

The Shallow Geothermal Resource Energy Project: Guidance and Best Practice

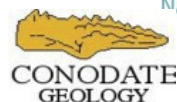
Gareth Ll. Jones
Conodate

GSI
22 February 2012



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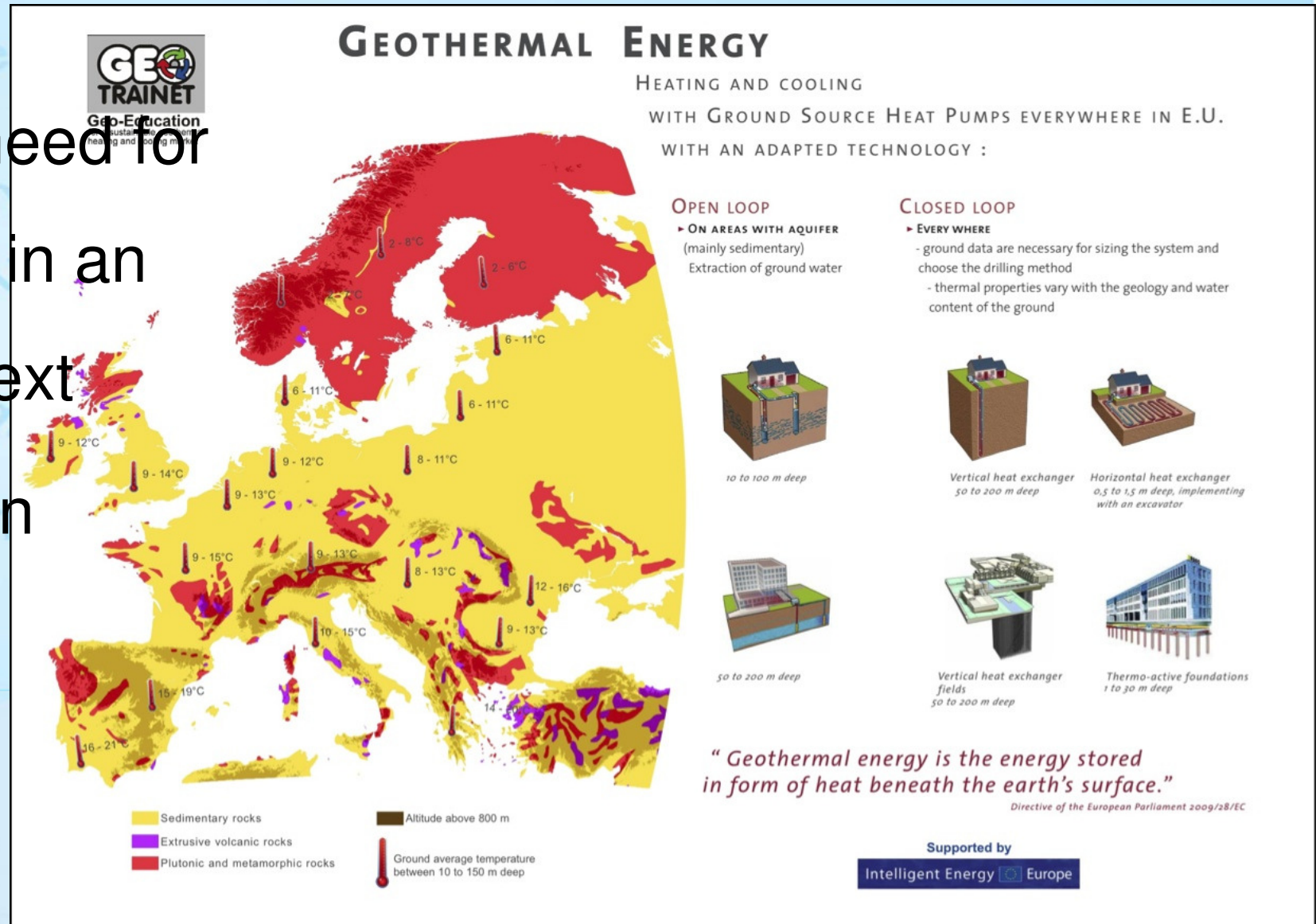
National Development Plan 2007 - 2013



Department of Communications, Energy and Natural Resources
Roinn Cumarsáide, Fuinnimh agus Ámhainní Nádurtha

Presentation outline

- Specific need for guidance in an Irish context
- Regulation
- Training

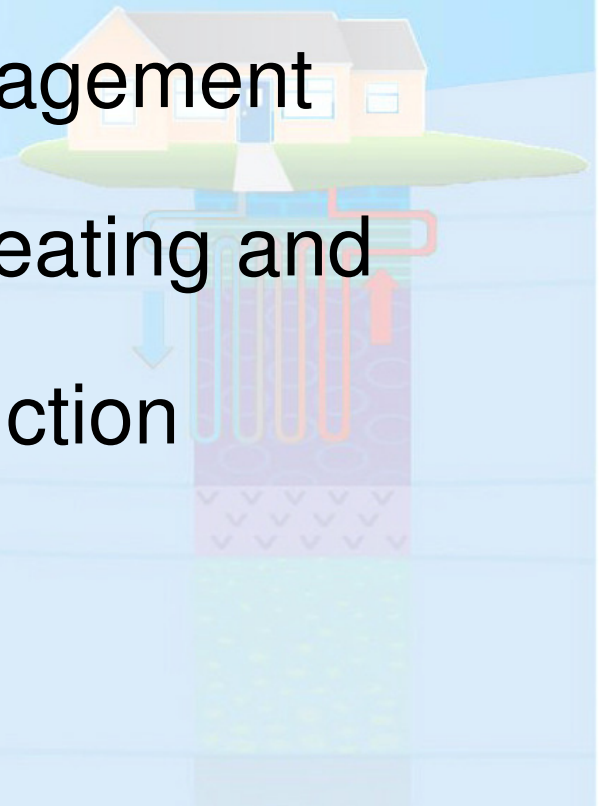


Need for guidance

- Of fundamental importance for the future development of the industry
- lack of legislation and regulation is allowing systems to be completed on an 'adhoc' basis
- lack of (national) guidance has the potential to lead to:
 - bad design,
 - the development of inefficient systems and
 - potentially negatively impact subsurface environmental conditions.

Aim of guidance

- Educate and train key stakeholders
(designers, installers, drillers)
- Improve subsurface resource management
- Develop sustainable geothermal heating and cooling system design and construction
- Create public awareness

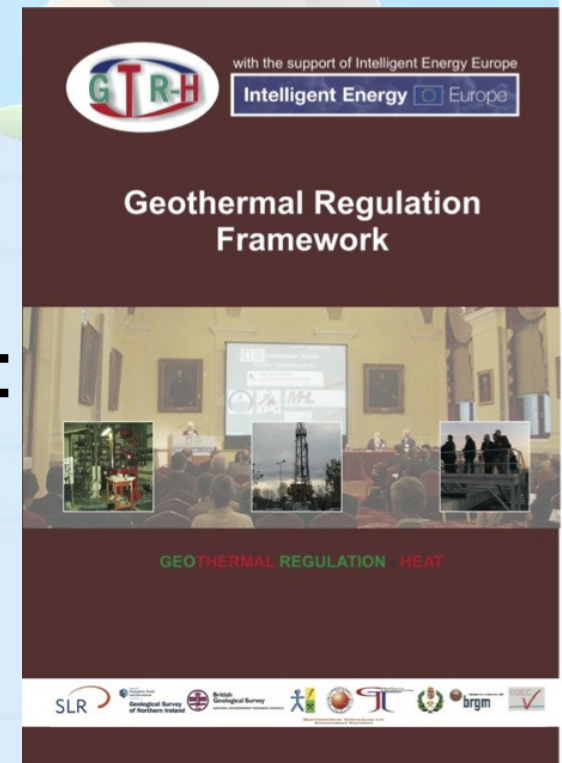


Target audience

- Designers, drillers, installers, regulators and academic institutions:
 - Should be aware of best practice information for installing geothermal systems – manufacturers, educational bodies, etc.
- Home-owners:
 - to educate themselves on the uses of geothermal energy
 - so they can make informed decisions on the geothermal system they may implement.

Guidance Development

- Review International and European best practice guidelines for GSHP
 - Wealth of international guidelines available
 - Liaise with UK counterparts for GTR-H project about their experiences
 - Need to focus on an Irish context
- Consider existing relevant guidelines:
 - IGI groundwater well drilling guidelines
 - Proposed IGI Geothermal drilling guidelines



Guidance Development

- Review of existing Regulations/Government action plans:
 - National Renewable Energy Action Plan
 - Water Framework Directive
 - Planning & Development Act
 - EIS requirements
 - Buildings Regulations
- Consider proposed regulations:
 - Draft Geothermal Energy Developments Bill

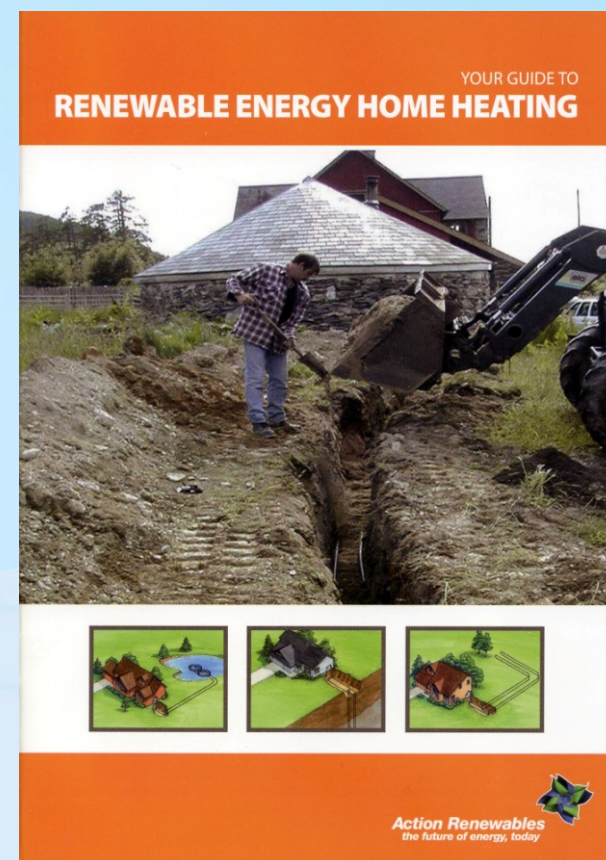
**GEOHERMAL ENERGY
DEVELOPMENT BILL 2010**

REGULATORY IMPACT ANALYSIS

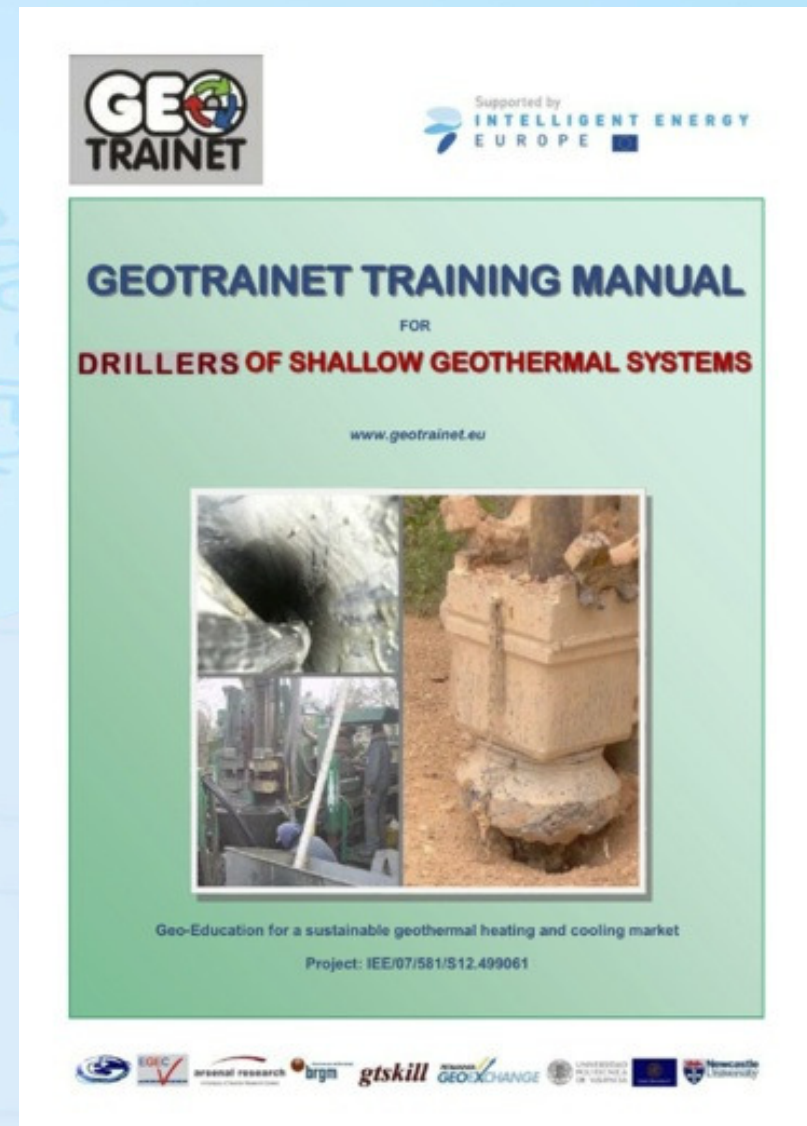
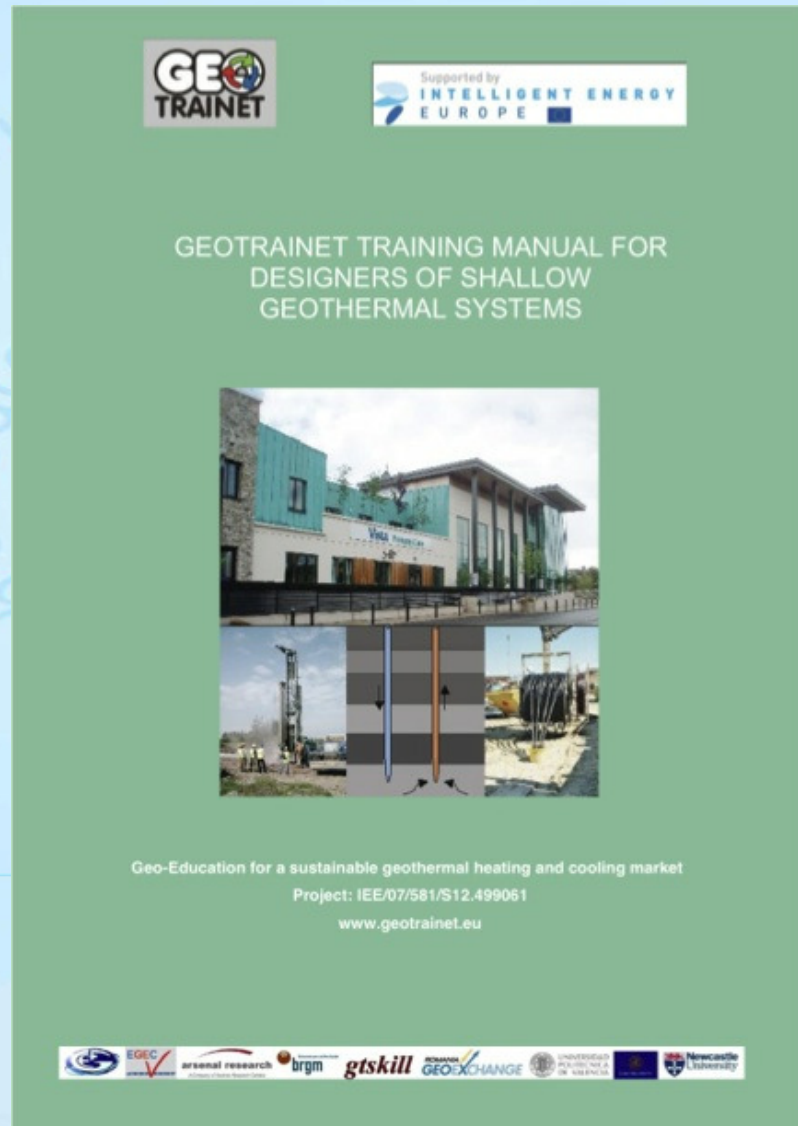
DEPARTMENT OF COMMUNICATIONS, ENERGY AND NATURAL RESOURCES
17 JUNE, 2010

Deliverables

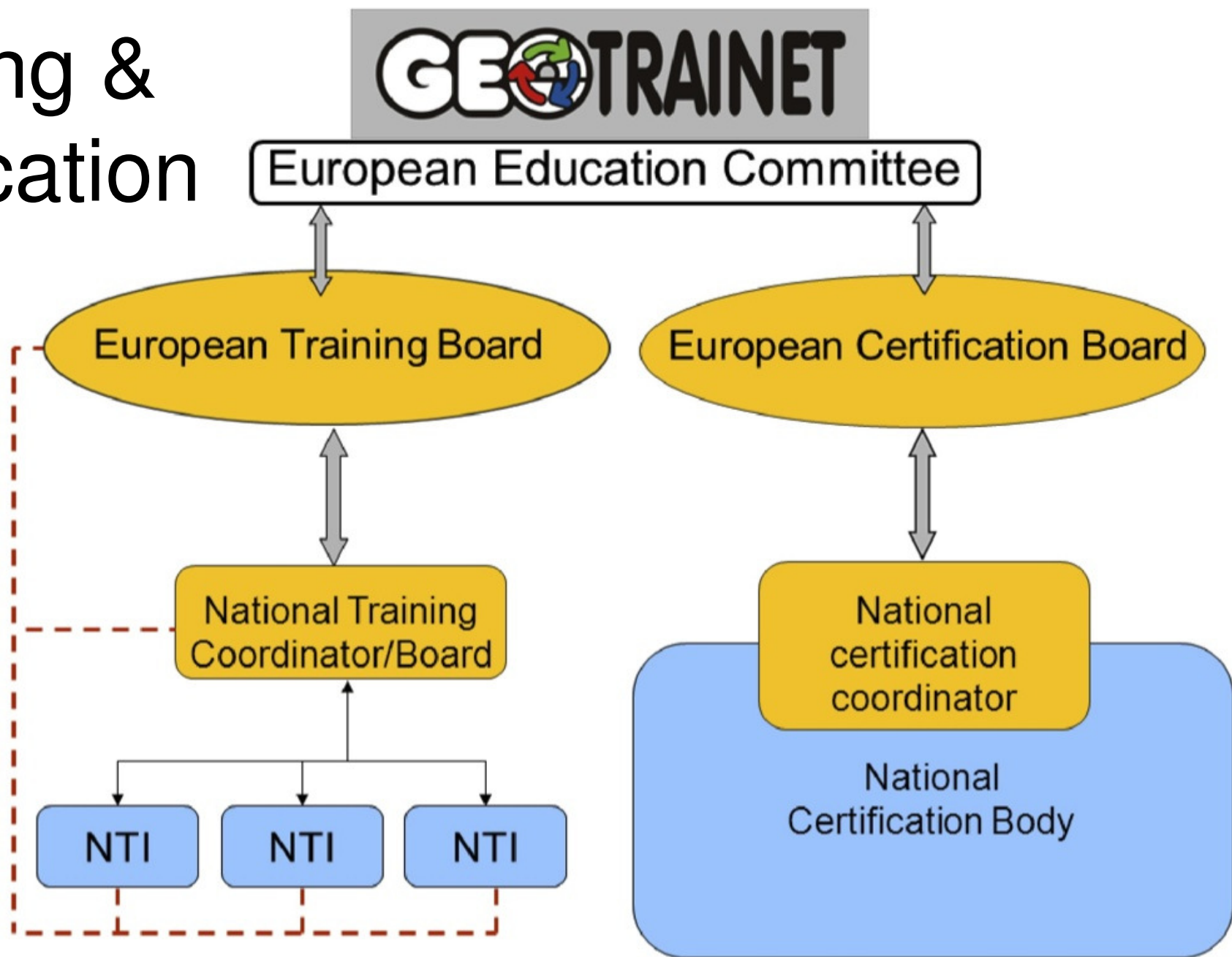
- Specific deliverables:
 - Technical manual for Shallow Geothermal Energy Resources (open and closed loop systems) for Designers, Drillers, Installers
 - Home-owner's manual
- Guidelines for certification
- Public Education and Dissemination.
- All documents to be dealt with in an Irish context



Deliverables



Training & certification



Quality Incentives & Players

GAI Installation of the Year



John Burgess GAI Chair, with Brian & Noreen Mooney, and the successful installers:

Mike Cotter Alternative Heating & Cooling, Daryl Duffy Eurotech Renewables, Padraig Murphy Green Renewables Heating, Gerry Cunnane Wind Water Solar Energy Systems



Academics

SEAI

Co.Co.s

Irish Drillers

Irish Installers



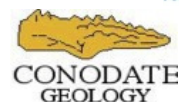
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Thank You

- Gareth LI. Jones
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