

GEOELEC Project Overview

Regional Workshop

The Netherlands, Belgium, Denmark,
Luxembourg, Sweden and Norway

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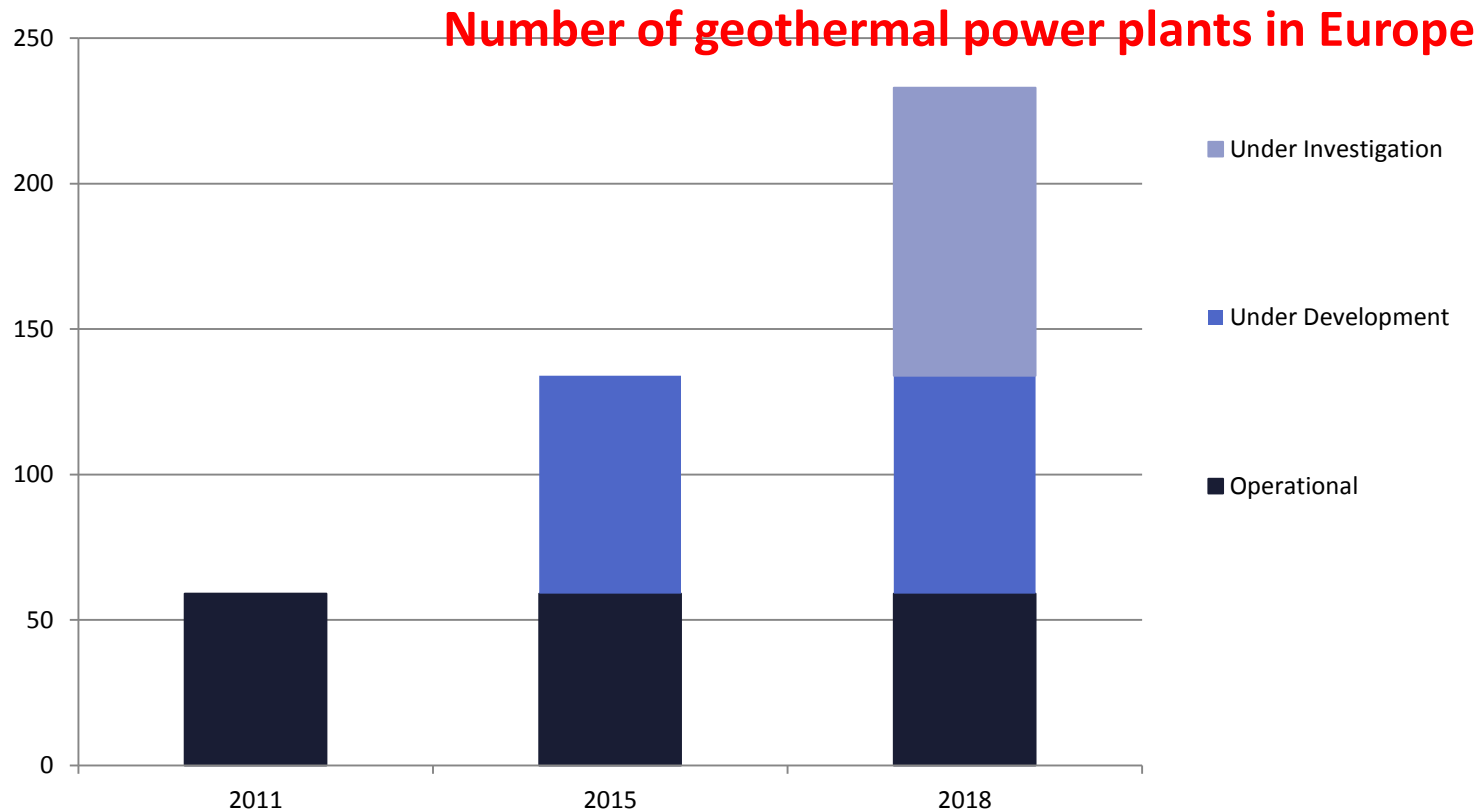
European Geothermal Energy Council

Utrecht, 24/01/2012



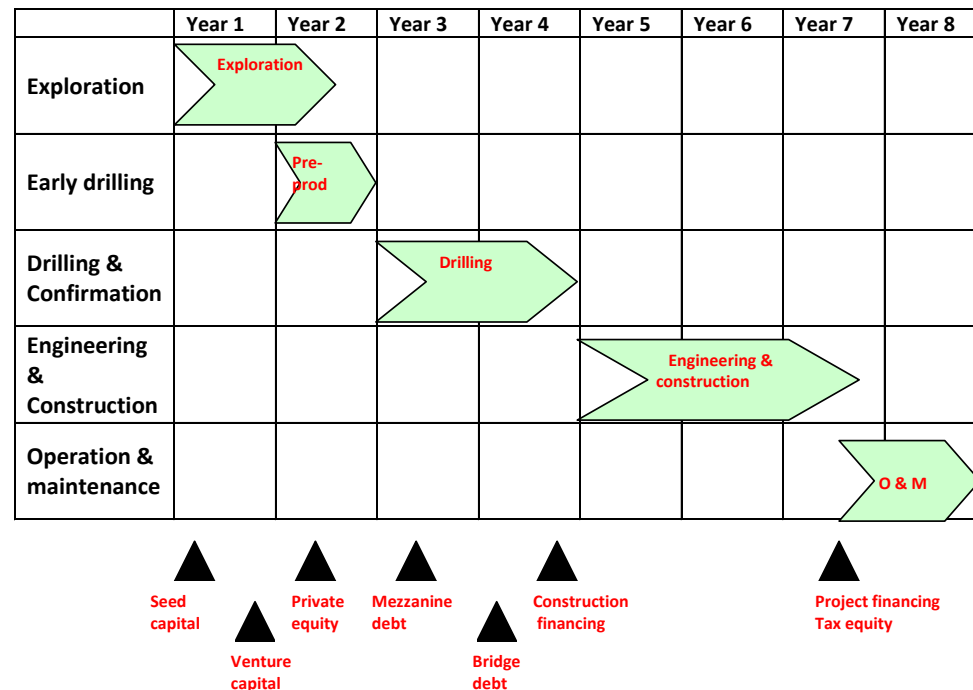
Objective of GEOELEC project is to

- *convince decision-makers about the potential of geothermal electricity in Europe: Create awareness and improve perception among policy makers*



Objective of GEOELEC project is to...

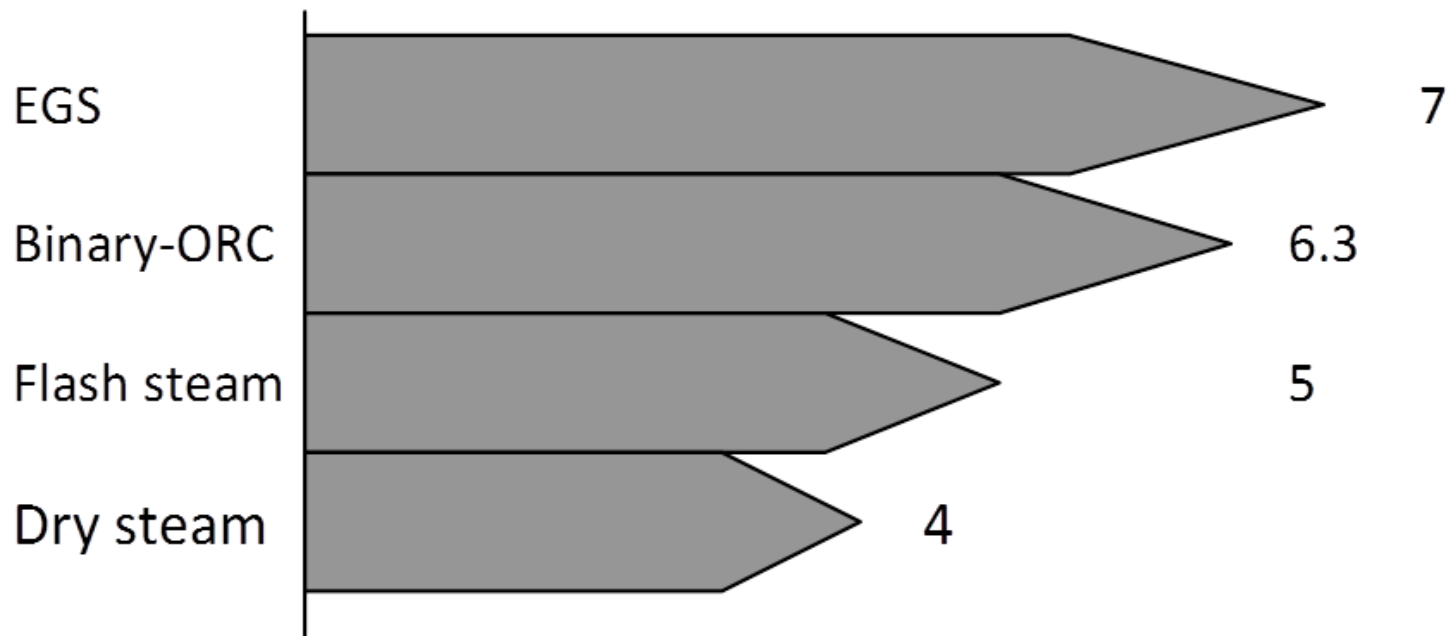
- *stimulate banks and investors in financing geothermal power installations.*
- *Geothermal project development has high upfront costs and can take several years: 3-6 years, need innovative mechanisms for funding*



Objective of GEOELEC project is to...

- ***attract key potential investors such as oil and gas companies and electrical utilities to invest in the geothermal power.***
- ***Geothermal projects are capital intensive***

Capital costs, € million /MWe installed



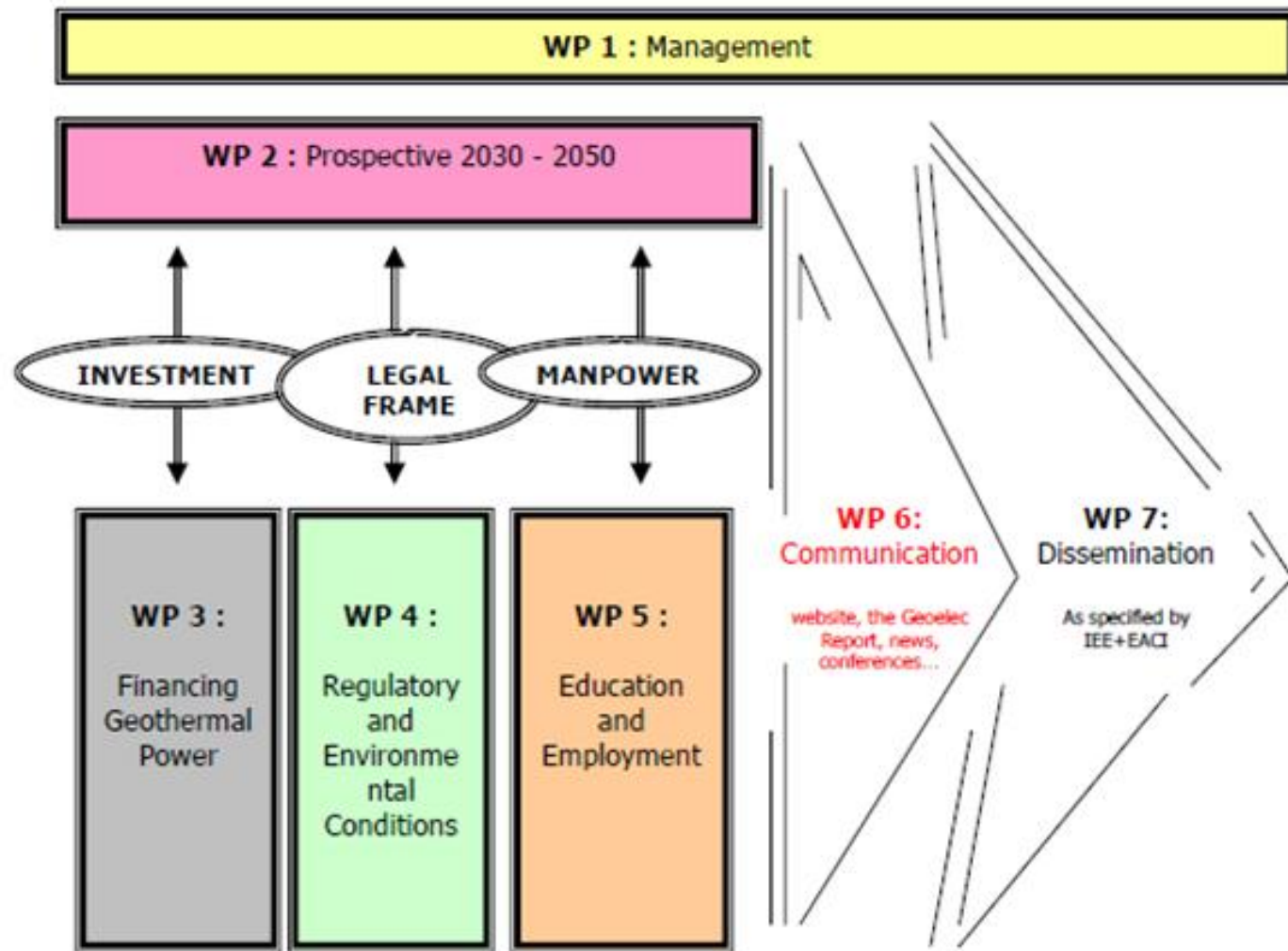
Results

- *GEOELEC will result in an **action plan towards more geothermal electricity generation in Europe**, with the objective to double installed geothermal power capacity in Europe by 2020.*
- *GEOELEC will also result in setting concrete actions to reach these objectives: conditions for financial feasibility, a regulatory framework, and public acceptance.*

List of Participants

European Geothermal Energy Council	EGEC	BE
Bureau De Recherches Géologiques Et Minières	BRGM	FR
Centre For Renewable Energy Sources And Saving	CRES	EL
Consiglio Nazionale Delle Ricerche Istituto Di Geoscienze e Georisorse	CNR-IGG	IT
Asociacion De Productores De Energias Renovables	APPA	ES
Gaßner, Groth, Siederer & Coll.	GGSC	DE
EnBW Energie Baden-Württemberg AG	EnBW	DE
Mannvit	Mannvit	IS
Helmhotz Zentrum Postdam - Deutsches Geoforschungszentrum	GFZ	DE
Nederlandse Organisatie Voor Toegepast- Natuurwetenschappelijk Onderzoek - TNO	TNO	NL

Work Flow Chart (June 2011 – November 2013)



Work Programme

Prospective for geothermal electricity in Europe

Resource assessment

- Methodology: Geoelec Resource Assessment Protocol
- Data compilation with 7 regional workshops (London, Valencia, Milano, Athens, Utrecht, Offenburg, Vilnius)
- An online web GIS on EGS potential in the EU-27

Electricity demand and grid infrastructures

- Technical conditions for grid access
- Match the demand: site selection

Forecasts and prospective

- A prospective study 2020/2030/2050 on the geothermal potential in Europe (January 2013)



Work Programme

Financing geothermal power projects

Project financing & estimating of costs

- A software to evaluate financial viability of geothermal projects
- LCOE

Risk insurance

- Promote the creation of risk insurance schemes

Drilling costs & rigs

- A European database on drilling costs & performance
- Best practice drilling handbook

Guide to boost investment in the geothermal sector

- **Practical reference tool for banks, developers and investors**



Work Programme

Regulatory, social and environmental conditions

Regulatory barriers

- Licensing procedures, legal conditions for grid access
- Geothermal reporting code review

Environmental issues

Public acceptance

Potential CO2 emissions reduction



Work Programme

Education and employment in the geothermal sector

Employment survey

Training activities

- 3 Training courses in France, Italy and Germany (2012/2013)



Work Programme

Communication

Website: www.geoelec.eu

Publication

- Geoelec Final Report (5500 copies in total, 100 pages, several languages)
- Geoelec Factsheets (4000 copies, brochure 16 pages, several languages)
- Newsletter (First in October 2011, every 4 months)

Events

- 7 promotional workshops (FR,DE,EL,ES,IT,HU,NL) and 1 Final Conference
- Face-to-face meetings with decision makers, banks, investors etc.

Promote the creation of National Geothermal Committee

- **Official body providing recommendations for geothermal development**



Thank You!

Visit www.geoelec.eu

