



IEA Geothermal



GEOHERMAL ENERGY DEVELOPMENT FOR A GREEN ECONOMY

International Technology Collaboration Programme of the IEA and
Vietnam Institute of Geosciences and Minerals Resources (VIGMR)

Asian Workshop on Geothermal Energy

Sunday Evening, 12th of November 2017, 18:00 h : Welcome Reception

Venue: [Pullmann Hotel Hanoi](http://pullman-hanoi.com/), 40 Cat Linh Street, Dong Da district, 10000 Hanoi, Vietnam
<http://pullman-hanoi.com/>

Workshop Venue: [Vietnam Institute of Geosciences and Mineral Resources \(VIGMR\)](#), No. 67 Chien Thang Street, Van Quan commune, Ha Dong district, Hanoi, Vietnam

Monday, 13th of November 2017:

08:30 - 09:00 **Registration**

09:00 - 09:55 **Welcome and Introduction**

09:00 – 09:05

Welcome

09:05 – 09:30

Dr. Lothar Wissing (Chairman IEA Geothermal)

IEA Geothermal – Introduction and overview

09:30 – 09:55

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Head of Ministry of Natural Resources and Environment (MONRE)

Demand for geothermal energy development in Vietnam in the context of orientation to a green economy

09:55 – 10:20 **Coffee break** – Coffee and lunch provided by the organizers

10:20 – 12:00 **Session I: Potential / best practise of Geothermal Heat Pump Applications**

10:20 – 10:45

South Korea – Dr. Yoonho Song (Korea Institute of Geoscience & Mineral Resources, KIGAM)

Overview of geothermal heat pump applications – potential for mitigation of climate change in East and Southeast Asia

10:45 – 11:10

Japan – Dr. Kasumi Yasukawa (National Institute of Advanced Industrial Science and Technology, AIST)

Cooling with Ground Source Heat Pumps – lessons learned from South Eastern Asian countries

11:10 – 11:35

Germany – Leonhard Thien (Energy Agency of North Rhine-Westphalia)

Best practise for shallow geothermal – potential maps, quality standards and drilling



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11:35 – 12:00 Germany – Prof. Dr. Rolf Bracke (International Geothermal Centre Bochum)
Key factors and capacity building for developing geothermal energy

12:00 – 14:00 **Lunch** – provided by the organizers

14:00 – 15:15 **Session II: Reservoir development and innovative drilling technologies**

14:00 – 14:25 Germany – Stadtwerke München (SWM)

GRAMÉ – Optimized and sustained reservoir development for geothermal plants in the Bavarian molasse basin

14:25 – 14:50 Germany – Daniel Schindler (H. Anger's Söhne)

Innovative deep drilling technology

14:50 – 15:15 Germany – Jörg Lehr (Baker Hughes)

Electro Impulse Drilling and Innovative Configuration of Advanced Drilling Systems

15:15 – 15:45 **Coffee break** – Coffee and lunch provided by the organizers

15:45– 17:00 **Session III: Geothermal energy utilisation in low enthalpy regions of Europe**

15:45 – 16:10 United Kingdom – Dr. Jonathan Busby (British Geological Survey)

Geothermal Energy in the UK

16:10 – 16:35 Switzerland – Dr. Katharina Link (Geo-Future GmbH)

Minimization of primary energy consumption and CO₂ emissions by smart geothermal applications – examples from Switzerland

16:35 – 17:00 Germany – Johannes Linde (Erdwerk GmbH)

Geothermal District Cooling and binary power production in the City of Munich

17:00 **Closure of the first workshop day**

Monday evening, 13th of November 2017:

19:00 **Dinner – sponsored by IEA Geothermal, non-alcoholic drinks included.**



GEOHERMAL ENERGY DEVELOPMENT FOR A GREEN ECONOMY

Tuesday, 14th of November 2017:

- 09:00 – 10:20 **Session I: Innovative stimulation technologies**
- 09:00 – 09:25 Germany – Jörg Baumgartner (BESTEC)
Enhanced and engineered geothermal systems (tentative title)
- 09:25 – 09:50 Switzerland – Dr. Peter Meier (Geo-Energie Suisse AG)
Innovative Multi Stage Stimulation – a technology to enhance reservoir efficiency for heat storage and power projects
- 09:50 – 10:15 France – és Géothermie
Successful hydraulic stimulation of a geothermal reservoir – lessons learnt from France (tentative title)
- 10:15 – 10:45 **Coffee break** – Coffee and lunch provided by the organizers
- 10:45 – 12:00 **Session II: Exploration strategies and geothermal energy use in Asia**
- 10:45 – 11:10 Germany – Prof. Dr. Inga Moeck (Leibniz Institute for Applied Geophysics)
Geothermal Plays and exploration strategies
- 11:10 – 11:35 New Zealand – Chis Bromley (GNS Science)
Geophysical Signatures Useful for Identifying Naturally Occuring Hydrothermal Systems
- 11:35 – 12:00 Malaysia – Fredolin Javino (Geophysics Division at Minerals & Geoscience Department)
Exploration for Geothermal Power Production
- 12:00 – 12:25 Thailand – Dr. Kriangsak Pirarai (Department of Groundwater Resources)
Geothermal exploration and development in Thailand
- 12:25 – 14:30 **Lunch** – Lunch provided by the organizers
- 14:30 – 15:45 **Session III: Geothermal energy use in Asia (Part 2)**
- 14:30 – 14:55 Vietnam – Nguyen Thac Cuong (Ministry of Natural Resources and Environment, MONRE)
Current status of exploitation and utilization of hot mineral water resources in South central Vietnam
- 14:55 – 15:20 Vietnam – Tran Trong Thang (Vietnam Institute of Geosciences and Minerals Resources, VIGMR)
A summary of research and development history and geothermal potential in Vietnam
- 15:20 – 15:45 Taiwan – Prof. Dr. Sheng-Rong Song (National Taiwan University)
Geothermal Energy in Taiwan
- 15:45 – 16:15 **Coffee break** – Coffee and lunch provided by the organizers



GEOHERMAL ENERGY DEVELOPMENT FOR A GREEN ECONOMY

16:15 – 17:30	Session IV:	Geothermal energy use in Asia and New Zealand (Part 3)
16:15 – 16:40		Cambodia – Dr. Kong Sitha (Geology Department, Ministry of Mines and Energy) Geothermal Energy in Cambodia
16:40 – 17:05		New Zealand – Brian Carey (GNS Science) Geothermal Direct Use in New Zealand - case studies from Industries, Agriculture and the Tourist sector
17:05 – 17:30		Indonesia – Geothermal energy in Indonesia
17:30 – 17:55		Laos – Geothermal energy in Laos

17:55 – 18:05 Close – Final Discussion and Outlook

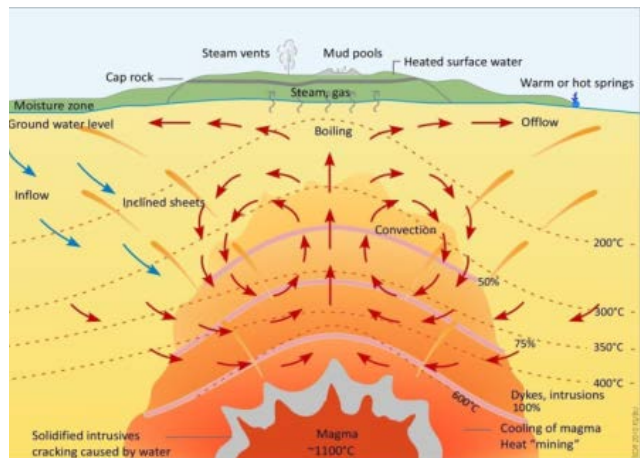
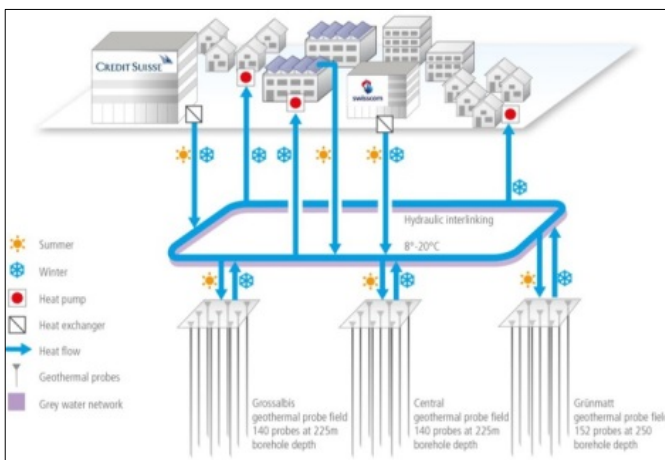
Registration: <http://iea-gia.org/asia-workshop-registration/>

Contact for international participants:

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Further information about IEA Geothermal: <http://iea-gia.org/>

IEA Geothermal: Experience the broad spectrum and manifold opportunities of Geothermal Technologies, from Smart Thermal Grids to Deep Roots of Geothermal Systems



(Source left picture: Amstein + Walther AG, Switzerland; right picture: K. Sæmundsson, ISOR, Iceland)



Expert Group of the IEA Technology Collaboration Programmes

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