



## ENGINE COORDINATION ACTION

### Agenda of the Steering Committee meeting 8<sup>th</sup> Wednesday November 2006, Potsdam (Germany) 9:00 - 13:00

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#### 1. Formalities (Welcome/Apologies/Attendance)

E. Huenges welcomes the Steering Committee. He apologizes Ad Lokhorst and introduces Stephanie Frick, representing Martin Kaltschmitt.

#### 2. Approval of the Minutes of the SC meeting dated 29 June 2006

The steering committee approves the Minutes of the Steering Committee meeting dated 29 June 2006 and their presentation in the newsletter 4.

#### 3. Presentation of the status of activities for each workpackage and organisation of the workshops

##### *WP1. Project management*

The creation of the stakeholder committee is an important objective of the ENGINE Coordination Action. [A short list of potential members](#) of this committee has been established by the Steering Committee and [a letter of invitation](#) to participate has been prepared and sent by electronic and surface mail. These documents will be published on the ENGINE website.

Some positive answers have already been received and an acknowledgment of receipt will be sent to acknowledge the interest of these stakeholders to be participating to this committee. This acknowledgment will be prepared by the coordinator and will refer to the workpackage leaders that will ensure and develop local contacts. If there is no answer, a remainder will also be sent and a copy will be addressed to the WP leader.

The official starting date of ENGINE is the 1<sup>st</sup> November 2005. Thus, an intermediate report has to be submitted before the 15<sup>th</sup> December 2006. It has been decided to have a first meeting with the EU commission in order to evaluate the contents of the report on the 4<sup>th</sup> December:

- Filling the FORM C sheet corresponding to your organisation ([engine\\_cost\\_analysis.xlt](#)). A guidance note ([guidancenoteFormC.doc](#)) has been prepared in order to help the filling of this financial cost sheet.
- Sending back by email the FORM C Excel file with figures corresponding to your eligible expenses during the reporting period. In a second step, after checking, it will be asked to send by mail the same document including the financial cost statements with the signature and stamp of each organisation.
- Writing a report about your activity within each WP. A template has been prepared that presents each WP and instructions are given at the beginning of the file [periodic management report](#).
- The work package leaders have to write a WP progress report. A template has been prepared and instructions are given at the beginning of the file [workpackage progress report](#).

The Steering Committee supports the sending of the template in which every partner will be able to present what has been done for each work package. It is stressed that this report will be an opportunity to evaluate the involvement of each partner.

*WP2: The Information and dissemination system of the Co-ordination Action*

P. Calcagno, leader of the WP2, presents the progress of the activities related to information and dissemination:

- The CD containing the whole contents of the workshop 3 (June 2006, Ittingen) has been compiled and given to T. Kohl. The one concerning the workshop 5, Electricity generation from Enhanced Geothermal Systems (September 2006, Strasbourg) will be soon available.
- The template that has been used for the launching conference and the workshop 3 will be available on the website to help for preparation of the document from the export of INDICO.
- The newsletter 4 has been diffused.
- RefWorks is used in BRGM for storing the bibliographic lists of the partners and RefShare is used to display this list on the web site, free of charge.
- The statistics of the website are available on INDICO. 153 contributions have been presented and uploaded until now. More than 3600 different visitors have been identified and the monthly frequency is in constant progression (more than 640 different visitors for October, compared to 135 in January 2006). These statistics can be displayed anytime following that link: <http://conferences-engine.brgm.fr/stats/index.htm>
- A collaborative tool, called **e-projet**, for compiling and sharing all type of documents, has been set up. A login and pass word will be sent to all partners within the end of November.
- A. Mathiesen (GEUS) is coordinating the collection of information on lighthouse projects. A questionnaire has been prepared. It will be sent to all partners and the dead line is scheduled for the end of November. M. Rosca (UOR) is collecting information about the education available in Europe, in reference to what is done elsewhere worldwide. The idea is to prepare by the end of the project a training route through Europe.

The steering committee insists on the fact that all partners must provide documents to present their organisation. The mid-term conference will be used as a milestone to show how such contribution concurs to the dissemination of knowledge and flow of information.

### **WP3.**

Presentation of the activities of the partners about exploration will be presented according to 5 main themes: geology and hydrogeology, geophysics, petrophysics, reservoir modelling, geochemistry. Documents have been collected from different partners (about half) but lack of answer is underlined, in particular for Lithuania and Poland.

The Potsdam workshop 1 “Defining, exploring, imaging and assessing reservoirs for potential heat exchange” has been held (6-7 November 2006). Invited talks have been presented and a large part of this meeting has been dedicated to discussion around poster and in plenary sessions. Most of the keynote speakers were particularly appreciated. Some concerns are expressed about the time given for presentation of each poster that could be extended to 5 minutes. The main results of this workshop have been synthesized, [....\Workshops\WP3-WP6\heat, stress and pathways.doc](#) However, in its present form, more discussion is required before dissemination. A special meeting of the Steering Committee will be organised in Paris, 11 December, to draw all conclusions from the Ittingen, Strasbourg and Potsdam workshops and to prepare the mid-term conference.

The next workshop will be held in Volterra, on 3-6 April 2007, followed by a field trip to visit the Larderello area and its power plants. A discussion has concerned the possible extension of the topics, in order to cover not only supercritical fluids but also other matters that are felt as lacking up to now. Geothermal power generation should be the main theme of the workshop and should have sessions concerning supercritical fluids and reservoir modelling. An organisation committee will be created for organising this workshop joining T. Kohl, G.O. Fridleifsson, B. Sanjuan.

The Steering committee approves the organisation of this workshop and the extension of its theme.

### *WP4. Drilling, stimulation and reservoir assessment, integration and expertise phases*

The CD of the Workshop 5 “Stimulation of reservoir and induced microseismicity” is now available. The works are in progress according to the planning. The next step will be the definition of the content and main contributors of the articles that constitute the main deliverables of this workpackage.

The organisation of the spring workshop in Iceland is discussed. Keynote speakers will be invited concerning the state of the art for drilling and a significant contribution from industrials is expected. A field trip will be organised following the workshop.

A discussion is raised following the contribution done by Majer et al. to the Annex I Subtask D activities of the IEA-Geothermal Implementing Agreement: “Induced Seismicity Associated with Enhanced Geothermal Systems, protocol for induced seismicity associated with enhanced geothermal systems”. Induced seismicity, one of the main theme of this workpackage, is a key issue for an EGS project and will be open for proposal in the first call of the 7FP. Although induced seismicity could be less intense during production than due to stimulation, there are still many open questions. This gap in knowledge has also been addressed by L. Rybach at the Ittingen Workshop who advocated for a strong link between ENGINE and IGA GIA. The main question for ENGINE is how to integrate the issue of induced seismicity into the work program and make a synthesis that would give an added value to this protocol and provide basis for an innovative research and development project.

### *WP5. Exploitation, economic, environmental and social impacts, integration and expertise phases*

The Workshop 5 “Electricity Generation from EGS” has been organised by IE and BRGM on the 14-15<sup>th</sup> September in Strasbourg. A visit has been done on the Basel drilling site. A presentation in the newsletter 4 has been published. A meeting of WP5 has been organised on the 14 September morning. The deliverables planned have been reviewed and modified.

The steering committee expresses its satisfaction for the success of this workshop.
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#### **4. International contacts (GRC meeting; IEA-GIA, extension of the ENGINE network)**

Because of busy agenda, this question has not been discussed. However, a note has been presented about this matter in the Newsletter 4 and any comments can be addressed by e-mail.

#### **5. Organisation of the Mid-term conference (program, invitation, stakeholder meeting)**

A provisional programme is discussed. The first day will be dedicated to the international dimension of Research and Development for geothermal projects worldwide. Half a day will then be aimed at the presentation for each work package of outstanding communications from ENGINE partners (state of art, gaps in knowledge, possible spin off projects...). One or two speakers could be invited in order to give an additional input to the theme.

The Steering Committee will ensure the scientific supervision of the preparation of the mid term conference and an extraordinary meeting is planned on Monday 11 December in Paris for this purpose. It mandates E. Huenges and P. Ledru for the general organisation of the conference.

A scientific press conference is planned and all partners will be invited to get into contact with all available facilities for making dissemination of information efficient.

A letter of Invitation will be addressed soon to the German minister.

#### **6. Next meeting**

As mentioned above, an extraordinary meeting of the Steering Committee will be held in Paris on 11 December 2006. The agenda is attached.

# Provisional programme for the ENGINE mid-term conference

## Wednesday 10 January

### 8:30-10:30 am Meeting of the Work packages

In parallel, 8:30-10:30 am, Meeting of the Executive Group

### 11:00-12:00 Opening session

- > R. Emmermann, Director, GFZ
- > C. Fouillac, Scientific Director, BRGM
- > German Minister
- > J. Schuppers, Representative of European Commission
- > P. Ledru, ENGINE coordinator

### 12:00 - 13:00 Lunch break

### 13:00-16:00 International projects

- > USA (Blackwell)
- > Australia (D. Wyborn, B. Goldstein)
- > Central America (E. Iglesias, IIE)
- > M. Monterosa (LaGeo)
- > The Current State of Geothermal Energy Development in the Philippines and South East Asia (Z. Sarmiento, FEDCO)
- > Europe (T. Megel, Geowatt)
- > Eastern Europe and Asia (O. Povarov, Intergeotherm)
- > International association K. Popovski (IGA)
- > 16:30-18:00 Meeting of the Executive Group and Steering Committee with Stakeholder committee

## Thursday 11 January

### 9:00-13:00. Investigation of Unconventional Geothermal Resources and in particular Enhanced Geothermal Systems, chaired by A. Manzella and T. Kohl

- > *Invited speakers*
  - > Invited speaker 1
  - > Invited speaker 2 (?)
- > *Outstanding communications from ENGINE partners (state of art, gaps in knowledge, possible spin off projects...)*
  - > Communication 1
  - > Communication 2
  - > ...

### 13:00 - 14:00 Lunch break

### 14:00-18:00. Drilling, stimulation and reservoir assessment, chaired by S. Thorallsson and E. Huenges

- > *Invited speakers:*
  - Majer and R. Baria: Induced Seismicity Associated with Enhanced Geothermal Systems, protocol for induced seismicity associated with enhanced geothermal systems (Annex I Subtask D activities of the IEA-Geothermal Implementing Agreement)
  - a drilling related invited speaker

- > *Outstanding communications from ENGINE partners (state of art, gaps in knowledge, possible spin off projects...)*
  - Communication 1
  - Communication 2
  - ...

## **Friday 12 January**

### **9:00-12:00. Exploitation, economic, environmental and social impacts, chaired by M. Kaltschmitt and C. Karytsas**

- > *Invited speakers*
  - Invited speaker. Setting of energy political frame conditions for promoting geothermal energy" Ullrich Bruchmann, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (confirmed)
  - Invited speaker. Geothermal electricity generation from low enthalpy systems - review of workshop 5 Silke Köhler (we don't have final answer yet because she will be working already for RWE at that time)
- > *Outstanding communications from ENGINE partners (state of art, gaps in knowledge, possible spin off projects...)*
  - Communication 1
  - Communication 2
  - ...

### **12:00-13:00. Dissemination and information, chaired by P. Calcagno**

- > *Invited speakers*
  - Invited speaker 1
  - Invited speaker 2 (?)
- > *Outstanding communications from ENGINE partners (state of art, gaps in knowledge, possible spin off projects...)*
  - Communication 1
  - Communication 2
  - ...

### **13:00 - 14:00 Lunch break**

### **14:00-16:00. Meeting of the Work packages in parallel**

### **16:30-18:00. Meeting of the Steering committee**