

# *Delft Geothermal Project*

Seminar on

## **Sustainability of the geothermal development.**

Technological, environmental and economic challenges

**By**

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### **Abstract**

The importance of renewable energies is now growing very fast worldwide. Geothermal energy is a reliable, continuous and efficient renewable energy source that currently more than 20 countries are exploiting for electricity generation purposes.

Nevertheless geothermal electric energy development is facing, in some countries, great challenges related to the environmental compatibility and social acceptability of the power facility installation. As a consequence that economic sustainability of some geothermal projects might be jeopardized in a very competitive energy market.

The main goal of this seminar is to discuss a development approach that through the application of innovative solutions improves the resource availability along the lifetime of the projects as well as minimizes the environmental impacts.

Case studies in the Americas and Italy are presented and analyzed to evaluate the performance of different geothermal projects according to the triple bottom of sustainability (technology, environment and economics). Emphasis is placed on the assessment, mitigation and management of the risks and the decision making process along the project development.