



Proposals for transnational activities

May, 2016

Proposals for transnational activities

D7.2

Adele Manzella, Eugenio Trumpy

CNR

May, 2016

Publisher:

Coordination Office, Geothermal ERA NET

Orkustofnun, Grensásvegi 9, 108 Reykjavík

Tel: +-354-569 6000,

Email: os@os.is

Website: <http://www.geothermaleranet.is/>

ISBN 978-9979-68-387-2



The Geothermal ERA NET is supported by the European Union's Seventh programme for research, technological development and demonstration under grant agreement No 291866

Table of Contents

Executive summary	5
1 Introduction	6
2 OpERA – RD&D Knowledge Exchange on operational issues of geothermal installations in Europe	7
3 Tuning EGIP (European Geothermal Information Platform) for target users	8
4 New Concepts for geothermal energy production and usage	9
5 NWW- New Ways of Working: Financial Instruments and Funding of RD&D and Geothermal Projects	10
6 PRGeo - RD&D Knowledge Exchange on public relations for geothermal energy	11
7 ReSus - RD&D Knowledge Exchange on reservoir sustainability	12
8 GeoStat - Towards Consistency of geothermal data	13
9 Conclusions	14
	16

List of Tables

Table 1 Topics and preparation of transnational activities

14

Acknowledgements

The authors thank all partners for their active and flexible participation to WP7 activities

Executive summary

This report deals with the organization of transnational activities, after their definition in WP4. In the JA1 Phase, in the form of Working Group preparatory activities, a number of workshops, surveys and reports were organized, and their results were discussed in two Geothermal ERA-NET project meetings: a main one held in Brussels on October 2015, and second one held in Ankara, Turkey, on February 2016. During the JA1 activities and these meetings, the consortium partners defined what activities could pass to the advanced phase of implementation (JA2) having a budget for doing so, or were continuing as JA1 activity providing technical reports. Of the seven themes implemented as JA1 activities, also in consideration of time and budget limits, only two JA1 activities (EGIP for the establishment of a European Geothermal Information Platform and OpERA related to operational issues in geothermal installation) proposed a follow up in the form of co-funded Calls. For EGIP, some countries found a common interest in developing a professional and appealing front-end for the pilot platform whose structure and content has been developed in kind. For OpERA, the proposal that found the interest of various countries regarded the organization of a handbook related to operational issues in geothermal installations, named OpERA-pedia, to be published on the Geothermal ERA-NET webpage and constituting a platform for knowledge exchange. These proposed JA2 activities resulted suitable for Calls for Tenders. Administrative issues, including the difficulties of some country to organize a common Call for Tenders, let the EGIP proposal to be dropped, whereas the OpERA-pedia will be organized as a simultaneous Call for Tender in the participating countries.

Indeed, the JA1 activities and the experience gained in the Geothermal ERA-NET project has strengthen the transnational partnership by planning concrete joint activities as testified by the setting up of a new proposal for a geothermal ERA-NET in the form of Co-funded action, to enhance cooperation potential in the field of geothermal.

1 Introduction

In order to proceed with the implementation of trans-European cooperation on geothermal energy, which is the core of WP7, a bottom-up approach for realization of joint activities was proposed in WP4. Based on the results of work package 2 (D2.3, D2.4) the proposed scheme was combined with the topics for RD&D and actions to soften or overcome existing barriers. As a result, seven topics were considered the most urgent or raising the main interest, and therefore the most suited for corresponding joint activities:

- OpERA – RD&D Knowledge Exchange on operational issues of geothermal installations in Europe
- Tuning EGIP (European Geothermal Information Platform) for target users
- New Concepts for geothermal energy production and usage
- NWW – New ways of working: Financial Instruments and Funding of RD&D and Geothermal Projects
- PRGeo - RD&D Knowledge Exchange on public relations for geothermal energy
- ReSus - RD&D Knowledge Exchange on reservoir sustainability
- Geostat - Towards Consistency of geothermal data

A first level of joint activities (JA1) with a minor effort on human resources and financial support was established, in order to present the effectiveness of transnational cooperation and to smooth the way for more complex future joint activities (JA2 &JA3). After defining the working groups of the various activities, an action plan was defined and described in Deliverable D4.2. In this report we describe what has been organized in the frame of JA1 activities. On the base of preliminary results from these JA1 activities, an important project meeting held in Brussels on October 2015 defined the evolution of JA1 to JA2, i.e. what topics could be implemented by participating countries as co-funded activities.

2 OpERA – RD&D Knowledge Exchange on operational issues of geothermal installations in Europe

The OpERA WG organized a workshop which was held on October 1 and 2, 2015, in Vaals, NL. OpERA is focused on establishing the state of the art of operation and management of geothermal plants and defining common issues and solutions for energy installations. To define the state of the art, a workshop was organized. The OpERA Working Group (WG) observed that besides the lack of transnational cooperation in the field of operational issues, there is a lack of information sources on operational issues. After careful organization, in which a form for presentation and a scheme of operational issues was circulated, the WG brought together national experts (Plant owners, project developers, experts, researchers) in a workshop, to provide an overview of experienced issues and adopted or potential solutions. The workshop was held on October 1 and 2, 2015, in Vals, NL and provided an ideal platform for technical knowledge exchange to solve operational issues throughout Europe. The workshop raised a strong interest of involved stakeholder, which resulted in the establishment of the OpERA expert group and the organization of a report named OpERA Magna Carta, listing and briefly describing operational issues throughout Europe.

Observing the lack of information sources on operational issues and the interest of stakeholders in this matter, the OpERA WG proposed to organize a handbook to assist operators and project developers in setting emerging operational issues into context and finding answers for ways to handle problems during the operation of a geothermal installation. In addition the handbook should provide possible contacts for further cooperation to solve the different kinds of issues. The handbook, named OpERA-pedia, is proposed as a co-funded, JA2 action, in the form of Call for Experts from at least the funding countries.

3 Tuning EGIP (European Geothermal Information Platform) for target users

The EGIP WG, with the experience gained in WP3 and the pilot EGIP Platform, decided to organize a web survey having the following main aims: i) to define the principal groups of stakeholder (SH) interested in the implementation of a European Geothermal Information Platform (EGIP), ii) identify where will EGIP add the most value –or meet requirements of SHs, iii) assess the EGIP interest and necessity, and rank priorities of implementation of EGIP, iv) strengthen the shared understanding or awareness of SHs on some available portals. Of the 385 SH receiving the invitation to participate, 180 SH (34%) answered to the survey, establishing a sound base for survey analysis, which was described in a report. The web survey showed a good general perception of the EGIP concepts by the SHs. The results of the survey allowed a prioritization of the contents that should be implemented in an EGIP. Some of the identified SH priorities fall clearly within the vicinity of national platforms and responsibilities. This allows a further focus on the topics that must be treated on a trans-national level like EGIP. This is important to prevent that a future EGIP just duplicates national platforms.

A follow-up of the activities was proposed in the form of a Joint Call for implementing further the platform content and for improving the web-based front-end. During the exchange among project participants, it was evidenced that for most country the organization of platform content should remain at a domestic level, provided that guidelines for data harmonization were defined. Only the development of an advanced front-end was considered of interest by some country for a coordinated implementation.

4 New Concepts for geothermal energy production and usage

The New Concepts WG had the mission to stimulate creative new concepts and innovations in geothermal utilization and technology, and showcase successful and innovative projects in the geothermal field. The main goal has been to show and stimulate opportunities that can contribute to a wider and better use of geothermal energy. The WG organized, in cooperation with IEA-GIA, a workshop in Geneva on 30th October 2015. The workshops, with about 40 participants and presenters from many EU countries as well as from other parts of the world, was very rich of interesting ideas for future work. The meeting proceedings are in preparation.

No follow-up in the form of JA2 was proposed in the frame of Geothermal ERA-NET.

5 NWW- New Ways of Working: Financial Instruments and Funding of RD&D and Geothermal Projects

The overall objective of NWW JA1 activity was to improve the synergies between different players in the field of geothermal utilisation and improve the working practice of national funding institutions and the collaboration with their European counterparts. The WG mainly focussed on a) Analysing the financial instruments that are available and how they operate – and map the operational structure of the different national funding bodies, including policy and funding rules in R&D and industrial projects; b) Highlighting the main barriers and opportunities, and how these instruments can more easily work together. The NWW WG organized a survey and a workshop that was held in Brussels just before the Geothermal ERA-NET meeting.

No follow-up in the form of JA2 was proposed in the frame of Geothermal ERA-NET.

6 PRGeo - RD&D Knowledge Exchange on public relations for geothermal energy

The PRGeo aimed to exchange knowledge on the diverse approaches of Public Relations (PR) experienced in different countries of Europe in order to minimise the negative attitude and to promote the use of geothermal energy. The PRGeo WG organized a side event at the German Geothermal Conference at Haus der Technik in Essen on November 4th 2015. The event saw the participation of speakers from all participating countries and covered the main social expertise in Europe. The JA steering committee has prepared meeting proceedings incl. abstracts & discussion conclusions.

The workshop concluded that although the PR work has been reinforced among project developers and operators in the recent years, it still can be optimized, especially by streamlining focused messages to the different target groups. Each geothermal energy project is unique. This applies both to the geological and technical characteristics and to the socio-demographic conditions. Therefore the same and proper measures cannot be applied to all projects. General measures include: a project website, an information flyer, an active public relations or direct contacts with the population. Although different types of project examples were presented and discussed at the workshop, it was generally concluded that the acceptance of geothermal projects is a question of trust. PR work can therefore only be successful if it manages to create a basis of trust, so information about a project is adopted and is regarded not as mere propaganda. Early, honest and strategically oriented communication has a crucial role creating this trust.

No follow-up in the form of JA2 was proposed in the frame of Geothermal ERA-NET.

7 ReSus - RD&D Knowledge Exchange on reservoir sustainability

This JA focus on setting up a platform to study geothermal reservoir sustainability, comparing the current practice used by the operators, highlighting the best solutions and studying the unsuccessful cases, in order to animate a fruitful debate to capture the current state-of-the-art and explore possible scenarios for future economic and sustainable exploitations.

JA-RESus WG conducted a survey on September 2015, which was carefully organized in order to define the most perceived issues related to reservoir sustainability. The preliminary results were presented during the Geothermal ERA-NET meeting in Brussels. Considering that only few stakeholders answered to the survey, it was re-opened in March 2016 but only few answers were received again, without a major change of results. A report is in preparation.

No follow-up in the form of JA2 was proposed in the frame of Geothermal ERA-NET.

8 GeoStat - Towards Consistency of geothermal data

This JA coordinates with main international organizations on reviewing and unifying statistics in the geothermal sector using the existing framework and regulation. It has set up an iterative review process of data submissions to existing international organizations to make the statistics interoperable, with the main aim of defining clear and measurable indicators, reducing of duplication and increasing collaboration at domestic level, and simplifying the process across organizations.

The work in GeoSTAT resulted in a first report issued in Feb 2015. An advisory board has then been established and a survey organized - aimed at country reporters, in order to identify problems causing the inconsistencies identified in the GeoSTAT report. An updated report will be published on the results before the end of the Geothermal ERA-NET project.

No follow-up in the form of JA2 was proposed in the frame of Geothermal ERA-NET.

9 Conclusions

The following Table provide a synthesis of the activities performed for preparing the ground to transnational activities in the proposed topics.

Table 1 Topics and preparation of transnational activities

JA name	Description
OpERA	Workshop in Vaals, NL in October 2015. Preparation of a State-of-the-Art Report for Operational Issues in the geothermal sector (OpERA Magna Carta). Proposed OpERA-pedia as JA2 activity
EGIP	Workshops on 2013 and 2014, survey on 2015, implementation of a pilot platform, Deliverables D3.1 and D3.2 and report on survey results. Proposed EGIP front-end as JA2, and guidelines for data harmonization.
New Concepts	Workshop in Geneva, CH in October 30th 2015 in cooperation with IEA-GIA. Report in preparation
NWW	Survey, a Workshop in Brussels, B on October 2015, report in preparation.
PRGeo	Side event at the German Geothermal Conference at Haus der Technik in Essen, DE, on November 4th 2015. Report in preparation.
ReSus	Survey proposed on September 2015, re-opened on March-April 2016. Report in preparation.
GeoStat	GeoStat report issued in Feb 2015. Survey on 2016. An updated report is in preparation.

During the Geothermal ERA-NET meeting held in Brussels on 5-6 October 2015, all JA1 activities were described and discussed, in order to establish if any of them could be the base of a co-funded Joint Call. For all the themes, participating countries were asked their interest and estimated budget for the participation to a Joint Call.

As described before, among the 7 proposed topics, only OpERA and EGIP proposed a follow up. Regarding OpERA, various countries were interested in the proposal and adhered to the idea of establishing a Call for the writing of OpERApedia. Regarding EGIP, four countries were interested in the follow up, but considering the timing and the overlapping with some national platforms the only activity that was of common interest in the short period resulted the development of a web-based, user-friendly front end for the actual EGIP Pilot.

Considering the kind of activities that the countries were interested to set up, the consortium deliberated that both OpERA and EGIP were suitable for funding as Joint Calls for Tender.

Regarding EGIP it was decided to establish an EGIP expert group which should tackle the following main tasks a) to formulate INSPIRE oriented guidelines for the harmonization of geothermal data s.l.; b) to write technical specifications for a call for tender to develop a web based user friendly front end for EGIP; c) to support the EGIP steering committee with the writing of the call. The expert group was established on December 2015, after a call for volunteer among participating countries to be part of it. This group, with representation of France (leading), Hungary, Italy, Iceland, Switzerland, is preparing guidelines for future transnational activities (beside those already achieved as pilot platform).

During the following months and the two following Geothermal ERA-NET Project meetings, the ideas for a Joint Call for Tenders on the EGIP front end design has been cancelled since on a EU level it is legally complicated and time consuming and for some country the funds cannot be used for a Call for Tenders. Consequently, the expert group has decided to focus mainly on task a) (INSPIRE oriented guidelines for the harmonization of geothermal data) and a reduced part of b) (a preliminary indication of the front end necessary functionalities), but task c will be abandoned (support the EGIP steering committee with the writing of the call).

Regarding OpERA, it was decided that the Geothermal ERA NET website will provide a platform for OpERA to be displayed and the content will be collected through simultaneous call in the participating countries.

Both OpERA and EGIP activities will be described in the next WP7 Deliverables and, for EGIP, the D3.3 Deliverable.

For the other selected topics, the information retrieved during the workshops, surveys and documents preparation, here described, were the foundation of a new geothermal ERA-NET proposal: GEOTHERMICA. This proposal was prepared and submitted on April 5, 2016



Geothermal ERA-NET

Orkugarður - Grensásvegur 9 - 108 Reykjavík - Iceland - Tel. +354 569 6000 - Fax: +354 568 8896
www.geothermaleranet.is, os@os.is