

Deliverable n° 6.7:

Title: **Report on Final Conference**

Date: 06/11/2013

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National Workshop Report on the GEOELEC Project

Geothermal Electricity in Europe

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National Workshop 06/11/2013

The conference was organized in order to present the main results of the GEOLELEC Project on geothermal electricity in Europe.

Key topics related to the geothermal energy production faced in the Project are:

- ✓ Resource assessment
- ✓ Regulatory aspects
- ✓ Financing and technology aspects
- ✓ Risk insurance
- ✓ Opportunities and barriers for market development
- ✓ Education and training

All these aspects have been presented by analysing both the European and the Italian current situations. Stakeholders from Public Administrations, Industry, Academia and Research Institutions took part to the conference and actively to the debate.

Outstanding remarks highlighted for the Italian context are those below.

- 20-20-20 Targets: the procedure to reach them is not efficient enough in Italy.
- The process to put into effect the new Decree (Dlgs.03/03/2011, n. 28) is too slow.
- Regions have been left with all the responsibilities to achieve the goals, but without tools, guidelines and often with no technical expertise required to assess and manage instances. National guidelines for the exploration and production of geothermal resources are required.
- Administrative time are dramatically long, while the incentives stop at 2015 and, with so much uncertainty, investments are stopped.
- Italian R&D does exist and should be supported as a part of the National economic sector. Main applications are often abroad, where bureaucratic procedures are easily overcome.
- Lack of insurance instruments relating to mining risk. The average failure risk of drilling ranges between 26 % and 50%. To reduce the risk it is possible to handle the risk itself (risk management) or to integrate the project with Insurance Companies and Banks. New hint has been indicated to favor this complex matter and this is the possibility to set a one-stop shop for geothermal energy. A tight integration between stakeholders (bank-business - insurance - associations) is necessary.
- One of the critical points is related to the investment risk and this is strictly connected to the exploration phase. Advanced exploration, enables to better assess the exploitable resource, is the key tool to reduce the risk and to encourage investors in developing geothermal projects.
- Lack of education and training with specific expertise. The limited number of available specialized training courses both professional and higher education (B.Sc., M.Sc., Ph.D. Degrees) related to geothermal exploration, exploitation and utilization, is inadequate to supply the high skilled personnel needed in the Geothermal Power Industry. Multidisciplinary expertise and interaction of several disciplines are necessary.
- Low level of social acceptability. A thick work of dissemination is highly needed.

The opportunities for the development of the geothermal sector in Italy are high. Even though, it is of crucial importance that Ministries take charge of the situation (regulatory and economical aspects, incentives, R&D) by dialogue with Regions, Operators and Civil Society. The Government should start to consider the development of geothermal energy (with an Italian technology up to 90%) as an opportunity to boost investments, economy and to promote the export.



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