

**Interreg**   
EUROPEAN UNION  
**North-West Europe**  
**DGE-ROLLOUT**

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Network Concept  
Report

Deliverable LT 1.1

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## 1 Executive summary

The aim of the Deliverable Network Concept Report is to launch a strong transnational network on deep geothermal energy (DGE) in North-West Europe (NWE). The specific idea of DGE-ROLLOUT network is a regular exchange of knowledge, experience and expertise between (North-West) European Geological Surveys, research institutions and market players in the fields of exploration, networking and energy on regional activities, harmonization and cross-border collaboration regarding DGE for at least the next 5 years. DGE-ROLLOUT network is a platform for exchange and support for project developers and stakeholders in realising local geothermal projects by covering the complete value chain for geothermal projects and therefore maintain as a consulting centre for DGE users.

All project partners will setup a joint DGE network. All are committed to and will tangibly contribute to the project's long-term environmental, economic, or social effects that will materialise within five to ten years after the project's end, extending the impact in time.

Geological Surveys (GS) as lasting institutions (GD NRW, GSB, TNO, BRGM) are already assigned to give advice to end-users in geological and geothermal questions. This is a growing task for all GS which has started already and is organized by internal shifts of resources. A DGE-ROLLOUT network will support the connection between the GS among themselves and improve exploration and networking issues. The outreach e.g. to the energy supplier will be maintained by future network meetings (Del. 1.3).

The DGE-ROLLOUT network concept report is composed of a business plan for detailed organization matters and financing options. Starting with the implementation, more and more DGE sites will be supported with know-how and advice by our partners. Additional pilot sites will be targeted by the support of the GS. The DGE-ROLLOUT network and guidance will be the core for the future; each successful project will lead to more DGE users. Spin offs will develop from the transnational guidance office of the network to relocate this task into the private sector. Large energy suppliers among the project partners (EBN, RWE, VITO) will help to provide renewable DGE solutions for existing power plants and heating grids, leading to sustainable long-term effects (LT) and greenhouse gas (GHG) reduction.

## 2 Network idea and aims of the Network

The specific idea of DGE-ROLLOUT network is a regular exchange of knowledge, experience and expertise between GS, research institutions and market players in the fields of exploration, networking and energy on regional activities, harmonization and cross-border collaboration regarding deep geothermal for at least 5 years. DGE-ROLLOUT network is a platform for exchange on specific local cases and thereby supports local project developers and stakeholders in realising local geothermal projects by covering the complete value chain for geothermal projects.

Members are informed about the activities of the DGE-ROLLOUT network and are invited to contribute to strategic cross-border data sharing, transnational collaboration and drafting of technology roadmaps. The organisation of the DGE-ROLLOUT network is supported by a transnational guidance office.

The network focuses on three sections: 1) Expertise & Data administration, 2) Research & Consulting and 3) Policies & Strategy (Figure 1).

DGE-ROLLOUT network’s specific goal in the section of Expertise & Data administration is to harmonize, regional geothermal information in North-West Europe with special attention to cross-border issues. In the Research & Consulting section the promotion of interdisciplinary cooperation in the fields of technology, geology and end-users with regard to politics, communities or companies is essential to the network. An up-to-date and well-maintained contact and lobby database is crucial for the Policies & Strategy section of the network. New DGE pilot sites will be supported by activities of the network partners and will be listed.

The DGE-ROLLOUT Network for NWE
Transnational collaboration with the aim to support project developers in realising local geothermal projects
Covering the complete value chain for a geothermal project
Starting point: Activities in DGE-ROLLOUT WP LT – e.g., “New horizons, more potentials”
Networking beyond the Interreg NWE project DGE-ROLLOUT
Ideas and projects to be discussed first within the specific working groups, and subsequently within the complete network
Regular meetings both within the network and including external expertise
Strengthen existing networks

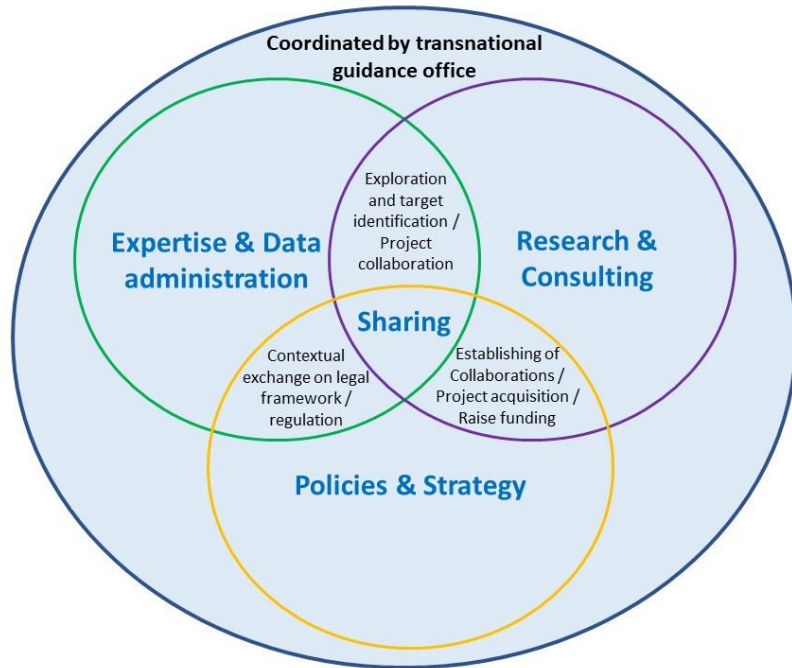


Figure 1: Structure and main points of the DGE-ROLLOUT network

### 3 Target groups

Depending on the level of awareness for DGE the network aims to increase the interest and knowledge or even change behaviour about specific topics of DGE, which are relevant for individual target groups (e.g. potentials of a green transformation of existing heat and power plants for energy suppliers including small to medium enterprises (SMEs), or in the agricultural sector, e.g. greenhouses). Target groups are local, regional and national public authorities, enterprises and the general public.

Table 1: List of target groups

Target group	Description
Local and regional public authority	- local and regional information of city councils and regional authorities with high geothermal potential
National public authority	- Federal Governments - Public administration on state level

<b>Enterprise, excluding SME</b>	<ul style="list-style-type: none"> <li>- Energy suppliers with district heating grids</li> <li>- municipal heat suppliers</li> <li>- enterprises with heat demand (e.g. paper factory)</li> </ul>
<b>SME</b>	<ul style="list-style-type: none"> <li>- agriculture (greenhouse operator)</li> <li>- smaller municipal heat suppliers (MHS)</li> <li>- SMEs with heat demand (e.g. brewery, pharmaceutical processes at industrial site)</li> </ul>
<b>General public</b>	<ul style="list-style-type: none"> <li>- information of citizens in regions with high geothermal potential</li> </ul>

Target groups are involved in the development of the network by interactive participation in workshops, methods of collaboration but also by getting directly into contact with the network partners.

## 4 Mission and Vision

The vision of our network is to foster the expansion of deep geothermal energy as a climate friendly energy resource in NWE, subsequently nurture the region’s economy and the well-being of the citizens. We aim to increase the number of geothermal projects and the amount of geothermal heat supply by 20 % in the next ten years.

To concretize the goal of the network, our mission is to facilitate the use of deep geothermal energy as climate friendly energy resource, to reduce CO<sub>2</sub> emissions and to protect the environment in North-West Europe.

The network’s primary purpose, is to support project developers in realising local geothermal projects and to cover the complete value chain for geothermal projects.

## 5 Comparison with existing networks

Depending on the long-term goals, joining an existing network is a favorable option for the DGE-ROLLOUT network. Bearing in mind the situation in the different partner countries and the roadmaps published by the International Energy Agency (IEA), European Technological & Innovation Platform on Deep Geothermal (ETIP-DG) and Renewable Heating & Cooling (RHC), the focus will mainly lie on non-technical issues during the coming 5 years. This will include the standardization and harmonization of procedures, the development of guidelines for drilling, seismic monitoring and impact assessment, and data-sharing in the broadest sense. Except for the last point, these challenges are best tackled in collaboration with existing networks (ETIP-DG and EGEC in the first place). Sharing of data and experiences may be more efficient in a regional network. Staying close to the local conditions (both geologically and societal) may help to come up with practical solutions for the development of DGE in NWE and avoids getting lost in general discussions.

Table 2 compares the DGE-ROLLOUT network with the two main European networks EGEC and ETIP-DG. Most of the project partners are already members in either or both of them. All three networks

are acting across Europe and have regular meetings during the year. Like the DGE-ROLLOUT network, ETIP-DG is working on a free and voluntary basis whereas EGEC has different membership fees depending on the type of organisation. EGEC members also receive support for exhibitions and greater visibility. The evaluation on existing networks will be included in the deliverable WP L D1.2 Network implementation.

Table 2:	Partner Members	Regional focus	Range of the network	Experience	Activity / visibility	Support	Point of costs
EGEC	Involved: 7/10 Interested: 2/10	Europe	Across Europe	Since 1998	130 members from 28 countries 10 Meetings / year	Members receive discounts on price of tickets and exhibition space, as well as sponsoring opportunities for greater visibility	Research, Public Authorities, Universities, Geological Surveys. Fees : 300- 1000 EUR Geothermal Associations. Fees : 300-800 EUR Individual consultants (Less than 3 staff). Fees: 300 EUR Microenterprises (Less than 10 staff), Fees: 1000 EUR Small enterprises (less than 50 staff). Fees: 2000 EUR Medium enterprises (less than 250 staff). Fees: 3000 EUR Large enterprises (more than 250 staff). Fees: 4000 EUR
ETIP-DG	Involved: 5/10	Europe	Across Europe	Since 2016	3 Meetings / Year		free and on a voluntary basis
DGE Network	10/10	North-West Europe	Across NWE	Since 2018	1 - 2 Meetings / Year	Meeting rooms Video call software Exchange platform Homepage	Participation to the activities of the DGE-ROLLOUT network is free and on a voluntary basis 3-5 days per year (including field trip) Staff costs

## 6 Risk Management

The risk management shows the weaknesses and threats for the future network by evaluating the main risks that may lead to the failure of the network implementation. Risks can be categorized in three topics (Table 3): budget, resources, strategy.

### 6.1 Budget

The organisation of each meeting is challenging regarding costs for travel, staff and meeting room because the network has no budget or sponsor. Any costs in this case are a threat based on a missing official budget.

Travel and accommodation costs will emerge because network meetings will be held to meet in-person for discussions. The follow-up effect could be that for the project partner it is not possible to travel and participate without a network budget from an associated project. Furthermore, travel costs are not reimbursed by the partners organisation. To minimise the risk, project partners may build up a new EU-Interreg project or looking out for sponsoring. Moreover, network meetings will be held in combination with conferences and/or other projects.

Staff costs will arise. Working for the network is on voluntary basis. Therefore, the partners contribute by preparing work topics or thematic workshops for the meetings. If the staff is occupied by other obligations or projects with higher priority, the follow-up effect may result in poor preparation or even the cancelation of the topic or workshop. The meeting would be ineffective. Besides, staff could not be allowed to use working hours to take part at meetings of the network / to work for the network. To minimise the risk, thematic topics have an added value for each partner. GS as public facilities are part of the network and they have the capacity to take over an important role in the organisation of the meetings. Therefore, the aim and overall working topics of the network have been agreed on by all partners in advance.

Room costs have to be covered. Network meetings will be held to meet in-person for discussions. Therefore, meeting rooms with technical equipment, catering etc. will be needed. If the risk materialises an in-person network meeting is not possible without an equipped meeting room. Hence, business models have been evaluated and all partners agreed on a solution.

## 6.2 Resource

One risk in the category of resource is the work load of each person. Partners do not have enough time to work for the future network, because of many other obligations. The follow-up effect with less contact of the partners is a weak network. To minimise the risk, network meetings for the future are determined already when the network is implemented to serve as a fixed appointment for all partners. Furthermore, the network is set on a higher priority level by network partners and their management. At least two contact persons of each partner are represented in the network to ensure the commitment of the organisation and to enable a delegation in the case of a currently high work load of one person responsible in the organisation for the network.

Another risk is the high fluctuation of staff or change of contact person in the organisation. Staff is employed based on a limited project time frame or the person involved today changes position within the organisation. The follow-up effect of highly fluctuating staff is that knowledge about the network and the contact information to the partner organisation is lost. Thus, the work of the network is not continuing and with less contact of the partners the network becomes weak. To minimise this risk, the network aims and priority are communicated to new staff during their job training. The network has one local contact person for each organisation. To ensure the network's knowledge management, at least two persons of each partner are represented in the network. They are also responsible for the compliance to the commitment of the organisation and to enable delegation in the case of a currently high work load of one person responsible in the organisation for the network.

## 6.3 Strategy

One risk is the change of strategy of an organisation or a change concerning the political framework e.g. for the geological surveys. Political frameworks change regularly in each partner country; therefore, the priority research topic of the surveys will change. This can cause the problem of a loss of network partners and therefore a decrease in network activities.

Furthermore, for research institutions the scientific content is essential. Therefore, partners of research institutions investigate into other scientific contents, which do not concern the network priorities. Hence, research topics deviate from network contents. To minimise the risk, network content needs to stay updated with research and market. Therefore, network partners evaluate the quality of the network keeping in mind the contents of research.

Furthermore, sharing data and insights in current projects is the base for learning from each other within the network. Company secrets, data and knowledge have a very high priority for companies as a base of business. A follow-up effect could be that current knowledge and data are not shared. Or investors are not willing to share their data or insights. Therefore, no contact to investors is possible. To minimise the risk, network partners support the elaboration of a European data law as a base for data sharing in defined data formats. Besides, the network creates a data room for the network community to share data.

Another very important risk is the missing support or missing approval by the management of each network partner.

One of the most important activities to minimise the overall risks on budget, resources and strategy is to create an agreement as a Letter of Intent to support the DGE-ROLLOUT network and its activities, which involves the partners management by their commitment shown through their signature. This agreement contains one paragraph concerning sharing and handling of data. This agreement will be worked out during the Deliverable WP L D1.2 Network implementation.

The following risk assessment was made by representatives of the geological surveys, research institutions and market players.



Table 3: Risk Management: Budget

Risk	Explanation of the risk	Follow-up effects if the risk materialises	Impact Likelihood Risk level			Activities to minimise the risk	Status of the Activity
			Low – Medium – High - Critical				
<b>Travel costs</b>	Network meetings will be held to meet in-person for discussions. Therefore, travel and accommodation costs will emerge.	For the project partner it is not possible to travel and participate without a network budget from an associated project.  Travel costs are not reimbursed by the partners organisation.	high	high	critical	Project partners build up a new EU-Interreg project.  Project partners are looking out for sponsoring.  Network meetings will be held in combination with conferences and/or other projects.  An agreement as a Letter of Intent to support the DGE-ROLLOUT network and its activities involves the partners management by their commitment shown by their signature.	Ongoing / WP L D1.2_Network implementation
<b>Staff costs</b>	Voluntary basis as a “nice to have character”  Contribution by preparing work topics or thematic workshops for the network meetings.	Staff has no time because of other obligations/projects and therefore partner cannot participate.  Staff is not allowed to use working hours to participate in meetings of the network / to work for the network	high	medium	high	Thematic topics have an added value for each partner. Therefore, the aim and overall working topics of the network have been agreed on by all partners.  An agreement as a Letter of Intent to support the DGE-ROLLOUT network and its activities involves the partners management by their commitment shown through their signature.	Ongoing / WP L D1.2_Network implementation
<b>Room costs</b>	Network meetings will be held to meet in-person for discussions. Therefore, meeting room with technical equipment, catering etc. will be needed.	An in-person network meeting is not possible without an equipped meeting room, catering etc.	medium	medium	medium	Business model is evaluated and all partners agreed on it.  An agreement as a Letter of Intent to support the DGE-ROLLOUT network and its activities involves the partners management by their commitment shown through their signature.	Ongoing / WP L D1.2_Network implementation

Table 3: Risk Management: Resources

Risk	Explanation of the risk	Follow-up effects if the risk materialises	Impact	Likelihood	Risk level	Activities to minimise the risk	Status of the Activity
			Low – Medium – High - Critical				
<b>Work load</b>	Partners do not have enough time to work for the future network, because of many other obligations/projects.	With less contact of the partners the network becomes weak.	high	medium	high	<p>Network meetings for the future are determined already when the network is implemented to serve as a fixed appointment for all partners Network is set on a higher priority level by network partners and their management.</p> <p>An agreement as a Letter of Intent to support the DGE-ROLLOUT network and its activities involves the partners management by their commitment shown by their signature.</p> <p>At least two contact persons of each partner are represented in the network to ensure the commitment of the organisation and to enable a delegation in the case of a currently high work load of one person responsible in the organisation for the network.</p>	Ongoing / WP L D1.2_Network implementation
<b>High fluctuation of staff / Change of contact</b>	<p>Staff is employed based on a limited project time frame. Therefore, the fluctuation of staff is high.</p> <p>The person involved today changes position within the organisation.</p>	<p>Knowledge on network and contact to partner organisation is lost.</p> <p>Work of the network is not continuing.</p> <p>With less contact to the partners the network becomes weak.</p>	medium	high	high	<p>Network aims and priority are communicated to new staff during their job training.</p> <p>The network has one local contact person.</p> <p>At least two contact persons of each partner are represented in the network to ensure the commitment of the organisation and to enable delegation in the case of a currently high work load of one person responsible in the organisation for the network.</p> <p>An agreement as a Letter of Intent to support the DGE-ROLLOUT network and its activities involves the partners management by their commitment shown by their signature.</p> <p>Regular reports keep colleagues and partners management up to date on the activities of the network.</p>	ongoing

Table 3: Risk Management: Strategy

Risk	Explanation of the risk	Follow-up effects if the risk materialises	Impact Likelihood Risk level			Activities to minimise the risk	Status of the Activity
			Low – Medium – High - Critical				
<b>Change in strategy of organisation / political framework in the survey</b>	Political framework changes regularly in each partner country, therefore the priority research topic of the geological surveys will change	Loss of network partners  Decrease in network activities	medium	medium	medium	An agreement as a Letter of Intent to support the DGE-ROLLOUT network and its activities involves the partners management by their commitment shown by their signature. Regular reports keep the partners management up to date on the activities of the network.	WP L D1.2_Network implementation
<b>Scientific content</b>	Partners of research institutions investigate into other scientific contents.	Research topics deviate from network content.	high	medium	high	Network content needs to stay updated with research and market.  Network partners evaluate the quality of the network keeping in mind the contents of research.	ongoing
<b>Management support</b>	The network is not officially approved by a network partners' management or organisation.	Network partners are missing the support of the management of the partners' organisation.	high	low	medium	A Letter of Intent to support the DGE-ROLLOUT network and its activities involves the partners management by their commitment shown by their signature. Regular reports keep the partners management up to date on the activities of the network.	WP L D1.2_Network implementation
<b>Share data / insides</b>	One of the aims of the network is to learn from each other and to share knowledge. Company secrets, data and knowledge have a very high priority for companies as their base of business.	Current knowledge and data are not shared.  Investors are not willing to share their data or insights. Therefore, no contact to investors is possible.	high	high	critical	Project partners support the elaboration of a European data law as a base for data sharing in defined data formats.  An agreement as a Letter of Intent to support the DGE-ROLLOUT network and its activities involves the partners management by their commitment shown by their signature. This agreement contains one paragraph concerning sharing and handling of data.  The network creates a data room for the network community to share data.	WP L D1.2_Network implementation

## 7 Team introduction

The members of the network have all been involved in the Interreg NWE DGE-ROLLOUT project and compose of the fields of GS, research institutions and market players.

The partnership is based on a transnational consortium (BE, DE, FR, NL) of neighbouring GS (BRGM [FR], GD NRW [DE], GSB [BE], and TNO [NL]), the Dutch state participant in oil and gas EBN [NL], the Fraunhofer Institute for Energy Infrastructures and Geothermal Systems (Fh-IEG [DE]), the Institute of Applied Geosciences of the Technical University Darmstadt (TUDa [DE]), the Vlaamse Instelling voor Technologisch Onderzoek (VITO) [BE], the exploration expert DMT [DE], and the large scale industrial partner RWE Power (RWE [DE]) (See Appendix 1).

The competences for DGE potentials are concentrated at the governmental GS (GD NRW, GSB, BRGM, TNO) and research institutions (Fh-IEG, TUDa). GD NRW, GSB, BRGM, VITO and TNO already started to interact in a strong transnational network on DGE in the last years. But also, oil and gas related companies (EBN) and explorations companies (DMT) have a high competence in this field. The named partners will transnationally work together in this field to provide and improve subsurface knowledge on the most promising geothermal reservoirs in NWE.

Target groups (enterprises, investors, SMEs, heat and electricity suppliers) need to be advised and supported about the potentials and implementation of DGE by experienced organisations. These competences are concentrated at the GS (BRGM, GD NRW, GSB, TNO, and the Fh-IEG and VITO). The network organisation EGEN will support the DGE-ROLLOUT network. All different kinds of users of DGE have to be represented in the Network (RWE, VITO). In a cascading scheme (defined by the height of the temperature) there are three kinds of users: 1) large scale energy companies (that are interested in the transition from fossil fuels to renewable energies and have large scale district heating grids that need a sustainable heat source in the future), 2) municipal heat suppliers, and 3) industry and agriculture. At least one of each kind will be part of the network.

Exploration experts with innovative techniques are required for more complex geological situations and future investigations in NWE. These competences are distributed among GS (BRGM, GD NRW, GSB, TNO) oil and gas related companies (EBN), universities (TUDa), and exploration companies (DMT). This distribution already shows that a unified network approach in this field is absolutely necessary. New technical solutions are needed in three sectors: exploration, drilling/implementation, and heat pumps, which are also covered by the partners.

## 8 Network-Strategy

The following basic ideas for a network strategy can be derived from what has been presented so far:

1. A high knowledge concerning the deep geothermal energy potentials of the subsurface in the networking area is essential for a strong DGE network in NWE. All the market and economic questions in that field depend mainly on the geology in the deep subsurface. Therefore, the geological surveys as experts in this field need to collaborate and interact in a strong transnational network. The competences are concentrated at the governmental GS (GD NRW, GSB, BRGM, TNO), which already started to interact in a strong transnational DGE network over the last years. Oil- and gas related companies (EBN) have a high competence in this field and need to be involved, too.
2. Target groups, such as enterprises, investors, SMEs, heat and electricity suppliers need advice and support for the implementation of DGE. The governmental GS (BRGM, GD NRW, GSB, TNO) as well as Fh-IEG and the TUDa can offer professional consultation on the individual potentials of DGE.

3. The end-users of DGE play an important role for the DGE-ROLLOUT network. Depending on their size and needs, they require an according consultant. One of the target groups of the network are large scale energy companies. These companies are interested in the transition from fossil fuels to renewable energies and have large scale district heating grids that need a sustainable heat source in the future. Consultation is provided by the experiences of the network partner RWE. Furthermore, there are three other kinds of users like municipal heat suppliers, industry and agriculture that can be consulted by our partners. Fh-IEG is an expert for the municipal heat supply and the network partners VITO and TNO can provide support for industrial and agricultural end-users.

4. Deep geothermal energy also has a high potential in more complex geological situations. To initiate DGE in NWE the network depends on exploration experts with innovative techniques. and also needs partner organisations that were successful with DGE in this new field. These competences are provided by the GS (GD NRW, GSB, BRGM, TNO), oil and gas related companies (EBN), universities and research institutes (TUDa), and at exploration companies (DMT).

5. Such a network also needs organisations in the fields of research and development that develop new technical solutions for this evolving market. Therefore, competences are to be found in three sectors: exploration, drilling/implementation and heat pumps, which are covered by the network partners BRGM, DMT, EBN, Fh-IEG, TNO, TUDa, RWE, and VITO).

## 9 Business model

At first, a business model for a network should cover the expenses for meeting rooms and catering at the venue. Second, it has to consider the preparation time (working hours) to organise a network meeting and its contents.

- Participation of the activities of the DGE-ROLLOUT network is free and on a voluntary basis regarding travel and staff costs.
- Network meeting hosts cover the costs (up to 2.000€) for room and catering during the meeting for all participants.
- Business model option:
  - All participants pay a fee. A hybrid organization is possible with meetings having a 'members only' session and a public session. In that case a fee could be requested for the 'public section'.

For universities like TUDa this leads to financial issues. TUDa cannot commit to any regular payment, as TUDa simply does not have a continuous revenue stream. Most of their income is directly project based and as a university they have no profit margin. Taking part is less of an issue in that sense, though the delegation would most likely be 1 or 2 participants.

For partners the relevance of the network meeting topics is crucial for hosting a meeting event.

Hotel and restaurant costs as well as transportation are covered by each participant individually or by their respective organisation.

The network will be governed by GD NRW for the first 5-years period and will follow the timeline given below in a first approach. The foundation of the network will take place at the final conference of the DGE-ROLLOUT project.

The network is supported by its members with a signed Letter of Intent by each respective management. Therein, the partners commit themselves to support the network according to their respective possibilities and as described in this network concept report.

## 10 Network meetings for the future

Meetings of the network will be organised as annual meetings with a duration of 2 days in one of the partner countries within the next 5 years after the project. The hosting partner will be responsible for the organisation of a meeting room with catering and an excursion guide. Support is provided by the transnational guidance office and the GS of the respective partner country. The meetings take place either as an independent meeting or during a convenient conference. The network is open to everyone and all project parties are invited. According to a query the following DGE-ROLLOUT project partners agreed to host a meeting according to their favoured business model: RWE, TNO, VITO, BRGM, EBN, GSB, DMT, GD NRW. The first five years of network time line are planned as followed:

Table 1: Networking meetings in the future

Nr.	Title	Month and Year
1	Networking Meeting “Harmonize Maps Cross Border and in Detail” in Essen organized by DMT	October 2023
	Description: Agenda and presentations of the networking meeting including the progress and outlook of the network activities.  Special topic: In the sub-network “Expertise & Data Administration” an update on the border regions NL, NRW, NS and NL, NRW are worked on.	
	Subdivision Network Meeting “Exchange on Expertise” in Krefeld by GD NRW	April 2024
	Description: Agenda and presentations of the networking meeting including the progress and outlook of the network activities.  Special topic: Update on the border regions of BE, NL, NRW by the subnetwork on Expertise & Data Administration.	
2	Networking Meeting “Regional Focus within NWE” in Turnhout organized by VITO	October 2024
	Description: Agenda and presentations of the networking meeting including the progress and outlook of the network activities.	
3	Networking Meeting “Technical Update on Geothermal” in Cologne organized by RWE	October 2025
	Description: Agenda and presentations of the networking meeting including the progress and outlook of the network activities.	
	Subdivision Network Meeting as platform for interaction with stakeholders and local project developers in Mol organized by VITO	April 2026
	Description: Agenda and presentations of the networking meeting including the progress and outlook of the network activities.	
4	Networking Meeting “Unleash more potential with New Horizons” in Lille organized by BRGM	October 2026

	Description: Agenda and presentations of the networking meeting including the progress and outlook of the network activities.	
5	Networking Meeting “Wrapping up Network DGE-ROLLOUT” in Utrecht organized by EBN and TNO	October 2027
	Description: Agenda and presentations of the networking meeting including the progress and outlook of the network activities.	
	Subdivision Network Meeting to evaluate the network in Aachen organized by RWE	April 2028
	Description: Agenda and presentations of the networking meeting including the progress and outlook of the network activities.	

The network meeting consists of three parts:

- Evening before Day 1 – Networking dinner
- Day 1 – Workshop with presentations by each partner, parallel sessions and a plenary session with stakeholders open for public combined with a networking dinner
- Day 2 – (Geological) Field trip or Site visit

The structure for a network meeting will have the following Agenda:

Table 2: Networking structure

Meeting venue: Room, Street, City, Country		
Time line	Topic	Description
Evening before Day 1		
19.00	Networking dinner	After the working day, the participants meet in a relaxed atmosphere to get to know each other and to exchange ideas.  Venue is picked by organizer.
Day 1		
Time line	Topic	Description
09.00	Welcome by organizer	
09.15	Open workshop	The topics of the workshops are developed jointly by the participants.

13:00	Lunch	Venue and meal are picked by organizer.
14.00	Pitch Talks (connected online) with stakeholders and open to public	<p>Room at the office of the organiser is made available.</p> <p>New projects / developments are presented with their ideas and aims for the network.</p> <p>3 minutes / 3 slides (in total: 4-6 talks with short discussion)</p>
14:45	Methods of collaboration and open to public	During methods of collaboration, partners get to know different topics and discuss with the network partners
17.00	End	
19.00	Networking dinner	<p>After the working day, the participants meet in a relaxed atmosphere to get to know each other and to exchange ideas.</p> <p>Venue is picked by organizer.</p>
Day 2		
<b>Time line</b>	<b>Topic</b>	<b>Description</b>
09.00	Excursion to a local site of interest	Site is picked by organizer.
12:30	Lunch on the way	Lunch is picked by organizer.
17.00	End	

## 11 Conclusion

The network will foster the collaboration between GS, research institutions and market players concerning DGE. There will be a regular exchange of knowledge, experience and expertise between geological surveys, research institutions and market players in the fields of exploration, networking and energy on regional activities, harmonization and cross-border collaboration regarding deep geothermal for at least 5 years.

DGE-ROLLOUT network is a platform for exchange and supports local project developers and stakeholders in realising local geothermal projects by covering the complete value chain for geothermal projects.



Target groups are involved in each networking meeting to foster the expansion of the network and DGE as a climate friendly energy resource in North-West Europe (NWE), subsequently nurturing the region's economics and the well-being of the citizens. Furthermore, the network facilitates the use of DGE as climate friendly energy source to reduce CO<sub>2</sub> emissions and to protect the environment in North-West Europe.

## Appendix

### Appendix 1

Geological Surveys	
Bureau de recherches géologiques et minières (BRGM)	BRGM, the French geological survey, is France's reference public institution for earth science applications in the management of surface and subsurface resources and risks. BRGM aims to meet key challenges for our society, particularly those related to climate change, energy transition and the development of the circular economy.
Geologischer Dienst Nordrhein-Westfalen (GD NRW)	The Geological Survey of North Rhine-Westphalia (GD NRW) is the central geoscientific state institution, and is affiliated to the State Ministry of Economics, Innovation, Digitalisation and Energy of North Rhine-Westphalia (NRW). The activities of GD NRW cover a wide range of geoscientific subjects including bedrock geology, soil sciences, natural resources, groundwater, geophysical and geotechnical properties of the subsoil, near-surface and deep geothermal energy, as well as consulting in the search for a national repository for radioactive waste.
Institut Royal des Sciences Naturelles de Belgique – Service Géologique de Belgique (RBINS – GSB)	The Geological Survey of Belgium (GSB) is a research- and service-oriented unit of the Royal Belgian Institute for Natural Sciences. The GSB conducts scientific services and research projects related to GeoEnergy, raw materials, dynamics of sedimentary basins and data infrastructure.
Nederlandse Organisatie voor Toegepast-natuurwetenschappelijk Onderzoek (TNO)	TNO is the largest independent research, development and consultancy organization in the Netherlands. TNO's primary task is to support and advice governmental bodies, industrial companies, research organisations and others in technological innovation and problem solving.
Research institutions	
Fraunhofer Einrichtung für Energieinfrastrukturen und Geothermie IEG (Fh-IEG)	The Fraunhofer Institute for Energy Infrastructures and Geothermal Energy IEG (Fh-IEG) conducts research at seven locations in the fields of integrated energy infrastructures, geothermal energy and sector coupling for a successful energy transition. They develop ideas, technologies and strategies for the next phase of the transformation of energy systems and act as independent thought leaders for politics, economy, regulation and society.
Technische Universität Darmstadt (TU Da)	The activities of the Department of Geothermal Science and Technology at the Technical University Darmstadt (TUDa) focus on both scientific and engineering questions. Applied geothermal science connects the basic research with the requirements of practical industry applications.

Vlaamse Instelling voor Technologisch Onderzoek (VITO)	VITO is a leading international research and consulting centre. It delivers intelligent and qualitative solutions that can provide advantages for large and small enterprises. VITO's research agenda focuses on today's major social challenges such as climate change, food security, raw materials scarcity, sustainable energy supply and demographic change.
Market players in the fields of exploration, networking and energy	
DMT GmbH & Co. KG (DMT)	The DMT group (DMT) provides independent services in the four main fields of exploration, engineering, consulting and geotechnics. It also develops products and offers solutions for industrial metrology and testing with emphasis on natural resources, geothermal energy, safety and infrastructure.
Energie Beheer Nederland (EBN)	EBN is an energy sector company whose shares are wholly owned by the Dutch government. Today EBN is redirecting its activities towards a sustainable energy system, while making a significant contribution towards society's climate ambitions.
RWE Power AG (RWE)	Large scale energy and heat production in NWE: RWE Power AG is a company of the RWE Group. Nowadays its business is lignite-based and nuclear power generation.

## **Appendix 2**

Questionnaire – WP LT – A1-Networking



2021\_06\_01\_WP LT  
D1.1\_ Network Conce

## **Appendix 3**

Mind Map of Network Concept



2021\_06\_21\_Mind\_M  
ap\_final.pdf

## **Appendix 4**

Questionnaire „Network concept report“



WP L D1.1\_Network  
Concept Report\_Ques

## PROJECT PARTNERS



## PROJECT SUP-PARTNERS



## MORE INFORMATION

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