Findings of the GeoDH project

GeoDH/Geothermal panel meeting

Philippe Dumas
European Geothermal Energy Council

Brussels
235d September 2014

Co-funded by the Intelligent Energy Europe Programme of the European Union

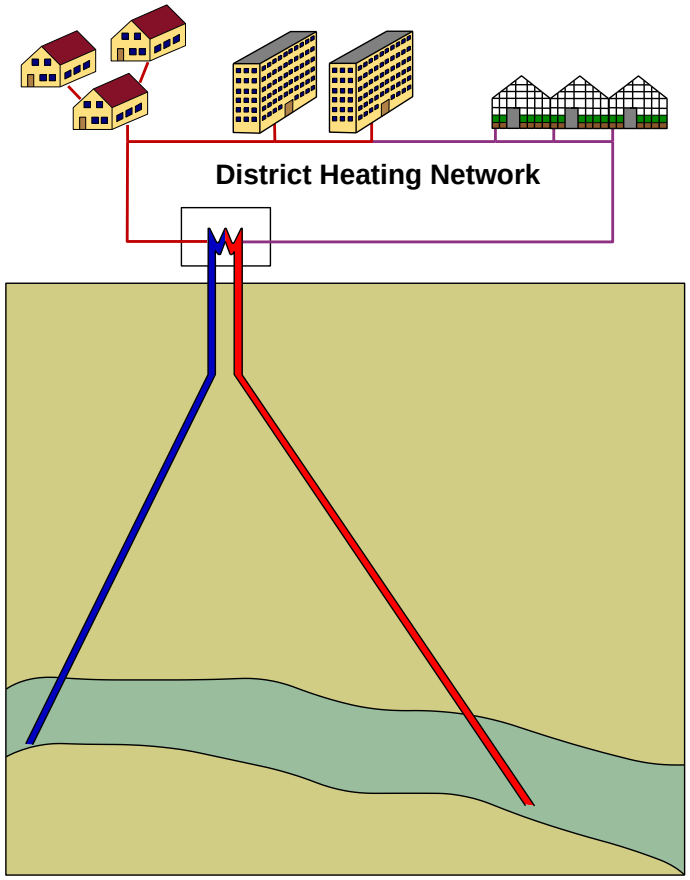
Geothermal District Heating

Increasing Momentum

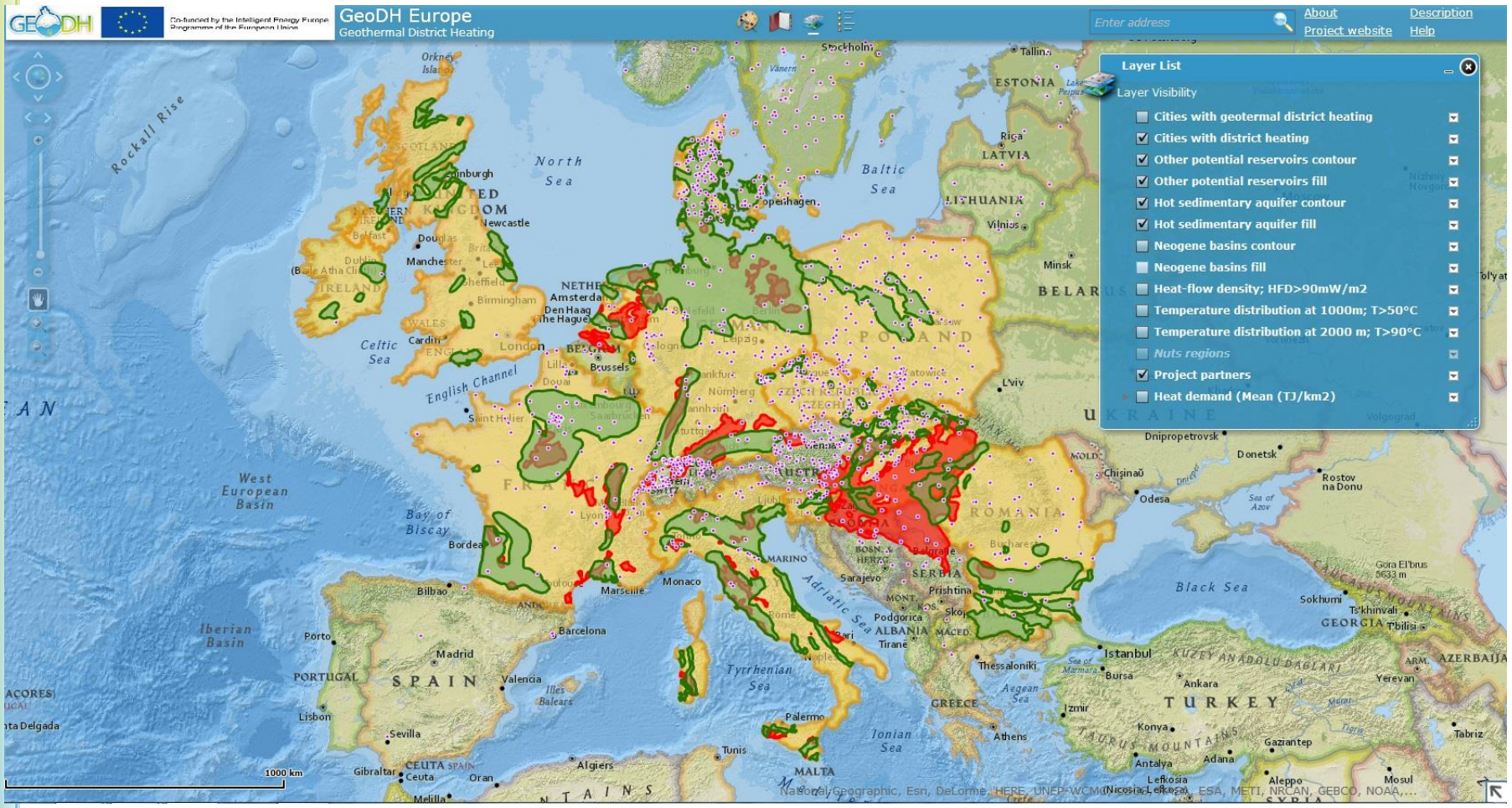
- 237 GeoDH systems in operation in Europe
- Total capacity of approx. 4,300 MW_{th}

Geothermal Attractive Option for H&C

- Competitive
- Can be installed everywhere



Geothermal District Heating potential in Europe



Over 25% of the EU population lives in areas directly suitable for Geothermal District Heating, ensuring security of supply

Geothermal h&c opportunities for the industry

Geothermal H&C technologies available to meet the different needs

It can provide heat at low and medium temperature levels.

INDUSTRY

TERTIARY & RESIDENTIAL

High temperature: 251° C to 400 ° C

Medium temperature: 96° C to 250 ° C

Low temperature: 0° C to 95 ° C

European Geothermal District technologies– Technological challenges

- Towards low temperature GeoDH systems with HP
- Large versus Small GeoDH installations
- Increase operational time: from doublet to triplet
- GeoDH from CHP: new opportunities with EGS
- EGS purely for industrial heating: case of ECOGI project
- What about Geothermal District Cooling ?
- GeoDH for smart cities= intelligent thermal grid
- To which source combine the GeoDH ? Biomass, solar etc.

Shallow Geothermal DH
Heat and Cold Production in Paris Intra Muros

- Issue: supply heat and cold to buildings where heated/cooled areas exceed land availability

144 Rue de Rivoli, PARIS

7000 m² (offices + shops)

Louvre district

470 kWth heating

850 kWth cooling

Balanced consumption regarding the COPs of the heat pumps

THANK YOU!!!!

Visit www.geodh.eu