in April 2012. This project gathers partners from 14 European countries, with the objective of convincing decision makers about the potential of geothermal District Heating in Europe.

GeoDH will result in increased awareness on the potential applications and benefits of DH&C with geothermal energy, in a set of recommendations for removing barriers and improving regulatory frameworks, in a better understanding of related technologies, costs and financing, as well as in a transfer of best practices to national and local authorities.

## Objectives of GeoDH

- Propose the removal of regulatory barriers in order to promote the best circumstances and to simplify the procedures for operators and policy makers.
- Develop innovative financial models for GeoDH in order to overcome the current financial crisis which is hampering the financing of geothermal projects which are capital intensive.
- Train technicians and decision-makers of regional and local authorities in order to provide the technical background necessary to approve and support projects.

## GeoDH Partners

Gemeente Heerlen

Dansk Fjernvarme

afpg

AGEO
Agency for Geothermal Power Engineering

EGEC GEOTHERMAL

SDDE
SLOVENIAN DISTRICT ENERGY ASSOCIATION

ABYO

MFGI
Magyar Földtani és Geofizikai Intézet

Target countries of the project

## Policy Environment for Geothermal DH


Commissioner Oettinger at the European Workshop on Geothermal energy in urban areas in Brussels last month.

"Geothermal energy development should be encouraged"

"Geothermal energy development should be encouraged"; with these words the EU Energy Commissioner Günther Oettinger concluded his speech to the experts gathered at the European Workshop on Geothermal energy in urban areas, held on November 15th in Brussels. The Commissioner also stated that "geothermal will play an important role in the future energy mix of the EU" and that "we should encourage geothermal development in more and more cities".

The workshop looked at how to exploit the huge potential of geothermal electricity and heating and cooling through increased cooperation in R&D, technology and best practice knowledge transfers among the EU Member States.

One of the main findings of the event was that geothermal energy can and will be a major contributor in the future energy mix of the EU. If appropriately encouraged, geothermal energy can continuously provide electricity and heating and cooling at high and low temperatures, with the possibility of underground thermal storage which suits well into the concept of smart cities.

"The geothermal industry needs a clear framework for investing in new installations, such as new drilling rigs; that is the reason new binding RES targets for post-2020 are needed" said Philippe Dumas, Manager at the European Geothermal Energy Council.

Dumas also pointed out that "policy-makers, local authorities and utilities need to be more aware of the full range of geothermal resources available and of their possible applications". Finally, the importance of the heating and cooling sector was highlighted. However, "concrete actions are yet to be taken", Mr. Dumas added.

## EGC 2013: Evaluation of nearly 300 submitted abstracts about to start

EGC2013 European Geothermal Congress

Keep up with the EGC2013 news by visiting geothermalcongress2013.eu!

European Geothermal Congress 2013 invited all players in the geothermal sector to contribute to the event to be held in Pisa on 3-7 of June 2013, by requesting submission of abstracts for papers concerning all areas of geothermal energy use, from very shallow systems to deep drilling and high-enthalpy elds.

The abstract submission tool was switched off on January 7th and the evaluation by the Scientific Committee will now take place. Nearly 300 abstracts were submitted and the authors will be informed of the decision on acceptance of their abstracts in January 2013. Final papers will be required by 28 March 2013.

A set of Country Updates will be included in the proceedings. These papers are organised by a dedicated group of convenors (M. Antics, R. Bertani and B. Sanner). The invitation for writing the Country Update reports meanwhile have been sent out to the selected authors, taking into account interests expressed to the secretariat.

# Geothermal DH Market report

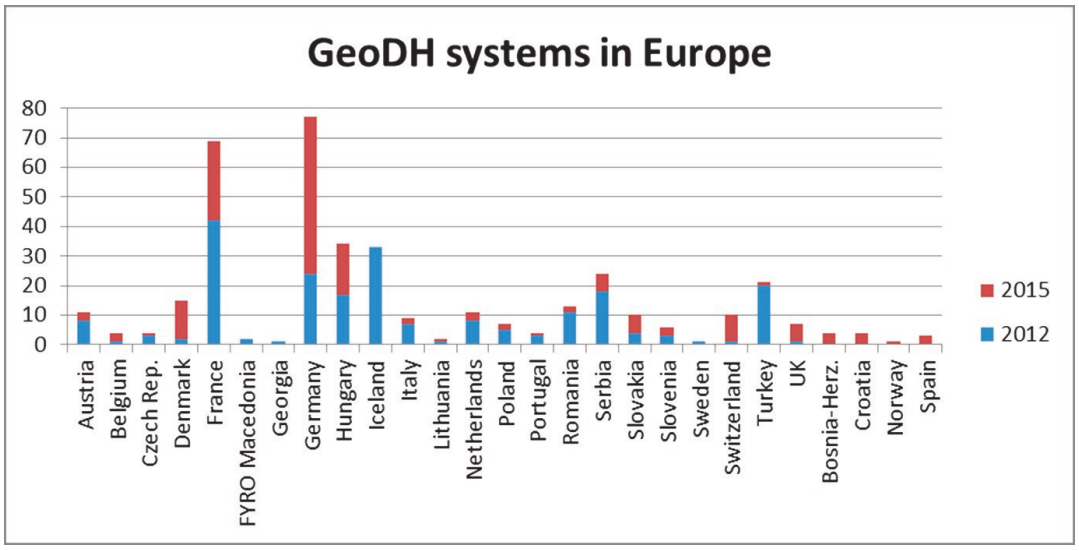
GeoPower Europe Conference 2012 saw the launch of the EGEC Geothermal Market Report 2012, with its extensive overview of the geothermal energy markets including an analysis of the geothermal district heating sector.

There was very positive news concerning Geothermal District Heating, which has already 216 projects in operation.

The market has enjoyed a renewed momentum over the last 3 years; with many new projects being announced, we will see a doubling of capacity over the next few years, meaning additional 4 GWth by 2015 (see chart below).

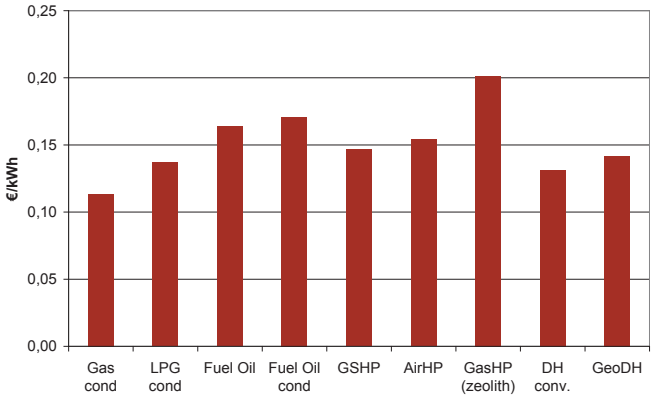
In addition to the beginning of the drilling works in September 2012, the ECOGI project in Eastern France exemplifies the development of a new route for GeoDH: EGS.


EGEC Geothermal Market Report 2012




## Costs comparison in the heating sector

A comparison of costs for heating is difficult because numerous factors contribute with their specific impact. To mention a few: type of building, size of building, climatic zone, availability of fuel types, and many more. In the past, the usual method was to compare the price of different fuel types, taking into account their respective energy content (e.g. 10.1 kWh per litre of fuel oil). With modern heating technologies using condensing boilers, heat pumps, or others, this comparison does not make sense anymore. The only way is to calculate the full cost of heat, including the capital costs, energy costs, and operating and maintenance costs for a certain standard building. Regarding the situation in 2011, ASUE, an association funded by the German natural gas utilities, commissioned a comprehensive study for different modern heating types for a residential area and the up-to-date insulation standards in force in Germany.




Graph: Heat full cost in a modern residential house with 150 m2 floor area in Germany in 2011, excluding VAT, solar components and heat distribution in the building, own calculation based upon values from ASUE.

## First GeoDH workshops a great success

Between October 2012 and March 2013 the consortium is organising a national workshop in each of the 14 countries covered by the project.

The aim of these workshops is to identify and assess barriers to geothermal DH projects in order to create and present recommendations for removing these barriers.

Participants are invited from a variety of backgrounds and from those fields which may have relevant information or knowledge to contribute on the discussion on geothermal and District Heating in these countries. The target group of these two workshops includes national actors such as municipalities, public authorities, DH utilities and geothermal developers.

Four workshops were already successfully held in 2012 in the following countries: Slovakia, United Kingdom, Hungary and Italy. More information, including all presentations, are available here!

Hungarian Workshop in Budapest, 3 December 2012

Slovak Workshop in Bratislava, 11 October 2012

**The next national GeoDH workshops in 2013:**

- **6 February, Copenhagen, Denmark**
- **8 February, Litomerice, Czech Republic**
- **3 April, Heerlen, Netherlands**
- **19 March 2013 Krakow, Poland**

**You can find more information on geodh.eu!**

## Events Calendar

### 2013

GeoTHERM expo & congress, 28 February – 1 March 2013, Offenburg, Germany

Iceland Geothermal Conference 2013, 5-8 March 2013, Reykjavik, Iceland

European Geothermal Congress 2013, 3-7 June 2013, Pisa, Italy

EU Sustainable Energy Week, 24-28 June 2013, Brussels, Belgium

GeoPower Europe 2013, 3-4 December 2013, Amsterdam, Netherlands