JA - New Concepts
an introduction

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Budget of the Geothermal ERA NET: € 2.2 mln (2012-2016)
Technical & non-technical barriers & opportunities (task 2.2a CNR/RVO)

10-bullet lists (per country)

clustering workshop

Report (barriers & opportunities)
Common Challenges in Geothermal EraNet countries

9 clusters

1. Regulations (A1)
2. Economics & Risk-mitigation (A2)
3. New/innovative concepts & applications (A3/B4)
4. Operation (A4/B2)
5. Subsurface/reservoir knowledge (A5/B1)
6. Structuring the geothermal sector (A6)
7. Public & Education (A7/B3)
8. Anthropogenic Influence (B5)
9. Drilling (B6)

All clusters are relevant for the progression of geothermal energy in Europe
Why New Concepts?

- Mentioned by all:
  - Crucial cluster full of opportunities! (not barriers)
  - New Concepts/Innovations in technology and application crucial for future of geothermal
  - Strategic positioning of geothermal in the (EU) Energy System
New Concepts—the EuRopeAn team

Coordination
IS + NL

EraNet Partners
CH + I + H + F + D + SLO + P + TR
Aim

- Showcase and contribute to the awareness of opportunities in the geothermal sector and stimulate growth of the geothermal industry in Europe

- **Stimulate the generation of new ideas** and create new opportunities with regard to direct utilization of low enthalpy geothermal energy and geothermal technology

- **Encourage collaboration** and knowledge exchange between existing projects and companies working on "Geothermal New Concepts"

- Crucial is showing and stimulating new opportunities

- Classification of Joint Activities (JA1-JA3): JA1 which can develop into JA2 or JA3
How to collaborate?

JA1: Information exchange (groups)
- regular meetings, workshops, visits, idea factories, etc.

JA2: Joint work
- Joint assignment: detailed study on specific issue(s)

JA3: Joint call
- Jointly developing new insights, new systems

- Appropriate (and feasible) JA-type was chosen for the specific challenge
- JA’s can evolve from JA1 > JA2 > JA3
- Effectiveness/Impact more important than amount of €’s
The **New Concepts** Concept

Two types of events:

1. **Showcase** new concepts/innovative projects in Geothermal

2. Creative **idea generating** events (Idea Factories/Labs - to be continued in GEOTHERMICA)

**INSPIRATIONAL POSITIVE CREATIVE PEOPLE + EVENTS**

*Building the base for a vibrant geothermal community*

*open to innovations and opportunities*
Motivation

- Dream – how high can geothermal use go
- Growing geothermal energy
- Great opportunities for networking
  - Broadening geothermal connections

Thanks to

- Gunter Siddiqi and SFOE for hosting
- The presenters...
New Concepts workshop Participants

- Innovative Project developers & entrepreneurs
- Country representatives for Geothermal Innovation
- Positive, inspirational, creative, motivated

40 participants from 11 European countries + 4 non-European countries. 20 speakers

- Building a network
- New Concepts JA as a platform to stimulate creativity and innovation in Geothermal
- You’er part of that network!

We need Creativity and Innovation and a Positive Vibe for Geothermal Energy to flourish
New Concepts Program – 30.10.2015

Morning 8:30-12:30

- Welcome & Introduction
- I EGS + Direct Use
  - Break
- II Built Environment NewCon
  - Lunch

Afternoon 13:45-19:00

- III Other Sectors NewCon
  - Break
- IV Worldwide InnovApp
  - Visionary Panel, Conclusions & Next Steps
  - Networking Réception
Innovative thinking – additional task for the participants

What is your vision of -
how do you imagine
the Future of Geothermal?
The tools
The outcome

World Peace by geothermal

Imagine if each nation can self-supply energy 100%...

No fight for energy resources!

Deus Nobis Pacem

Known Y.

[Heart symbol]
Proceedings published

New Concepts – New and Innovative Applications of Geothermal Energy


Report
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Follow-up: GEOTHERMICA – Geothermal ERA NET Cofund

National commitment ~22M€  EC contribution “top up” ~10M€  Estimated industry contribution ~30M€
Follow-up: GEOTHERMICA ERA-NET Co-fund

Creating a European research & innovation framework

- organize and pool national financial and human resources as well as national research infrastructures, to accelerate research and innovation.

- Building on relationships with industry and researchers and bridge the gap between research and the market with innovative solutions.

- Focus on what is often called “deep” geothermal energy. The scope includes the integration of geothermal reservoirs into novel energy system concepts (e.g. use of reservoirs for energy storage, CO2 storage, integration with near-surface geothermal applications).
Thank you