Geothermal ERA-NET

Stakeholder Analysis on a European Level

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Stakeholder Analysis on a European Level

D 5.2

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Executive Summary

One of the key activities of the Work Package (WP) 5 is the "***Collection of data and classification of stakeholders***". This first task 5.1 comprises:

- The collection of data on principal stakeholders of the Research, Development, Deployment and Innovation (RDD&I) chain in national, regional and European arenas with a particular focus on stakeholders with a European and international dimension.
- The classification and ranking of stakeholders according to their roles and responsibilities in strategy setting, implementation planning, execution and performance evaluation and review of networked, transnational geothermal energy RDD&I programs (output of WPs 2 and 4).

The stakeholder analysis has been divided into two parts. The first part includes the stakeholders on a national level (report WP5-D5.1-2013-11-08).

The present report – D5.2 "Stakeholder Analysis on a European level" – includes the inventory and classification of stakeholders on a European level.

The primary objective of the analysis was to gain a clear understanding of the different stakeholders of geothermal RDD&I and to provide the fundamental information for developing a communication plan to fully engage the principal stakeholders in the European wide coordination of geothermal RDD&I.

The report and methodologies of the report D5.1 served as a building block for the stakeholder analysis on a European Level. A detailed information gathering was conducted by the WP leader.

The analysis showed a manifold and complex assembly of a wide range of stakeholders. Despite that variety, the identified stakeholders can be assigned to several main stakeholder groups.

All stakeholder groups show specific characteristics. Important are:

- their role in geothermal RDD&I (type and function of Stakeholder, areas of activity)
- their influence on the strategic direction and coordination of geothermal RDD&I
- Their attitude and interest

The stakeholders have been classified according to four categories: very high – high – medium – low. The ranking is solely based on the influence / importance of the individual stakeholders on the strategic direction and coordination of geothermal RDD&I.

In general, specific, high quality information regarding the benefits of a coordinated geothermal RDD&I in Europe and beyond is needed.

In the next step, the outcomes of the national and European stakeholder analyses will be used to develop a «***Communication Plan***» including key messages to communicate the strengths and benefits of a coordinated geothermal RDD&I. Especially national program owners /

funding agencies will be won over to participate in the planned Framework Partnership Agreement.

In a fourth step, the development of a comprehensive communication plan aims to engage the principal stakeholders to coordinate geothermal RDD&I in a European research agenda. Proposed actions will be described in detail.

1 Introduction

1.1 Purpose of the document

The purpose of the document is to provide an overview of the principal stakeholders of the Geothermal ERA-NET at a European level. One of the long-term objectives of the Geothermal ERA-NET is the formation of a durable and increasingly comprehensive, harmonized and integrated framework of national programs related to research, development, deployment and innovation in the geothermal energy sector.

Key stakeholders, both at a national and European level, need to understand the value added from such an integration. Hence, the importance and influence of the Geothermal ERA-NET's stakeholders must be understood, and their needs in terms of awareness and knowledge of the Geothermal ERA-NET and its functions identified. The Geothermal ERA-NET may convey its aspirations to its stakeholders by communicating effectively and efficiently the benefits of such a framework and, eventually receive their long-lasting support in the development of this framework.

1.2 The Geothermal ERA-NET

The Geothermal ERA-NET is a cooperation instrument supported by the European Commission. The Geothermal ERA-NET focuses on the utilization of geothermal energy that involves direct heating and power generation. It is a four-year project (2013-2016) led by Iceland and comprises partners from France, Germany, Hungary, Iceland, Italy, the Netherlands, Slovakia, Portugal, Switzerland, and Turkey.

The overall objective is to deepen European cooperation on geothermal research at national and administrative levels and to enable the integration of national research programs. The Geothermal ERA-NET is the first step towards a coordinated research in the EU through the SET-Plan (European Strategic Energy Technology Plan).

To ensure optimal benefits of the network generated by this ERA-NET, the network's management is supported by a governance structure involving:

- A Geothermal ERA-NET consortium where all partners are national program owners or managers and have assigned senior staff to this project with knowledge of the sector and international experience to manage the Geothermal ERA-NET;
- A High Level Policy and Implementation Committee that supports the Geothermal ERA-NET, encompassing program owners (i.e. ministries of member and associated states). The committee is mandated to take policy decisions needed to be implemented at national level.). It also ensures that the scope of Geothermal ERA-NET remains adequate and strengthens the commitment of the program owners and Member States involved to this ERA-NET.

1.3 Work Package 5 "Cooperation with Stakeholders"

The objectives of the work package 5 have been defined in the terms of reference as follows:

1. To gain a clear understanding of the principal stakeholders including key industry players for a successful, Europe-wide coordination of publicly funded, national research, development, deployment and innovation programs.
2. To engage and communicate with principal international stakeholders the need, values and benefits of a Europe-wide coordination.
3. To communicate and compliment the ongoing work of platforms in geothermal energy e.g. ETP-RHC, TP-GEOELEC, EERA JPGE and others.
4. To prepare the ground for the future formulation of a common European roadmap for geothermal energy technology research, development, deployment and innovation program.

The detailed scope of work comprises four tasks:

Task 5.1: Collection of data and classification of stakeholders

Contribute data to WP2 and the European Geothermal Platform (WP3) on principal stakeholders of the Research, Development, Deployment and Innovation (RDD&I) chain in national, regional and European arenas with a particular focus on stakeholders with a European and international dimension. This task will be closely coordinated with the activities of WP 2. Develop stakeholder classification and ranking according to their roles and responsibilities in strategy setting, implementation planning and execution. Performance evaluation and review of networked, transnational geothermal energy RDD&I programs (output of WPs 2 and 4).

Task 5.2: Furnish national program owners

Furnish national program/owners with messages on and proofs of strengths and benefits of a coordinated European geothermal energy research agenda vis-à-vis the voting public, the energy industry, national parliaments, the European Commission and her administration (output of WP 1).

Task 5.3: Engaging with principal stakeholders

Prepare and utilize output of WPs 2 and 4 to engage with principal stakeholders with the ultimate purpose of mobilizing national and transnational funding agencies (public and private) for the geothermal RDD&I lifecycle.

Task 5.4: Coordination of geothermal energy technology RDD&I

Prepare and utilize output of WP7 to engage with principal stakeholders in the run-up to the development of a strategic roadmap for geothermal energy technology RDD&I. The Task activities will ensure efficient and structured collaboration with principal stakeholders in order to further reduce the fragmentation of transnational research activities and policies and to maximize synergies. Existing technology platforms will be mobilized. Support and encourage of large scale projects which would not be possible at a national level.

Deliverables of WP5

The following deliverables will be prepared by the WP5:

D5.1: Report including the inventory of principal stakeholders and classification of stakeholder on a national level

D5.2: Report including the inventory and classification of stakeholders on a European level

D5.3: Communication plan with key messages to principal European and national stakeholders

D5.4: Delivery of a comprehensive plan to successfully engage stakeholders

2 Stakeholder Analysis

2.1 Objective of the Stakeholder Analysis

The primary objective of the analysis was to gain a clear understanding of the different stakeholders of geothermal RDD&I and to provide the fundamental information for developing a communication plan to fully engage the principal stakeholders in the European wide coordination of geothermal RDD&I.

The stakeholder analysis has been divided into two parts. The first part includes the stakeholders on a national level as identified and analysed by the ERA-NET partners. The results of this first part have been published in the report D5.1 (report WP5-D5.1-2013-11-08). The present report D5.2 deals with the stakeholders on the European level.

2.2 Definition of the term "Stakeholder"

The term stakeholder in the following is defined as any person, group or organization that can be positively or negatively impacted by, or cause an impact on, the actions or activities proposed.

The stakeholder analysis aims at identifying and listing the main stakeholders and assessing their interest and attitude and how they are likely to impact / be impacted by the work of funding agencies and geothermal program owners.

It is important to be aware of the fact that partners of the ERA-NET project (funding agencies, program owners and managers) also belong to the stakeholders, are affected by other national and European stakeholders and their international counterparts.

2.3 Procedure related to information gathering

The first step of WP5 encompasses the acquisition of data on national stakeholders. In view of national idiosyncrasies data have been collected from partners in a standardized manner with the aid of a spreadsheet template. The guiding principles in the identification of stakeholder groups include those groups who are central to the allocation of funds for publically sponsored research, development and deployment programs, groups that are directly affected by the availability of funds and research programs, other funding agencies and those stakeholders that are affected directly and indirectly from results obtained in publically sponsored research. Each stakeholder group has various characteristics and features that require a broad range of modes of interaction.

The templates for the stakeholder analysis on a national level have been completed by all participating partners and returned to the WP leader. A first review of the obtained data revealed significant inhomogeneity with respect to the role of funding agencies and program owners, assessments of stakeholders and country-specific modes of discourse among national stakeholders (e.g. the implementation of an agreed national research agenda versus highly

competitive project-specific funding schemes). Sensitivities around stakeholder interactions and impartiality were managed by agreeing on broad stakeholder groups and describing their characteristics and features in a generalized manner. The results are summarized and published in the report "Stakeholder Analysis on a National Level" (report WP5-D5.1-2013-11-08).

The report and methodologies served as a building block for the stakeholder analysis on a European Level. The adopted questionnaire (for template structure see Table 1) was sent to the ERA-NET member countries but only three responses with very little information about European Stakeholders were received. In a first general assessment the WP Leader came to the conclusion that the European stakeholder structure is complex and that hardly any information is available among the participating partners. A detailed and time-consuming information gathering was therefore essential and conducted by the WP leader.

Table 1: Stakeholder data collection template

Stakeholder Groups	Stakeholder name	Stakeholder web site	Geographical Reach: Worldwide / European / Regional	Type and Function of Stakeholder	Areas of Activity	Importance/ Influence on geothermal RDD&I in Europe	Interest or role in geothermal R&D	Proposed Actions	Further Information
Political Stakeholders EU									
EU - Institutions, Agencies, Bodies, Programs etc. of the EU									
European or transnational funding programs / platforms									
Political Stakeholders – Non-EU countries									
Governmentally sponsored think-tanks / International Organizations / Multi-lateral R&D treaties									
Academia									
European Geothermal Industry Associations etc.									
European Industry Associations (Energy, new technologies etc.)									
Worldwide Stakeholders (Industry, Academia etc.)									
International and national Financing Agencies that also have an international remit									
Other EU administrative Units									
Public stakeholders									
Industry									

2.4 Procedure related to stakeholder classification

The stakeholders were characterized in terms of their importance and influence on the strategic direction and the coordination of geothermal RDD&I. This characterization is highly challenging because rather than viewing RDD&I as a linear concept (fundamental research leading to applied research, and on to prototyping and demonstration, deployment and uptake in the market place), innovations systems comprise in reality an exceptionally wide range of stakeholders (research institutes, industry, customers, funding agents, governmental institutions) who act within highly interactive processes. The structure of national innovation system is more akin to the chain-linked model which has been originated by Kline and Rosenberg[1]. Innovations do not occur in a segmented and isolated process, but a complex set of interactions of all stakeholders, particularly so, if innovation is targeted to be market driven. Hence, a lot of value added results from enabling cooperation and the development of learning processes.

It is only a natural consequence that innovation systems are thus highly country specific. One set of stakeholders may be important in one national innovation systems whereas the same class of stakeholder may be of lesser importance in another country. This characterization is somewhat politically sensitive, but nonetheless crucial in order to arrive at targeted messages for key stakeholders. The stakeholders will be crucial for the development and roll-out of the communication plan (report deliverables D5.3 and D5.4).

Stakeholders have been classified in terms of their influence according to the following categories:

Very high: Those Stakeholders have fundamental influence on the strategic direction and coordination of geothermal RDD&I. ERA-NET activities are expected to shape and strongly influence their strategic direction and associated work programs.

High: Those Stakeholders have influence on the strategic direction and coordination of geothermal RDD&I. ERA-NET activities are expected to have a bearing but are not fundamental ingredients into their strategies and implementation programs.

Medium: Those stakeholders have minor or indirect influence on the strategic direction and coordination of geothermal RDD&I. ERANET output is hoped to be of value to these stakeholders but are not expected to be highly relevant input.

Low: Those stakeholders have less to no influence on the strategic direction and coordination of geothermal RDD&I. It is expected that only interested stakeholders will note and passively retain knowledge of ERANET activities.

[1] Kline, S. und N. Rosenberg (1986): An overview of innovation. In: Landau, R. und N. Rosenberg (Hrsg.): *The Positive Sum Strategy: Harnessing Technology for Economic Growth*. Washington, D.C.: National Academy Press, pp 275-305.

An additional meeting with the president of the European Geothermal Energy Council was held to discuss the outcomes of the analysis, classification and ranking of the European Stakeholders.

3 Results

3.1 Summary of the Stakeholder Analysis on a National Level

To remind the reader of the main outcomes of the Stakeholder Analysis on the national level, the following general conclusions with respect to national stakeholder groups were drawn:

- Government Institutions are important SH in all countries;
- Academic Institutions are important SH in all countries;
- Power Industry is important in some countries, where high-enthalpy resources are already exploited or where a high potential is expected;
- Industry, private companies are of moderate importance, depending on partner country:
- Public SH are not very prominently listed – this should be checked periodically as the importance of media on the deployment of geothermal energy is significant, but less so in terms of research and development.

However, at a detailed level, individual national stakeholder and their importance and influence on national RDD&I programs differ substantially. This is mostly related to the local availability of resources and energy demand. Depending on the local situation, the national RDD&I landscapes have developed in different directions. Nevertheless there are many common interests among stakeholders at a national and, as will be described below, transnational level which may be met by coordinated actions and activities.

All partner countries perceive information and dissemination of knowledge related to geothermal energy to be essential and tailored to the needs of important stakeholders; there is a need to communicate how geothermal RDD&I can help realize potentials and achieve cost reductions; coordination of RDD&I on both, national and international levels needs to be clearly spelt out; stakeholders ask for an increase funding of RDD&I and pilot projects, and ways and means to promote international cooperation.

3.2 Overview of Stakeholders at a transnational European level

The analysis showed a manifold and complex assembly of a wide range of stakeholders. Despite that variety, the identified stakeholders can be assigned to several main stakeholder groups (Figure 1). It is very important to note, however, that the structure in that figure does not reflect the complex interactions between the different stakeholders. In a few cases where the assignment has been ambiguous, the best fit has been chosen or a new stakeholder group has been formed. In some cases, national stakeholders are also relevant on the European or worldwide level. They are also included into the mapping of the European stakeholders, but not analysed and described in detail. Reference is made to the national stakeholder report (report WP5-D5.1-2013-11-08).

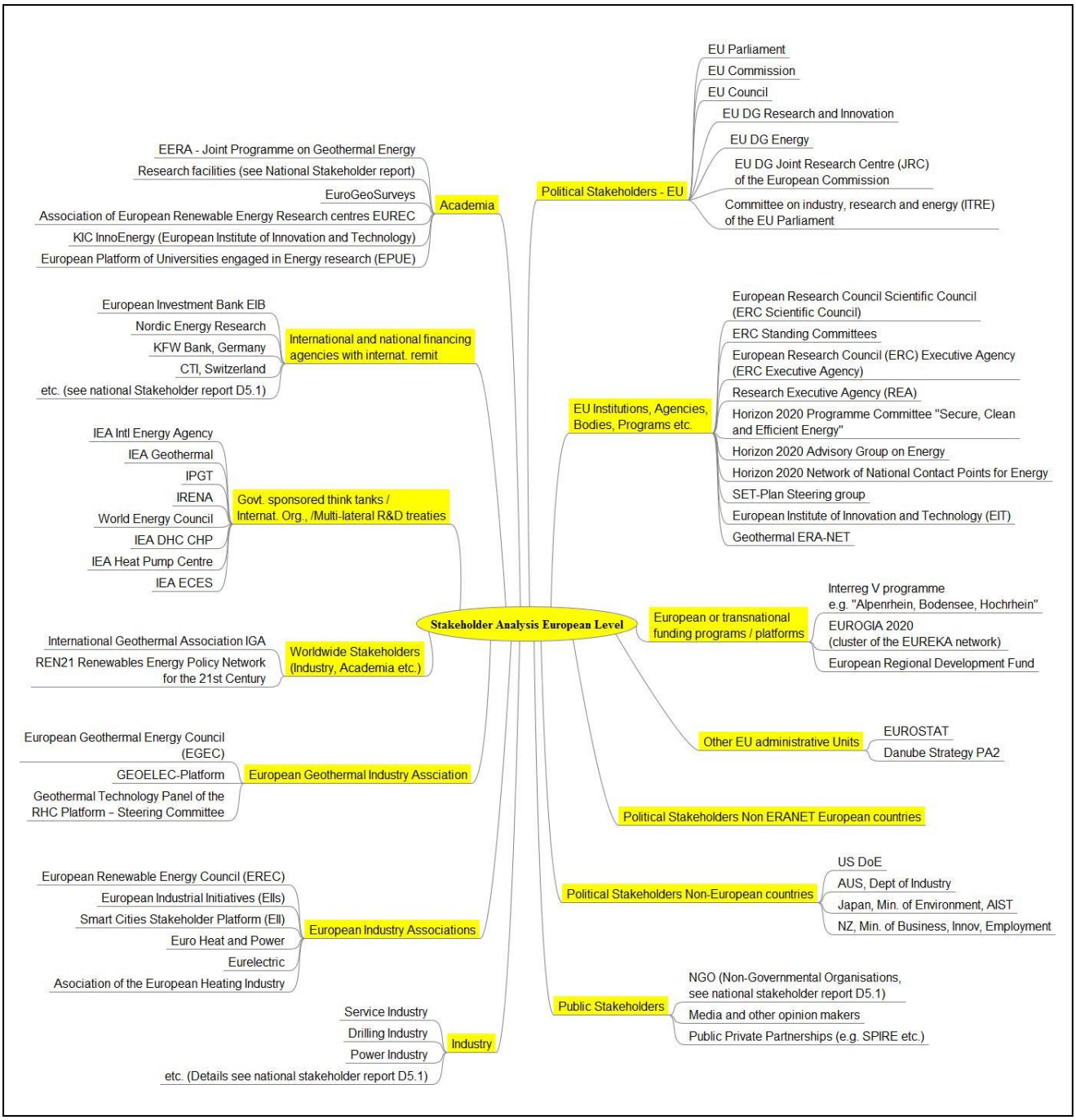

Figure 1: General structure of the principal stakeholders

3.3 Stakeholder group characteristics

All stakeholder groups show specific characteristics. Important are

- their role in geothermal RDD&I (type and function of Stakeholder, areas of activity)
- their influence on the strategic direction and coordination of geothermal RDD&I
- Their attitude and interest

Below we describe some specific findings for the individual stakeholder groups

3.4 Political Stakeholders EU

- The role of the political stakeholders of the European Union (EU) is fundamental, both in terms of importance for and influence on the Geothermal ERA-NET. The EU commission is the executive body and responsible for the legislation, the EU Parliament, together with the EU Council, debates and passes laws and adopts the EU budgets. The EU Council, as a strategic body, provides the union with general political directions and priorities. The committee on industry, research and energy (ITRE) of the EU Parliament is in charge of political guidelines for the industry, research and energy. The Directorate General (DG) Energy is responsible for developing and implementing the EU's energy policy, the DG Research and Innovation defines and implements European Research and Innovation policy, while the Joint Research Centre (JRC) provides independent scientific advice and support to the EU policy.

- The influence on the strategic direction and coordination of geothermal RDD&I is fundamental, therefore the importance/influence of the political Stakeholders, especially of the EU Commission and the DG Energy, has been classified as very high.

- There is interest in geothermal energy as renewable resource and thus in the development and application of related technologies to ultimately help achieve the political energy and climate goals.

- In general, there is a great need for high quality information regarding the benefits of a coordinated geothermal RDD&I in Europe and beyond. The strength of it has to be demonstrated and proven.

3.5 EU Institutions, Agencies, Programs etc.

Organisations, entities, programming committees at the European level comprise a highly diverse, thematically cross-cutting set of actors. None of them deal only or exclusively with geothermal energy, but in general cover a wide range of energy- or R&D-related topics. These actors are, for example, the SET-Plan steering and associated groups, European Research Council Scientific Council (ERC Scientific Council), ERC Standing Committees, the European Research Council (ERC) Executive Agency (ERC Executive Agency), various ERA-NETs whose activities touch upon geothermal energy technologies, the Research Executive Agency (REA), the Horizon 2020 Network of National Contact Points for Energy, the European Institute of Innovation and Technology (EIT), and so on. National reporters are often unaware of all the actors and hence are often rather unaware of their influence on and importance for the geothermal energy research agenda.

- This stakeholder group assists, gives advice, executes, implements and manages in behalf of the EU. They comprise influential stakeholders, often with strong personal interest in geothermal energy research, development and deployment.

- Their influence on the strategic direction and coordination of geothermal RDD&I varies, depending on the individual function of the specific stakeholders, between low and very high. Highest influence have the SET plan steering group and the Geothermal ERA-NET.

- There is interest in geothermal energy as renewable resource resp. technology that can help to achieve the political energy and climate goals.

- In general, there is also great need for high quality information regarding examples and benefits of a coordinated geothermal RDD&I in Europe and beyond.

3.6 Political stakeholders of Non-ERA-NET European countries

- Their influence on the strategic direction and coordination of geothermal RDD&I is fundamental. They are essentially the «missing» participants in a future Geothermal ERA-NET and therefore, the political stakeholders of Non-ERA-NET European countries feature very high.

- They approve and allocate RDD&I budgets and would have to agree to pooling scarce national financial resources at a European level.
- The level of interest by political stakeholders varies according to country and political system, but in most cases at least one of federal, regional or local government entities would be expected to show a keen interest in a Geothermal ERA-NET framework. Geothermal energy is on the agenda because of its long term potential and/or due to current project development and operations. Geothermal energy has in some cases "champions" (e.g. members of parliament) who put geothermal energy on the agenda. The more geothermal energy projects are deployed, the more interest there is in project specific features, particularly if project's visibility or impact is high.

- In general, there is great need for high quality information regarding examples and the benefits of a coordinated geothermal RDD&I in Europe and beyond.

3.7 Political stakeholders of non-European countries

In general, this stakeholder group can be described by the same characteristics as the political stakeholders of Non-ERA-NET European countries (chapter 3.6) While in some countries the interest in geothermal energy is low due to a wide range of reasons, mostly due to limited resources, some other countries have strong interest in geothermal energy technology and RDD&I. Such countries that have strong geothermal energy RDD&I programs include the USA, Japan, China, New Zealand to name but a few. In many cases a mutual awareness and limited knowledge of strategies and programming will suffice, but here as well one can observe trends towards coordination and some early examples of joint calls with non-European countries under the «Berlin funding model» for the SET-Plan developed by Germany.

3.8 European Geothermal Industry Associations

- The European geothermal industry associations represent more than 130 members in the case of EGEC and the geothermal electricity technology panel (GEOELEC-Platform) and about 300 members in the case of the Geothermal Technology Panel of the Renewable Heating and Cooling RHC platform.

- Their interest in geothermal energy technology and geothermal RDD&I is very high.

- The Technology Platform GEOELEC has formulated a vision 2015 for the geothermal power sector and also developed a detailed research strategy to reach the ambitious objectives. Both platforms are important tools to develop a roadmap for the geothermal energy technology.

- The stakeholder group has fundamental influence on the on the strategic direction and coordination of geothermal RDD&I.

3.9 Academia

Almost all of the national stakeholders are also active on the European level. Data about that group has been collected in the context of the analysis on the national level (report WP5-D5.1-2013-11-08).

- Not surprising, academia (including National Centres of Geothermal Competence, Geological Surveys) expresses a high level of interest in geothermal energy research especially where this research direction is already established. Very often, there is high degree of visibility with regards to state agencies and academia pursuing RDD&I. Research organisations cover the entire value chain and Technology Readiness Levels with a strong bias towards RDD&I oriented towards industry. There are highly vigorous programs, groups and entities across Europe and there is a trend that academia is “staffing up” to be able to address RDD&I needs.

- The influence on the strategic direction and coordination of geothermal RDD&I is minor, with the notable exception of the EERA – Joint Programme on Geothermal Energy (JPGE) which has very high influence. 37 partner organisations from 12 EU and associated countries participate in that joint programme and more than 150 research centres and universities are involved. The EERA – JPGE cooperates with the European geothermal industrial platforms to align research and innovation priorities. It is also an important point of contact for collaboration outside Europe. It has also fostered the creation of national energy alliances in many countries.

3.10 International and national financing agencies with international remit

Many of the national stakeholders are also active on the European level. Data about that group has been collected in the context of the analysis on the national level (report WP5-D5.1-2013-11-08).

- Depending on the focus, the stakeholder group of the national funding agencies has in general little or no influence on funding of geothermal RDD&I. Strategy and coordination of research agendas are left to other entities.

- In many cases, they have a keen interest in financing geothermal energy projects that sell power and heat, and to a more limited extent financing technology deployment. This interest derives from a desire to develop a portfolio of renewable energy projects that deploy low carbon energy technologies, and also be seen to help financing climate change actions.

- In general, there is limited, if any, need for high quality information regarding the benefits of a coordinated geothermal RDD&I in Europe and beyond.

3.11 Industry

Information about that stakeholder group has mostly been collected in conjunction with the national stakeholder analysis (report WP5-D5.1-2013-11-08). In general it is assumed that industry and academia will coordinate on research agendas, and subsequently investigate how and when program owners and managers will need to be addressed to provide appropriate funding opportunities.

- The service, drilling and power industry are the important stakeholders of that group.
- The industry is interested in geothermal RDD&I. in general, they are beneficiaries of funding.
- The influence on the strategic direction and coordination of geothermal RDD&I is minor or indirect.
- In general, there is need for high quality information regarding the benefits of a coordinated geothermal RDD&I in Europe and beyond.

3.12 Other EU administrative units

The stakeholder group of other EU administrative units like EUROSTAT have no specific interest in geothermal energy technology. They have little or no influence on the strategic direction and coordination of geothermal RDD&I.

3.13 Public Stakeholders

Information about the group of public stakeholders has been already collected in the national stakeholder analysis (report WP5-D5.1-2013-11-08).

- This stakeholder group comprises non-governmental organizations, and the public at large.
- The public stakeholders have less or no influence on the strategic direction and coordination of geothermal RDD&I.
- Some interest in R&D that has high-impact and is relevant to public sentiment (hydraulic stimulation, induced seismicity, GHG emissions, high/low funding levels).
- NGOs need to know about the status of geothermal energy utilization the R&D situation – but in general terms.

3.14 European Industry Associations

The European industry associations do not have specific interests in geothermal energy technology and RDD&I. There is less or now influence on the strategic direction and coordination of geothermal RDD&I.

3.15 Worldwide Stakeholders (Industry, Academia etc.)

The European industry associations do not have specific interests in geothermal energy technology and RDD&I. There is less or now influence on the strategic direction and coordination of geothermal RDD&I.

3.16 Governmentally sponsored think tanks / International Organizations / Multi-lateral R&D treaties

- The IEA Geothermal (International Energy Agency – Geothermal Implementing Agreement) and the IPGT (International Partnership for Geothermal Technology) foster international cooperation and information exchange. There is keen interest in geothermal energy technology and RDD&I.

- There is a substantial degree of influence on the strategic direction and coordination of geothermal RDD&I in Europe. Through the annexes of the IEA's Geothermal Implementing Agreement and through the Working Groups of the International Partnership for Geothermal Technology, a significant number of «White Papers» have been developed which shape national research agendas. Funds for collaborative research efforts are available through the IEA's Geothermal Implementing Agreement but are of limited scope. Working Groups of the IPGT implement joint projects provided they fit the respective national research strategies and programs.

- The benefits of a coordinated geothermal RDD&I in Europe may be substantial for other multilateral organisations.

3.17 Ranking of European Stakeholders

The following ranking is solely based on the influence / importance of the individual stakeholders on the strategic direction and coordination of geothermal RDD&I.

In Figure 2, the individual stakeholder group's resp. stakeholders (if there is a differentiation in a group) are marked with different colours depending on their influence / importance. The stakeholders with the highest importance / influence are marked in red, those with high importance /influence in orange, those with medium importance / influence in yellow and those stakeholders with the lowest importance / influence in green.

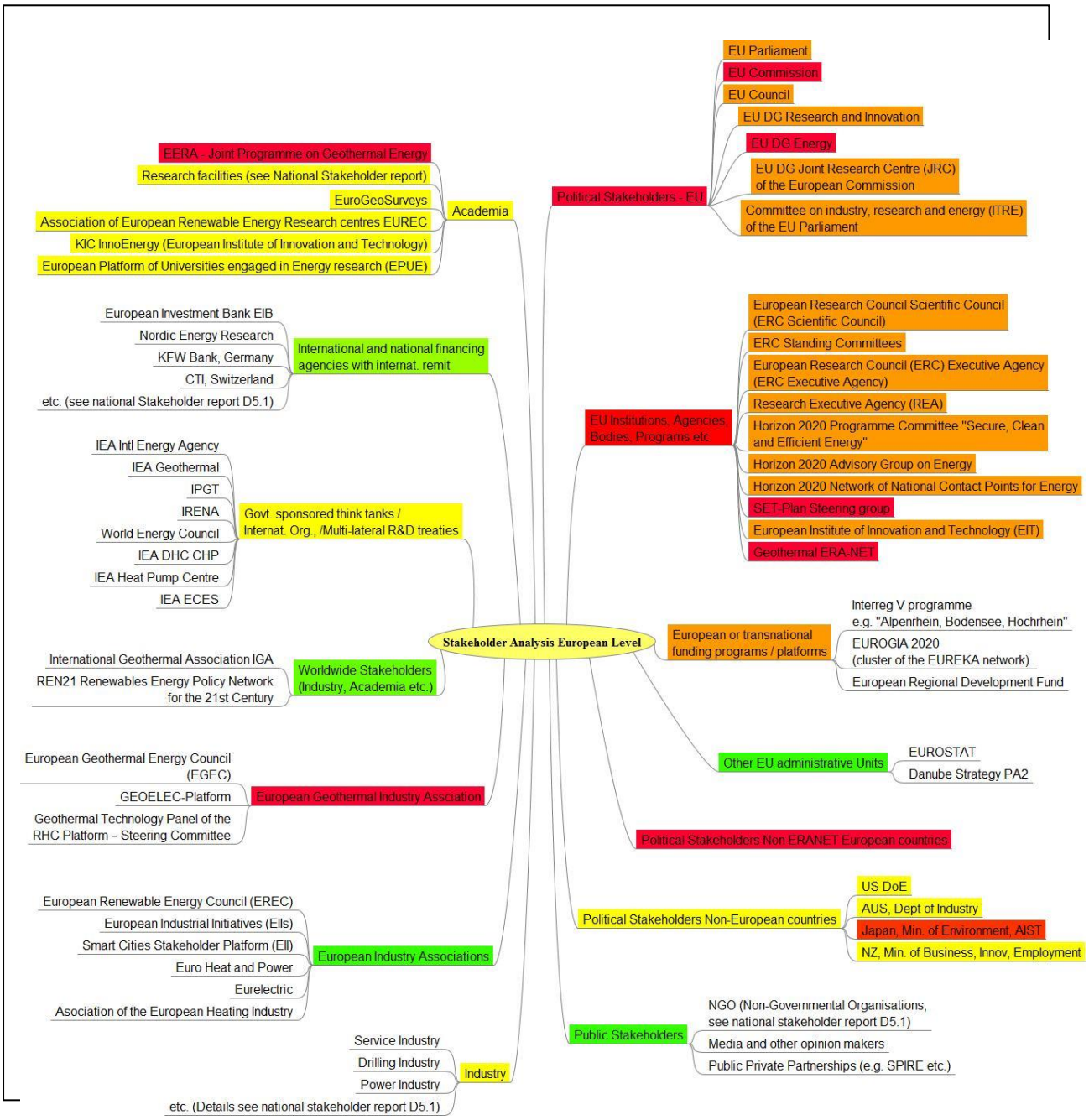

Figure 2: Ranking of the European Stakeholders.
Red: importance / influence = very high; orange: importance / influence = high, yellow: importance / influence = medium; green: importance / influence = low.

Table 2: Overview: Ranking of the principal European Stakeholders

Stakeholder group	Stakeholders	Importance / Influence
Political stakeholders EU	Especially – EU Commission – DG Energy	Very high
EU Institutions, Agencies, Programs etc.	– SET-Plan Steering Group – Partners of the Geothermal ERA-NET	Very high
Political stakeholders of Non-ERA-NET European countries and non-European countries with strong geothermal RDD&I programs.	– Program owners / Funding agencies of Non-ERA-NET European countries – International Partnership for Geothermal Technology – International Energy Agency – Geothermal Implementing Agreement – Japan	Very high
European Geothermal Industry Associations	– EGEC – GEOELEC-Platform – Steering Committee – Geothermal Technology Panel of the RHC-Platform	Very high
Academia	– EERA – Joint Program on Geothermal Energy	Very high
Political stakeholders EU	All others	High
EU Institutions, Agencies, Programmes etc.	All others	High to medium
Academia	All others	Medium
Political stakeholders of non-European countries		Medium

Governmentally sponsored think tanks / International Organizations / Multi-lateral R&D treaties	Medium
Industry	Medium
International and national financing agencies with international remit	Low to medium
European or transnational financing programmes / platforms	Low
Other EU administrative Units	Low
Public Stakeholders	Low
European Industry Associations	Low
Worldwide Stakeholders (Industry, Academia etc.)	Low

4 Proposed actions

In the context of the national stakeholder analysis, several proposed actions have been described.

The proposed actions depend on the objectives, strategy and key messages of the Geothermal ERA-NET. These key elements will be identified and characterised in the context of the «Communication Plan» which will be published in a separate report (D5.3). The following actions are therefore preliminary suggestions.

- Stakeholders with very high importance / Influence: specific information, information exchange, cooperation
- Stakeholders with high importance / Influence: specific information, information exchange, cooperation (but with a lower need and intensity)
- Stakeholders with medium importance / influence: specific information
- Stakeholders with low importance / influence: general information, no specific actions proposed.

In general, specific, high quality information regarding the benefits of a coordinated geothermal RDD&I in Europe and beyond is needed. The strength of it has to be proven.

5 Conclusions and next steps

The collection of data of the European stakeholders and the related analysis can be summarised as follows:

The stakeholder map on the European level is manifold and complex.

Their influence on the strategic direction and coordination of geothermal RDD&I varies between none and fundamental.

The European Stakeholders can be ranked by their classification regarding their influence / importance on the strategic direction and coordination of geothermal RDD&I.

In general, specific, high quality information regarding the benefits of a coordinated geothermal RDD&I in Europe and beyond is needed. The strength of it has to be proven.

In the next step (report D 5.3), the outcomes of the national and European stakeholder analyses will be used to develop a «**Communication Plan**» including key messages to communicate the strengths and benefits of a coordinated geothermal RDD&I. Especially national program owners / funding agencies will be won over to participate in the planned Framework Partnership Agreement.

In a fourth step (report D 5.4), the development of a comprehensive communication plan aims to engage the principal stakeholders to coordinate geothermal RDD&I in a European research agenda. Proposed actions will be described in detail.

Annex: Stakeholder List on a European Level

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