



ENGINE COORDINATION ACTION

Minutes of the Steering Committee meeting 12th Friday January 2007, Potsdam (Germany) 16:00 - 18:00

Patrick Ledru (p.ledru@brgm.fr)
Adele Manzella (manzella@igg.cnr.it)
Philippe Calcagno (p.calcagno@brgm.fr)
Ernst Huenges (huenges@gfz-potsdam.de)
Martin Kaltschmitt (mk@ie-leipzig.de), represented by Stephanie Frick
Costas Karytsas (kkari@cres.gr), represented by Dimitrios Mendrinou
Thomas Kohl (kohl@geowatt.ch)
Albert Genter (a.genter@brgm.fr)
Sverrir Thorhallsson (s@isor.is)
Ad Lokhorst (Ad.Lokhorst@tno.nl)

AGENDA

1. Formalities (Welcome/Apologies/Attendance)

E. Huenges welcomes the Steering Committee. He apologizes Costas Karytsas represented by Dimitrios Mendrinou and introduces Stephanie Frick, representing Martin Kaltschmitt.

2. On going activities of the work packages

WP1. Project Management

The main activity of the project management has been the preparation of the report of the 1st Periodic Activity Report for "ENGINE" (collection of cost statements, presentation of the main technical achievements y work packages, presentation of the deliverables...). Last adjustment has been introduced during the conference.

The management team has also been involved in the preparation of the mid-term conference and especially of the stakeholder meeting.

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

Two joint meetings of work package 2 have been held on 10 and 12.01.2007 in Potsdam ([see detailed report on ENGINE website](#)). Progress of the activities related to information and dissemination are summarized.

a. Meetings at Mid Term Conference

WP2 activities were presented during the [Dissemination and Information](#) session of the Mid-Term conference. In addition, [two WP2 meetings](#) were held during the Mid-Term Conference, on the 10/01/2007 – 8:30-10:30, dedicated to WP2 general purpose and on 12/01/2007 – 14:30-16:00, dedicated to the next workshops management with Indico (especially the Volterra, Reykjavik and Athens workshops).

The conference was the opportunity to welcome Jose Manuel Romo Jones (CICESE), one of the members of the ENGINE extension and the new member of WP2. Involvement of CICESE in WP2 will focus on the "Education and training" topic in coordination with M. Rosca (UOR).

b. ENGINE partners presentation material compilation

Among the 35 partners, 18 have sent the full material and 6 have sent a part of it. One concern is the way the reference lists of the partners are displayed on the Web site. An important work remains to be done to move these references (in Word or pdf format) to RefShare. The Mid-Term Conference was an opportunity to meet the partners that not answered yet. WP2 delegates keep stressing the remaining partners to obtain their presentation material.

c. Lighthouse projects compilation

This work, led by A. Mathiesen (GEUS), consists in describing the main geothermal sites of Europe using a questionnaire sent to the main contact for these sites. The answers will be displayed in a coherent way from a site to another on the ENGINE Web site. 11 out of 17 questionnaires have been returned so far. The returned questionnaires will be formatted and displayed on the ENGINE Web site.

d. Education and Training

The education and training synthesis is led by Marcel Rosca (UOR). The goal of the synthesis is to define an integrated route for students in Europe and to propose the creation of a European centre dedicated to geothermal education to be presented at the ENGINE Final Conference. M. Rosca is preparing a way to display the compilation of the existing geothermal education and training courses on the ENGINE Web site.

e. Web management

The meetings organization part of the ENGINE Web site hit 12000 visits until the end of December 2007. The ENGINE Web site proposes some new sections such as [Minutes direct access](#), [Bibliography management](#), [Search engine](#) and [Partners restricted access](#). The proposed evolution for the ENGINE Web site is to make it a reference site still available after the end of the ENGINE coordination action.

f. Media connection

A press release has been sent out via national news agencies. The conference has been announced via ALPHA GALILEO, the online European research news centre (www.alphagalileo.org), and via IDW, the information service of sciences (<http://idw-online.de/pages/de/>). The press release will be displayed on the media section of the ENGINE Web site. Relation with the media is one of the WP2 topics. WP2 partners and delegates will do their best to develop contact with the media and to report information in the [media section](#) of the ENGINE Web site.

g. Deliverable from WP3 to WP9

In order to propose a standard way to deliver the workpackages deliverables, the following items will have to be taken into account: Publication policy, Scientific journal special issue opportunity, Display on the Web site. In coordination with P. Calcagno, WP2 delegates will have to prepare the look of the WP3 to WP9 deliverables and the way of publishing them.

WP3/WP6. Investigation of EGS and unconventional Geothermal resources, integration and expertise phases

Two joint meetings of work packages 3 and 6 have been held on 10 and 12.01.2007 in Potsdam ([see detailed report on ENGINE website](#)). The main activities performed in the work package 3 concerning the preparation of the session, abstracts and proceedings of the mid term conference have been reviewed. Organization of WP3 activities on 2007, including the Organization of Workshop 2, was discussed during the second meeting, on January 12. Preparation of review articles and delivery of meta-data-base, which are due by the end of the year, will be the priority. It was decided to combine two of the foreseen review articles, since they can be managed together. In particular, the foreseen "Knowledge of the European lithosphere" and "Mechanical behavior of the upper crust" will form one review articles. The possibility to prepare a special issue of "Global and planetary change" with review article and case histories is proposed and supported by S. Cloetingh. The next task is the setting up of the Workshop 2, 1-4 April 2007, Volterra, Italy, dedicated to "Exploring high temperature reservoirs: new challenges for geothermal energy".

The composition of the expert group for WP6 is discussed. The participation of the following organizations is foreseen in this work package (Person-months in brackets): BRGM (1); GFZ (2); ISOR (1); TNO (1); IGG (2); ELTE (2); GEIE (1); VUA (2); PGI (2); GEMRC (4); GEOWATT AG (6, project leader); CICESE (2). The following responsibilities and participation for the deliverables has been decided:

1. Chapter 1a of the Best Practice Handbook on the definition of innovative concepts for investigating geothermal energy, Participants: GW (lead); IGEM; VUA; RWTH; GFZ; IGG; ISOR; TNO; GEIE
2. Chapter 1b of the Best Practice Handbook on generic studies for Unconventional Geothermal Resources and Enhanced Geothermal Systems in contrasting geoenvironments in Europe, Participants: GW (lead); BRGM; PGI; ELTE; IGGL; GEMRC
3. Chapter 1 of the European Reference Manual for the development of Unconventional Geothermal Resources and Enhanced Geothermal Systems, Participants: yet undecided

The next joined meeting of work package 3 and 6 is planned in Volterra on 3 April 2007. In that occasion, the main responsible of each Review Article or Inventory will provide a definite title of the deliverable, a list of participants, and the main structure of the deliverable.

WP4/WP7. Drilling, stimulation and reservoir assessment, integration and expertise phases
 A joint meeting of work packages 4 and 7 has been held on 10.01.2007 in Potsdam ([see detailed report on ENGINE website](#)). A compilation of received material has been performed for each participant in respect with the expected deliverables. Only significant contributions (paper and talk) were considered. Some members of the consortium have not been very active in spite of having requested up to several person months. They will be asked to make a proposal to the work package leaders either to fetch later their contribution or to take over a reliable responsibility within the workpackage 7. The participation could then be obligatory for the partners who requested related money from EU.

The Steering committee support the initiatives of work package leaders to ask to all participants to fit the expected tasks and defined person month activity defined in the Document Work.

The organisation of the Workshop 4 in Reykjavik dedicated to "Drilling cost effectiveness and feasibility of high-temperature drilling" (28-29 June 200) is the main task to achieve in the first half of 2007. S. Thorhallsson presented an overview to the preliminary state of planning. It is foreseen besides scientific talks to invite service companies to give commercial display of their products.

The Mid-Term-Conference stands for the start of WP7. The main task in the beginning is to nominate an expert group to help the WP leaders. To bring together the different experiences from different sides, the following structure was chosen as given in the rows and columns of the following matrix. In our ENGINE concept it is foreseen that we have a state of the art phase and an expertise phase of the work packages. The first phase of our WP Drilling, stimulation, and reservoir assessment is almost finished -at least in the section stimulation as summarized in the Ittingen workshop last year. The experts will act as the leading scientists for the field given in the matrix.

		drilling	stimulation	testing	reservoir assessment
HT deep	deep sediments		Peter Fokker	Fritz Rummel?, Jiri Muller, Bernard Sanjuan	
	granites	Jörg Baumgärtner?	Torsten Tischner		
HT shallow	volcanic rocks	Sverrir Thorhalsson	To be nominated by ISOR	ISOR representative	
	metamorphic rocks	Roberto R. Abanes?	Manuel Monterrosa		

Their task will be to bring together the references of this field and create a practise handbook. Here, the quality of this review and not the length of the text is important. In conclusion, the action needed to fulfil the gaps in the technology will be formulated. Experts in drilling and reservoir assessment will be nominated after the Reykjavik workshop in June 2007.

The next meeting of the WP4/7 members of the consortium is foreseen during the Reykjavik workshop in summer 2007.

WP5/8. Exploitation, economic, environmental and social impacts, integration and expertise phases

Contact: **BRGM**, 3 avenue Claude Guillemin – BP 6009 – **45060 Orléans cedex 2**, France
 Tél (33) 2.38.64.39.38 – Fax (33) 2.38.64.33.34 – e-mail: a.genter@brgm.fr or e.ortega@brgm.fr

Two joint meetings of work package 5 and 8 have been held on 10 and 12.01.2007 in Potsdam ([see detailed report on ENGINE website](#)). Discussions have covered the scheduling of the forthcoming actions, the reports of study and scientific disseminations, the articles “Economic Approach of Geothermal Energy”, “Non-technical Barriers of a Geothermal Energy Use” for which a preliminary version has been presented, “Environmental impacts” that will be prepared till end of September 2007.

The workshop 6 “Increasing policy makers’ awareness and public acceptance” will take place 13-15 September 2007 in Greece and is organised by CRES. The place Milos Island was changed to Athens in order to enable an easier access for the participants and speakers. The workshop will be open to all interested people and is limited – depending on the local facility – to about 50 to 100 participants; in enrolling ENGINE partners will have priority. For arranging the workshop content a parallel approach was suggested to CRES: a general call for abstracts will be made to all ENGINE partners and the stakeholder committee and in parallel particular speakers will be addressed.

The Steering committee agrees with the proposed change of location of the workshop 6 “Increasing policy makers’ awareness and public acceptance” from Milos island to Athens, 13-15 September

Following participants were discussed and proposed to the steering committee to be in the expert-group of work package 8: Z. Zarmiento (FEDCO), C. Karytsas (CRES), D. Mendrinou (CRES), K. Povarov (JSC), O. Mertoglu (ORME), L. LeBel (BRGM), D. Tournaye (CFG), P. Ungemach (GPC), O. Flovenz (ISOR), I. Goldbrunner (GEOTEAM, external advisor), P. Seibt (GTN, external advisor), J. van Wees (TNO, observer).

The expert-group of work package 8 will compile the chapter 3 and 4 of the best practice handbook covering the topics exploitation, economic, environmental and social impacts. Based on the deliverables of work package 5 CRES will compile these chapters and send the draft versions for evaluation to the expert-group. Meetings of the expert-group will in 2007 take place together with the work package 5 meetings during the upcoming workshops if possible.

3. Synthesis of the main achievements of the mid-term conference

The scheduling of the presentation of the contents of the mid-term conference is discussed. The possibility to join a related article or an extended abstract is recalled. The main achievements of the conference are discussed and will be covered by the editorial of the next news letter.

4. Next meeting

The next meeting will be held in Volterra on the 2 April 2007, during the workshop dedicated to “Exploring high temperature reservoirs: new challenges for geothermal energy”.