GEOTHERMICA Call Text and Guideline for Applicants

2nd Call

May 2019

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2nd Joint Call

GEOTHERMICA

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Introduction

One of the objectives of GEOTHERMICA is to support public-public partnerships between EU Member States, Associated and Third Countries, including joint programming initiatives and joint calls. The GEOTHERMICA ERA-NET Cofund (GEOTHERMICA) is a five-year action financed under the European Union's Horizon 2020 Programme for Research and Innovation.

GEOTHERMICA aims to support transnational, collaborative innovation projects in geothermal energy through joint calls and carry out other joint activities, which will enhance the coordination of public research and innovation programmes and improve the exploitation of results of the projects funded. This document describes the objectives, scope, and topics of the call, rules for participation and procedures for the submission of proposals for projects. Further information on GEOTHERMICA can be found on the GEOTHERMICA website: http://www.geothermica.eu.

Having executed a first call with financial support of the European Commission, GEOTHERMICA's partners now undertake a second call without the participation of the European Commission. Proposals submitted under this call should still complement themes, topics and previously funded projects under GEOTHERMICA's first call and the Horizon 2020 Work Programme, or other available instruments, including the national research programs of GEOTHERMICA partners.

The GEOTHERMICA call is a two-stage process. Stage 1 asks for pre-proposals, and Stage 2 asks for full project proposals.

The call text for pre-proposals published on Wednesday, 22 May 2019.

The electronic submission system will open in early June 2019.

The call for pre-proposals will close on Friday, 13 September 2019 (13:00 UTC).
On Monday, 11 November 2019, selected applicants will be invited to enter the second stage of the procedure.

The call for full proposals will close on Friday, 31 January 2020 (13:00 UTC).

1 Background – Geothermal Energy

GEOTHERMICA aims at direct use and power generation from geothermal resources in an optimized way, which includes integrated and combined systems (e.g. heat pumps, other forms of renewable energy, and using the underground as a heating and cooling energy storage site). Geothermal energy is a valuable and local source of energy that can cost-effectively provide baseload/dispatchable electricity, heat or a combination of both. With these features, it has the potential to provide real alternatives to replace fossil fuel-based power plants and fossil fuel based heating and cooling not only in Europe but also globally. In addition, geothermal reservoirs may also act as sites for energy as well as CO_2 storage.

There is great potential for the supply of geothermal energy for heating in Europe and elsewhere. Unlocking this potential will be enabled by research and innovation focused on the improvement of technology and its incorporation into the energy system. In this way, geothermal energy (together with underground heat storage) will become one of the key options for the transition towards a 100% renewable heat supply in Europe.

In line with the Deep Geothermal Implementation Plan[1] developed within the framework of the SET Plan, public (EC, Member States and Associated Countries) and private investment must focus on targeted innovation actions to achieve goals in terms of performance increase and cost reductions. Paramount are an increase in reservoir performance; an improved overall energy conversion efficiency; a reduction of unit exploration, development and production costs of geothermal energy; and the demonstration of the technical and economic feasibility of a successful integration into a modern energy system infrastructure. In order to reach these strategic targets and to increase the contribution of geothermal electricity and heat to the energy mix, technological advance must be supplemented and complemented by factors such as high social acceptability and mitigation of risks connected to health, safety and environment.

[1] https://setis.ec.europa.eu/system/files/setplan_geoth_ip.pdf

2 National Funding Agencies, Amounts

The budget that is available for this Call from each national funding agency is a total of approximately €19 million (Table 1).

Table 1. Approximate national funding budgets

Participating country	Funding Organisation (Program Owner / Program Manager)	Approx. budget (€ mln)
France	Agence de l'Environnement et de la Maîtrise de l'Energie / ADEME	3.7
Germany	Forschungszentrum Jülich GmbH / FZJ-PtJ	2.5
Iceland	Rannsoknamidstod Islands / Rannis	0.5
Ireland	Department of Communications, Climate Action and Environment (DCCAE) / Geological Survey Ireland / GSI	0.2
Netherlands	Ministerie van Economische Zaken/Rijksdienst voor Ondernemend Nederland(Netherlands ENterprise Agency) / RVO	4.0
Norway	The Research Council Norway / RCN	0.4
Portugal	Foundation for Science and Technology (FCT-PT) / Direção Geral de Energia e Geologia / DGEG	0.1
Romania	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii / UEFISCDI	0.5
Spain	Agencia Estatal de Investigacion / AEI	0.3
Switzerland	Federal Department for Environment, Transport, Energy and Communications / DETEC	3.2
Turkey	Turkiye Bilimsel ve Teknolojik Arastirma Kurumu / TÜBITAK	1.0
The United States of America	Department of Energy / DoE	1.7
Total		18

3 The objective of the GEOTHERMICA call

As specified in the Deep Geothermal Implementation Plan within the framework of the SET Plan, an improved and increased technology performance, as well as the reduction of the cost of technologies, are strategic targets for deploying geothermal energy in GEOTHERMICA countries.

The objective of GEOTHERMICA's second call is to launch projects that accelerate the piloting, demonstration and validation of novel concepts of geothermal energy supply within the energy system, and to identify paths to commercially viable deployment. Projects may also address oriented research that underpins novel concepts and paths to commerciality.

The objective is set against the backdrop of demonstrating geothermal energy as a secure, sustainable, competitive and affordable energy source for Europe, and of demonstrating geothermal energy to have a significant role within the energy system through a wide range of novel concepts. Projects demonstrate the significant role that geothermal energy can have in the energy system, at a scale common to GEOTHERMICA countries. Often the untapped potential stems from a lack of awareness of the versatility and benefits of geothermal energy supply.

To meet the objective, GEOTHERMICA has invited several new partners to join the 2nd call to ensure that the research and innovation space dedicated to geothermal energy is large and attracts excellent talent. To this end, Norway and the USA have decided to participate in this call.

GEOTHERMICA's ambition of accelerating the deployment of geothermal energy, that is to reduce the time to market for novel geothermal energy concepts, will require industry involvement in research, innovation and demonstration activities.

4 Scope

GEOTHERMICA targets innovation in the way geothermal energy is supplied and integrated into Europe's energy system of the future. GEOTHERMICA focuses on three technological themes, which cover all stages in the development cycle of a secure, sustainable, competitive and affordable geothermal installation (Figure 1):

- Identification and assessment of geothermal resources suitable for direct use and power generation
- Geothermal resource development (drilling, completion, materials and equipment)
- Supply and smart integration into the energy system and operations

Across these themes, four crosscutting, non-technological thematic aspects are important for GEOTHERMICA; sustainability, knowledge sharing, public perception of a strong geothermal sector as well as evidence-based policy formulation (Figure 1).

Innovation and development in all technological themes will contribute to the aims of GEOTHERMICA, either by reduction of risk and cost, or expansion of viable applications of geothermal energy by developing new concepts and new ways for integration into the energy system. Proposals are expected to address their contribution to the aims of GEOTHERMICA and quantify them to the extent that this is possible. Successful projects in GEOTHERMICA should contribute to the relevant crosscutting, non-technological themes. This aspect will be taken into account when projects are evaluated.

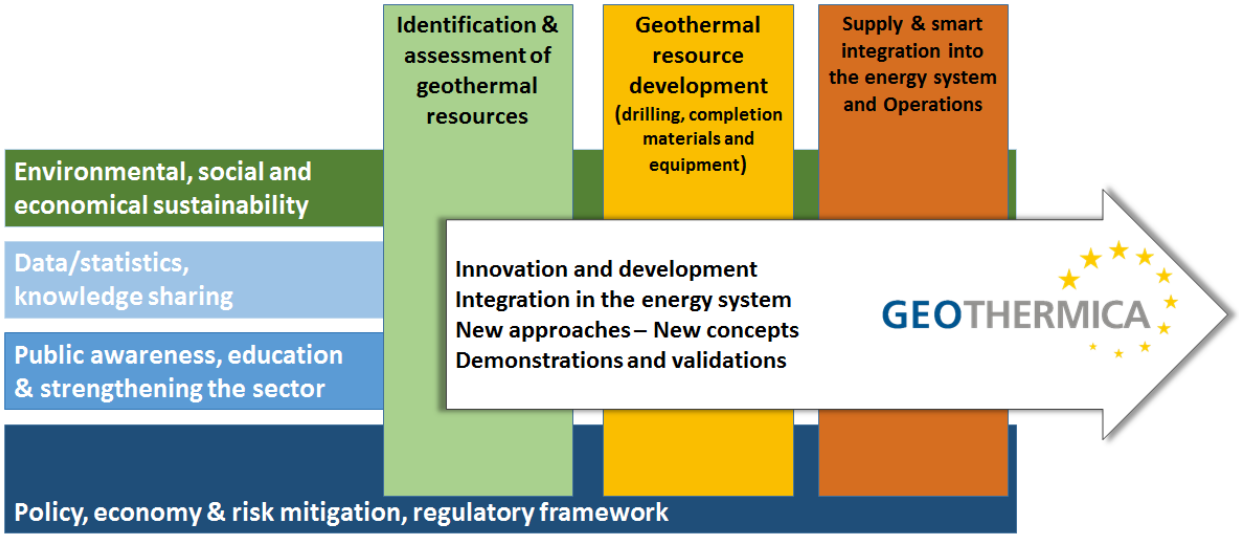

Figure 1: GEOTHERMICA's thematic concept features three technological and four cross-cutting non-technological innovation thematic aspects.

Within the three technological main aspects, several thematic areas have been identified (Table 2). Projects may cover more than one thematic area. Where applicable, GEOTHERMICA countries have indicated their national preferences (Table 3).

Table 2: Four thematic areas derived from three technological aspects for the GEOTHERMICA call.

Thematic areas	Aim
Identification and assessment of geothermal resources, reserves and reservoirs	Innovative and improved prospecting and exploration techniques and modelling methods to identify and assess geothermal resources.
Geothermal resource development	New drilling and well completion technologies, reservoir optimisation, stimulation and innovative systems to control induced seismicity.
Supply and smart integration into the energy system	Innovative concepts illustrating geothermal energy as part of the energy system; geothermal reservoirs for heating, cooling and storage; innovative power cycles; novel revenue streams from additional side benefit from geothermal utilization (such as mineral extraction)
Operations	Novel approaches to improve well injectivity, as well as reliability and availability of injection operations; novel equipment, materials and methods for lowering and optimizing operating expenses; disruptive smart reservoir management technologies as well as innovative approaches to managing induced seismicity during production.

Projects need to assess the Technology Readiness Level (TRL) (i) prior to their work and (ii) indicate by how many levels the technology readiness advances in case of a successful outcome of their project. Projects funded by GEOTHERMICA, pilot and demonstration projects as well as technology development projects, should improve business cases based on research and innovation. Projects need to aim at advancing TRLs 5-9; individual sub-ordinated work packages may address lower TRLs (Figure 2). Besides advancing TRLs, projects need to demonstrate the large, untapped potential of geothermal energy and raise awareness of the benefits of geothermal energy. Also, projects may address lower TRL's depending on national funding rules (Table 3 and Appendix 1).

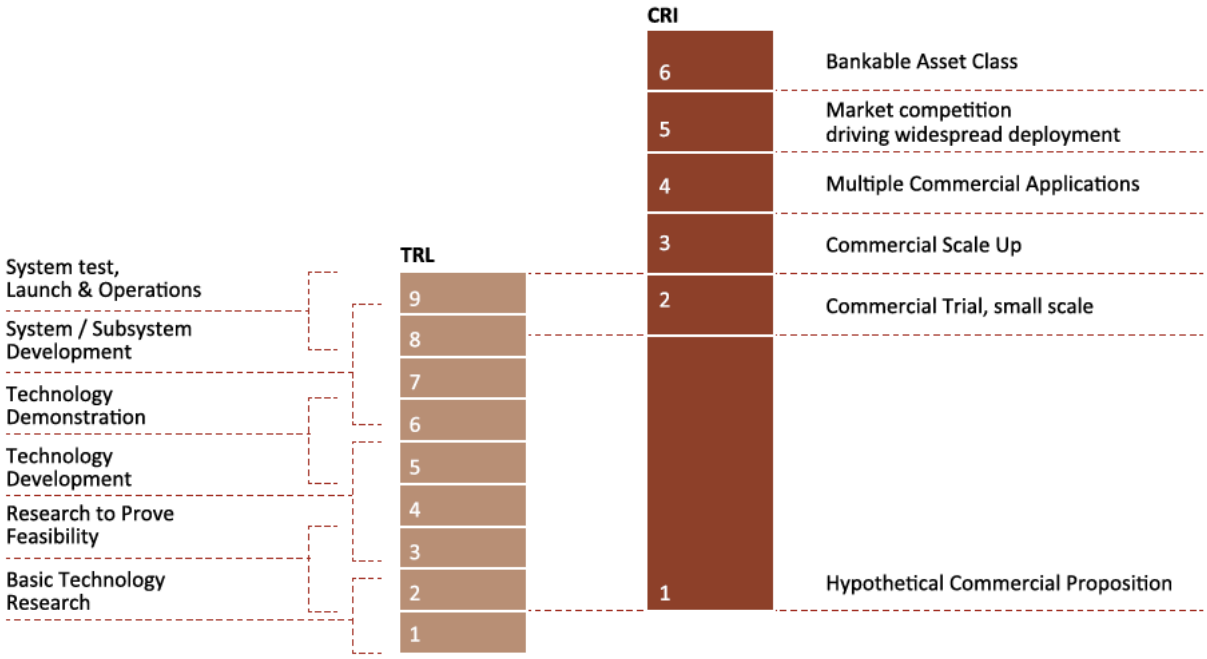

Figure 2: Relationship between Technology Readiness Levels (TRL) and Commercial Readiness Indicators (CRI).
Source: LOOKING FORWARD: BARRIERS, RISKS AND REWARDS OF THE AUSTRALIAN GEOTHERMAL SECTOR TO 2020 AND 2030. © Commonwealth of Australia (Australian Renewable Energy Agency) 2014.

Table 3: Mapping of national research & innovation needs for GEOTHERMICA

		France	Germany	Iceland	Ireland	The Netherlands	Portugal	Romania	Spain	Switzerland	Turkey	Norway	USA
Identification and assessment of geothermal resources, reserves and reservoirs	Exploration techniques and resource assessments	TRL 5-8	TRL 3-9	TRL 4-9	TRL 2-8	TRL 5-9	TRL 6-9	TRL 2-9	TRL 1-3	TRL 1-9	TRL 5-9	TRL 2-7	TRL 1-5
	Modelling	TRL 5-8	TRL 3-9	TRL 5-9	TRL 2-8	TRL 5-9	TRL 6-9	TRL 2-9	TRL 1-3	TRL 5-9	TRL 5-9	TRL 2-7	TRL 1-5
	General	TRL 5-8	TRL 3-9	TRL 5-9	TRL 2-8	TRL 5-9	TRL 6-9	-	TRL 1-3	-	TRL 5-9	TRL 2-7	TRL 1-5
Geothermal resource development	Drilling and completion	TRL 5-8	TRL 3-9	TRL 5-9	TRL 2-8	TRL 5-9	TRL 6-9	TRL 2-9	TRL 1-3	TRL 1-9	TRL 5-9	TRL 2-7	TRL 1-5
	Reservoir creation and induced seismicity	TRL 5-8	TRL 3-9	TRL 5-9	TRL 2-8	TRL 5-9	TRL 6-9	-	TRL 1-3	TRL 1-9	TRL 5-9	TRL 2-7	TRL 1-5
	Other	TRL 5-8	TRL 3-9	TRL 5-9	TRL 2-8	-	TRL 6-9	TRL 2-9	TRL 1-3	-	TRL 5-9	TRL 2-7	TRL 1-5
Supply and smart integration into the energy system	Heating, cooling, storage	TRL 5-8	-	TRL 5-9	TRL 2-8	TRL 5-9	TRL 6-9	TRL 2-9	TRL 1-3	TRL 5-9	TRL 5-9	TRL 2-7	TRL 4-6
	Super-hot / magma utilization	TRL 5-8	-	TRL 4-9	TRL 2-8	-	-	TRL 2-9	TRL 1-3	-	TRL 5-9	TRL 2-7	TRL 1-5
	Innovative power cycles	TRL 5-8	TRL 3-9	TRL 5-9	TRL 2-8	-	TRL 6-9	TRL 2-9	TRL 1-3	-	TRL 5-9	TRL 2-7	-
	Innovative concepts: integration of geothermal energy into energy system (hybridization with energy technologies, smart use of systems, grid integration, urban heating/cooling)	TRL 5-8	TRL 3-9	TRL 5-9	TRL 2-8	TRL 5-9	TRL 6-9	TRL 2-9	TRL 1-3	TRL 5-9	TRL 5-9	TRL 2-7	TRL 1-5
Operations	Improving reliability and availability	TRL 5-8	TRL 3-9	TRL 5-9	TRL 2-8	TRL 5-9	TRL 6-9	TRL 2-9	TRL 1-3	-	TRL 5-9	TRL 2-7	-
	Production optimization (injection, induced seismicity)	TRL 5-8	TRL 3-9	TRL 5-9	TRL 2-8	TRL 5-9	TRL 6-9	TRL 2-9	TRL 1-3	TRL 5-9	TRL 5-9	TRL 2-7	-
	Equipment and materials	TRL 5-8	TRL 3-9	TRL 4-9	TRL 2-8	TRL 5-9	TRL 6-9	TRL 2-9	TRL 1-3	-	TRL 5-9	TRL 2-7	-
Cross-cutting themes		TRL 5-8	TRL 3-9	TRL 5-9	TRL 2-8	TRL 5-9	TRL 6-9	TRL 2-9	TRL 1-3	TRL 1-9	TRL 5-9	TRL 2-7	TRL 1-5

Project proposals should include industrial partners, as far as this is possible and sensible. This is also in line with the specific requirements of the national funding agencies (Appendix 1).

GEOTHERMICA considers that proposals requesting a contribution of between €1.5-4 million each would allow successful projects to address the scope appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts. Especially projects that include demonstrations might require higher budgets.

The demonstration of innovative concepts is of highest relevance – concepts for geothermal energy, which are not yet commercially viable and which, if successful, will unlock the substantial potential of geothermal energy supply. Project proposals should, therefore, aim at a high share of funding from industrial partners, as far as this is possible and sensible. This is also in line with the specific requirements of the national funding agencies (Appendix 1).

A portion of GEOTHERMICA funds will be made available for projects that have a demonstration character with correspondingly strong industry participation.

Project proposals must illustrate how their projects may help accelerate the time to market of secure, sustainable, competitive and affordable geothermal energy. Project proposals can also focus on bringing upcoming technologies to a level of validation in a relevant environment as well as focusing on the integration into already viable and ongoing projects, especially if no suitable demonstration or pilot plants are available. Trans-national projects may, of course, collaborate with existing and future pilots and / or demonstration plants.

GEOTHERMICA projects may connect in a supporting manner to existing/ongoing projects. If relevant, project proposals may seek to utilise existing research infrastructures such as the emerging EPOS ERIC's Low Carbon Energy Test Beds (TCS)[2].

Any GEOTHERMICA funded project cooperating with other projects that are funded/financed otherwise, have to do so via a formal agreement.

There will find two ranking lists, one for large demonstration projects that ask for a contribution over € 3 million, and the other one for all other projects.

The available budget of about €19 million will be allocated to each of the two ranking lists envisaged in the following manner:

• Type A ("large"): approx. 2/3 of the budget for funding will be available for large trans-national demonstration projects with minimum GEOTHERMICA funding requests of €3 million per project.

• Type B ("small"): approx. 1/3 of the budget for funding will be available for smaller trans-national research and innovation projects with a minimum GEOTHERMICA funding request of €1.5 million per project.

[2] https://www.epos-ip.org/thematic-core-service/482/services

5 Rules for Participation

GEOTHERMICA rules apply to all applicants. In addition to general rules, there are specific national funding agency rules (see Annex 1). Applicants are therefore subject to the guidelines of this call and to the rules and regulations of their respective national funding agencies.
The term "proposal" is used both, for the pre-proposal in the first stage of the evaluation procedure and the full proposal in the second stage.

5.1 Who can participate and apply?

We encourage consortia with a wide geographic spectrum but at least three eligible applicants from at least three participating countries must be in consortium[3]. Each project consortium must demonstrate the alignment with the national interest of the respective funding bodies (see also Table 3) and must demonstrate the applicants' competence to undertake the project within the specified themes.

5.1.1 Main Applicant's role

The Main Applicant will be responsible for the overall coordination and submission of the pre- and full proposals, and for executing and managing the project. The Main Applicant will also be referred to as the Coordinator in the application template. The Main Applicant will be the contact point with GEOTHERMICA on behalf of the whole consortium and will be responsible for the administrative management of the complete project, should it be awarded funding. The Main Applicant is a legal entity whose representative is responsible for leading the overall project. The Main Applicant must be eligible for funding from his/her funding agency. The specific eligibility rules of the respective funding agency apply to the Main Applicant.

5.1.2 Co-Applicant's role

Each Co-Applicant is a legal entity with due representation. There may be more than one Co-Applicant from any one country. If there is more than one Co-Applicant from a country, one of them needs to be identified as the national consortium leader. The national consortium leader will act as the focal point for the national funding agency and for the GEOTHERMICA partners outside that country. The specific eligibility rules of the respective funding agency apply to the Co-Applicant.

5.1.3 Co-operation Partners

Partners from countries not participating in GEOTHERMICA, or partners that are not eligible for funding from GEOTHERMICA funding authorities, and partners that choose not to apply for funding, may be included in a project as Co-operation Partners. Co-operation Partners can be included in the project consortium if (a) they finance their activity from other sources than GEOTHERMICA, b) the consortium, in general, fulfils the requirements on the number of applicants from participating countries and (c) their participation is approved by a GEOTHERMICA Board. Project consortia involving Co-operation Partners must ensure that project results will be relevant for GEOTHERMICA countries.

[3] For clarity, and unlike the first call, it is important to stress that Switzerland, Norway and the United States of America are full members within this call.

Eligibility requirements and recommendations

Please note that the following are basic eligibility criteria for this GEOTHERMICA call but there are variations in eligibility, depending on the national rules. All applicants must check the summaries of national rules in Annex 1 and must consult their national contact point (Table 4) to ensure that they understand the requirements and that the applicant, project and activities meet the eligibility criteria. The GEOTHERMICA call secretariat will verify formal compliance with the rules of this call. The participating funding agencies will verify the eligibility and suitability for national funding according to their respective eligibility criteria.

Compliance with national rules and guidelines for state aid is crucial. Each applicant and the overall proposal has to provide data and statements to the GEOTHERMICA funding organisations so that the GEOTHERMIA funding organisations can assess and confirm that a GEOTHERMICA project is in accordance with state aid regulations.

If either the Main Applicant or the pre-proposal does not meet the eligibility requirements, the pre-proposal will not be admitted to the evaluation procedure (stage 2). In case a Co-Applicant is not eligible, the pre-proposal may still be eligible without the ineligible Co-Applicant as long as the pre-proposal and its other applicants meet the eligibility criteria. Both (pre-proposal is eligible, and other applicants are eligible) cases will be communicated to the Main Applicant.

For clarity, only consortia invited to the second stage are allowed to submit a full proposal. Invitation to stage 2 of the evaluation, does not imply that the proposal will be awarded funding. It merely allows the submission of a full proposal and participation in the second stage evaluation procedure (Section «Evaluation»).

Once all contracts have entered into force, projects should be completed within three years. Extensions will only be granted if the delay can be justified and is outside the control of the project partners. Any extension of a project must be approved by all funding agencies involved.

5.2 Project consortium

The added value resulting from transnational cooperation must be addressed in the proposal. Cooperation must be balanced – all partners need to make meaningful contributions to the project budget, activity and outcomes. For all applicants and partners in a consortium also note the mandatory compliance with the Specific Funding Agencies' Rules (Annex 1).

- Consortia may consist of applicants and partners from companies, research organisations, universities and higher education institutions, industry organisations, local/regional governments and NGOs;
- Consortia may consist of applicants and partners across several positions and disciplines within research and development systems (i.e. basic research, applied research, innovation, business etc.);
- For any project, consortia are required to prove the interest for active involvement in the project by all applicant(s) and partner(s) by way of Letters of Intent (stage 1) and Letters of Commitment (stage 2);
- A Letter of Intent is required for all applicants and partners when pre-proposals are submitted. Such a letter must contain an explicit declaration of any financial or in-kind contribution agreed upon and the role of the applicant or partners;

- All applicants or partners in a consortium have to provide Letters of Commitment when full proposals are submitted. In-kind contributions such as personnel, equipment, subcontracting, consumables, overheads etc. need to be specified in terms of person-hours/-months and materials;
- Members of project consortia may abstain from receiving funding.

Please also see Annex 1 for Specific Funding Agencies' rules regarding eligible applicants.

Projects may register on the GEOTHERMICA website http://www.geothermica.eu to improve the ability to build consortia. Applicants looking for project co-applicants can find potentially interested parties listed in this section. If they wish to be listed themselves, they should contact their national contact person.

5.3 Project timing and duration

Projects may be funded for a maximum of 3 years, and are targeted to start no later than 1 September 2020. Check for additional constraints in the Specific Funding Agencies' Rules (Annex 1). While the exact starting date may depend on the budget allocation (rules) of involved funding agencies, the end date of a project, however, should be harmonised across all applicants in the same consortium.

Funding agencies may choose to issue or endeavour to issue Letters of Intent or Letters of Commitment to ensure a timely start of a project.

Funded projects should be completed within three years and should not run beyond 31 August 2023. Projects not meeting the deadline may incur a loss in funding or the obligation to repay funding already received.

The proposal must include justification for the requested budget. The estimated budget must be given in **Euros only**. All costs must be eligible according to the funding agencies' rules (see Annex 1). In case of doubt, applicants should consult the national contact points (Table 4) in the respective funding agencies, who can advise on funding rules.

5.3.1 Funding agencies' rules and eligibility criteria

In addition to the general rules and procedures laid down in this document, there are Specific Funding Agencies' Rules to be followed by the applicants. They can be manifold such as funding agencies' eligibility criteria for organisations, co-funding requirements, national evaluation rules, maximum funding per applicant or project, etc. Applicants must contact their national contact points (Table 5) and be fully familiar with the requirements of the respective funding agency (see «Annex 1: *Specific Funding Agencies' Rules*») before submitting a proposal. Please note the requirements regarding the types of activities, which different funding agencies can support.

Both transnational (GEOTHERMICA) and funding agencies' eligibility criteria must be positively met.

5.3.2 Language

GEOTHERMICA proposals must be prepared in English. Proposals written in other languages will not be accepted. Corresponding submissions to national funding agencies may have to be submitted in the country's official language.

5.3.3 Instructions regarding the form and structure of the pre-proposal and full proposal

The electronic submission system requires a standard form to be filled out with key data of the proposal. Further information will be provided and updated (see the electronic submission system for proposals to the call on www.geothermica.eu).

6 Submission and Evaluation

6.1 Submission

All pre-proposals (stage 1, see template Annex 2 and Annex 4) and full proposals (stage 2, see template Annex 3 and Annex 4) to the GEOTHERMICA call must be submitted via the electronic submission system (ESS) of the Call Secretariat, accessible via the web pages of GEOTHERMICA.

> ***The electronic submission system ESS will open in early June 2019.***
> ***Pre-proposal* must be submitted *before the deadline of Monday, 13 September 2019, at 13:00 UTC.***
> ***The full proposal* must be submitted *before the deadline of Friday, 31 January 2020 15:00 UTC.***
>
> An **online help document for submission** is provided by the Call Secretariat when the ESS opens. Details are available at http://www.geothermica.eu/
>
> ***National Submission:*** Please note that many countries will require, in parallel, national submission of the national part of the proposal according to the rules of the specific funding agencies. Regarding additional national requirements for the submission of documents at the national level, you must carefully check «Annex 1: *Specific Funding Agencies' Rules*».

It is not possible to resubmit the pre-proposal/full proposal or parts of it or to revise the pre-proposal/full proposal after the submission deadline.

The pre-proposal/full proposal will only be accepted if signed Letters of Intent (pre-proposals) and Letters of Commitment (full proposals) from all Co-Applicants / Co-operation Partners are included as appendices (typically pdf) to the proposal. Such Letters of Intent and Commitment may be submitted in a variety of formats (formal letters, signed emails, etc.). The Main Applicant has to ensure that the respective legal representatives duly sign all letters of partners in due time.

6.2 Data Protection

The content of project proposals submitted to the GEOTHERMICA Joint Call will be used by the funding agencies of the GEOTHERMICA consortium, may be the European Commission, by the independent evaluators to assess and evaluate proposals, and subsequently by the GEOTHERMICA consortium for monitoring projects, which are selected for funding.

The whole content of the pre- and full proposals received under the call will be treated as confidential, except the list of projects selected for funding and publishable project abstracts. Proposals and evaluation reports will be stored and accessed within the secure GEOTHERMICA submission system. Independent evaluators will be required to sign declarations concerning confidentiality and conflicts of interest before they can access proposal details on the GEOTHERMICA submission system.

By submitting your proposal, you agree that the proposal is forwarded to the relevant funding agency as well as to all other participating funding agencies involved in GEOTHERMICA. For full proposals, you also agree that the proposal is forwarded to independent evaluators. Please observe that both national funding agencies and evaluators are subject to very strict confidentiality rules.
If, after reading the instructions in this Call text and the information on the GEOTHERMICA website you still have technical questions about the use of the system, please contact the Call Secretariat in Iceland (Section 8.1).

6.3 Evaluation

6.3.1 Evaluation procedure

Within the framework of GEOTHERMICA, **a two-stage procedure** will be adopted.

6.3.1.1 Stage 1:

The pre-proposals will be assessed based on national eligibility criteria (see Annex 1). For each of the pre-proposals the respective GEOTHERMICA funding agencies from whom funding will be requested performs an eligibility check. Eligibility criteria vary from one country to another (see Specific Funding Agencies' Rules (Annex 1) and contact your national contact point, as identified in Table 5). Only those pre-proposals that fulfil national eligibility criteria will be invited to elaborate and submit full proposals. Decisions by the GEOTHERMICA Board regarding the invitation to elaborate and submit full proposals are final without any possibility for recourse.

If an applicant is declared ineligible and does not fulfil the role of Main Applicant, the Consortium may be invited to replace that ineligible applicant as long as all rules of this call are complied with. In this instance, there must be neither a change in the planned output of the project nor a change in the total budget requested from GEOTHERMICA's funding organisations. A confirmation of the eligibility, hence the acceptability by the relevant funding organisations is required.

6.3.1.2 Stage 2:

Full proposals will be re-checked for national eligibility (see Annex 1). Only full proposals with confirmed positive national eligibility checks will undergo stage 2 evaluation and subsequent ranking. However, if in stage 2 an applicant is declared ineligible and does not fulfil the role of Main Applicant, the independent international expert panel (see below) will consider a full proposal under the assumption that the ineligible applicant will not be able to contribute to the project with all its consequences. In such a case of one or more ineligible co-applicant, the remainder of the project (applicants, work packages, deliverables, etc.) must still comply with all GEOTHERMICA rules.

Eligible full proposals will be evaluated in an open competition where an independent international expert panel will evaluate proposals according to evaluation criteria (Table 4) followed by a ranking of the proposals.

The independent international expert panel will consist of recognised experts in the field of geothermal energy, academics as well as practitioners and innovators, who can assess the scientific as well as the innovative and practical values of the submitted projects. The panel will be appointed by the GEOTHERMICA organisations participating in the 2nd call. Applicants will have no possibility for a rebuttal to the panel's evaluation.

Based on the ranking by the panel and taking into account the available (national) budgets and rules, the participating national funding agencies of GEOTHERMICA will take funding decisions.

The Call Secretariat will send a written statement on the evaluation of each full proposal to the Main Applicant. The Call Secretariat will inform the Main Applicants of projects that have been recommended for funding. The national funding agencies will inform the applicants in their countries of what further action needs to be taken at this stage.

Note: Each project recommended for funding should have a signed consortium agreement between all partners prior to the start of the project, but no later than one month after the start of the project. The consortium agreement will at least address the following topics:

- Internal organisation and management of the consortium;
- Intellectual Property arrangements;
- Settlement of internal disputes

6.3.2 Evaluation criteria

Proposals will be evaluated according to the following criteria (Table 4) with ranking lists subsequently produced for both, the large and the small project categories. Scores will be awarded for each of the three criteria.

Table 4: Evaluation criteria for GEOTHERMICA (all criteria will apply in stage 2)

Excellence – Weight 30%	5 points
• Relevance and clarity of the project's objectives • The credibility of the proposed technology/concept and approach – including trans-disciplinary considerations, where relevant • Quality of the innovation and ambition related to state of the art in the respective countries • Scientific merit of the project relevant to the call	
Impact (potential impact of the results of the project) – Weight 40%	5 points
• Expected contribution to the accelerated deployment of geothermal energy utilization (in terms of innovative concepts, potential to unlock geothermal energy resources, addressing major barriers, cost reduction, the involvement of industrial partners) • Oriented research that has an impact on the accelerated deployment • Scope of the project in terms of heat, cold and/or power supplied and consequences on the chosen energy system • Cost reduction (unit cost of exploration, development, and/or production) • Project's ability to strengthen the competitiveness and growth of the geothermal sector • Demonstration of the added value of trans-national collaboration • Replicability in regions with poorly developed or untapped geothermal potential • Strength of the proposed exploitation and dissemination plans (including management of data and intellectual property rights) • Impact on environmental or socially important aspects (cross cutting themes, Figure 1)	

Quality and efficiency of the implementation of the project – Weight 30%	5 points
• Coherence and expected effectiveness of the project plan, including the participation levels of industry, appropriateness of tasks, use of methods and human resource allocation incl. Qualification of consortium members. • Quality of project structure, clarity of deliverables oriented breakdown of the project and the associated budget allocation. • Timing and scheduling of the project and identification of dependencies and critical path with a particular focus on realistic timelines, availability of concessions, permits, and regulatory approvals • Strength of management structures and governance procedures, including risk management, gender equality • The capability of the Main Applicant (and partners) to deliver the project and to commercialize the technology further - including, e.g. suitability of expertise, complementarity, the balance of contributions.	

6.3.3 Gender equality

There will be no discrimination due to gender in the processing of applications and the implementation of the project. When scored equally after the evaluation, the availability of the budget will be the first selection criterion. As a second selection criterion, GEOTHERMICA will give preference to projects with better gender balance at the leadership level within the project consortium.

6.3.4 Scoring and thresholds

Experts will evaluate based on the criteria ‘excellence’, ‘impact’ and ‘quality and efficiency of the implementation’. Evaluation scores will be awarded for each criterion, and not for the different aspects listed in the above table. For full proposals, each criterion will be scored by the Expert Panel, using the following scale:

0) Unacceptable
1) Weak
2) Average
3) Good
4) Very good
5) Excellent.

Half marks will be used. Proposals have to have a minimum score of 3 in each of the three criteria. The overall minimum threshold for the total, the sum of the three scores in each of the three criteria, is 10.

6.3.5 Time Schedule

13 September 2019	Deadline Submission of pre-proposals
11 November 2019	Invite applicants to submit full proposals
31 January 2020	Deadline Submission of full proposals
1 June 2020	The tentative date for funding recommendation and announcement of results to Main Applicants
1 September 2020	The tentative date for national funding decisions and contracts completed. Start of projects

6.3.6 Documentation and forms

All documents for public release related to this call are published on the GEOTHERMICA website: http://www.geothermica.eu

7 Project monitoring and reporting

Project monitoring and reporting will be in accordance with the respective funding agency's rules. In addition to the requirements of funding agencies, the Main Applicants of consortia have to submit annual progress and financial reports (in English) to the GEOTHERMICA Call Secretariat. The reports include a description of the consortium's trans-national cooperation and a publishable summary of the project status. A reporting template will be provided on the GEOTHERMICA website.

In addition to the monitoring of the national sub-projects by the national funding agencies, one project observer from one of the participating funding organisations will be assigned to each of the funded projects. The project observer will monitor the progress in the transnational cooperation on behalf of the participating funding organisations and to provide a communication link between the project and the Call Secretariat.

The consortia should also take into consideration in planning and budgeting that in-person project reporting is expected, particularly if there are GEOTHERMICA knowledge sharing workshops/events.

8 Contacts and Further Information

8.1 General information on the joint call

Updated information (including regularly updated Questions and Answers) on this joint call and all relevant documents/templates are published on http://www.geothermica.eu.
If you have questions on the general call process and proposal submission, please contact the **Call Secretariat at the GEOTHERMICA Office:**

For technical issues:	For submission issues:
Hjalti Páll Ingólfsson **GEOTHERMICA Office** Orkugarður, Grensásvegur 9, IS-108 Reykjavík / Iceland	**Sigurður Björnsson** **Head of Research and Innovation** **Rannis** Borgartun 30 IS-105 Reykjavik, Iceland
Tel: +354 618 3541	Tel: +354 515 5801
Mobile: + 354 618 3541	Mobile: +354 896 5925
E-mail: info@geothermica.eu	Email: sigurdur@rannis.is

8.2 Contact points of participating funding agencies

For questions regarding specific funding agencies' rules and additional forms, please check "*Annex 1: Specific funding agencies*' rules" first. Trans-national project partners must contact the national contact persons of the respective funding agency. Additional information can be obtained by contacting the indicated national contact persons at the participating funding agencies.

Table 5: National Contact Points (NCP)

	Country	Organisation	Name	e-mail	phone
1	France	MTES / DGEC	Paul Bonnetblanc	paul.bonnetblanc@developpement-durable.gouv.fr aap.geothermica@ademe.fr	+33 140 81 85 96
2	Germany	FZJ-PtJ	Stephan Schreiber	k.schreiber@fz-juelich.de	+49 2461 614 743
3	Iceland	Rannis	Sigurður Björnsson	sigurdur@rannis.is	+35 4 515 5800
			Steinunn S. Jakobsdóttir	steinunn.s.jakobsdottir@rannis.is	+35 4 515 5800
4	Ireland	GSI	Aoife Braiden	aoife.braiden@gsi.ie	+35 3 (0)1 678 2650
5	Netherlands	RVO	Paul Ramsak	paul.ramsak@rvo.nl	+31 88 602 2275
			Gerdi Breembroek	gerdi.breembroek@rvo.nl	+31 6 5256 4480
			Bart van den Berg	bart.vandenberg@rvo.nl	+31 6 1146 1989
6	Norway	RCN	Per Arne Karlsen	pak@rcn.no	+47 917 27 669
7	Portugal	DGEG	Isabel Cabrita	isabel.cabrita@dgeg.pt	+35 1 96 900 3886
			Paulo Partidario	paulo.partidario@dgeg.pt	+351 963 002 336
8	Romania	UEFISCDI	Cristina Cotet	cristina.cotet@uefiscdi.ro	+40 21 302 3876
9	Spain	AEI	Daniel Ruiz Iruela	daniel.ruiz@fecyt.es	+34 91 603 7968
10	Switzerland	DETEC	Gunter Siddiqi	gunter.siddiqi@bfe.admin.ch	+41 58 462 5324
			Céline Weber	cweber@focus-e.ch	+41 22 367 1763
11	Turkey	Tübitak	Kaan Karaöz	kaan.karaoz@tubitak.gov.tr	+90 312 298 9466
12	USA	DOE	Lauren Boyd	lauren.boyd@ee.doe.gov	+1 202 287 1854

Annex 1: Specific Funding Agencies' Rules

France

Country	France
Funding organisation	ADEME
National contact person (NCP)	Paul Bonnetblanc – MTES / DGEC E-mail: paul.bonnetblanc@developpement-durable.gouv.fr and aap.geothermica@ademe.fr Tel: +33 1 40 81 85 96
National funding commitment	Max. €3.7 million
Maximum funding per awarded project	According to the financial regulations of the funding program «Investissements d'avenir» (Investments for the Future). See the national application forms.
Anticipated number of large projects with French partners	No limitation
Anticipated number of small projects with French partners	No limitation
Eligibility of a partner as a beneficiary institution	- Companies. - Research organizations. See conditions in national application forms.
Eligibility of costs	Project related costs are considered eligible according to the financial regulations of the funding program «Investissements d'avenir"» (Investments for the Future). See the national application forms.
Submission of the proposal at the national/regional level	See the national application forms at ADEME's website.
Submission of financial and progress reports at the national/regional level	Yes, scientific and financial reporting according to the regulations of the funding program «Investissements d'avenir» (Investments for the Future). See the national application forms.
Information available at	www.geothermica.eu / ADEME website / please contact the National Contact Point NCP.
Other	We highly recommend contacting the NCP during the preparation of the project.

Germany

Country	Germany
Funding organisation	PtJ, Projektträger Jülich
National contact person (NCP)	Dr Stephan Schreiber Email: k.schreiber@fz-juelich.de Tel.: +49 2461 614743 Website: www.ptj.de
National funding commitment	Approximately €2.5 million
Maximum funding per awarded project	Only limited by available funding commitment from Germany
Anticipated number of large projects with German partners	~1
Anticipated number of small projects with German partners	~2
Eligibility of a partner as a beneficiary institution	The organisations which are eligible for funding, as well as the eligibility criteria for cooperation, are listed in the national guidelines available via https://www.energieforschung.de/antragsteller/antragstellung All projects will be funded in the framework of the 7th Energy Research Programme of the Federal Government "Research for an environmentally-friendly, reliable and affordable energy supply" (see https://www.energieforschung.de/energieforschungspolitik/energieforschungsprogramm/foerderschwerpunkte) with the corresponding announcement for funding (see https://www.bmwi.de/Redaktion/DE/Downloads/B/bekanntmachung-forschungsfoerderung-im-7-energieforschungsprogramm.html)
Eligibility of costs	For detailed information visit: https://www.ptj.de
Submission of the proposal at the national/regional level	German partners must submit their national partner application in German via easy-Online (https://foerderportal.bund.de/easyonline/) into the national electronic submission system. This applies to both the pre-proposal (= " Skizze") and the full proposal. The same deadlines apply for the national level submission as for the European level submission.
Submission of financial and progress reports at the national/regional level	Yes, scientific and financial reporting according to national criteria.
Information available at	https://www.ptj.de/tiefe-geothermie
Other	We highly recommend contacting the NCP during the preparation of the project for details for the national submission.

Iceland

Country	Iceland
Funding organisation	Rannis, The Icelandic Centre for Research
National contact person (NCP)	Sigurdur Björnsson E-mail: sigurdur@rannis.is Tel.: +354 515 5801 Steinunn S Jakobsdóttir E-mail : steinunn.s.jakobsdottir@rannis.is Tel.: +354 515 5800 Website: http://www.rannis.is
National funding commitment	€0.5 million
Maximum funding per awarded project	Only limited by available funding commitment from Iceland (Need to discuss)
Anticipated number of large projects with Icelandic partners	No limitation
Anticipated number of small projects with Icelandic partners	No limitation
Eligibility of a partner as a beneficiary institution	Applicants have to follow the general guidelines of the Technology Development Fund, were own contribution can vary – further information www.tths.is (Hagnýt rannsóknaverkefni)
Eligibility of costs	Applicants have to follow the general guidelines of the Technology Development Fund, were own contribution can vary – further information www.tths.is
Submission of the proposal at the national/regional level	Applicants have to follow the general guidelines of the Technology Development Fund, were own contribution can vary – further information www.tths.is
Submission of financial and progress reports at the national/regional level	Yes, scientific and financial reporting according to national criteria.
Information available at	Technology Development Fund website www.tths.is
Other	We highly recommend contacting the NCP during the preparation of the project.

Ireland

Country/Region	Ireland
Funding organisation	Geological Survey Ireland (GSI)
National / Regional contact person (NCP / RCP)	Aoife Braiden E-mail: aoife.braiden@gsi.ie Tel.: +353 1 6782650 Website: www.gsi.ie
National funding commitment	€0.2 million
Maximum funding per awarded project	Limited by available funding
Anticipated number of large projects with Irish partners	Not applicable
Anticipated number of small projects with Irish partners	Not applicable
Eligibility of a partner as a beneficiary institution	SMEs Research & academic institutes All applicants must contact NCP in advance for an eligibility check before submission.
Eligibility of costs	Direct costs (staff, fieldwork, travel, consumables) + indirect costs, max 15% (of total direct costs). Equipment is only eligible if it is <€10,000.
Submission of the proposal at the national/regional level	The proposal will not be reviewed for scientific content but will be assessed to ensure the topic is within the GSIs remit and eligibility check.
Submission of financial and progress reports at the national/regional level	Yes, scientific and financial reports expected (every 6 months) and as per contract
Information available at	Contact NCP
Other	NCP must be contacted during preparation to check financial calculations and topic and beneficiary eligibility.

The Netherlands

Country/Region	The Netherlands
Funding organisation	Ministerie van Economische Zaken Acting through: Rijksdienst voor Ondernemend Nederland (RVO)
National contact person (NCP)	Paul Ramsak, RVO; +31 88 602 2315; paul.ramsak@rvo.nl Bart van den Berg, RVO; +31 6 1146 1989; bart.vandenberg@rvo.nl Gerdi Breembroek, RVO; + 31 6 5256 4480; gerdi.breembroek@rvo.nl Website: http://www.rvo.nl/subsidies-regelingen/subsidies-energie-innovatie or http://www.rvo.nl/subsidies-regelingen/hernieuwbare-energie
Funding commitment	€4.0 million
Anticipated number of projects with Dutch partners	No limitations
Maximum funding per awarded project	Funding from the Netherlands will be through the Dutch national regulation Topsector Energie - Hernieuwbare Energie. Maximum funding per project is limited by that regulation, no other limits. Please consult with the national contact person on the budget to be requested. Maximum percentages of support are specified in the regulation; please consult the relevant page through http://wetten.overheid.nl/BWBR0035474 (par. 4.2.3)
Eligibility of a partner as a beneficiary institution	At least one company should be collaborating in the consortium. Definitions according to the guidelines laid down in the General Block Exemption Regulation (GBER). Municipalities and provinces are not eligible.
Eligibility of costs	Please refer to the regulation Topsector Energie – Hernieuwbare Energie (http://wetten.overheid.nl/BWBR0035474 (par. 4.2.3)) and the Kaderbesluit nationale EZ-subsidies (http://wetten.overheid.nl/BWBR0024796)
Submission of the proposal at the national/regional level	Yes. With the pre-proposal, the "Onderbouwing Hernieuwbare Energieprojecten" needs to be presented to RVO on 16 September 2019 at the latest. You will find instructions on this page: https://mijn.rvo.nl/tse-hernieuwbare-energie, go to "bijlagen bij uw aanvraag" Please make sure that you use the 2019 version and fill out both calculation models. With the full proposal, you need to submit your Hernieuwbare Energieproject to RVO through RVO's electronic submission system within 2 working days after the deadline of the GEOTHERMICA call, specifying the Dutch funding request.
Submission of financial and progress reports at the national/regional level	Yes, progress and financial reporting.
Information available at	http://www.rvo.nl/subsidies-regelingen/hernieuwbare-energie
Other	Eligibility checks for both phases will include checking the "Onderbouwing hernieuwbare energieproject". Consultation with a national contact person is highly recommended.

Norway

Country/Region	Norway
Funding organisation	The Research Council of Norway
National contact person	Per Arne Karlsen E-Mail: pak@rcn.no Tel: +47 917 27 669 Website: www.forskningsradet.no
National funding commitment	€0.4 million (4 million NOK)
Maximum funding per awarded project	Only limited by available funding commitment from Norway
Anticipated number of large projects with Norwegian partners	No constraint
Anticipated number of small projects with Norwegian partners	No constraint
Eligibility of a partner as a beneficiary institution and eligibility of costs	Eligibility criteria for Norwegian partners are given at Eligibility Criteria
Eligibility of cost	For detailed information visit: Project budgets Furthermore, the State Aid Guidelines must be followed. The applicants should specify their type of project (Fundamental research, Industrial research or Experimental development) as a whole and on WP-level
Submission of the proposal at the national level	No.
Submission of financial and progress reports at the national level	Yes. Scientific and financial reporting according to national criteria.
Information available at	Project follow-up and reporting
Other	We recommend contacting the national contact point during the preparation of the project. Norwegian partners in a Geothermica project will face the same conditions as in the ENERGIX programme, and all budgeting for Norwegian partners will have to comply with requirements as in the ENERGIX programme The Norwegian parts of applications submitted have to comply with the ENERGIX Programme plan Also, the application must be relevant according to the ENERGI 21 strategy.

Portugal

Country/Region	Portugal
Funding organisation	FCT (*Foundation for Science and Technology*), supported by FAI (Energy Efficiency and Renewable Energy Fund)
National contact person (NCP)	Directorate-General of Energy and Geology (DGEG) Tel:00351217922755 deir@dgeg.pt
Funding commitment	€0.1 million national funding
Anticipated number of projects with Portuguese partners	n/a
Maximum funding per awarded project	€0.1 million
Eligibility of a partner as a beneficiary institution	Only applications by Portuguese SME companies or research institutions (non-profit organizations) for projects located in Portugal will be supported.
Eligibility of costs	50% of eligible costs (see other).
Submission of the proposal at the national/regional level	Yes. A national preliminary eligibility check form (to be presented with pre-proposal) and a full form (to be presented with the full proposal) will be required. Forms will be made available on FCT's website.
Submission of financial and progress reports at the national/regional level	Yes, progress and financial reporting.
Information available at	www.geothermica.eu
Other	**Funding priorities:** The following priorities have been established on projects that contribute to: Resource and reservoir management and operation (reliability, availability); Injection; other. **Eligible costs specification (detailed information at FCT's website):** • Staff costs • Travel costs • Dissemination expenses • Overheads

Romania

Country/Region	Romania
Funding organisation	UEFISCDI, Executive Agency for Higher Education, Research, Development and Innovation Funding
National contact person	Cristina Cotet E-mail: cristina.cotet@uefiscdi.ro Tel.: +40 21 302 3874 Website: www.uefiscdi.gov.ro
National funding commitment	€0.5 million
Maximum funding per awarded project	€0.25 million (if the project is coordinated by a Romanian institution) €0.20 million (if the Romanian institution (s) is (are) partner(s))
Anticipated number of large projects with Romanian partners	No limitations
Anticipated number of small projects with Romanian partners	No limitations
Eligibility of a partner as a beneficiary institution	The organizations eligible for funding, as well as the eligibility criteria for cooperation, listed in the national guidelines available via http://uefiscdi.gov.ro/userfiles/file/PNCDI%20III/P3_cOOPERARE%20INTERNATIONALA/ERA%20NET_ERA%20NET%20COFUND/PI%20ERA-NET%202015_consultare.pdf
Eligibility of costs	For detailed information visit: http://uefiscdi.gov.ro/userfiles/file/PNCDI%20III/P3_cOOPERARE%20INTERNATIONALA/ERA%20NET_ERA%20NET%20COFUND/PI%20ERA-NET%202015_consultare.pdf
Submission of the proposal at the national/regional level	No. But the project proposal from the whole consortia must have a separate appendix with total budget for Romanian partners broken down on cost and financing for all Romanian partners. State aid guidelines must be addressed along with standard guidelines for ordinary project proposals to the UEFISCDI.
Submission of financial and progress reports at the national/regional level	Yes, scientific and financial reporting according to national criteria.
Information available at:	http://uefiscdi.gov.ro/articole/2858/Apeluri-internationale.html (to be fixed once updated with the GEOTHERMICA call details).
Other	We highly recommend contacting the NCP during the preparation of the project.

Spain

Country	Spain
Funding organisation	***Agencia Estatal de Investigación* (AEI - State Research Agency), Spain**
Funding programme	*Programa Estatal de I+D+i Orientada a los Retos de la Sociedad*, *Plan Estatal de Investigación Científica y Técnica y de Innovación 2017-2020*. The instrument for funding the Spanish groups will be the Spanish call on RDI Projects "International Joint Programming" or equivalent (*Proyectos I+D+I "Programación Conjunta Internacional" o equivalente*), which is expected to be launched in 2020 (PCI 2020). Only as a reference, the beneficiaries are advised to read the call *PCI 2019*. The Spanish legal entities granted are obliged by the regulations established in this PCI call and by the funding limits specified below. GEOTHERMICA call will be managed by the *Subdivisión de Programas Científico-Técnicos Transversales, Fortalecimiento y Excelencia*
Purpose of funding	The projects granted by the AEI must be aligned with the main objectives described in the *Plan Estatal*.
Initial funding pre-commitment	Maximum funding for the Geothermica call 2019: 300.000 €
National Contact Point	PhD. Alberto Abánades (Scientific issues) Daniel Ruiz Iruela (Administrative and technical issues) Telephone: +34 916037968 Contact email : era-energia@aei.gob.es
Eligibility	The **eligible entities** for the AEI funding are: Non-profit research organisations, according to the PCI 2020 call. The Spanish Principal Investigators that apply for funding to AEI must comply with the requirements established in this transnational call and with the final rules on eligibility to be defined in the PCI 2020 call and must have experience as investigators in projects funded by the *Plan Estatal I+D+i 2013-2016*, the *Plan Estatal I+D+i 2017-2020*, ERC Grants, European Framework Programmes or other relevant international programmes. Although enterprises will not be funded through the PCI Call, the Spanish industrial sector is much welcome to participate in the transnational consortia using their own funds or the funding schemes of CDTI (*Centro para el Desarrollo Tecnologico Industrial, E.P.E*) CDTI funding will be based on a financing package entailing **soft loans with a non-repayable part up to 33%**. The maximum funding rate will be up to 75% of the approved total budget (exceptionally, this rate could be raised to 85%, please check CDTI website for further details). http://www.cdti.es/index.asp?MP=100&MS=802&MN=2
Incompatibilities	**These must be taken into account when participating in different ERA-Nets or other international initiatives**. • Principal Investigators are not allowed to apply for funding in more than one proposal of this Geothermica joint Call, in more than one proposal in the same PCI call and in two PCI calls in consecutive years. • Principal Investigators must remain unchanged between the proposal to this transnational call and the National PCI 2020 call.

	The AEI will avoid double funding (overlapping with other EU or National funding), and will not grant projects or parts of projects already funded.
Eligible costs	• Personnel costs for temporary employment contracts (scholarships are not eligible). • Current costs, small scientific equipment, disposable materials, travelling expenses and other costs that can be justified as necessary to carry out the proposed activities. • Indirect costs (overheads) or clinical trials (proofs of concept, proofs of principle) **are not eligible** for funding in the PCI call.
Funding rates (approx.) and additional eligibility criteria	**The duration of the projects must be 2 or 3 years.** The following funding limits are considered eligibility criteria. Proposals not respecting these limits could be declared ineligible. • Maximum amount of funding per proposal eligible for AEI should not exceed €50.000 per year. • If the transnational proposal is led by a PI eligible for AEI funding, a maximum of € 10.000 per year in addition. Centres formed by different Spanish legal entities will be considered as a unique entity, and thus the maximum funding should not exceed the limits per proposal established above (for example mixed centres). The final funding will take into account the transnational evaluation of the collaborative proposal, the scientific quality of the Spanish group, the added value of the international collaboration, the participation of the industrial sector, and the financial resources available.
Further instructions	**Mandatory acknowledgement** Any publication or dissemination activity resulting from the granted projects must acknowledge the AEI funding: "Project (reference nº XX) funded by the AEI through PCI call".

Switzerland

Country/Region	Switzerland
Funding	Swiss Federal Office of Energy SFOE
National contact person	For technical issues: Gunter Siddiqi, Tel: +41 58 462 5324 gunter.siddiqi@bfe.admin.ch or Céline Weber Tel: + 41 22 367 1763 cweber@focus-e.ch For administrative issues: Men Wirz, Tel: +41 58 462 5597 men.wirz@bfe.admin.ch **Program names:** - Energy Research TRLs considered: 1-3 (Link below in German, French, Italian, English) https://www.bfe.admin.ch/bfe/en/home/research-and-cleantech/project-support.html - Pilot-, Demonstration- and Flagship Program TRLs considered: Pilot (TRL 4-7) and demonstration (TRL 7-9) (Link below in German, French and Italian only) https://www.bfe.admin.ch/bfe/en/home/research-and-cleantech/research-and-development/pilot--demonstration-and-flagship-projects-programme.html - Innovation: contact NCP for further details
Funding commitment	- CHF 200'000.-- (approximately €180'000) for projects with low TRL (1-3) - CHF 3'000'000.-- (approximately €2'600'000) for project with TRL (4-9) - Open budget for innovative projects that are executed in conjunction with heat and power projects that are funded via Switzerland's geothermal energy subsidy program.
Anticipated number of projects	Not specified.
Maximum funding per awarded project	All projects selected are subject to the limitations imposed by specific rules. Contact the National Contact Point.
Eligibility of a partner as a beneficiary institution	No restrictions (any third party to the Swiss Confederation).
Eligibility of costs	There are limitations based on the chosen program. Contact the NCP.
Submission of the proposal at the national/regional level	Yes. Owing to a number of legal requirements, Swiss applicants must submit, simultaneously with GEOTHERMICA's pre-proposals, the full proposal that seeks funding for Swiss applicants: **13 September 2019**. Get in touch with your National Contact Point.
Submission of financial and progress reports at the national/regional level	Yes, scientific and financial reporting according to program rules.

Information available at	Additional information is available at: https://www.bfe.admin.ch/bfe/en/home/research-and-cleantech/project-support.html and https://www.bfe.admin.ch/bfe/en/home/research-and-cleantech/research-and-development/pilot--demonstration-and-flagship-projects-programme.html
Other	Applicants must establish contact with the National Contact Point (NCP) no later than 1 August 2019.

Turkey

Country/Region	Turkey
Funding organisation	TUBITAK
National contact person	Dr. Kaan Karaöz Email: kaan.karaoz@tubitak.gov.tr Tel.: + +90 312 298 9466 Website: www.tubitak.gov.tr
National funding commitment	€1 million
Maximum funding per awarded project	The rates of support for large companies and SMEs are 60% and 75% of total costs for industrial research, respectively.
Eligibility of a partner as a beneficiary institution and eligibility of costs	The organisations which are eligible for funding as well as the eligibility criteria for cooperation are listed in the national guidelines available via http://www.tubitak.gov.tr/en/funds/industry/international-support-programmes/content-1509-tubitak-international-industrial-rd-projects-grant-programme
Submission of the proposal at the national level	Yes. Successful proposals in the full proposal stage must resubmit their national partner application via online into the national electronic submission system.
Submission of financial and progress reports at the national level	Yes, scientific and financial reporting according to national criteria.
Information available at	http://www.tubitak.gov.tr/tr/destekler/sanayi/uluslararasi-ortakli-destek-programlari#destekler_sanayi_ana_sayfa_akordiyon-block_1-1
Other	We highly recommend contacting the NCP during the preparation of the project.

The United States of America

Country/Region	The United States of America
Funding organisation	United States Department of Energy, Office of Energy Efficiency and Renewable Energy, Geothermal Technologies Office
National contact person	Lauren W Boyd Email: Lauren.Boyd@ee.doe.gov Tel.: + 1 202 287 1854 Website: https://www.energy.gov/eere/geothermal/geothermal-energy-us-department-energy
National funding commitment	$2 million USD (equivalent to approximately 1.7 million €)
Maximum funding per awarded project	~$0.50 million USD
Eligibility of a partner as a beneficiary institution and eligibility of costs	Only U.S. National Laboratories are eligible to participate as prime applicants. Partnerships with U.S. industry or academic institutions are encouraged.
Submission of the proposal at the national level	Yes, Applicants are required to submit a pre-proposal to NCP (National Contact Person) prior to the submission date to ensure alignment with DOE-GTO goals and priorities.
Submission of financial and progress reports at the national level	Yes, technical and financial reporting according to standard DOE policies relevant to the U.S. National Laboratories in addition to those required by program rules.
Information available at	Not applicable
Other	Please schedule a meeting with the NCP prior to submission.

Annex 2: Template for pre-proposal[4]

Concise description of the project (2 - 6 pages for points 1 to 4 below**)**

Please give an overview of the project, including:

- ***a)*** *Objectives and targets (against defined technology and market development needs)*
- ***b)*** *Key activities (work programme, work packages and work distribution among partners, i.e. key activities and leading roles / major contributions of partners)*
- ***c)*** *Expected results (innovation or innovation potential, impact particulary the contribution to achieving the GEOTHERMICA objective of accelerating the uptake of geothermal energy and other impact sub-criteria cf. Table 4..)*
- ***d)*** *Added value through transnational cooperation for the whole project*

Please also provide a full project title and an acronym.

1. **Objectives and challenges**

[Your pre-proposal text]

2. **Short description of your project including key activities**

[Your pre-proposal text]

3. Expected results

[Your pre-proposal text]

4. Relevance to GEOTHERMICA and trans-national added value

[Your pre-proposal text]

5. Realistic Timing

[Your preliminary GANTT chart with the critical path identified]

6. Approximate projected costs in EUR

[Table giving total costs and requested funding for each partner and the consortium as a whole, maximum one page, detailing also any other requested funding for the same work]

- Please use Table in Annex 4

7. Short description of partners involved

[Maximum half a page per partner]

8. Letters of Intent from each partner

[Maximum one page per partner]

[4] See also Chapter 6 Submission.
One document per heading must be uploaded as an attachment in the ESS. See the published instructions on the ESS.

Annex 3: Template for full proposal[5]

1. **Publishable summary of the project (**max. 1 page**)**

2. **Scientific, technological and commercial objectives and challenge (**max. 2 pages**)**

Give evidence relating to the scientific, technological and commercial objectives and challenges of the project, outlining:

- *Overall aims and objectives of the projects,*
- *Key targets to be achieved in the project*
- *Technology Readiness Levels including a short justification*
- *Scientific, technical and commercial challenges*

3. **Technical and scientific description of the project (**max. 20 pages, projects requesting more than 3 M€ may use up to 45 pages)

Describe:

- *State-of-the-art*
- *Innovation of your approach*
- *Technical milestones and expected results*
- *Methodologies and technologies utilised to reach goals*
- *Recent research relevant to the project undertaken by the consortium partners*
- *Clear definition of the national subprojects*

4. **Outline of Work Plan (**max. 10 pages, projects requesting more than 3 M€ may use up to 20 pages**)**

Please outline the following clearly:

- *Project structure*
- *Individual work package description with person-months per work package and partner*
- *Milestones, deliverables and time schedule, including Gantt chart*
- *Role of each partner; relevant expertise, resources, manpower, costs*
- *Monitoring and management of the project*

5. **Impact on and relevance to GEOTHERMICA objective of accelerating the uptake of geothermal energy, technologies and transnational added value (**max. 2 pages**)**

Please outline:

- *Relevance of the project and impact on the GEOTHERMICA objective of accelerating the uptake of geothermal energy technology*
- *Scientific/technical/industrial/commercial expertise of the consortium partners which is relevant for the success of the project*
- *Value of national subprojects*
- *Added value of transnational cooperation*

[5] See also Chapter 6 Submission.
One document per heading must be uploaded as an attachment in the ESS. See the published instructions on the ESS.

6. **Risks and mitigation measures (**max. 2 pages**)**
   - *Please outline for your project the most relevant risks (technical, economical, commercial, organizational and political), their severity, and preventive and mitigation measures.*

7. **Status of Consortium Agreement (**max. ½ page**)**
   - *Give a brief outline of the consortium agreement. Include whether the Consortium Agreement is at the initial or final draft stage or is in the process of being signed. Give an indication as to the expected date of agreement signature.*

8. **Further information**
   a) **Experience of participants (**max. 2 pages per partner**)**
   Brief additional profile information (CVs, relevant professional experience etc.) of all partners (principal investigators) together with lists of up to 5 recent publications, description of companies or institutions.
   b) **Main facilities, equipment (**max. ½ page**)**
   If applicable, a description of significant facilities and large-scale equipment available to the consortium that is necessary to fulfil the aims of the project
   c) **Table on project cost and requested funding**
   This table should give total costs and requested funding for each partner and the consortium as a whole. Any non-personnel line item of more than €50.000 requires an explanation. Also, additional (expected) sources of funding should be specified.
   Please use the table in Annex 4 for budgeting
   d) **Other further information (**max. 2 pages**)**
   Additional information relating to the project to be added here e.g. technical drawings, diagrams, charts etc.
   e) **Letters of Commitments (LoC) from each partner**
   Should express the partner's role and contribution in-cash and in-kind in the project.

Annex 4: Table for budgeting

Use template which can be downloaded from the GEOTHERMICA website:

http://www.geothermica.eu/call-to-action/

GEOTHERMICA

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