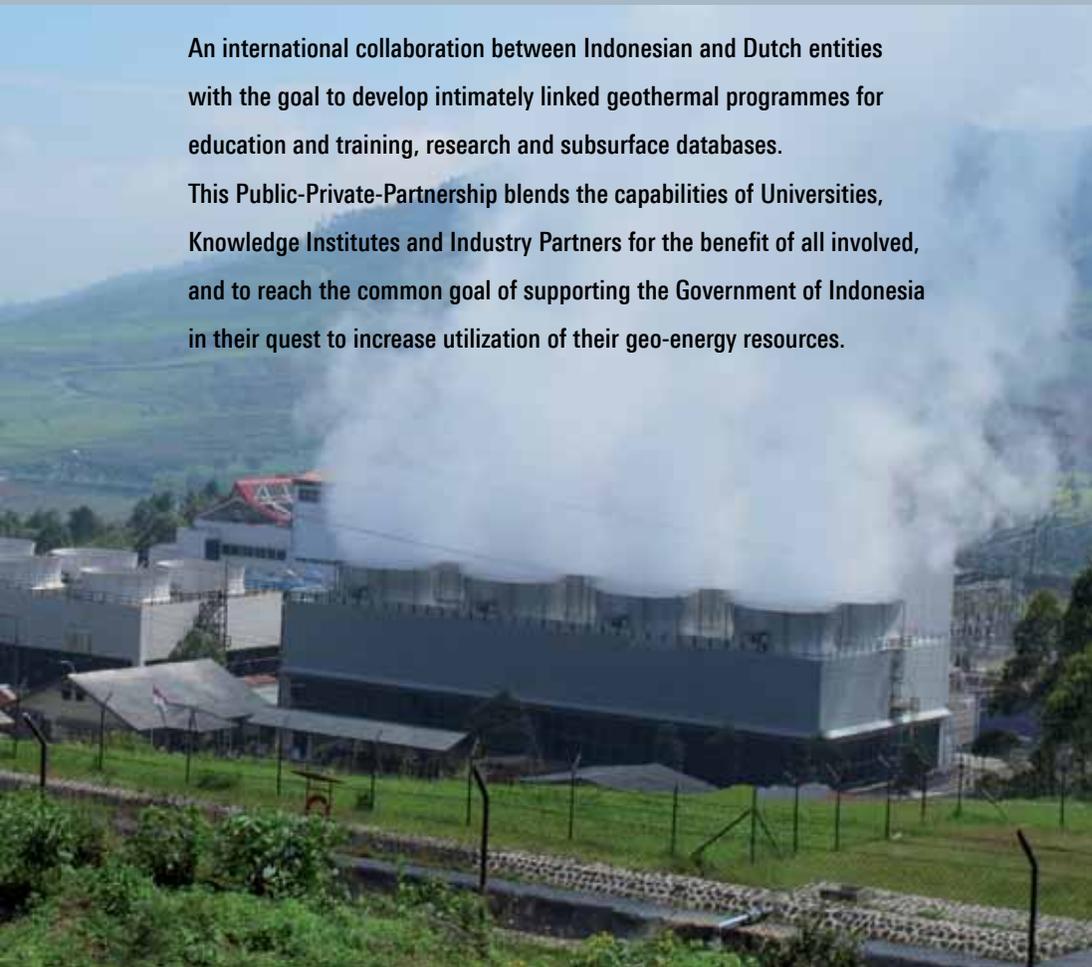


# Geothermal Capacity Building Programme

Indonesia-Netherlands (GEOCAP)

**An international collaboration between Indonesian and Dutch entities with the goal to develop intimately linked geothermal programmes for education and training, research and subsurface databases.**

**This Public-Private-Partnership blends the capabilities of Universities, Knowledge Institutes and Industry Partners for the benefit of all involved, and to reach the common goal of supporting the Government of Indonesia in their quest to increase utilization of their geo-energy resources.**



**GEOCAP**

*Geothermal Capacity Building Program Indonesia - Netherlands*

# Geothermal Capacity Building Programme

In Indonesia, there are not enough skilled personnel to fill the existing gaps in the expanding geothermal sector. Hence a nation-wide capacity building programme is needed to continue to develop the required volume of skilled workers. The Netherlands Ministry of Foreign Affairs, through the Netherlands Embassy, has started to support this effort by funding the GEOCAP Programme.

## Background

On 14 October 2011 the National Development Planning Agency of Indonesia (BAPPENAS) through its Directorate for Energy, Mineral Resources, and Mining issued a programme for 'proposed technical assistance' aimed at establishing a National Geothermal Capacity Building programme (NGCBP). The Geothermal Capacity Building Programme – Indonesia-Netherlands (GEOCAP) is a bi-lateral initiative between entities from Indonesia and the Netherlands, that is seen as a contribution to the NGCBP. The programme is led by a Consortium that takes the form of a Public-Private-Partnership and includes universities, knowledge institutes and geothermal companies on both sides, that jointly hold all required knowledge and expertise to execute the programme.

## Objectives

The objective of the programme is to increase the capacity of Indonesia's ministries, local government agencies, public and private companies and knowledge institutions in developing, exploring and utilizing geothermal energy sources, and to assess and monitor its impact on the economy and environment.

The GEOCAP programme has a number of intimately linked components:

- An education and training programme; focusing on developing capacity at university and technician level in support of the development of the geothermal sector
- A research programme; addressing the real needs of the sector and solving real life problems related to exploration and exploitation of geothermal resources as well as environmental and legislation issues.
- A database programme; to collect, standardize, digitize and store surface



and subsurface information relevant to geothermal development.

- Explore the use of low & medium enthalpy resources in Indonesia
- A geothermal 2050 programme; out-of-the-box thinking is necessary to explore potential unconventional geothermal resources that at present are undiscovered or technically not yet feasible.

### What makes GEOCAP unique?

- GEOCAP addresses a unique set of technical issues building on the strengths of the Indonesian and Dutch partners, including addressing Indonesia's resource potential in low and medium enthalpy systems and risk reduction of failure in the drilling phase by transferring Dutch knowledge to the Indonesian situation.
- the Dutch coordinating partner ITC (founded as UNESCO ITC) has 60 years of experience in capacity building aimed at economic development in developing countries and emerging economies being founded, to fulfil the Dutch contribution to the UN.
- The Indonesian coordinating partner INAGA/API (Indonesian Geothermal Association) unites companies, universities and individuals that work in the geothermal sector. They work as a liaison between the different backgrounds and provide common focus.



# GEOCAP

Geothermal Capacity Building Program Indonesia - Netherlands

- the programme will develop training and research beyond the traditional technical and geo-scientific topics in geothermal exploration. In particular addressing issues related to environmental issues, legislation, and strategic environmental assessment are strongly desired by the Indonesian companies and universities.
- the programme aims to engage with local governments and local population. This is unique and highly needed as permits are partially dealt with by local authorities (contrary to oil and gas concessions) who are only partly familiar with geothermal energy exploration.
- the programme is open to collaborators outside the original consortium members, and has established link with other stakeholders, such as WWF.
- the programme has made links to other donor organizations and has adjusted its ambitions accordingly to create synergy

rather than to duplicate.

- the programme is aiming to outlive its duration by establishing structural and strategic joint-degree programmes between partners.

### and finally

The programme has a duration of 3.5 years starting in 2014. The programme envisages outliving its duration as it strives to implement a number of joint-degree MSoc programmes with Dutch and Indonesian universities after the lifetime of the programme. It offers a number of PhD opportunities in different aspects of geothermal value chain. The programme also serves as gateway for Dutch companies to liaise with the Indonesia geothermal sector to develop business to business case studies and corporation. Furthermore, the alliance aims to foster south to south cooperation through trilateral collaboration.



## Consortium Partners

### Coordinators:

University of Twente – Faculty ITC (UT-ITC)  
Indonesian Geothermal Association (INAGA/API)

### Companies:

IF Technology  
DNV-GL Energy  
Well Engineering Partners (WEP)

### Universities:

Technical University Bandung (ITB)  
Delft Technical University (TUDelft)  
University of Indonesia (UI)  
Gadjah Mada University (UGM)  
University of Twente – Faculty ITC (UT-ITC)  
Utrecht University (UU)

### Knowledge Institutes

TNO - Netherlands Organisation for  
Applied Scientific Research

## Associated Organizations

Geothermal companies that are active in Indonesia and are to be part and support GEOCAP include PGE, Chevron, OTP, Star Energy, and Supreme Energy  
WWF Indonesia

### Funded by



Ministry of Foreign Affairs of the  
Netherlands



**ITC**

Coordinators

**UNIVERSITY OF TWENTE.**



Companies



Universities



**Universiteit Utrecht**

Knowledge Institutes

**TNO** innovation  
for life

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**For more information**  
visit the GEOCAP website.



[www.geocap.nl](http://www.geocap.nl)

